

Evolving Water Ethics with the Help of Bernard Lonergan

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Abstract

Water ethics is a developing field for which a diverse literature has appeared over the past several decades. It arises out of increasing concerns about the threatened state of water, and human and ecosystem water security in the midst of a growing global water crisis. In an increasingly high-stakes world of water poverty, user competition, and conflict amidst shortfalls projected to affect nearly half of humanity by mid-century, water ethics calls for explicit attention to ethics in the ways in which freshwater is valued, governed and utilized. Water ethics literature comes out of diverse sources and philosophies such as utilitarianism, liberal equality, ecofeminism, physiocentric ethics, communitarian, pragmatist and religious ethics.

My research and thesis involved a thematic review and critical analysis of water ethics literature using a problem-response method to identify current needs of the water ethics discourse, and to propose solutions. For this, I drew upon the philosophy, theology, and method of Bernard Lonergan (1904 – 1984). Some of the needs and challenges identified included an overarching need for a new water ethic, a need to go beyond utilitarianist and anthropocentric approaches, and a need to clarify the roles of theology and philosophy at a time when water governance is called to be fair and participatory in the multicultural, multi-religious world of freshwater. The literature also lacked a differentiation of values and could benefit from Lonergan's integral scale of vital, social, cultural, personal and religious values. Understanding these value relations could help in moving beyond reductionism to monetary utilitarian terms. The most central problem found in the water ethics literature was a lack of cognitive and epistemological grounding. Most considerations alluding to grounding water ethics were given to identifying best principles and concepts such as human rights, justice, and sustainable development. References to finding a valid epistemology and a metaethics remained incomplete. Methods and frameworks that were brought forth did not go further than proposals to identify and reason about values and ethics prior to somehow reordering values, or doing "ethical bricolage." In light of historicity and multiculturalism, a basis for normativity and objectivity in justifying water decisions was missing. As well, regarding the subject-object referent, the subject was largely absent in the water ethics literature. These appear to be symptoms of underlying problems of conceptualism, and the incomplete epistemological turn since Descartes and Kant.

The works of Lonergan consulted – *Insight*, and his post-*Insight* writings – were found to provide the resources necessary to clarify the identified needs and problems. On Lonergan's account, we first need to know what we are doing as knowers and choosers. Lonergan's empirically verifiable cognitional theory grounds an epistemology, offering a critical realism and method for water ethics. His Generalized Empirical Method (GEM) goes to the common core of the related and recurrent operations in conscious intentionality that may be discerned in both natural science and human studies. GEM could thus provide the underlying metamethod of the transdisciplinary needs of ethical water governance. Science, engineering, economics, sociology, philosophy, ethics, and theology—these differ in many manners, but their objectivity depends invariably on unbiased attentiveness, intelligence, reasonableness, and responsibility in the human subjects involved. Lonergan's account was also used in a brief look at the International Joint Commission to identify factors of effectiveness for water institutions in decision-making and creating value.

A final chapter employs Lonergan's account, and the encyclical *Laudato Si'* of Pope Francis, in looking into the roles of theology and philosophy in the longer-term project of overcoming water poverty and creating a new water ethic. Finally, it was found that in both analysis and initial theory application trials, Lonergan's method provided robust support in the diverse problems encountered by water ethics.

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Introduction

A literature on water ethics has appeared in the past several decades manifesting growing concerns about a global water crisis and the ways in which water has been managed. This thesis examines the developing literature from a theological ethics standpoint and a problem-response method. Before going further on the description of this thesis and water ethics, it is important to examine the serious conditions for water and its management that the world faces this century.

Freshwater¹ is essential for life on Earth. It is the planet's most precious resource. Water cannot be replaced by substitutes. Along with supporting terrestrial ecosystem life, it has a central and irreplaceable role for human health, development, food production, energy production, and the economy. World population tripled over the course of the 20th century. Over the same period, water use grew sixfold. Human-caused climate change in the early 21st century has increasingly disrupted the hydrological cycle, exacerbating floods and droughts, and elevating human water security risk. Steeply increasing impacts of human activity on our planet's ecosystems since the mid-20th century have led to a growing use of the term "Anthropocene" to describe a new geologic epoch characterized by human (*anthropos*) domination.

¹ The water ethics literature examined in this thesis deals with freshwater. Oceans cover 70% of the Earth and recent evidence points to enormous problems emerging due to human agency. An extension of water ethics to cover how humanity treats the oceans is likely developing now and in the near future.

The facts about freshwater in the early 21st century are sobering. At least a billion people lack sufficient access to safe water while two and a half billion lack sanitation facilities.² Among the water poor are elevated rates of child death due to water-borne disease. Women and children miss opportunities for education and community development because of time spent fetching water. Around major cities in the developing world, many of the poor not connected to city water pay a much higher price when purchasing water from standpipe operators, tanker truck operators or collecting water from untreated sources.

The 2015 UN Sustainable Development Goals constitute a coordinated global ethical response to global sustainability and water poverty. The sixth goal specifically addresses water, calling for universal access to safe and affordable drinking water and sanitation facilities for all by 2030.³ Access to safe water, because of its extreme connectedness to all human activities, underpins all of the other goals.

² Figures from the UN differ according to definitions of "safe" and "access." The 2017 UNU-INWEH Water Crisis Report states that 1.8 billion people use drinking water sources contaminated by faeces - see Lisa GUPPY and Kelsey ANDERSON, *Water Crisis Report* (Hamilton, Canada: UNU-INWEH - United Nations University Institute for Water, Environment and Health, 2017), 2, <http://inweh.unu.edu/wp-content/uploads/2017/11/Global-Water-Crisis-The-Facts.pdf> (accessed March 1, 2018). A lower figure (748 million lacking access to an improved source of drinking water) is found in the *UN World Water Development Report 2015: Water for a Sustainable World* (Paris, UNESCO, 2015) v, <http://unesdoc.unesco.org/images/0023/002318/231823E.pdf> (accessed Mar.1, 2018). A higher figure again is in the 2017 UN World Health Organization's release "2.1 billion people lack safe drinking water at home, more than twice as many lack safe sanitation" (WHO Media Centre, 2017), <http://www.who.int/mediacentre/news/releases/2017/water-sanitation-hygiene/en/> (accessed Mar.1, 2018).

³ "UN Sustainable Development Goals" (UN, online, 2015) at <https://sustainabledevelopment.un.org/?menu=1300> (accessed Mar.1, 2018).

Pollution remains an ever-important consideration for the health of humans and ecosystems. A major global study in 2010 found that pollution impairs the majority of rivers and water bodies globally and biodiversity is moderately to highly threatened in 65% of continental discharge.⁴ Along with being a legacy problem, pollution is related to multiple economic and cultural-religious currents that are still inattentive to their water footprints and to the value of clean water in natural and settled environments.

Agriculture takes nearly 70% of global freshwater use and is by far the largest user. Food for more than 375 million people is supported by unsustainable irrigation from diminishing groundwater sources.⁵ Alarming, two thirds of the world's largest groundwater aquifers are declining more rapidly than they can be replenished according to a 2015 NASA satellite study.⁶ The water crisis is a crucial factor in concerns about the ability to feed the world by the year 2030.

Access to water and the sustainability of water resources is critical to social, economic and human development and security. Conflict over water between competing water uses is common within larger watersheds and occurs between states sharing transboundary river basins. Without improved water resources

⁴ C. J. VÖRÖSMARTY, et al. "Global Threats to Human Water Security and River Biodiversity," *Nature* 467, September 2010, 555–561.

⁵ Lester BROWN, *World on the Edge: How to Prevent Environmental and Economic Collapse*, (New York: Earth Policy Institute, W. W. Norton & Company, 2011), 14, http://www.earth-policy.org/images/uploads/book_files/wotebook.pdf (accessed Mar.1, 2018).

⁶ ECOWATCH, "Reports by NASA show that almost two-thirds of the world's largest groundwater aquifers are in decline", (Ecowatch online news, 2015), accessed June 6, 2015 at <http://ecowatch.com/2015/06/17/nasa-largest-aquifers-being-depleted/>. The NASA report is at <http://www.nasa.gov/jpl/grace/study-third-of-big-groundwater-basins-in-distress>.

management, the planet will face a 40% shortfall in its water supply by 2030 according to the 2015 World Water Development Report. It calls for changes in how water is valued, governed and utilized.⁷

The challenge of integrated water management increases even more with the encounter of different cultures, languages, and religions sharing water within hydrologic basins. This is especially true for the 276 multi-country, transboundary water basins covering some 46% of the continents. Collaboration over water is an essential part of both human security and water ethics. A 2015 report from United Nations University warns that governments in water 'hotspots' such as sub-Saharan Africa, Asia, and the Middle East need to improve cooperation over shared water resources "to avoid 'drastic' consequences such as international conflicts as climate change increasingly affects water availability."⁸ More than 200 water treaties have been negotiated between countries over the past 50 years, yet there are no agreements on how to manage 60% of the world's transboundary rivers.

Prior to undertaking this doctoral thesis, I was a senior engineering advisor with the International Joint Commission's Canadian office in Ottawa. There, for a dozen years, I became thoroughly acquainted with transboundary water issues in

⁷ IISD, "UN Urges Improved Water Governance and Action on World Water Day"(Winnipeg, Canada: International Institute for Sustainable Development, news, 2015), <http://sdg.iisd.org/news/un-urges-improved-water-governance-and-action-on-world-water-day/>. This IISD release refers to the 2015 World Water Development Report 2015.

⁸ REUTERS, "Governments must cooperate more in water 'hotspots' to prevent conflict: U.N. University" (Reuters news online, 2015), <https://www.reuters.com/article/us-global-water-cooperation-idUSKCN0RW02W20151002> (accessed March 1, 2018). The article quotes Zafar Adeel, director of the Institute for Water, Environment and Health (UNU-INWEH) in Hamilton, Canada.

the major watersheds from the Columbia River basin in the west, to the St. Croix River on the border of Maine and New Brunswick in the east. I also became acquainted with deliberations over water decisions, and the unique way the Commission functions with joint fact-finding, public participation, and consensus-seeking.

My concerns expanded over time for the vulnerable relationships between humans, water, and nature— especially in these times of climate change. At one point, because I was reading so much on many topics, my wife Esther encouraged me to go back to school for another degree. Why ethics? I remember picking up the book *Water Ethics: Foundational Readings for Students and Professionals* shortly after it was published in 2010. Years later, while attending a national water conference under the theme "From Knowledge to Action," I realized that ethics was not to be found in any of the presentations. I remember thinking how odd it was that there were no ethics between knowledge and action! No values, or judgments of value? Of course values were there and operative! I'm not the first to notice this, since other water ethics scholars have made similar observations about implicit values in water management.

Prior to this doctoral project, I had started reading the works of an amazing thinker, Bernard Lonergan. His book *Insight* examined a common ground for all humans in the structure and operations of conscious intentionality. Further, Lonergan's account opened into an ethics of self-transcendence, an ethics rigorously grounded in the human subject in its empirical, intellectual, rational, and

affective components. I enjoyed reading Lonergan, and his ethics that transcend the multi-form biases and silos of human thought and action. Could these help in the development of water ethics? I started at St. Paul University in Ottawa, not far from home and family. Lonergan expert Ken Melchin was there in the Faculty of Theology where I was also able to advance on my long-held interest in theology while researching books and articles on water ethics. The thesis project came together as mounting evidence, and the growing multi-faceted water crisis, only continued to emphasize our world's need for ethical water governance. The challenge remained—a transdisciplinary morphing of a professional water resources engineer into a future water ethics doctor and theologian.

Water ethics seeks to bring moral or ethical inquiry into the water management and policy arena. Individual water attitudes and habits are important. However, water is managed and mediated to most people by institutions. According to Martin Kowarsch , water ethics means the ethics of fresh water management, used in a broad and non-technocratic sense. It includes the ethics of human influence on water cycles and water quality and the regulation of access to water resources.⁹ Others prefer to speak in terms of ethics of water governance, where

[w]ater governance refers to the political, social, economic and administrative systems in place that influence water's use and management. Essentially, who gets what water, when and how, and who has the right to water and related services, and their benefits. It

⁹ Martin KOWARSCH, "Diversity of Water Ethics - a Literature Review" (Berlin, Germany: Federal Ministry of Education and Research, 2011), working paper prepared for the project *Sustainable Water Management in a Globalized World*, p.5 footnote 2; accessed in 2014 at <https://www.hfph.de/igp/proceedings2011/view>.

determines the equity and efficiency in water resource and services allocation and distribution, and balances water use between socio-economic activities and ecosystems.¹⁰

Decision-making about water use and management is central in water ethics, but there is more. The flip side to decision-making is avoiding decisions and neglecting to act, even in the face of a moral imperative like water poverty. Water poverty, which includes both humans and mistreated rivers and ecosystems, is due in large part to such obfuscation.

Water ethics grapples with enormous challenges. Just as water intersects with all aspects of life, so water ethics intersects with social ethics, human rights, and ethics pertaining to resource use, the environment, and climate change. Water ethics is involved *de facto* with a host of disciplinary fields and understandings. Since ethics is a part of philosophy, water ethics cannot avoid philosophical thinking, whether implicit or not. Philosophy involves systematic thinking about ourselves, about the world in which we live, and the way we live in that world. Ethics is the systematic study of values in human decisions and behavior. It engages with moral problems such as good and evil and the rightness and wrongness of actions. Ethical reasoning must either presume, or better yet, understand its epistemological and metaphysical foundations.¹¹

¹⁰ This definition of Water Governance comes from the WATER GOVERNANCE FACILITY webpage accessed November 2016 at <http://watergovernance.org/governance/what-is-water-governance/>.

¹¹ Epistemology is the part of philosophy that deals with objectivity and the validity of human knowing. Metaphysics, literally meaning 'over' or 'beyond' physics, deals with what can be known of being, existence, and reality.

The role of the natural sciences in water ethics is valuable. Water bodies, rivers, and groundwater are intricately connected to the hydrological cycle. The hydro-cycle is itself dynamic and variable over time. It is known scientifically through meteorology and hydrology and this requires statistical knowledge and awareness of variability, uncertainty, and risk. The quantity of flow in rivers and the capacity of aquifers can be determined scientifically using data and hydrological and hydraulic modeling. Anecdotal accounts can be helpful, such as memories of the height and damage of the great floods of say, 30 or 50 years ago. But these should ideally be supplemented with longer and more precise measures of water levels over time. Water quality, degradation, and pollution can be judged roughly through appearance, odour and taste, but much more accurately through chemical and bacteriological analyses.

Contributions from scholars in philosophical and human sciences are needed for well thought-out and thorough accounts of water ethics, though their role may go unrecognized in the water practice community. On the other hand, it is possible for social scientists and well-meaning members of non-governmental organizations (NGOs) and activists to not fully appreciate the value and role of natural sciences in explaining hydrological complexities, risk, and time-related trends in water quantity and quality. Knowledge from all of these fields together contributes towards a refined water ethics. To bring moral value into policy and decision-making, water ethics must rely on the best available interdisciplinary and scientific knowledge of all these factors connected through multiple geographic

scales. Water ethics thus finds itself situated between nature and human agency, between natural sciences, human sciences, and deliberation over the good. In requiring higher viewpoints that are inclusive of all, and, at the same time going beyond of all of its contributors, water ethics is transdisciplinary.¹²

As a new and developing field, water ethics literature has a diversity of sources coming from different backgrounds. In a review of water ethics literature in 2011, Martin Kowarsch found a diversity of approaches that he grouped under the headings of utilitarianism, liberal equality, libertarian and threshold concepts, feminism, Marxism, priority approaches, physiocentric ethics, and communitarian, pragmatist and non-philosophical water ethics. Kowarsch found that, *inter alia*, there is a lack of comprehensive water ethics able to match the complexity of the water crisis and all the interconnecting factors. He found that there was a need for well-founded ethical reflections and transparency for normative judgments.

Further, Kowarsch contends,

[m]ore worrying is another flaw of most concepts presented here: from a philosophical point of view, there are quite a lot of water ethics approaches, which do not have a clear, consistent and coherent position. Some simply mix several different principles which are not really connected with each other.¹³

This thesis does not seek to add principles to the many sound ones already proposed in water ethics literature. Instead, it aims to contribute to a greater clarity

¹² Transdisciplinarity is used in this thesis to express how the goal of water ethics is a whole that is greater than its parts. It goes beyond the more narrowly defined cognitive boundaries and methods of the various disciplines. Water ethics subsumes the diverse cognitive contributions into a whole within existential and moral decision-making.

¹³ KOWARSCH, Diversity of Water Ethics, 40-41.

and foundational cohesiveness in water ethics. The principal hypothesis of this thesis is that the developing field of water ethics can be helped in its fundamental challenges through application of the thought of Bernard Lonergan (1904-1984).

Lonergan, a Canadian born in Buckingham, Quebec, was a preeminent philosopher, theologian, and economist.¹⁴ I chose Lonergan for this task because he was exceptional among modern thinkers in the radical explanatory power of his thought, and its integrality in complexity. Lonergan's work is, as yet, far from being generally known. Having become familiar with his thought and method over the past eight years, I concur with others such as Gerard Whelan that his importance is only beginning to be recognized.¹⁵

The first two chapters of this thesis look at a sample of the literature on water ethics from the past several decades. That sample includes sources that commonly appear in searches under "water ethics" as well as sources commonly referred to by authors of water ethics articles and books. The aim was to gather what would be representative of the themes, strengths, and weaknesses. Chapter 1 looks thematically at what is being said about water ethics in the literature. This first perusal covers themes such as implicit values and utilitarianism in current water management, the need for a new water ethic, water as a commons or commodity, water and aboriginal peoples, water and anthropocentrism, biocentrism, and ecofeminism. It also looks at the work of UNESCO committees

¹⁴ A number of biographies of Lonergan are accessible online at sites such as www.iep.utm.edu/lonergan/ and www.bernardlonergan.com/biography.php.

¹⁵ Gerard WHELAN, "The Continuing Significance of Bernard Lonergan", *Thinking Faith*, (September, 2008), at www.thinkingfaith.org/articles/20080923_1.htm.

on water ethics. The last section of the chapter serves as a brief introduction to the potential and actual roles of religion in moving us towards ethical water use and management. It begins with the assertions of Gary Chamberlain in his 2008 book, *Troubled Waters: Religion, Ethics, and the Global Water Crisis*, that there is a huge potential for change from within the major world religions and from fresh understandings of our water relationships in their sacred scriptures and traditions. Included also are brief notes on recent positive contributions from within Christianity — from the Ecumenical Patriarch Bartholomew of Eastern Christianity, from the World Council of Churches, and from the Catholic Church. Few are aware, for instance, that the Vatican strongly supported the human right to water through its letters to the third and fourth World Water Forums in Kyoto, Japan (2003) and Mexico City (2006) in the decade prior to the 2010 UN formal recognition of this right. This section of the chapter finishes with a look at a 2014 book on water ethics by theological ethicist Christiana Peppard.

Chapter 2 takes a more critical look into the diverse discourse on water ethics. It looks into what can be gleaned as proposed foundations or methods within water ethics. Some of these are human rights, human dignity, and a general moral standpoint involving a sophisticated triangle of justice. Another recognizes a major problem involved with the use of disembodied reason that seeks the universal and necessary. How can such reason fit the always contextual and evolving complexity of the eco-hydro-socio world? One method proposed in the water ethics discourse calls for an ongoing 'bricolage' among multiple perspectives

and codifications. However, another author in the literature challenges the same proposal as being ambiguous in regards to relativism. Chapter 2 then becomes a search for coherence, a basis upon which normative judgements can be made. What are the implications of not grounding water ethics in valid knowing and valuing, and what are the meta-ethical roots or foundations that can ultimately be appealed to for justification of decision-making in water issues? The critical examination and analysis of the current water ethics literature in this chapter also makes possible a list of needs and criteria that could better define a comprehensive and well-founded water ethics. Thus a short list of needs and criteria for evolving water ethics is developed.

Chapter 3 then introduces Bernard Lonergan and explores aspects of his work that can help in addressing some of the current problems of water ethics. For help in clarifying the very roots of ethics, it looks at knowing, objectivity, facts and values along with the dynamic structure of consciousness in human knowing and doing. The world as mediated by meaning and motivated by value is distinguished from a world of experience and immediacy. As part of Lonergan's critical realism and generalized empirical method, I explore the intentional operations of consciousness involved in our knowing and ethical decision-making. As well, it is important to be mindful that persons involved in water issues are not individuals working off of clean slates. They have been acculturated and educated in different historic-geographic contexts and socio-cultural matrices of knowledge and beliefs. Thus this chapter also explores the social nature of knowledge.

Within the water ethics literature examined, there appear to be unexpected misunderstandings regarding the many changes in science and philosophy since the Scientific Revolution. One of these pertains to the role that logic and deduction have in ethics and in science. Understanding historical changes in scientific and philosophical thought can help bring to light implicit conflicts between the long-enduring use of logic inherited since Aristotle's *Posterior Analytics*, and the modern turn to method for ongoing and particularized knowing. The Lonergan analysis helps us here in identifying and avoiding prominent features of current philosophical problems and conflicts that could ultimately undermine efforts at grounding water ethics. Dating from the incomplete epistemological turns of Descartes and Kant, such problems involve neglect and/or truncation and distortion of the knowing and acting human subject. Usually passing unknown and unrecognized, this problem of not understanding the role of the subject is associated with perceptualism, conceptualism, and classicism. Some parts of the water ethics discourse appear to struggle with these problems as unnamed issues.

Chapter 3 also looks at judgements of value and at cognitive, moral, and religious self-transcendence. Value judgements are related to the good being sought, and values can differ greatly. Lonergan has much to unpack on the dynamic structure of the good being sought in human deliberations. His account also deals with the incommensurability of major classes of values. Vital, social, cultural, personal, and religious values are distinguished and related to each other in Lonergan's account. These same values must be dealt with in water ethics. In a

final section, his ethics are examined as an existential, empirical, and critical ethics that calls for human authenticity.

In Chapter 4, I engage Lonergan's method to work positively with some water ethics needs and unresolved questions. For instance, how might water ethics be situated in relation to arguments between anthropocentric and ecocentric positions? Should human rights serve as the foundation for water ethics? How else should water ethics be grounded? Because water is most often managed through institutions, I use Lonergan's notions of essential and effective freedom to examine ways of creating or improving institutions in view of ethical achievement. To assist with this, I use the mission statement and guiding principles of an effective international transboundary water institution — the International Joint Commission of Canada and the United States. Chapter 4 concludes with a look at the limitations of Lonergan in regards to water ethics.

Chapter 5 deals with religion and water ethics from a theological horizon standpoint. It is an historic and sociological fact that over three quarters of the world population belong to four major religions. With contemporary water management seeking to be truly participatory, the challenge to be met on larger geographic scales goes beyond a transdisciplinarity of sciences and ethics. It includes dialogues that are inter-religious and transcultural in nature. Because of this, ethical water decision-making is challenged to have philosophical and theological components that are profound enough to respect cultural and religious differences. In an era of mounting religious, cultural and political tensions, this task

is of no minor importance. In light of this, I explore how water ethics, philosophy, and theology fit together with the help of Lonergan. I also look into how the philosophical and theological horizons differ. This is followed by a brief look into a central Christian theological theme — the Thomist nature-grace dialectic. Divine grace healing and elevating nature is considered in this thesis as a central theological theme not to be overlooked. I propose that grace-healing-nature, with human cooperation, is highly pertinent when theology is engaged in dialogues over water issues and outcomes.

Among the many questions and issues for water ethics, the issue of water poverty stands out like the proverbial 'elephant in the room.' What is water poverty and what are some of its underlying structural causes? Understanding this is necessary to effectively disentangle water value deliberations and judgments from implicit values of decision-makers in water governance and policy. A further section explores how the causes of global water poverty can be understood as a contemporary truncation of Lonergan's integral scale of values. A final part of the chapter looks at connections with the encyclical Pope Francis called *Laudato Si': On Care for our Common Home*. (LS)¹⁶ The moral appeal in *Laudato Si'* is to both individual and collective responsibility for how we build the Earth's future. LS recognizes links between poverty, water, and ecology and a moral imperative towards the water poor. It also recognizes that problems cannot be solved on their

¹⁶ POPE FRANCIS, *Laudato Si': On Care for our Common Home*. 'Laudato Si', literally 'praised be', are the opening words of the canticle of praise for all creation of Saint Francis of Assisi: "Laudato si', mi' Signore" – "Praise be to you, my Lord." It is available at http://w2.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.

own without understanding their connectedness and underlying causes which are political, economic, and ideological in nature. Some of these underlying problems have also been critiqued within the water ethics literature. A new water ethic could be considered a differentiable component within the overarching "integral ecology" and "new ecological culture" called for in LS.

Conclusions regarding my research and thesis are found in the final section along with a discussion of what looks to be a promising potential for further work. Use of the thought and method of Lonergan would be supportive, not only in theoretical and applied water ethics, but also in the creation of effective water institutions.

Chapter 1: What is Being Said about the Ethical/Moral Response to Water Problems?

1.1 The Need for a New Water Ethic

In the concluding chapter of her book *The Last Oasis, Facing Water Scarcity*, and in a later article, "The Missing Piece: A Water Ethic," Sandra Postel argued cogently regarding the need for a new water ethic. She observed that we are now facing a time where "[i]n many parts of the world, water use is nearing the limits of natural systems; in some areas those limits have already been surpassed."¹⁷ Postel laments that modern society, in its quest for better living standards and economic gain, "has come to view water only as a resource that is there for the taking, rather than a living system that drives the workings of a natural world we depend on."¹⁸ For the next generation, a new water era will be marked by limits and constraints. These will be political, economic, and ecological limits and will contrast the "unfettered damming, drilling and diverting to gain ever greater control over water" of previous decades. Postel argues that,

[m]ost fundamentally, water scarcity challenges us to adopt a new ethic to guide our relationship to the earth's natural systems, to other species, and to each other. Recognizing ourselves as part of a life-support network we depend on, and learning to live within water's limits are integral aspects of creating a society that is sustainable in all respects.¹⁹

¹⁷ Sandra POSTEL, *Last Oasis: Facing Water Scarcity*, (New York: W.W. Norton, 1992, 1997, and Kindle version), 3; see also POSTEL, "The Missing Piece: A Water Ethic," in *Water Ethics: Foundational Readings for Students and Professionals*, eds. Peter G. Brown, Jeremy J Schmidt, (Washington: Island Press, 2010), chapter 20, 221-226.

¹⁸ POSTEL, *Last Oasis*, 19.

¹⁹ POSTEL, *Last Oasis*, 24.

For Postel, such an ethic would guide right conduct in making complex decisions about natural systems in which protection of water ecosystems is central.

Adopting such a water ethic would be an historic philosophical shift "away from the strictly utilitarian divide-and-conquer approach to water and toward an integrated, holistic approach that views people and water as parts of a greater whole."²⁰ The new water ethic needed is not to be a one-off in a fragmented way of viewing the world. It is an intrinsic part of a fundamental shift in thinking needed for survival in the 21st century.

Peter Brown and Jeremy Schmidt note that there is a failure to "appreciate and understand the influence of [water management's] roots in Western values, worldviews, and religion."²¹ Avoiding past mistakes will not suffice. Rather, "a water ethic must be seen as constitutive of, and complementary to much broader social and moral obligations."²² It is not simply about decision-making over water, but about the persons making those decisions, their attitudes and virtues, and the realization that they are situated as one part within many complex socio-ecological systems. They continue:

As a first step, water management must be expanded to include an ethic of virtue – where the quest is not only for improved decision-making frameworks, but is also for persons who act out of recognition that scientific and technological knowledge must be situated in relation to deliberations on ethics, fairness, temperance, and justice and which

²⁰ POSTEL, *Last Oasis*, 185.

²¹ Peter BROWN and Jeremy SCHMIDT, "An Ethic of Compassionate Retreat", *Water Ethics - Foundational Readings*, 280.

²² BROWN and SCHMIDT, "An Ethic of Compassionate Retreat," 280.

include great humility regarding the types and ends of human knowledge."²³

In the book *Ethical Water*, Canadians Bob Sandford and Merrel-Ann Phare argue that we are at a juncture in the very narrative of both the human journey and the story of life on Earth. This growing awareness of the effects of human activities on water and the world presents us with a fundamental crisis of values. They succinctly express this juncture:

We can choose to live in "a denuded, simplified, dangerous and quite possibly dying world" or we can create and act upon a new narrative, one in which the decisions we make about water use – the ends to which we put our knowledge and technological sophistication – are founded on broad cultural, religious and moral values that respect the water needs of the non-human life community. What we need as a foundation for such a narrative is a new water ethic. If we wish to achieve any meaningful degree of sustainability, we must create that ethic now.²⁴

1.2 Implicit Values and a Utilitarian Default

An ethic of utilitarianism pervades water management, both past and present. Most often it is implicit. Peter Brown and Jeremy Schmidt devote a section of five papers to utilitarianism in the book *Water Ethics – Foundational Readings for Students and Professionals*. In the introduction they write that "[w]ithout a doubt, the dominant ethical principal in modern resource policy is utilitarianism," and that the principal of utility provided "the default ethic for water resources development and management throughout the 20th century."²⁵

²³ BROWN and SCHMIDT, "An Ethic of Compassionate Retreat," 280.

²⁴ Robert William SANDFORD and Merrell-Ann PHARE, *Ethical Water - Learning to Value What Matters Most* (Calgary AB: Rocky Mountain Books, 2011), xiii.

²⁵ Jeremy SCHMIDT, "Water Ethics and Water Management," in *Water Ethics -*

Modern versions of utilitarianism can be traced back to the writings of Jeremy Bentham (1748-1832) and John Stuart Mill (1806-73). In this philosophy, 'what is right' is that which increases pleasure over pain, happiness over unhappiness. The common form of the principle of utility seeks to maximize happiness or wellbeing for the greatest number of people. Utilitarianism has been used in many different ways over time and according to context. *Water Ethics* devotes a chapter in a section on utilitarianism to William J. McGee (1853-1912).²⁶ McGee was a major figure whose thought served in establishing utilitarianism in US water resource planning and development.²⁷ McGee argues that "[t]he conquest of nature, which began with progressive control of the soil ... is now extending to the waters on, above and beneath the surface. The conquest will not be complete until these waters are brought under complete control..."²⁸ He goes on to make projections of costs and direct economic benefits per capita for developing inland waterways for navigation and power.

In water management, the utilitarian ethic can be enacted through several social instruments. Principally these involve either government bureaucracies or the use of markets determining individual choices. The former, of which McGee is representative, is sometimes described as 'the state hydraulic mission.' The latter, which is central in the move towards water privatization, proposes to let water

Foundational Readings, 13.

²⁶ William J. McGEE, "Water as a Resource," *Water Ethics*, 87-90.

²⁷ In 1907 McGee was appointed a member of the Inland Waterways Commission by President Roosevelt. See Donald J. Pisani in "Water Planning in the Progressive Era: The Inland Waterways Commission Reconsidered," *Journal of Policy History* (2006) 389-418.

²⁸ William J. MCGEE, cited in *Water Ethics*, 89.

markets find the highest utility for water by using water pricing. This argument for economic efficiency is thus the foremost ethical imperative for this view.

David Feldman describes the ease with which utilitarianism fit the use of US government agencies in policy and project rationalization through the use of benefit - cost analysis. He writes that "[t]he lack of an ethical basis for natural resources policy, a lack widely shared among citizens and policy makers, makes benefit-cost analysis an attractive means of justifying decisions." The proponents of benefit-cost analysis "believe it constitutes a valid tool for gauging the conformance of water policies to the public interest" because the design of the method is believed to promote the greatest good of the greatest number of citizens. This facility has led to a misuse and overreliance on this methodology.²⁹

Integrated Water Resources Management (IWRM) is the ideal paradigm for that is supposed to replace the older state hydraulic mission, a 'mission' which is woefully still operative today in many developing countries. First proposed at the UN water conference in 1977 in Mar del Plata, Argentina, IWRM has grown to be the current most widely accepted professional water management standard. In spite of lofty goals of being a participatory approach that integrates resident basin interests with a view to sustainability, IWRM is not an exception when it comes to utilitarianism as an implicit ethic. Jeremy Schmidt and Christiana Peppard observe that:

The malleability of hydraulic utilitarianism helps to explain why it became the default ethic ... in the rise of IWRM. [...] the critical point is

²⁹ David Lewis FELDMAN, *Water Resources Management: In Search of an Environmental Ethic* (Baltimore, MD: John Hopkins University Press, 1991), 157.

that IWRM held an implicit ethical position in its assumption that all values are commensurable once seen in utilitarian, consequentialist terms.³⁰

David Groenfeldt also argues that within the domain of water management there is a default ethic operative that is a strictly utilitarian, divide-and-conquer approach. He writes that this tacit ethic is covered by "the fiction that decisions about water are made through objective logic unencumbered by subjective values."³¹ Groenfeldt and Schmidt, writing together in 2013 note that "explicit attention to ethics has largely been absent in discussions of water governance," yet, at the same time, "values pervade all approaches to water governance." This statement about the absence of explicit attention to ethics in a field of water decision-making is of extreme importance for this thesis. Water governance cannot, and does not take place without values coming in to play. What are these values? From where do they come? Groenfeldt and Schmidt add that "attending to ethics [in theory] supports the task of finding governance arrangements that not only recognize multiple values, but it also provides a framework for reasoning about alternate options."³²

³⁰ Jeremy SCHMIDT and Christiana PEPPARD, "Water Ethics on a Human-Dominated Planet: Rationality, Context And Values in Global Governance," *Wiley Interdisciplinary Water Reviews*, *Water* 2014, 1:533–547.

³¹ David GROENFELDT, *Water Ethics: A Values Approach to Solving the Water Crisis* (London UK: Routledge, 2013), 155, 4.

³² David GROENFELDT and Jeremy J. SCHMIDT, "Ethics and Water Governance," *Ecology and Society* 18(1) (2013) 14,. It can be found online at: <http://www.ecologyandsociety.org/vol18/iss1/art14/>.

1.3 Water as a Commons or a Commodity?

Humanity has used its intelligence and technology to bring water into the service of agriculture, power, industry and cities. Water has been as a resource throughout history. However, commodification of water since the Reagan-Thatcher years of deregulation has become a hotly contested issue. In *The Last Oasis*, Postel observed that a distressing conflict has emerged between water's role as a commodity serving economic and urban growth needs and water's role as a key life-support for all species and natural communities. Increasing water scarcity had thrown this conflict into sharp relief.³³

During the 1990s, increasing water privatization set the stage for what some later would call 'water wars.' Water as an economic commodity certainly seemed to be legitimated by the 1992 *Dublin Statement on Water and Sustainable Development*. The Dublin Statement accurately described water "as a finite and vulnerable resource, essential to sustain life, development and the environment." However it went on to add a list of principles, one of which declared that "water has an economic value in all its competing uses and should be recognized as an economic good."³⁴

In the 1980s many developing countries, unable to meet their loan obligations, were forced through imposed conditions of international lending agencies like the World Bank and the International Monetary Fund to open public services to corporate enterprises. This also opened what was to become the

³³ POSTEL, *Last Oasis*, 61, (Kindle edition 734).

³⁴ Christiana PEPPARD, *Just Water: Theology, Ethics, and the Global Water Crisis* (Maryknoll, NY: Orbis Books, 2014), 41-42.

contentious history of privatization in the provision of water. Cochabamba, Bolivia is a well-known case of forced privatization of water services. In 1999, California engineering giant Bechtel took a contract over water provision services for Cochabamba and worked through a subsidiary called Aguas del Tunari. Within weeks the company imposed rate increases of up to 200%. Soon after, local farmers, community and environmental groups formed a coalition called the Coalition for the Defense of Water and Life (also called 'La Coordinadora'). The Coordinadora organized several mobilizations of as many as 10,000 people demanding cancellation of the Bechtel concession. In January 2000, one of the manifestations closed down the city for three days. Bolivian dictator Hugo Banza deployed heavy military and police control, wounding over 175 people, and killing unarmed 17 year old Victor Hugo Daza in April 2000. These events received widespread media coverage, especially on the rapidly growing Internet. In April 2000, the contract was canceled and Bechtel soon launched a suit for \$25 million in compensation. In the face of widespread opposition, it finally abandoned the suit for a token payment.³⁵

Cochabamba became a highly publicized symbol of the larger water war between communities and corporations, and became a rallying cry for human rights organizations and advocates of water justice. This grew into larger anti-privatization and alter-globalization movements. From the late 1990s onward,

³⁵ Gary CHAMBERLAIN, *Troubled Waters: Religion, Ethics, and the Global Water Crisis*, (Lanham, MD: Rowman & Littlefield, 2008), 120-123, 192-193; and PEPPARD, *Just Water*, 46-49.

significant public protests on a number of water-related issues took place in Argentina, Bolivia and Southern Africa. Only two years after Cochabamba, the UN Committee on Economic, Social, and Cultural Rights promulgated a General Comment that "affirmed the access to adequate amounts of clean water for personal and domestic uses is a fundamental human right of all people." The note also stated "the human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights." Within a decade, the United Nations Human Rights Council affirmed in 2010 Bolivia-sponsored Resolution 64/292 on the human right to clean water and sanitation.³⁶ UN declarations such as on the right to water or the 1948 Universal Declaration of Human Rights constitute what is called soft law. These declarations create universal moral benchmarks facilitating adoption by countries around the world in their own laws and constitutions. One example of this is the November 2016 parliamentary vote in Slovenia to include the human right to drinking water in the constitution to the effect that water is a "public good" and "not a market commodity." Slovenia's prime minister said the constitutional amendment is necessary to guard against future exploitation by private companies and foreign countries.³⁷ Slovenia is one of dozens of countries that in the past several decades have adjusted laws and constitutions for water rights. The first of these

³⁶ UN, "On 28 July 2010, the United Nations General Assembly adopted Resolution 64/292, which "[r]ecognizes the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights." Online at: http://www.un.org/waterforlifedecade/human_right_to_water.shtml.

³⁷ CIRCLE OF BLUE Water News, sourced at Agence France-Presse, and posted at <http://www.circleofblue.org/2016/daily-stream/stream-november-30/>.

was South Africa whose 1996 constitution confirms that "everyone has a right of access to basic water supply and basic sanitation," and that "[e]very water services institution must take reasonable measures to realize these rights."³⁸

The convergence of water justice issues within anti-privatization and alter-globalization movements became part of a broader red-green alliance of labor and environmentalist activists that came to be significantly present at World Social Forums held every year since 2001 in major cities around the world. The movement has been active in holding Alternative World Water Forums. In March 2009, European activists held a counter-summit to the triennial Fifth World Water Forum in Istanbul to protest the domination of transnational companies within the forum. In 2012, close to the 6th World Water Forum in Marseille, France, the Alternative World Water Forum carried the motto "L'eau, source de vie, pas de profit!" Karen Bakker observes that "[t]his ongoing resistance indicates that privatization – in its varied forms – continues to be a contested and controversial topic."³⁹

The debate over public versus private water services provision is actually more nuanced than the way it is often simply portrayed as a good/evil binary. In not a few places water is badly managed by inefficient government bureaucracies – some with corruption problems. Corporations, seeking ever-increasing share in

³⁸ INFORMATION PORTAL ON THE RIGHTS TO WATER AND SANITATION IN NATIONAL LAW, "The rights to water and sanitation in national law," accessed at <http://www.righttowater.info/progress-so-far/national-legislation-on-the-right-to-water/#NIC>.

³⁹ Karen BAKKER, "The Business of Water: Market Environmentalism in the Water Sector," *Annual Review of Environ. Resources*, 39 (2014) 469-494. Downloaded from www.annualreviews.org with access provided by University of Leiden - Faculteit Sociale Wetenschappen on 12/11/14.

the water business, have harped against poor government water management and touted the need for economic efficiency. This they assert is a benefit unique to corporate water service management.

Nick Hepworth of Water Witness International contends that transnational corporate engagement on water however cannot be assumed to be neutral. Large transnational companies are increasingly networked and have relatively greater resources, power, and knowledge available to them than local, regional, and even some national governments. They present a real risk of receiving preferential treatment and even of policy and regulatory capture. Hepworth also notes that "[h]ighest economic value water does not translate into optimal use for social well-being in the basin, particularly where MNCs extract value for distant stakeholders."⁴⁰

1.4 Aboriginal Peoples and Water Ethics

Sandford and Phare point out that "fundamental to traditional ways of many indigenous peoples is that the use of water is governed by a relationship of mutual responsibility." "Water looks after us, so we look after water."⁴¹ However, since the European settlement, an antithetical water ethic has emerged by which we "relate to water - especially in our economic and legal dealings — as a resource rather

⁴⁰ Nick HEPWORTH, "Open for Business or Opening Pandora's Box? A Constructive Critique of Corporate Engagement in Water Policy: An Introduction," *Water Alternatives* 5(3) (2012) 543-562. Accessed at <http://www.water-alternatives.org/index.php/volume5/v5issue3/185-a5-3-1/file>.

⁴¹ SANDFORD and PHARE, *Ethical Water*, 8.

than as a precious physical and spiritual partner in life. [This]... in the opinion of many indigenous peoples, [makes] it very convenient to avoid responsibility for the destruction of water."⁴²

This indigenous culturally based relationship to water and water ecosystems – an 'indigenous water ethic' – is most usually expressed orally. One instance where it has been put to words is in the Indigenous Peoples Kyoto Water Declaration prepared by the indigenous participants of the 3rd World Water Forum in 2003 in Kyoto, Japan. The first three clauses of this statement describe the relationship of Indigenous Peoples to water:

1. We, the Indigenous Peoples from all parts of the world assembled here, reaffirm our relationship to Mother Earth and responsibility to future generations to raise our voices in solidarity to speak for the protection of water. We were placed in a sacred manner on this earth, each in our own sacred and traditional lands and territories to care for all of creation and to care for water.
2. We recognize, honor and respect water as sacred and sustains all life. Our traditional knowledge, laws and ways of life teach us to be responsible in caring for this sacred gift that connects all life.
3. Our relationship with our lands, territories and water is the fundamental physical cultural and spiritual basis for our existence. This relationship to our Mother Earth requires us to conserve our freshwaters and oceans for the survival of present and future generations. We assert our role as caretakers with rights and responsibilities to defend and ensure the protection, availability and purity of water. We stand united to follow and implement our knowledge and traditional laws and exercise our right of self-determination to preserve water, and to preserve life.⁴³

⁴² SANDFORD and PHARE, *Ethical Water*, 9.

⁴³ UNESCO, "Indigenous Peoples Kyoto Water Declaration," in *Water and Indigenous Peoples*, Ed. R. Boelens, M. Chiba D. Nakashima. (Paris: UNESCO, 2006), 174-177.

Indigenous participants at the Kyoto forum committed to form a network on water issues to strengthen the voice of indigenous people and help empower local communities in struggles to protect their water rights.

Groenfeldt highlights the clash of cultural values that can happen in water management and some of the challenges of bridging divergent water cultures. He observes that "indigenous cultural and spiritual understandings about water are often misunderstood or simply ignored by the dominant societies" and that "indigenous communities are rarely included meaningfully in water policy and planning processes."⁴⁴ Indigenous communities have often been torn over questions dealing with water and natural resources development affecting or within their territories. History has shown how many state authorities have frequently bypassed customary access and rights to water, and "water bodies that are critical to [their] cultural and physical wellbeing are being polluted, dewatered, or dammed."⁴⁵

This unfortunate history continues in many places despite international 'soft law' protections such as the 2007 UN Declaration on the Rights of Indigenous Peoples (DRIP). In efforts to protect their land and water, Indigenous peoples often bear the brunt of force by strong-armed colonial minded authorities. One recent example of this struggle is the imposition of the Dakota Access Pipeline (DAPL) across the territory of the Sioux in North Dakota, US. The pipeline crosses

⁴⁴ GROENFELDT, *Water Ethics: A Values Approach*, 139. Chapter 7 (135-154) of Groenfeldt's book on Indigenous water ethics is a valuable coverage of native water issues. As well, see SANDFORD and PHARE, *Ethical Water*, 6-18.

⁴⁵ GROENFELDT, *Water Ethics: A Values Approach*, 139.

disputed Sioux land promised in the 1851 Fort Laramie Treaty. The Standing Rock Sioux, concerned for nearby water sources of Lake Oahe and the Heart River, resisted using legal means and protests. The protests, which swelled with numerous indigenous and other supporters, were met with troops using anti-riot gear, pepper spray, dogs, and water cannons.⁴⁶ United Nations special rapporteur on the rights of Indigenous Peoples Victoria Tauli-Corpuz condemned the use of harassment, torture and arrests against indigenous peoples peacefully protecting their property. It is out of line with the UN Declaration on the Rights of Indigenous Peoples. Referring to both Standing Rock and the general indigenous situation, she was cited in a May 1, 2017 UN News Centre article:

The main preoccupation of indigenous peoples is really to work on the defense of their land and resources, and protection of the right of self-determination. In their assertion of this right, they are accused of being a terrorist or arrested. The situation of indigenous peoples' rights is really not in a very good state these days because there are policies and laws used to criminalize them.⁴⁷

Certainly, respect of indigenous peoples as distinct cultures and meaningful inclusion in water policy and planning, especially that which affects their territories, should be an essential part of an emerging new water ethic. One very important

⁴⁶ Several source news articles were used: REUTERS "Dakota Access pipeline opponents occupy land, citing 1851 treaty" October 24, 2016, at <http://www.reuters.com/article/us-usa-pipeline-dakotaaccess-idUSKCN12O2FN>, and the NEW YORK TIMES, "The Conflicts Along 1,172 Miles of the Dakota Access Pipeline," March 20, 2017 at <https://www.nytimes.com/interactive/2016/11/23/us/dakota-access-pipeline-protest-map.html> and INDIAN COUNTRY TODAY, "The Supreme Law of the Land: Standing Rock and the Dakota Access Pipeline," January 16, 2017, at <https://indiancountrymedianetwork.com/news/opinions/supreme-law-land-standing-rock-dakota-access-pipeline/> (all accessed June 29, 2017).

⁴⁷ UN NEWS, "Rights of indigenous peoples 'not in a very good state,' UN Expert Says," May 1, 2017, and accessed June 29, 2017 at <http://www.un.org/apps/news/story.asp?NewsID=56660#.WQirPulfTIJ>.

supporting reference in regards to indigenous peoples rights to water is the UN Declaration on the Rights of Indigenous Peoples (DRIP). Article 25 of the declaration states that "Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned and otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard."⁴⁸ Further, Article 32 addresses their "right to determine and develop priorities and strategies for the development of their lands ..." and that "States should consult and cooperate in good faith [and seek] free and informed consent prior to the approval of any project affecting their lands ...particularly in connection with the development [of] mineral, water or other resources."⁴⁹ DRIP enters into UN soft law establishing a universal framework of minimum standards for ongoing survival, dignity, rights and well-being of the world's indigenous peoples. It remains for the many state members to actually adopt and act in accordance with this declaration.

1.5 Anthropocentrism, Biocentrism, and Rivers with Rights

Water management during the most of the 20th century tended to be highly anthropocentric, largely utilitarian, and concerned almost exclusively with human utility. The environmental movement initiated in the 60s and 70s has helped to

⁴⁸ UN, Declaration on the Rights of Indigenous Peoples at: http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf.

⁴⁹ See the UN website for full text; also remarks on DRIP by GROENFELDT, *Water Ethics: A Values Approach*, 140.

bring about in many countries legally mandated environmental assessments and greater attention to fish and aquatic ecosystems impacted by water projects. However, anthropocentric water management continues in varying degrees across the many countries of the world.

Most of the authors in the water ethics literature examined mention environmental pioneer Aldo Leopold and his "land ethic." In 1949 Leopold argued that the time had come in the evolution of civilization for an expansion of ethics that would bring moral consideration beyond human-only interests to the land and the whole community of life. Humans should act as members of the community of life, not as its conquerors. In his ethic "[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."⁵⁰

Groenfeldt, reflecting on what progress may have been made in this regard, points out that,

[t]he environmental movement of the 1970s and the new paradigm of sustainable development, which emerged from the Brundtland Commission in 1987 (World Commission on Environment and Development 1987) and the Rio Conference in 1992, seemed to demonstrate that the ethical evolution Leopold had anticipated was now taking place. Yet 20 years later, at the time of the Rio+20 meetings, the path to an ecological ethic seemed neither immanent nor inevitable.⁵¹

⁵⁰ See, for instance: PRISCOLI et al., "Water and Ethics"; POSTEL, "The missing piece"; Brown and Schmidt in *Water Ethics - Foundational Readings*, 298; CHAMBERLAIN, *Troubled Waters*, 146; LIU et al., *Water Ethics and Water Resource Management*, 23; KOWARSCH et al., "Diversity of Water Ethics"; GROENFELDT, *Water Ethics: A Values Approach*, 1, 199; Schmidt and Peppard, "Water Ethics on a Human-dominated Planet."

⁵¹ GROENFELDT, *Water Ethics: A Values Approach*, 2.

Chamberlain argues that environmental or ecological ethical approaches may vary on how rights language should be extended to animal and non-animal species. Some approaches, such as deep ecology, seek an equal footing for human and non-human life. However, the range of bio-eco-centric views does share a common foundational ecological principle, *sustainability*.⁵²

Legal rights have been extended to several rivers in recent years. Among these are the Whanganui River in New Zealand and the Ganges and Yamuna rivers in India.⁵³ There is an important question in regards to such rights-of-nature declarations that should be of concern to all who seek ecocentric and deep green solutions. It is this: Could such declarations of rights bring about viable solution for the protection of rivers and their ecosystems? Further related questions remain as well. If a river has the legal status of a person, how are these rights to be upheld? The river has no voice and is in need of spokespersons. The same article in the Guardian informs us that the Whanganui River is to be entrusted to the joint guardianship of the Iwi Indigenous People and the New Zealand government. The ruling recognizes that certain past activities, including a hydroelectricity project, have caused damage. It implies that similar future activities could be violations of the river's rights.

⁵² CHAMBERLAIN, *Troubled Waters*, 145.

⁵³ THE GUARDIAN, "Now Rivers Have the Same Legal Status as People, We Must Uphold Their Rights", April 21, 2017, <https://www.theguardian.com/global-development-professionals-network/2017/apr/21/rivers-legal-human-rights-ganges-whanganui> (accessed April 21, 2017).

The situation is not the same, however, for the rivers granted rights in India. The Ganges and Yamuna rivers and their related ecosystems are granted "the status of a legal person, with all corresponding rights, duties and liabilities." There is, however, less clarity found in the applicable law. Custodianship of these rivers has been entrusted to government officials and legal experts. At the same time there are hydroelectric dam projects being built or planned in the river's upper reaches. Will this be a good way to preserve and improve conditions in these rivers? Will the "custodians" selected be able to stand up to those of higher rank in the public service who may support political decisions that are detrimental to these rivers?

1.6 Ecofeminism

In her 2005 book *Introduction to Ecofeminist Theologies*, Heather Eaton presents ecofeminism, or, ecological feminism, as an influential joining of the ecological and feminist movements. She argues that this movement presents a strong transformative potential in the midst of the political, social and ecological challenges of our times.⁵⁴ Ecofeminism values women and nature and strives to illuminate and resist their domination and exploitation.

In the water ethics literature used in this dissertation, an ecofeminist approach is taken in Greta Gaard's paper *Women, Water, Energy: an Ecofeminist*

⁵⁴ Heather EATON, *Introducing Ecofeminist Theologies* (London and New York: T&T Clark International, 2005), 2-9.

*Approach.*⁵⁵ Gaard points out that the socioeconomic infrastructures that mediate Western culture's relationship with water need to be changed. She argues that "Ecofeminism illuminates the way in which gendered, cultural assumptions about water, power, and human relations have led to creating a water-power infrastructure that perpetuates environmental sexism, environmental racism, and environmental classism."⁵⁶ Gaard uses several examples of waterpower development projects including Pacific-northwest Columbia River dams⁵⁷, Hydro Quebec, and the Sumas Energy 2 project and the Sumas-Abbotsford transboundary aquifer between British Columbia and Washington State. She argues that they illustrate a hierarchical dualism in which native peoples, fish and nature in general suffer as the bottom class. Her analysis is based on Val Plumwood's work on dominance in sets of contrasting pairs such as self-other, male-female, reason-nature, mind-body (mind-nature), and white–non-white. In this analysis, the human male is associated with reason and is opposed by definition to nature. According to these dipoles man is also opposed to all that is associated with nature such as women, the body, emotions, etc. The association

⁵⁵ Greta GAARD, "Women, Water, Energy: an Ecofeminist Approach," in *Water Ethics - Foundational Readings*, 59-75.

⁵⁶ GAARD, "Women, Water, Energy", abstract. The abstract was not available in *Water Ethics*, but was accessed at Sagepub where the article was originally published in 2001: <http://oae.sagepub.com/content/14/2/157>.

⁵⁷ While with the International Joint Commission, I was responsible over 12 years for all Columbia River transboundary water issues. This included three dams influencing water levels across the Canada-US border. I can concur with Gaard that both the native peoples and the migratory fish did not receive proper consideration or consultation in past water development decisions. The 2001 international pastoral letter by the Canadian and US Catholic Bishops of the Columbia basin region, "*The Columbia River Watershed: Caring for Creation and the Common Good*" did not adequately cover these ethical issues.

of emotion, the body and nature with women has been argued by feminists to be the cause of their oppression in Western culture.⁵⁸ "As an alternative, an ecofeminist approach to water justice advocates strategies for bringing about an ecological democracy, an ecological economics, and a partnership culture in which water and energy flow freely."⁵⁹

Gender bias is part of an implicit belief system. According to Eaton it is "so pervasive that it is taken for granted and unquestioned." She adds that "[u]ntil recently, in most countries, it has been acceptable, even desirable, that women receive less education than men, talk less in public, own less or no property, are given to their husbands or take their husband's name in marriage, receive lesser salaries for equivalent work..."⁶⁰

As water management moves into more participatory modes, these considerations are important. It places an onus on decision makers in water policy, project planning and IWRM to understand and to reverse tendencies towards exclusion or domination wherever there are societal and cultural norms carrying implicit androcentric biases.

1.7 UNESCO Water Ethics Committees

Some of the earlier work on water ethics was done within a number of UNESCO-sponsored committees and workshops beginning with the 1997-2004 World Commission on the Ethics of Scientific Knowledge and Technology

⁵⁸ GAARD, "Women, Water, Energy", 61.

⁵⁹ GAARD, "Women, Water, Energy", abstract.

⁶⁰ EATON, *Introducing Ecofeminist Theologies*, 39.

(COMEST) and the International Hydrology Programme (IHP) in 1998. This resulted in publication of 14 essays and the overview report "Best Ethical Practice in Water Use."⁶¹ The Priscoli et al. overview of the COMEST work placed a greater emphasis on promoting best ethical practices than on ethical issues of water management. Important principles for water ethics practice should include human dignity, participation, solidarity, human equality, the common good, stewardship, transparency, inclusiveness, and empowerment. Human rights and dignity play a foundational role and the UNESCO work is in accord with the 1948 UNDHR which prescribes that human dignity, human rights and fundamental freedoms are to be fully respected. Regarding human dignity and water, the report states: "for there is no life without water and those to whom it is denied are denied life."⁶² A link between water management and human dignity is established: "water is a common good, and without proper water management human potential and dignity diminishes."⁶³ The importance of sustainability of the water-supported environment is mentioned in several places. Priscoli et al. make a compelling statement about water as and for the common good:

The common good is understood as the social conditions that allow people to reach their full human potential. By almost everyone's definition, water is a common good. Our arguments are mostly about how to manage this common good – water. This principle reminds us how ethically important the management of water really is. It is a vital

⁶¹ PRISCOLI, J.D., DOOGE, J. and LLAMAS, R., "Water and Ethics: Overview." *Series on Water and Ethics*. Paris: UNESCO, 2004. Available at: <http://www.internationalwaterlaw.org/bibliography/articles/Ethics/Overview.pdf>; Also, COMEST, 2004, "Best Ethical Practice in Water Use". Paris: UNESCO is available at: <http://unesdoc.unesco.org/images/0013/001344/134430e.pdf>.

⁶² PRISCOLI et al., "Water and Ethics: Overview," 16.

⁶³ PRISCOLI et al., "Water and Ethics: Overview," 16.

facilitator to reaching full human potential and realization of human dignity. Without good water management, human potential and dignity are diminished for all and denied to some.⁶⁴

It is interesting to note how most of the Overview's principles also have had a long history within Catholic Social Teaching. Discussion of the philosophical basis of the many principles mentioned is not undertaken.

Priscoli et al. recognized several important hurdles in the way of the construction of a water ethic. One hurdle is the question of dealing with the different scopes of application of moral values: should it be at the level of individuals? at the community scale, or global norms? All of these levels are important in relation to water ethics. Another difficulty identified had to do with the diversity of cultures and values. Ethical values take different forms in different cultural groups. Cultural diversity must be taken account of and it would be a mistake to impose Western values on other cultures in the field of global ethics. Basically, how can value differences between individuals, groups, and society be accounted for?

"Water Ethics and Water Resource Management" was published in 2011 by a UNESCO Asia and Pacific working group under the lead authorship of Jie Liu.⁶⁵ This effort examined and built on the earlier COMEST reflections and principles, supporting them with recent developments in the UN such as the 2005 Universal Declaration on Bioethics and Human Rights (UDBHR) and the 2010 General Assembly Resolution 64/292 on the human right to water. It quotes Article 10 of

⁶⁴ PRISCOLI et al., "Water and Ethics: Overview," 16.

⁶⁵ Jie LIU, et al., *Water Ethics and Water Resource Management*, 2011, Bangkok: UNESCO, <http://unesdoc.unesco.org/images/0019/001922/192256E.pdf>.

the UDBHR on human dignity and equality: "the fundamental equality of all human beings in dignity and rights is to be respected so that they are treated justly and equitably."⁶⁶ It refers as well to Article 17 on protection of the environment, the biosphere and biodiversity. The report notes that humans are members of the environment and critiques the earlier COMEST water ethics as having had a strong anthropocentric basis. It suggests that future reflections on water ethics should take a more ecocentric approach.

The report argues that water ethics requires interdisciplinary collaboration of experts, stakeholders and decision makers, all having responsibilities for the ethical management of water and water policy. Liu proposes a model "framework of water ethics construction" for decision-makers, researchers, and stakeholders involved in water governance to be involved in contributing ethical judgment on water issues and resources. Essentially, the framework consists of having all partners around the table to come to ethical judgements. This includes representatives from the central and local governments, the local water affairs department, researchers in the natural sciences, and in the human and social sciences, as well as concerned stakeholders for the various water uses — municipal, ecological, agricultural, industrial, and for future generations. This proposed framework brings nothing new in the types of groups assembled from the point of view of IWRM or that of my past work with the International Joint Commission. But it does add the exigence to explicitly deliberate on the ethical aspects of the water issues.

⁶⁶ LIU, et al., *Water Ethics and Water Resource Management*, 18.

The Liu et al. UNESCO report states that it has "no intention to contribute in meta-ethical discussion." It uses, instead, a combined contribution from different views of value "to seek for a ground in practical water ethics and lifestyle change."⁶⁷ The report does not neglect cultural and religiously identities and influence. "Cultural traditions, indigenous practices and societal values determine how people perceive and manage water, and provide useful references for water ethics construction." Reflecting the new appreciation for the role of religions that UN water circles adopted in the first decade of the 21st century, it states:

Water plays a central role in many religions and beliefs around the world: water is the source of life and represents (re)birth. Water cleans the body and by extension purifies it. These two main qualities confer a highly symbolic – even sacred – status to water. Water is therefore a key element in ceremonies and religious rites.⁶⁸

1.8 Water, Ethics, and World Religions

In a turn to greater attention in valuing water, there is enormous potential to be realized within the world's major religions. Gary Chamberlain, a professor of religious and environmental studies at Seattle University, argues the importance of moving globally towards a new water ethic in his 2008 book *Troubled Waters: Religion, Ethics, and the Global Water Crisis*.⁶⁹ In the book, Chamberlain highlights the important potential and role of major world religions in a new water ethic process since adherents of Buddhism, Hinduism, Taoism and Confucianism, Judaism, Christianity, and Islam, which comprise about 80% of world population.

⁶⁷ LIU, et al., *Water Ethics and Water Resource Management*, 33.

⁶⁸ LIU, et al., *Water Ethics and Water Resource Management*, 39.

⁶⁹ CHAMBERLAIN, *Troubled Waters*.

He argues that water's value is historically and symbolically present within religions, and that an important part of the development of a new water ethic lies in retrieving the value of water already present in sacred religious texts. Chamberlain also highlights the multiplicity of philosophical and religious ethical sources to be drawn upon in this quest. Chamberlain's book does not plunge into explanatory theology and ethics, but it does put forward the hope, along with examples, of religions becoming more active regarding the water crises.

Prior to, yet related to Chamberlain's proposals, one can look at the greening happening in Catholic Church teachings. Recent developments in Catholic Social Teaching (CST) reflect a turn towards valuing the environment⁷⁰ and CST has a number of water-pertinent documents. Among these is a 2001 international pastoral letter by the Canadian and US Catholic Bishops of the Columbia basin region entitled *The Columbia River Watershed: Caring for Creation and the Common Good*.⁷¹ In 2003, a document from the Holy See was sent to the Third World Water Forum in Kyoto under the title of *Water, an Essential Element for Life*, and an update under the same title went to the Fourth World Water Forum in 2006 in Mexico City. These documents supported the human right to water and water as a common good at a crucial time of encroaching market

⁷⁰ This turn to the environment could be dated to about the year 1990 with the World Day of Peace Message of POPE ST. JOHN PAUL II on *The Ecological Crisis: A Common Responsibility*. Vatican, https://w2.vatican.va/content/john-paul-ii/en/messages/peace/documents/hf_jp-ii_mes_19891208_xxiii-world-day-for-peace.html.

⁷¹ BISHOPS OF THE COLUMBIA RIVER WATERSHED. *The Columbia River Watershed: Caring for Creation and the Common Good: An International Pastoral Letter by the Catholic Bishops of the Region*. (Seattle: Washington State Catholic Conference, 2001), at [www.thewsc.org/index.php?option=com_content &view=article&id=38&itemid=67/](http://www.thewsc.org/index.php?option=com_content&view=article&id=38&itemid=67/).

fundamentalism and conflict.⁷² More recently, the important 2015 encyclical of Pope Francis, *Laudato Si': On Care for our Common Home*, contains a section on water along with dozens of other references to water. *Laudato Si'* will be examined more closely in Chapter five which looks at the role of theology in water ethics.

Eastern Christianity has also contributed important statements regarding the environmental crisis and faith. Of particular note is the work of Ecumenical Patriarch Bartholomew, the "green Patriarch."⁷³ Pope Francis' 2015 initiative of the practice within the Catholic Church of the World Day of Prayer for the Care of Creation was made explicitly to coincide with the initial invitation to the churches to take the environment more seriously by Patriarch Bartholomew.⁷⁴ As well as these aforementioned sources, there is also a decades long tradition of the World Council of Churches (WCC) which has been addressing the links between Justice, Peace and Integrity of Creation, and more recently water issues.⁷⁵ The WCC has also established an active Ecumenical Water Network.⁷⁶

⁷² PONTIFICAL COUNCIL FOR JUSTICE AND PEACE. ed.: *Water, an Essential Element for Life. A Contribution of the Delegation of the Holy See on the Occasion of the 3rd World Water Forum*, Kyoto, 2003; also *Water, an Essential Element for Life - an Update, 4th World Water Forum*, Mexico City, 2006.

⁷³ ECUMENICAL PATRIARCH BARTHOLOMEW. *Global Responsibility and Ecological Sustainability*, (Closing Remarks, Halki Summit I, Istanbul, June 20, 2012); See also *Message by His All Holiness Ecumenical Patriarch Bartholomew for World Environment Day* (June 5, 2010), <https://www.patriarchate.org/ecological-messages>.

⁷⁴ VATICAN RADIO. *Pope marks first World Day of Prayer for Care of Creation* (Vatican Radio, September 1, 2015). http://en.radiovaticana.va/news/2015/09/01/pope_marks_first_world_day_of_prayer_for_care_of_creation/1168818.

⁷⁵ WORLD COUNCIL OF CHURCHES. Many of these documents are found at <https://www.oikoumene.org/en/resources/documents/wcc-programmes/diakonia> among documents related to the WCC Diakonia programme.

⁷⁶ "Ecumenical Water Network Calls for Holistic Approach to Water Issues," <http://www2.wcc-coe.org/pressreleasesen.nsf/index/pu-07-13.html>.

1.9 A Christian Theological Ethicist Engaging in Water Ethics

Theological ethics is one of the voices entering the current discourse on water ethics. Christiana Peppard is the first theological ethicist I am aware of to publish a book on water ethics. As Assistant Professor of Theology, Science, and Ethics at Fordham University, she published *Just Water: Theology, Ethics, and the Global Water Crisis*. In this book she offers an invitation to a broadened discourse about the value of fresh water and ethical principles to guide its management. More particularly, the book offers 'an interdisciplinary analysis' that is "situated within the broad discourse of ethics [that] draws on multivalent resources within a range of disciplines, including: theology, hydrology, ecology, economics, religion and science, social theory, and history."⁷⁷ Theologically, Peppard draws on Christian tradition, 20th century and contemporary theologians, and particularly Catholic Social Teaching (CST) since Vatican II.

Chapters 2 to 9 of *Just Water* cover a breadth of current water-related topics and ethical issues. Chapter 2 presents a primer on the global fresh water crisis, and Chapter 3 addresses the recent history and question of water as a human right or an economic commodity. Chapter 4, "A Right-to-Life Issue for the Twenty-First Century," contains a sub-section on CST. Drawing on more recent water-related contributions to CST, Peppard notes that most people, including Catholics, are probably unaware that "magisterial documents since 2003 have

⁷⁷ Christiana PEPPARD, *Just Water: Theology, Ethics, and the Global Water Crisis*, Maryknoll, NY: Orbis Books, 2014, ix.

explicitly referred to access to clean, fresh water as a fundamental 'right-to-life issue'."⁷⁸

The book goes on in Chapters 5, 7 and 8 to discuss the agriculture-water nexus, climate change and water in the Anthropocene and the deleterious impacts on groundwater by the oil and gas industry use of "fracking" (hydraulic fracturing of underlying rock strata). Chapters 6 and 9 present interesting reflections on the Jordan River in the social imaginary and on "Women, Wells, and Living Water." A final section, "Coda: Lessons in Liquidity," offers 'principled insights' to serve as a starting point guiding ethical discernment about fresh water resources.

Rather than engaging a largely secular audience on questions of God, revelation, and theology, Peppard begins by referring to a shift and broadening in theological methodology since the 1960s Vatican II Ecumenical Council. She points out that, particularly in light of the Pastoral Constitution *Gaudium et Spes*, "Catholic theologians were charged with turning towards the world to engage with particular dynamics of social, political, economic, scientific, and cultural life."⁷⁹ To truly accomplish this, there is an obligation of recognizing and understanding the world that we live in, and the need for a 'ground-up' approach. Theologians need to be able to read the 'signs of the times.' Peppard refers to the parable of the Good Samaritan which exhorts persons (including theologians) "to be a neighbour, to recognize one's fellow humanity in need."⁸⁰ Supported by a pertinent quote from Karl Rahner, she contends that this challenge cannot avoid the concrete,

⁷⁸ PEPPARD, *Just Water*, 53.

⁷⁹ PEPPARD, *Just Water*, 2.

⁸⁰ PEPPARD, *Just Water*, 3.

historical, and contextual nature of love of neighbour. Peppard's argument on love of neighbour appears to be a wise beginning for such a book – an argument that could be appreciated by a general audience including scientists and those of other faiths or cultures. She adds that "[w]hile the injunction to love one's neighbour retains a universal sheen, it is only within the particularities of history, geography and culture that we can love appropriately and well."⁸¹

The clearest part of Peppard's theological approach lies essentially in her transposition of the basic Judeo-Christian command to love God and neighbour to the water domain. She uses four pages in Chapter 1 on this and maintains it as an underlying motif in the chapter. Love of neighbour is effectively interwoven with, and a sign of loving God. From this injunction of love comes the obligation to look after the most vulnerable. This love of neighbour must necessarily be freed from false notions of universality and false images of the neighbour. Universal abstract reasoning in theologians and ethicists is problematic for Peppard. One way of correcting problematic notions of universality "is to cultivate a resolute attention to the lives and needs of people who exist on the underside of history – an attention that begins with listening."⁸² Peppard illustrates this with reference to how liberation theology brought about change with such attentiveness. References are made to liberation theologians Gustavo Gutierrez, Jon Sobrino, and Ignacio Ellacuria.

⁸¹ PEPPARD, *Just Water*, 3.

⁸² PEPPARD, *Just Water*, 8.

Further in Chapter 1, Peppard advances into the problem of the universal versus the particular in the search for shared normativities. For water ethics, this is the challenge of bi-directionality between universal principles and concrete water decisions in local contexts. To address this problem, Peppard highlights the importance of the shared human experience of embodiment. She refers particularly to Edward Schillebeeckx and his notion of anthropological constants. His first anthropological constant – "the relationship to human corporeality, nature, and the ecological environment"⁸³ correlates to Peppard's use of the term 'embodiment.' Peppard argues for the rightful importance of embodied experience within social, historical and geographical realities. She sees, on the flip side, a danger in disembodied ['abstract'] theology. To drive home the importance of embodiment, she refers us to the Christian doctrines of Creation and the Incarnation, to Thomas Aquinas, and to the incarnational and sacramental theology of Louis-Marie Chauvet.

Peppard appears also to be seeking a non-relativistic foundational epistemology that is reverent towards the earth and based upon experience that is ecologically embodied and cognizant of our complex and interdependent biological history. After a suitable warning of the need for 'epistemic humility,' Peppard furthers the quest for a 'contextual epistemology' by drawing briefly upon feminist/womanist/ecofeminist authors Emilie Townes, Margaret Farley, Rosemary Radford Reuther, Sally McFague and Ivona Gebara. For her, Gebara "advocates a contextual epistemology in which the universal and the particular relate in nuanced

⁸³ PEPPARD, *Just Water*, 15.

ways, and which further develops and nuances Schillebeeckx's notion of anthropological constants: "Contextual epistemology upholds the tension between the local aspect of human knowing and its universal character."⁸⁴ Prior to these references, one should note that Peppard claims that Schillebeeckx navigated the universal-particular paradox more adroitly than most of the theologians of his generation. His cluster of constants is said to reveal what is required for a "livable humanity" and, as such, is not relativistic but instead "theologically central."

In the final section "Coda," Peppard offers 'principled insights' to serve as a starting point guiding ethical discernment about fresh water resources. Her first principle of ethical reasoning is water's importance and status as *sui generis* and *sine qua non* for life. Next comes "the principles of justice, sustainability, and equity for current and future generations"⁸⁵ within which the preferential option for the poor, and women and children deserve special attention. Third, "access to fresh water is a fundamental human right" and this principle is linked to water as a public good. Upon this it follows that water cannot be reduced to simply economic value, and that economic valuation must be subordinated to equity in distribution for current and future generations and ecosystems. Fifth, it is necessary to ensure public regulation of the water sector so that negative externalities are born by corporations rather than downstream stakeholders. The final three principles regard the precautionary principle, dwindling groundwater supplies, and government subsidies to industrial agriculture.

⁸⁴ PEPPARD, *Just Water*, 16-17.

⁸⁵ PEPPARD, *Just Water*, 186.

1.10 Applying Ethics in Water Governance

Water management in one form or another continues to function in a world where there are innumerable interactions between humans and water. Planet Earth currently has more than 845,000 dams, countless rivers and streams being regulated for water use, vast tracts of irrigated land, and extensive networks of urban water infrastructures. All of this is concurrent with water poverty affecting hundreds of millions, and with growing water crises. Much has been said so far about the need for a new water ethic as well as what considerations should be part of it. Much more needs to be said about how ethics can become more prominent in the actual daily and monthly management of water that is taking place. How might ethical engagement take place in the government agencies, policy shops, water commissions, and in regional, state and international water planning development? Here, one must pose a serious question as to whether a proposed solution such as getting values and ethics on the table for discussion can actually be done in a way that will change current water management. The problem being addressed has long and deep historical roots.

Andrea Gerlak et al. identified this problem when they argued in 2011 that "... the sharpest critiques of IWRM relate to its ethical dimensions. ... Engaging the ethical dimension of water governance requires very different processes than suggested by IWRM and other water "reforms" espoused within the water

resources community."⁸⁶ Meisch et al. agree on the crucial need to address the value dimension in water governance since water has different meanings in different social contexts. Doing this requires "understand[ing] the very concept of value in order to find ethical mechanisms to deal with value conflict, as well as establishing and clarifying the concept of *value-reflexive governance*, which transcends 'good governance' concepts."⁸⁷ They argue that the concept of good governance deals with norms to guide governance processes, yet leaves it implicit or unclear as to which values are at play. 'Good governance' can easily be insensitive to values held by governance participants.

Among the water ethics literature examined (this, of course, excludes water management literature with no reference to ethics), there are only a few approaches that show promise toward meeting the challenge of operationalizing water ethics. One of these is by Jie Liu et al. in a UNESCO-sponsored document *Water Ethics and Water Resource Management*. Another is a method of value-reflexive governance proposed by David Groenfeldt and Jeremy J. Schmidt. In "Ethics and Water Governance," Groenfeldt and Schmidt argue that "values are central to ordering water for the purposes of governance." "When values are not

⁸⁶ Andrea GERLAK et al. "Hydrosolidarity and Beyond: Can Ethics and Equity Find a Place in Today's Water Resource Management?" *Water International*, Volume 36, Issue 3, (2011); Also posted at www.researchgate.net/publication/232892831_Hydrosolidarity_and_beyond_Can_ethics_and_equity_find_a_place_in_today%27s_water_resource_management, 1-31, 15.

⁸⁷ Simon MEISCH, R. BECK, and T. POTTHAST, "The need for a value-reflexive governance of water," (Environmental Policy Research Centre, 2012 Berlin Conference on the Human Dimensions of Global Environmental Change) available at http://www.berlinconference.org/2012/?page_id=1060.

explicitly considered, governance norms lack orientation."⁸⁸ They point out that it is important to "recognize that a sufficient grasp of our values and the effects of legal and governance decisions are central to motivating responsive action."⁸⁹ A "values approach" is offered by the two as 'a perspective' that complements the other existing perspectives of water governance. Perhaps it would be better termed as a proposed method for water ethics.

Groenfeldt and Schmidt identify three principal existing water governance perspectives as being those of management, institutional capacity, and social-ecological systems. These are illustrated in a case study of the Santa Fe River in Arizona. A management perspective identifies both physical and social developments, such as how historical Spanish-colonial irrigation canals called acequias were supplanted by larger dams now impounding most of the river's flow. An institutional perspective shows "how evolving laws and rights regimes inflect governance with different political and economic domains of power."⁹⁰ Western water law based on prior appropriation and "beneficial use" legally permit the dewatering of the river for municipal water supply. A social-ecological perspective examines the dynamics and the context of the community and the river.

The authors argue that the values approach "connect[s] these other approaches to their own value systems and the ethical attitudes they engender."⁹¹

⁸⁸ David GROENFELDT and Jeremy J. SCHMIDT, "Ethics and Water Governance," *Ecology and Society* 18(1):14, (2013), 1. At <http://www.ecologyandsociety.org/vol18/iss1/art14/>.

⁸⁹ GROENFELDT and SCHMIDT, "Ethics and Water Governance," 6.

⁹⁰ GROENFELDT and SCHMIDT, "Ethics and Water Governance," 5.

⁹¹ GROENFELDT and SCHMIDT, "Ethics and Water Governance," 1.

They claim that this approach "enables an explicit dialogue regarding both the reasons and values affecting water, ethics, and governance."⁹² This is said to be possible since "[o]perative values linking social and ecological systems to governance norms are not particular to any one scale."⁹³ The values approach method unfolds in three steps. The first is to identify operative and inherited values underlying particular behaviors. The second is to reason about values. These two steps clarify tacit values and create a space for value discussions. In this discussion the reasoning used to support laws, policies, and practices is identified and consideration is made of "how alternate categories for defining the human–water relationship affect the ethic of governance."⁹⁴ The third step is to order water anew in a way that aligns local values with those needed for effective water governance. This involves explicitly incorporating, and where necessary adjudicating, competing value systems.

⁹² GROENFELDT and SCHMIDT, "Ethics and Water Governance," 6.

⁹³ GROENFELDT and SCHMIDT, "Ethics and Water Governance," 1.

⁹⁴ GROENFELDT and SCHMIDT, "Ethics and Water Governance," 6.

Chapter 2 A Critical Look at the Water Ethics Problematique

Chapter 1 consisted of a thematic perusal of what is being said about water ethics in the literature. In this chapter, I take a critical look into the diverse discourse on water ethics. This critical look is a search for coherence, a search for meta-ethical roots or foundations that can ultimately be appealed to in the need for resolution of complex water decision-making cases. As water is a cross-cutting and multidisciplinary field, varying viewpoints are normally expected. But when it comes to the many decisions of moral significance over water, ethics calls us to choose that which is true, good, and worthwhile. Thus it is important to assure that ethical decision-making over water issues and policy can be justified. To do so, it must resolve or supersede contraries and contradictions that come up between different ethical frameworks, and indeed in the philosophical thought underpinning them. For this critical examination I select a number of the more reflexive sources. For this selection, I found that precise search terms did not serve very well as criteria. Thus, from my experience of searches and readings in water ethics literature, I chose sources that reflect upon underlying problems in water ethics and that appear to seek some sort of grounding for normative water value judgments.

2.1 Malin Falkenmark

Globally renowned water expert and Senior Scientific Advisor to the Stockholm International Water Institute, Malin Falkenmark is seriously concerned

about the precarious situation and continual decline of the life support system on our human-dominated planet. Water is "the bloodstream of both the anthroposphere and the biosphere," she argues. Yet a lack of attention to the central linking role of water, a water-blindness, exists in most of the disciplines involved in water management. The crucial role of water as the key to socio-economic development and quality of life has not been truly understood.

Falkenmark traces this disconnect to inherited and biased ways of thinking that have brought about fragmentation and sectorization since the 17th century and Descartes. A system of silos now exists which concentrates on parts of the same reality – such as physics, chemistry or biology, to the detriment of the whole. This sectorization is perpetuated in university science and transmitted as a distinctive culture to succeeding generations. Falkenmark argues that "a fundamental shift in thinking is therefore needed urgently, to better bridge the partial realities addressed up until now."⁹⁵ Along with Carle Folke, Falkenmark calls for a new overarching "environmental conceptualisation" to compensate for these inherited weaknesses of past scientific development. They argue that the same tunnel vision is mirrored in the fragmentation of government systems, and that

[t]oday's semi-blind and partial management of the landscape with poor understanding of interacting natural processes at work leads to a number of ex-post-environmental side effects which often occur as surprises. They involve ethical issues, and often conflicting goals.⁹⁶

⁹⁵ MALIN FALKENMARK, "The Greatest Water Problem: The Inability to Link Environmental Security, Water Security and Food Security," *International Journal of Water Resources Development*, (2001), Abstract.

⁹⁶ Malin FALKENMARK and C. FOLKE. "The Ethics of Socio-Ecohydrological Catchment Management: Towards Hydrosolidarity" in *Hydrology and Earth System Sciences Discussions*, Copernicus Publications, 6 (1), (2002), 8-9.

The way forward, according to Falkenmark and Folke, will require "*socio-ecohydrological bridge-building*."⁹⁷

Since Falkenmark's paper, the advent of 'nexus thinking'⁹⁸ in the water domain may be of some help in reducing fragmentation and the inattention to the central linking role of water. However, beyond this, Falkenmark makes a deeper historical point that should not be missed. She refers to a multi-century tendency leading to disconnects and fragmentation and sectorization in sciences, and more generally in the academic world. In pointing back to Descartes (1596 – 1650), famous for his "mind-body" disconnect, Falkenmark is referring indirectly to underlying philosophical problems. Descartes was the initiator of the modern epistemological turn — a turn that sought a rational explication of human knowing. The root *Epistēmē* is the ancient greek word for knowledge and knowing. When we look more specifically at the human sciences that are recruited to support the ethical dimension of water issues and management, Falkenmark's point about a

⁹⁷ FALKENMARK and FOLKE. "The ethics of socio-ecohydrological catchment management," 9.

⁹⁸ Nexus thinking has become popular in the worlds of water policy, development, and research. The water–energy–food nexus (WEF) and variations such as "WEF plus environment + climate change" provide a broader paradigm of interdependent and interactive systems in the search for sustainability and human security solutions. See for instance HAYLEY LECK et al. *Tracing the Water–Energy–Food Nexus: Description, Theory and Practice*, 2015, at <http://onlinelibrary.wiley.com/doi/10.1111/gec3.12222/full> (accessed September 14, 2017). WEF nexus thinking also carries primordial values such as promoting a green economy, "an economy that values and enhances natural capital while simultaneously promoting economic growth and human well-being – the management of the water-energy-food nexus means fostering positive interdependencies and synergies values." Ref. ROBERT C. BREARS, *Green Economy: The WEF Nexus and Green Growth*, 2017, accessed on September 16, 2017 through the LinkedIn WEF nexus group and also at https://thewaternetwork.com/article-FfV/the-green-economy-and-the-water-energy-food-nexus-SG_4JXTp49MGN2vJ9ww9IA.

multi-century history of growing fragmentation of knowledge sectors will be of no small importance.

2.2 "Water Ethics: Foundational Readings for Students and Professionals"

Such fragmentation is evident in the book *Water Ethics: Foundational Readings for Students and Professionals*.⁹⁹ This book is an assembly of 20 different authors and sources giving their perspectives and approaches to water ethics. To bring some order to the articles, editors Peter Brown and Jeremy Schmidt have grouped them under five different sections entitled: 1) Dominion and the Human Claim to Water, 2) Utilitarianism, 3) Water as a Community Resource, 4) Water: Life's Commonwealth, and 5) Ethics In Complex Systems. These groupings themselves show how diverse the secular and religious approaches to water ethics can be. In part 2 for instance, there are articles on "Byzantine Heritage," "Water Ethics Perspectives in the Arab Region," "Which Rights are Right? Water Rights, Culture, and Underlying Values," and on "Women, Water, Energy: An Ecofeminist Approach."

Variety and diversity reflect the world in which we live. At the same time, *Water Ethics - Foundational Readings* provides a background for the challenges involved in inclusive water management and decision-making. The divergences in the book come out of different philosophical and religious approaches.

⁹⁹ Peter BROWN and Jeremy SCHMIDT, *Water Ethics – Foundational Readings for Students and Professionals* (Washington DC: Island Press, 2010).

Adjudicating water decisions requires some kind of higher viewpoint or foundational way of clarifying and justifying the way forward.

Rajenda Pradham and Ruth Meinzen-Dick, in "Which Rights are Right?," argue that beyond being simply an academic issue, there are numerous values and meanings of water that are reflected in a number of ways. Legal frameworks at international, state, and project levels along with religious and customary values and laws all have a part to play in the water field. Narrowing the focus of this spectrum to simple economic considerations can cause problems, whereas a wider focus is preferred. They also raise an important point, that "the discussion of human rights to water is usually limited to *use rights*, primarily for domestic purposes, whereas it is *decision-making rights* that are at the core of governance issues."¹⁰⁰ The extent to which women and marginal groups are included in these rights affects the equity and sustainability of water use. In their conclusion, Pradham and Meinzen-Dick argue that water debates have become somewhat polarized into three principal circles of interest - those stressing water for human rights, those arguing it is an economic good, and those giving priority to water for nature:

[t]he ensuing debate about priorities for water use and management has been polarized, to some extent, between those who stress the value of water as a source of human welfare and those who argue that it should be treated as an economic good, with a third group pushing for awarding priority to water for nature.¹⁰¹

¹⁰⁰ Rajenda PRADHAM and Ruth MEINZEN-DICK, "Which Rights are Right? Water Rights, Culture, and Underlying Values," in *Water Ethics – Foundational Readings*, chapter 5, 55 (italics mine).

¹⁰¹ PRADHAM and MEINZEN-DICK, "Which Rights are Right?," 53-54.

"Which Rights are Right?" does not offer a satisfying discussion on how values and rights are created, recognized, and treated in ambiguous governance situations. What metaethical foundations are there to assist in deciding between such a variety of rights, cultures, laws, and underlying values?

2.3 Peter Brown and Jeremy Schmidt

Editors Brown and Schmidt conclude *Water Ethics – Foundational Readings* with a think-piece in which they argue for "An Ethic of Compassionate Retreat." They contend that there needs to be "a fundamental shift in perspective within water management."¹⁰² Modern management's focus on scientific and technological advances was coincidental to a declining importance assigned to cosmology, religion, and ethics. These, however, formerly provided context for the ends, goals, telos of human knowledge and action. Brown and Schmidt's proposed ethic of compassionate retreat would reset the narrative of the role of humans in a more modest way, mindful of two factors. The first is an awareness of scientific uncertainties and the potential detrimental effects of acting upon limited knowledge. The second is the need for a revised view of the human relationship and duties towards nature — humanity "as an increasingly influential and potentially responsible member of Earth's living communities."¹⁰³ The editors frame the changes needed in human knowledge by distinguishing between Aristotle's terms for "scientific knowledge (*episteme*), technological know-how

¹⁰² Peter BROWN and Jeremy SCHMIDT, "An Ethic of Compassionate Retreat," in *Water Ethics - Foundational Readings*, chapter 24, 265.

¹⁰³ BROWN and SCHMIDT, "An Ethic of Compassionate Retreat," 266.

(*techne*), and practical wisdom (*phronesis*)."¹⁰⁴ *Phronesis* is a prudential kind of reasoning "able to deliberate about what is conducive to the good life in general."¹⁰⁵ They argue that modernity, marked by growth and dependence on scientific knowledge and technological know-how, has been lacking in practical wisdom. A revised perspective would situate humans within the systems they seek to manage and would help them to grow in practical wisdom as they encounter complexity and uncertainties. Modern water management arose out of the modern Western narrative of science and control over nature and continues to carry this narrative in several different ways. Water and its values continue to be seen through an anthropocentric lens. But now, the current water and climate crisis of the Anthropocene presents humanity with a fundamental crisis of values.

Brown and Schmidt further argue that actions guided by ethical systems that are deductive and rest on a single and/or overarching principle are not adequate to the reality of complex and evolving systems (both ecological and social). These systems are characterized by flexibility and adaptability. Brown and Schmidt assert that water ethics cannot be deductive and rest on a single and/or overarching principle.

It should be flexible and able to deal with evolving complexity. On this count they also argue for the use of multi-variate decision systems to help account for complexity.¹⁰⁶ Beyond improved decision-making systems, they contend that water

¹⁰⁴ BROWN and SCHMIDT, "An Ethic of Compassionate Retreat," 266, (the terms as interpreted by the editors).

¹⁰⁵ BROWN and SCHMIDT, "An Ethic of Compassionate Retreat," 266.

¹⁰⁶ I am familiar with multivariate modeling as a tool in major studies at the International

decision-makers are in need of a virtue ethic. They need to embody wisdom, a much-needed phronesis, and humility:

persons who act out of recognition that scientific and technological knowledge must be situated in relation to deliberations on ethics, fairness, temperance, and justice and which include great humility regarding the types and ends of human knowledge.¹⁰⁷

For Brown and Schmidt, a new water ethic can be built with the existing stones of our inheritance of rich moral teachings. These can become elements of a new narrative and ethic that promotes a flourishing earth.

2.4 Martin Kowarsch

Martin Kowarsch carried out a review of water ethics literature in 2011 as part of a German project called "Sustainable Water Management in a Globalized World". Along with other researchers, Kowarsch prepared three working papers, the second of which is titled, "Diversity of Water Ethics – a Literature Review."¹⁰⁸ Of interest for this thesis are the reasons for Kowarsch's research and his observations and conclusions. Kowarsch notes that this effort is a 'transdisciplinary' philosophical exercise that is of interest, not only academically, "but also [is] very useful for the solution of concrete water conflicts and

Joint Commission. Such modeling is of enormous benefit working with complex data and analysis and ordering factors, criteria, and metrics of scenarios. However, the dream of decision systems, and of ones that could bypass the need for attentive and reflexive human value decisions, carry huge risks and need grounding in empirical cognitive theory.

¹⁰⁷ BROWN and SCHMIDT, "An Ethic of Compassionate Retreat," 280.

¹⁰⁸ Martin KOWARSCH, "Diversity of Water Ethics – A Literature Review" (Second Working Paper prepared for the research project Sustainable Water Management in a Globalized World, funded by Germany's Federal Ministry of Education and Research, 2011) - accessed online in 2014 at <https://www.hfph.de/igp/proceedings2011/view>.

management problems."¹⁰⁹ Normative judgments in transdisciplinary water research and water policy require, he argues, a "high transparency of normative judgments within transdisciplinary water research, well-founded ethical reflections and a clear understanding of the implications of different ethical standpoints for water management options."¹¹⁰

Kowarsch found a diversity of water ethics approaches in the existing literature, which he grouped under the headings of utilitarianism, liberal equality, libertarian and threshold concepts, Feminism, Marxism, priority approaches, physiocentric ethics, communitarian ethics, pragmatist ethics and non-philosophical water ethics. Religious and cultural water ethics were placed under the 'non-philosophical water ethics' heading. In his evaluative comparison, Kowarsch finds that there is one common assumption in all sources — the moral equality of all human beings. The group of ethical objects then expands beyond humans with the physiocentric concepts.

Kowarsch finds problems across water ethics literature. This includes as well the UNESCO sponsored collaborations of Priscoli, Dooge and Llamas in 2004 and Selborne in 2000. He argues that, although they provide thoughtful and more specific norms for water management, they "unfortunately do not provide a clear ethical framework."¹¹¹ Kowarsch adds that "such approaches to water ethics rarely provide a consistent, coherent, comprehensive or at least well-founded water

¹⁰⁹ KOWARSCH, "Diversity of Water Ethics," 1.

¹¹⁰ KOWARSCH, "Diversity of Water Ethics," abstract, 1.

¹¹¹ KOWARSCH, "Diversity of Water Ethics," 34.

ethic."¹¹² He notes that most of the literature on “water ethics” is written by scholars who are not philosophers, and that this may come at the expense of ethical reflection.

Kowarsch summarizes what he finds to be flaws of the current literature on water ethics. First, "most of the ... water ethics do not make explicit on which societal level their claims and demands should be implemented: individual level? Community level? Global level? All three of them seem necessary." Secondly:

"More worrying is another flaw of most concepts presented here: from a philosophical point of view, there are quite a lot of water ethics approaches, which do not have a clear, consistent and coherent position. Some simply mix several different principles which are not really connected with each other."¹¹³

Thirdly, "there is a lack of comprehensive water ethics" that match the complexity of the water crisis and all the interconnecting factors. And fourth, "many water ethics also lack a method of how to apply their claims and demands to specific water-related situations." ¹¹⁴

2.4.1 A Pragmatic 'Triangle Of Justice' as a General Moral Standpoint

Kowarsch goes further that providing a review and critique of water ethics literature. He describes his philosophy as being rooted in the pragmatism of John Dewey. As a Deweyan pragmatist, he proposes a concept of justice in the form of a conceptual triangle of justice for use in solving water ethics problems. The

¹¹² KOWARSCH, "Diversity of Water Ethics," 34.

¹¹³ KOWARSCH, "Diversity of Water Ethics," 40-41.

¹¹⁴ KOWARSCH, "Diversity of Water Ethics," 41.

triangle concept of justice consists in three dimensions of justice: 1) basic needs fulfillments, 2) sufficient opportunities, and 3) fair procedures. Both current and future generations are to be considered in each of these dimensions. For Kowarsch, the triangle of justice is valid for global and intergenerational issues of justice, and constitutes a "general moral standpoint" based on human rights. "As distinct from other approaches to justice," he writes, "our concept of justice comprises everything that is demanded ethically with regard to relations between people."¹¹⁵

A first observation of Kowarsch's triangle of justice notices its sophistication in that it pertains not only to basic needs fulfillment, but also to sufficient opportunities for development and to fair procedures. As well, justice is not only for present generations, but must consider future generations. Missing, however, is the need for restorative justice for those deprived or wronged by water decisions. A further oversight appears to be the anthropocentric nature of the general moral standpoint proposed by Kowarsch. How are nature, water and ecosystems adequately protected? A more basic question is: How would this triangle of justice concept serve as a comprehensive basis for water ethics? Are not further metaethical¹¹⁶ and epistemological foundations needed?

2.5 Nelke Doorn

¹¹⁵ KOWARSCH, "Diversity of Water Ethics," 42.

¹¹⁶ Metaethics deals with methods and the fundamental ontological and epistemic nature of ethics/morality.

Nelke Doorn points to the need for a broadening of the field of players in water ethics since water carries a multitude of meanings and values for human communities. He finds that the current debate on water ethics is obscured by unclear conceptions.¹¹⁷ One unclear conception is the false opposition that has often been made between water commodification and human rights. Doorn argues that, along with necessary sources of profound knowledge of water, there is a role for philosophers. This is especially the case if the multidisciplinary and ethical aspects of water governance are to be addressed adequately and "with philosophical rigor."¹¹⁸ Doorn agrees with Kowarsch regarding the lack of comprehensiveness in water ethics literature. He writes:

Though interesting, these books suffer from the same limitations as the academic papers. That is, they do not contain a comprehensive account of water ethics, nor do they provide a clear, consistent, coherent position. The problem is that most literature on "water ethics" is actually written by scholars that are not trained as philosophers, which may sometimes come at the expense of ethical reflection.¹¹⁹

Doorn argues for a multidisciplinary approach that includes disciplines like law, hydrology, policy science, and new institutional economics. This multidisciplinary enterprise need not be superficial. As it must address the water crisis at various levels of generality and specificity, there is need for "a proper account of water

¹¹⁷ Nelke DOORN, "Water and Justice: Towards an Ethics of Water Governance", *Public Reason* 5 (1) (2013), 97 - 114,. Accessed August 21, 2014 at http://ethicsandtechnology.eu/wp-content/uploads/2013/04/Doorn2013_PR_Water-and-justice-towards-an-ethics-of-water-governance.pdf.

¹¹⁸ DOORN, "Water and Justice," 108.

¹¹⁹ DOORN, "Water and Justice," 98.

ethics"¹²⁰ and this must have "various levels of abstraction." Such various levels are known by different names. Some refer to moral background theories, moral principles, and considered judgments. Others refer to basic ethical principles, development goals, and specific institutions, projects, and strategies.

Doorn's idea of a proper account of ethics for water issues includes the full tri-partite division of ethics. According to his footnote 10, different names are used for these levels: "(1) basic ethical principles, (2) development goals and models, and (3) specific institutions, projects and strategies. Others call these levels (1) moral background theories, (2) moral principles, and (3) considered judgments."¹²¹ For Doorn, the most abstract level is 'basic moral concepts'. These for Doorn are concepts such as justice, autonomy, and democracy. These, he argues, need to be further developed with the help of political philosophers, applied ethicists, and scholars of other disciplines.

A further question could be raised regarding Doorn's "basic moral concepts." Is the basis of morality at the level of concepts and principles? The concepts mentioned have been developed by humans in history. As such, they are products of human thought and become one among different sets of principles and moral concepts. There still remains a need to integrate these at the meta-ethical level by going further into to the root of ethics.

Another, and arguably more complete account of the divisions of ethics refers to metaethics, normative ethics, and applied ethics. This division implies an

¹²⁰ DOORN, "Water and Justice," 108.

¹²¹ DOORN, "Water and Justice," 108, footnote 10.

ordering wherein the foundational issues of metaethics are primordial to establishing general moral principles. Applied ethics comes into play when these principles need to be applied in practice. Ethical discussion that finds itself mired between different camps usually has a problem of differing yet implicit metaethical foundations. Metaethics, in dealing with methods and the fundamental ontological and epistemic nature of morality, goes beyond semantics and beyond Doorn's basic moral concepts.

2.6 Schmidt and Peppard

A thoughtful review of water ethics literature was carried out by Schmidt and Peppard in their 2014 paper "Water Ethics on a Human-Dominated Planet: Rationality, Context and Values in Global Governance."¹²² In this paper they argue that there will always be multiple viewpoints in water ethics discourse. This is because water ethics is an emerging discourse in an "interdisciplinary yet distinct space at the juncture of philosophical norms, social practices, hydrological constraints, and practical demands."¹²³ Schmidt and Peppard highlight how ethical reflection on water has occurred across various disciplines and contexts. As well, there is a range of theoretical registers and cultural inflections. They argue that there are further questions to be asked "about how water ethics intersects with

¹²² Jeremy SCHMIDT and Christiana PEPPARD "Water Ethics on a Human-Dominated Planet: Rationality, Context And Values in Global Governance", *Wiley Interdisciplinary Water Reviews, Water* 2014, 1:533–547.

¹²³ SCHMIDT and PEPPARD "Water Ethics on a Human-Dominated Planet," 533.

broader philosophical and political ethics of nature, the environment, or sustainability"¹²⁴ in the context of our human-dominated planet of the 21st century.

Schmidt and Peppard argue against a Western model of rationality "the key tenets of which are universality and necessity." For them "[r]ational approaches to ethics, especially those approaches that privileged thought over experience or over embodied, practical reason"¹²⁵ are inadequate. For Schmidt and Peppard, freshwater is always contextual since it is subject to multiple factors of geography and hydrology, and of legal paradigms, cultural norms, technological interventions, and policy frameworks. All things considered, they assert:

Frankly, we doubt there is any general water ethic that can be specified absolutely for all circumstances. Only in the interplay of grounding principles and their pragmatic mobilization in specific contexts can a viable water ethic be articulated.¹²⁶

Concerned with whether and how water ethics discourses might attain coherence in the face of such multiplicity, Schmidt and Peppard identify some trajectories and themes for water ethics going forward. They argue that, in a world where social and ecological systems are characterized by change rather than stability, water ethics will need to be adaptable and flexible. It will not be a "rote application of pre-established ethical algorithms."¹²⁷ Instead, it will be a dynamic enterprise based on continual learning. Two guiding principles are offered as a skeleton of a water ethic that will always need to be enfolded. First, freshwater is

¹²⁴ SCHMIDT and PEPPARD, "Water Ethics on a Human-Dominated Planet," 540.

¹²⁵ SCHMIDT and PEPPARD, "Water Ethics on a Human-Dominated Planet," 534. I note here in these points about Western rationality and its "key tenets" a need for good cognitional theory.

¹²⁶ SCHMIDT and PEPPARD, "Water Ethics on a Human-Dominated Planet," 540.

¹²⁷ SCHMIDT and PEPPARD, "Water Ethics on a Human-Dominated Planet," 542.

both *sui generis* and *sine qua non*. Second, it is always contextual. Beyond these two starting principles, they argue that water ethics will "continue to be characterized by *moral and ethical bricolage* and ongoing discernment of how norms and context intersect."¹²⁸

Schmidt and Peppard add that there will be a "need for virtues grounded in an esthetic of care and justice, and not mere expediency."¹²⁹ Such virtues are demonstrated in the pragmatic approach of Aldo Leopold who pioneered linking experimental policies, place-based values, and social learning. Also, water ethics will need to claim its own biases. Bias, in the context of this paper, refers to 'metaphysical blindspots' in Western ethics. These are not just unique to water. "[W]ater is symptomatic of more general deficiencies that have at least as much to do with *how ethics was being done* and *by whom* as with what are identified as topics of concern."¹³⁰ Water ethics will thus need to be attentive to major themes of environmental justice "especially in the registers of gender, colonialism, and uneven distribution of economic and material burdens and benefits."¹³¹

Schmidt and Peppard validly contribute to identifying problems in water management and problems stemming from the history of Western ethical reasoning. However, they do not offer an explanatory solution for faulty epistemological premises and "metaphysical blindspots." The way forward they

¹²⁸ SCHMIDT and PEPPARD, "Water Ethics on a Human-Dominated Planet," 540 (*italics are mine*).

¹²⁹ SCHMIDT and PEPPARD, "Water Ethics on a Human-Dominated Planet," 542.

¹³⁰ SCHMIDT and PEPPARD, "Water Ethics on a Human-Dominated Planet," 534 (*italics are mine*).

¹³¹ SCHMIDT and PEPPARD, "Water Ethics on a Human-Dominated Planet," 540.

propose is that "ethical discourse itself needs to evolve with ecological knowledge and practical wisdom."¹³² Along the way, increased attention is needed to claim one's own biases and to be attentive to a broader range of theoretical registers and cultural inflections. Evolving water ethics in these multiplicities will continue being characterized by "moral and ethical bricolage."

2.7 Simon Meisch

German philosopher Simon Meisch published a rigorous analysis of water ethics as a chapter in the 2015 book "Ethics of Science in the Research for Sustainable Development."¹³³ In that chapter, Meisch asserts that the philosophical reflection on morals and ethics can be further differentiated into metaethics, descriptive ethics, and normative ethics. Metaethics, for Meisch, "explores the language and logic of moral discourses and the methods of moral arguments."¹³⁴ Metaethics for Meisch is the epistemology of ethics. It reflects on the necessary preconditions for ethical argumentation. He argues that the boundaries between metaethics and normative ethics are fluid, but that metaethics, in analyzing the language and logic of normative ethics, would investigate whether certain moral claims could be generalised, or whether or not it is possible to rationally discuss moral claims at all.¹³⁵

¹³² SCHMIDT and PEPPARD, "Water Ethics on a Human-Dominated Planet," 542.

¹³³ Simon MEISCH, "Water Ethics – Reflections on a Liquifying Topic," in: *Ethics of Science in the Research for Sustainable Development* (Baden-Baden: Meisch, Simon/ Lundershausen, Johannes/ Bossert, Leonie/ Rockoff, Marcus, 2015) 353-376.

¹³⁴ MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 357-358.

¹³⁵ MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 359.

A typical metaethical distinction is, for instance, *cognitivist* versus *non-cognitivist* ethical approaches. Cognitivist approaches consider ethical judgments to be truth-apt and valid independently of the person making them, whereas non-cognitivists deny this possibility. For them, ethical judgments are personal and related to feelings, personal taste, or societal conventions. Meisch regards the cognitivist – non-cognitivist opposition as a matter of moral realism. He asks whether "normative statements on water [are only] of subjective and emotional nature or are they accessible to rational cognition and argumentation?" Referring to Kowarsch, he notes that "many normative approaches to water seem to employ non-cognitivist arguments that refer the task of passing value judgments rather to 'gut feeling' than to an ethical discourse."¹³⁶ Further, Meisch writes "I want to stress that it is possible to choose a cognitivist approach if one avoids a naturalistic moral realism that identifies moral attributes as natural, descriptive attributes."¹³⁷ Meisch does not delve further, however, into these difficulties.

Another metaethical issue for Meisch is whether or not moral principles can be universally valid. A universalistic approach claims that it is possible to argue for morally right principles that can be valid independent of historical time and geography. Relativistic approaches on the other hand argue that ethical judgments are inevitably connected to cultural and historical contexts. "Relativistic approaches hold the metaethical view that ethical judgments about what is right or good are only valid relative to the standards of an individual or group holding this

¹³⁶ MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 364.

¹³⁷ MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 359.

standard."¹³⁸ Relativistic positions run into self-contradictions in their metaethical and normative assumptions, Meisch contends. If conflicting ethical stances of different persons or societal groups are valid, another contradiction arises in that they all must argue for the universal validity of the principle of tolerance.

According to Meisch, Schmidt and Peppard's 2014 review of water ethics remains ambiguous in regards to ethical relativism. Schmidt and Peppard had recognized problems with Western epistemological foundational approaches and how these could adequately serve the cross-cutting complexities involved in water ethics. Meisch contends that "[w]hile Schmidt & Peppard (2014) seem to argue for a cognitivist ethics, they are ambiguous with regard to ethical relativism that they regard as a promising pathway to deal with water issues in the 21st century."¹³⁹

Schmidt & Peppard (2014) argue against ethical and epistemological foundational approaches to water that, according to their view, have dominated human water handling since the Enlightenment. They criticise water management based on a Cartesian, Christian, male, Western thinking that favours discourses overemphasising efficiency and aggregate utility. From that, they reject universalist (utilitarian) ethics, rationalism and scientism [sic].¹⁴⁰

Meisch claims to follow a philosophically developed ethical approach that is both cognitivist and non-relativistic. He holds that ethics cannot be applied with a simple deductive sequence. It must depend on normative and descriptive premises and universalistic ethical norms need to be enfolded and specified within social contexts.

¹³⁸ MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 360, footnote 5.

¹³⁹ MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 364.

¹⁴⁰ MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 364.

The idea of ethics underlying this paper is one that believes that universalistic ethical norms have to be enfolded and specified in social contexts. Accordingly, one does not 'apply' ethics in a deductive sequence and will always come to the same moral judgments regardless of time and space ... Ethical judgments depend on normative premises and descriptive premises.¹⁴¹

Water ethics, for Meisch, is currently developing along two distinguishable tracks, both of which strive for improved and ethically reflected water practice. These tracks are solution-oriented water ethics and critically oriented water ethics. The solution-oriented approach to water ethics tries to change the world around us to make it more sustainable, but within a realm of normative issues reflecting the status quo characterized by liberal market-based social structures and the science-based, technocratic paradigm.¹⁴² It tends towards a science-technology problem-solution-pattern. Water ethics approaches that are critical strongly question the status quo. They put greater emphasis on the social construction of human-water-interaction and the role of power relations. They seek alternative social and scientific approaches and deal with different, non-market-based social orders regulating water.

For Meisch, "dealing with water is an interdisciplinary and transdisciplinary business – and water ethics needs to be part of it when it comes to implicit and explicit normativities and moral judgments."¹⁴³ A "more comprehensive" understanding of water ethics is to be sought that is both critical and solution-oriented at the same time. Meisch contends that the "critical perspective would

¹⁴¹ MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 360.

¹⁴² See MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 366.

¹⁴³ MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 370.

prevent emerging water ethics of narrowing down thematically and socio-theoretically to the present (scientific, market-liberal) status quo of water governance and science."¹⁴⁴ Along with the solution-oriented perspective, conceptual engagement in application-oriented ethics can help bring greater reflective power to assessing lived water practices and providing rationale, if possible, for new practices. "Water ethics can take sides in many respects and be committed to a fairer social practice."¹⁴⁵

For Meisch, value-reflexive water governance must take all stakeholders seriously and assess their arguments for ethical justification. It must determine the relevancy of different kinds of values in the debate on water, those that are to be included or excluded. Finally, to justify ethical judgments, value-reflexive water governance must evaluate priority among differing values, as for instance, values coming from scientific, technical, economic, cultural, and religious sources. How are these judgments to be grounded in metaethics and epistemology? Meisch does not tackle these problems in his critical analysis.

2.7.1 Sustainable Development as an Ethical Framework

Meisch contends that a basic ethical framework is already provided by the broadly accepted concept of sustainable development. It is from within this framework that value debates are to be structured requiring stakeholder participation. Earlier in this thesis we saw that IWRM and other water management

¹⁴⁴ MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 371.

¹⁴⁵ MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 371.

approaches are already considered to be based on sustainable development. The concept is considered to be a *sine qua non* for water governance and management discussions. Because it establishes an ethical direction - that of sustainability - it could be considered an 'ethical frame,' or a principle of prime importance. Meisch succinctly contends that

[t]he concept's normative core is the idea of inter- and intragenerational justice in the face of decreasing natural resources, the ecosystems' limited capacity to absorb human emissions, and the ongoing environmental destruction. [And further ...] [a]ny conception of and eventually any political programme based on sustainable development has to refer to an ethical approach in order to determine which moral, legal and political obligations emerge from the concept of sustainable development.¹⁴⁶

There are drawbacks, however, in that sustainable development as a concept today often remains within a theoretical status with many opposing interests claiming to be under its banner. Another drawback is that sustainable development as a framework does not provide an adequate metaethical basis for ethical deliberations.

Again, for Meisch, metaethics is the epistemology of ethics and reflects on the necessary preconditions for ethical argumentation. Critical approaches in water ethics need to be able to critically discuss epistemological and ethical foundations. Water ethics needs to be able to evaluate moral sentences or judgments as correct or incorrect according to epistemological criteria. Meisch wisely recommends that greater attention be given to questions of metaethics and

¹⁴⁶ MEISCH, "Water Ethics – Reflections on a Liquifying Topic," 368.

moral community. As it appears, there remains much work to do on these essential aspects of water ethics.

2.8 Summary of Problems, Further Questions, and Needs of Evolving Water Ethics

In 2001, water expert Malin Falkenmark contrasts the precarious situation and continual decline of Earth's water dependent life support system with what she sees as a major problem impeding the coordinated responses needed at the level of the problems. That problem, she argues, is a multi-century fragmentation and sectorization of knowledge domains in the academic world. She contends that it originates in modern history since the time of Descartes and it has been propagated through history a resultant growing fragmentation and turf skirmishes within academia. For Falkenmark, this "tunnel vision" is reflected also in the fragmentation of government systems.

Fragmentation and sectorized approaches are quite evident in the first collection of readings on water ethics in the 2010 book *Water Ethics: Foundational Readings for Students and Professionals*. Divergences within this collection reflect in part Falkenmark's concerns, although her concerns centred principally on science and management of water. The *Water Ethics* collection extends more broadly into the human sciences and its evident differences go beyond the simple perspectival variety to differences in philosophical and religious approaches.

A think-piece within *Water Ethics* by editors Brown and Schmidt argues that a new water ethic should be flexible and able to deal with evolving complexity.

They argue that actions guided by ethical systems that function by deduction from single and/or overarching principles are not adequate for the complex reality of evolving ecological and social systems. For Brown and Schmidt, water management reflects the narrative of modern Western society. This narrative has grown in an unbalanced way with an overreliance on scientific theoretical knowledge and technical know-how to the detriment of practical wisdom (*phronesis*). *Phronesis*, as they explain it, is oriented to human ends and better able to deliberate about what is conducive to the good life in general. A new water ethic must incorporate more *phronesis* wisdom. Water managers, they argue, need humility regarding the types and ends of human knowledge and virtues in relation to deliberations on ethics that include fairness, temperance, and justice.

Can a new water ethic and narrative be built from our inheritance of rich moral teachings? Brown and Schmidt believe that to be part of the way forward. Gary Chamberlain, in his 2008 book *Troubled Waters* also argues that religious and cultural sources cannot be neglected. On the contrary these valuable resources can be interpreted anew and take their place within a healthy water ethos. Chamberlain points out that even if a small percentage of the 5 billion belonging to the major religions were to become knowledgeable of the place water holds in their own traditions, and became motivated to act, who can imagine what changes might happen?

Are the water ethics proposed in the literature coherent and comprehensive enough? Martin Kowarsch, in his 2011 review of water ethics literature believes

not. He found a lot of water ethics approaches lacking a clear, consistent, and coherent positions, with some simply mixing different and unconnected principles. As well, many water ethics also lack a method or framework for application to specific water-related situations. The complexity of the water crisis and all the interconnecting factors calls for a coherent and comprehensive account of water ethics. Part of the problem identified by Kowarsch is that most writers on “water ethics” are not trained as philosophers and this sometimes comes at the expense of ethical reflection.

For Nelke Doorn, the current debate on water ethics is obscured by unclear conceptions and consequently false oppositions like the one between water commodification and human rights. Doorn emphasizes a need for philosophical rigor and a full and proper account of ethics. He argues for the involvement of political philosophers and applied ethicists and scholars of other disciplines with a strong conceptual method. He believes that this can further the development of what he calls necessary basic moral concepts at the most abstract such as justice, autonomy, and democracy.

Schmidt and Peppard in 2014 argue for a water ethics unconstrained by modern Western rationality with what they take to be its key tenets of universality and necessity. They argue that these rational approaches are inadequate, especially when thought is privileged over experience. By experience, they mean embodied contextual experience. They point out that freshwater is always contextual within multiple hydrologic, geographic, cultural, legal and policy factors.

Social and ecological systems are characterized by change rather than stability, so water ethics will need to be adaptable and flexible - a dynamic enterprise based on continual learning. Water ethics cannot be an application of pre-established ethical algorithms. It will always have multiple perspectives from multiple actors, and continue to be characterized by moral and ethical bricolage.

Meisch argues that value-reflexive water governance must receive all stakeholder input seriously and assess their arguments for ethical justification. This involves assessing which values are relevant in the debate on water, which are excluded, and what should be given value. It is necessary to justify moral judgments rationally. Meisch brings up meta-ethical questions for water ethics, most importantly the oppositions of universalism vs. relativism and cognitivist versus non-cognitivist ethics. Meisch takes Schmidt and Peppard to task for being ambiguous with regard to ethical relativism. He highlights the challenge involved with water, which consists in finding an ethical frame that acknowledges different perspectives on values and a good life, and that formulates universal ethical principles to structure value debates.

2.8.1 Some Critical Questions for the Discourse

Given these problems in the discourse of water ethics authors, further questions could be asked that could be helpful in moving towards resolution of their arguments. In light of the work of Falkenmark, Brown and Schmidt, and Schmidt and Peppard, one could ask whether there is a better explanatory

account of human knowing than accounts based on Aristotle or on the incomplete epistemological turn of the early Enlightenment period of Descartes to Kant?

Chamberlain, and others have argued that a new water ethic might be built using our rich inheritance of moral and religious teachings. Results from such a long-term endeavour, however, are needed as soon as possible. In participative regional and transboundary water management around the globe, various cultures and religious identities are called to seek in common non-conflictual water solutions. This is an endeavour of a trans-cultural and inter-religious nature. What could be the common ground for the cognitive and moral aspects of these discussions and dialogues?

In light of Kowarsch's review pointing to a lack of coherent and comprehensive water ethics, we can ask some further questions. Is Kowarsch's pragmatic approach of a refined triadic concept of justice coherent and comprehensive enough to provide a basis and framework for water ethics? Does it comprise a "general moral standpoint" as claimed? Can it integrate different cognitive and moral methods and principles? Would it serve adequately for complex and contested cross-cultural water decisions? How might a triangle of justice with an anthropocentric basis address and protect the full ecologic community? Is there not a need for more fundamental metaethical and epistemological foundations?

Doorn highlights the need for philosophical rigor and a full and proper account of ethics for water. What is a full and proper account of ethics? Do basic

moral concepts like justice, autonomy, and democracy as proposed by Doorn, even when newly examined in light of water issues - do these constitute a sufficient comprehensive basis for water ethics? Doorn argues for greater involvement by political philosophers, applied ethicists, and scholars of other disciplines. Is it realistic to imply that a diversity of human sciences and philosophy scholars might bring in a new method or methods capable of achieving higher viewpoints that can integrate such a vast, diverse, and evolving field? Will this proposed direction overcome longstanding disagreements over epistemology and the human person that exist in their own camps? Given this and the fragmentation already discussed, how is one to reconcile a diversity of methods and frequently conflicting conceptual results?

Schmidt and Peppard bring to light the challenge of water ethics in a complex evolving world of hydrological, social, and ecologic contexts. They do so with an appreciation of "metaphysical blindspots" evident in the historical unfolding of Western ethics in modernity – a history of colonialism, classicism and exclusion, and abstract rationalism. Those on the underside of history have suffered the consequences as victims of 'ethically' justified totalitarian ideologies, racial bias, and economic colonization. Ongoing *bricolage* working with multiple perspectives and codifications is considered to be the inevitable way forward. With this history and direction in mind we can ask how it can be possible for emerging water ethics to arrive at objectivity? What is the normativity serving the '*bricoleurs*'? We can also ask if "embodied experience" really is knowing? Also, in order to properly

consider concrete context, is it necessary to elevate practical reason above theory?

The thorny problem of "the universal and the particular" was discussed by Peppard in her book *Just Water* with no explanatory solutions given. There was, of course, a valuable counsel of epistemic humility. Given the necessity in water ethics of working with both the concrete particular and the universal – how can these both be better accounted for in the workings of the human mind? Universals are necessary according to Meisch who finds the account of Schmidt and Peppard to be ambiguous. This discussion points to a need for grounding water ethics in a way that does not compromise truth, reality, and objectivity.

There is also a question of how to deal with different "kinds" of values. Values cannot be compared mathematically. They do not fit well with reductionist approaches to the world. A flattening of diverse sets of values through a reductionist approach would be inadequate. Is there a way of comparing values? Is there a way of finding some order and relationship between different values such as vital, social, cultural, personal, or religious values? In Chapter 3 I will look at what Lonergan proposes as a non-reductionist way of relating different kinds of values.

A common tendency found across the water ethics discourse has been that of bringing forth concepts and principles as a foundational framework for water ethics. But something seems missing in all this. Is it not the conscious human subject? The subject of water ethics? Who is doing the seeking, the thinking, the

valuing? How do they do this? Regarding the subject-object referent of the water ethics discourse, it appears the subject has gone missing. A lack of attention to the intentionality of human consciousness points to problems like conceptualism, objectivism and perceptualism. How does the human subject come to know objectively, and to deliberate and decide on value? For more clarity, these questions will be further examined in relation to Lonergan's account in Chapter 3.

2.8.2 A Short List of Needs and Criteria for Evolving Water Ethics

My examination of the current water ethics literature in Chapters 1 and 2 has brought out a number of needs and possible criteria that could be useful in seeking to achieve a more comprehensive and well founded water ethics. The list developed below is not prioritized or ordered in any way. Accordingly, Water Ethics needs to be:

1. able to go beyond utilitarianism, being more inclusive and participatory and involving more than economic, legal, and political values,
2. aware of biases and blindspots at the very centre of water governance and policy,
3. interdisciplinary and transdisciplinary, capable of dealing with fragmentation and sectorization in the natural and human sciences,
4. not anthropocentric,
5. embodied and contextual rather than disembodied and abstract
6. able to work flexibly across all scales from local to universal,
7. able to distinguish and adjudicate in a field of values of differing orders – vital, social, cultural, personal and religious values,

8. capable of critically and explicitly examining the presuppositions and values of water managers, decision-makers, and political/economic systems,
9. able to give ethically justified reasons for water decisions at scales involving multiple cultures and religions,
10. grounded and not relativistic — having instead a normative basis with a well founded account of objectivity for knowing and moral decision-making.

2.8.3 Water Ethics Needs and Correlative Terms to Unpack from Lonergan

Analysis of the above list can bring about a reordering in a way that brings together similar points and better correlates them with pertinent parts of Lonergan's work. The reordered list found in Table 1 can serve as a preliminary guide to the terms and relations to be explored in Lonergan's work.

<u>Water Ethics Needs</u>	<u>Some Lonergan terms to unpack</u>
Beyond Anthropocentrism 4. not anthropocentric	Self Transcendence
Beyond Utilitarianism and Rights 1. able to go beyond utilitarianism, being more inclusive and participatory and involving more than economic, legal, and political values 5. embodied and contextual rather than disembodied and abstract	The Human Subject
Beyond Relativism and Fragmentation — A Grounded Water Ethics 3. interdisciplinary and transdisciplinary, capable of dealing with fragmentation and sectorization in the natural and human sciences 6. able to work flexibly across all scales from local to universal 10. not relativistic – having instead a normative basis with a well founded account of objectivity for knowing and moral decision-making	The Human Subject Operations of Consciousness
Awareness of Bias and Effective Freedom - Institutions and Individuals 2. aware of biases and blindspots at the very centre of water governance and policy 8. capable of critically and explicitly examining the	Essential and Effective Freedom

presuppositions and values of water managers, decision-makers, and political/economic systems	
Religion and Water Ethics 7. able to distinguish and adjudicate in a field of values of differing orders – vital, social, cultural, personal and religious values 9. able to give ethically justified reasons for water decisions at scales involving multiple cultures and religions	Relation of Theology, Philosophy and Sciences Religious Values within the Integral Scale of Values

Table 1. Water ethics needs and some related Lonergan terms to unpack.

Chapters 3, 4 and 5 will explore how Lonergan's thought can help meet these needs of water ethics. It bears mentioning at this point that the Lonergan terms are very broad.¹⁴⁷ With his help we can get at "the subject" of water ethics. It will be noticed that this thesis privileges the need for a grounded water ethics. One reason for this is that ungrounded water ethics is a nexus for other problems.

2.8.4 Implications of Not Grounding Water Ethics in Valid Knowing and Valuing

We have seen in the first two chapters how several water ethics authors alluded to epistemological problems such as objectivity and relativism. But none of these has waded deeply enough to get to the bottom of the issues. Questions regarding knowing, objectivity, facts, values, and relativism in justifying water policy and decisions are important to the developing field of water ethics, and ultimately need some clarity.

The need of water ethics for a full and rigorous philosophical account of ethics heads takes us into some of the long-standing post-Enlightenment problems of epistemology. The scientific knowledge needed for water decisions is

¹⁴⁷ For instance, the self-transcending human subject and the operations of consciousness underpin all human knowing and doing.

considered objective inasmuch as scientific method has been followed. Questions of human agency, however, involve also the human sciences, the most fundamental of which is philosophy. Yet contemporary philosophy is itself in an unfolding crisis regarding fundamental issues of truth and objectivity. A large segment of the philosophical enterprise has given up on, or set aside, questions of epistemology and metaphysics.¹⁴⁸ Regarding truth and objectivity, Lonergan asserted that "one cannot treat them in any sound and thorough fashion without settling — or presupposing as settled — the issues of cognitional theory, epistemology, and [assumed] metaphysics."¹⁴⁹

An 'epistemological turn' has been taking place in philosophy since the times of Descartes and Kant. Descartes's attempt to ground knowledge by positing an ontology of *res cogitans* and *res extensa*¹⁵⁰ highlighted a problematic subject-object gap that continues to plague philosophy. Descartes's body-mind dualism along with Kant's incomplete attempt at their resolution underly the subject-object, subjectivity-objectivity and fact-value splits that have played no small role in an eventual large-scale abandonment of the quest for epistemological and metaphysical foundations. Such is the case across the leading Western philosophical traditions (the Anglo-American Analytic tradition and the Continental

¹⁴⁸ Michael MCCARTHY, "Pluralism, Invariance, and Conflict. (Bernard Lonergan on invariants of intentional subjectivity)" *Review of Metaphysics*, 51 (1), published by Philosophy Education Society, September 1, 1997, 3-21. Downloaded version from <http://www.globethics.net/library/> missing original page numbering.

¹⁴⁹ Bernard LONERGAN, "Philosophy and the Religious Phenomenon" in *Philosophical and Theological Papers 1965 - 1980*. Ed. Robert C. Croken, Robert M. Doran. Collected Works of Bernard Lonergan Vol.17, Toronto: University of Toronto Press, 2004, 22.

¹⁵⁰ Literally "thinking thing" meaning mind or soul, and "extended thing" as the material substance outside the mind. As such, a disembodied rationalism.

tradition, including Post-modernist) according to Michael McCarthy. McCarthy contends that

[d]uring the last two hundred years, Kant's famous objections to the science of metaphysics have been gradually applied to the other philosophical disciplines. The range of philosophical conflict is sobering even to its most loyal admirers. The continued legitimacy of metaphysics, epistemology, philosophical semantics, and cognitional theory is presently in question. ... Instead of a single historical tradition with distinct and specialized departments of inquiry as in modern science, philosophy has experienced a cumulative multiplication of rival and opposed traditions.¹⁵¹

Some philosophers like Richard Rorty have heartily abandoned the philosophical quest for valid knowing. Joseph Fitzpatrick summarizes Rorty's abandonment of the quest:

Rorty attempts to establish his position that the epistemological enterprise itself is part of the illusory search for foundations and that philosophy should abandon the age-old endeavour of establishing a true theory of knowledge. ... Rorty recognizes no determining conceptual scheme other than the collection of views that make up modern culture – the criteria or norms that justify a proposition are internal to the culture that produces it.¹⁵²

The implications of these philosophical impasses are important for water ethics. Water ethics that is not grounded in valid knowing and valid valuing simply cannot claim a normative status. It remains a product of the society, culture, and history in which it was conceived. Its legitimation, according to a philosopher like Rorty, comes from the social group in which it is conceived. The world has very many social groups. One implication of this would be that water ethics cannot

¹⁵¹ MCCARTHY "Pluralism, invariance, and conflict," II, par.3.

¹⁵² Joseph FITZPATRICK, *Philosophical Encounters: Lonergan and the Analytical Tradition* (Toronto: University of Toronto Press, 2005), 144-145.

adjudicate over transboundary water conflicts between countries sharing river basins, or wherever multiple cultures and religions come into play.

Another implication is that empirical scientific knowledge is either taken to cover the whole field of knowledge or it is taken to be the only reliable knowledge. As McCarthy observed, modern science is seen as a single historical tradition with distinct and specialized departments of inquiry, whereas philosophy runs into problems of the rival and opposed traditions that have developed. This leads back to a vicious circle where value decisions are returned to the ambit of science and are to be made inevitably and implicitly by the purveyors of that knowledge, by scientists, engineers, economists, etc. Thus, a lack of grounding and objectivity in water ethics could render futile the whole movement towards a new water ethic and ethical water governance.

Such a situation is obviously problematic for ethical engagement in water praxis. We have seen in the previous chapters how several water ethics authors have touched on, but not waded into epistemological problems such as objectivity and relativism. There is a need to go further in addressing these problems since mistaken accounts of knowing are not without consequences. For Paul St. Amour "to forgo a normative understanding of objective human knowing is to forgo the basis for making those critical distinctions which would separate genuine facts and interpretations from mere ideology."¹⁵³ The word 'ideology' can be applied, in a more dilute sense for the context of water decision-making, to the various extra-

¹⁵³ Paul St. Amour, "Kierkegaard and Lonergan on the Prospect of Cognitional-Existential Integration," *Lonergan Workshop*, Volume 18 (2005), 45. This point is thrown into important relief in times of "alternative" facts and disregard of truth.

scientific opinions and implicit philosophies of scientists, engineers, lawyers, economists, and bureaucrats, as well as those of public stakeholders.¹⁵⁴

¹⁵⁴ As a water practitioner with the International Joint Commission, I witnessed the interplay of extra-scientific opinions and implicit values in major studies involving scientists, engineers, lawyers, and economists. Awareness of the difference between methodically achieved knowledge and how that knowledge is valued and oriented through one's social background is in itself an achievement. As well, in moderating public meetings over water issues, I have witnessed displays of faulty reasoning. In more extreme cases, some persons in a meeting stubbornly held to conspiracy theories regardless of the hydrological facts that had been presented.

Chapter 3: Exploring Relevant Resources from Lonergan

About Bernard Lonergan

Bernard Lonergan, born in Buckingham, Quebec in 1904, was a preeminent philosopher, theologian, and economist.¹⁵⁵ As a young Jesuit priest he studied philosophy and mathematics at Heythrop College and the University of London in London, England. His doctorate in theology was completed at the Gregorian University in Rome. He later taught at the Gregorian and in Montreal, Toronto, and Boston. His prolific writings and conferences have now been published in twenty-six volumes by the University of Toronto press. Concordia University in Montreal (formerly Loyola College), where Lonergan studied in his youth, has the following to say about Lonergan: "The Globe and Mail called Father Bernard Lonergan ... a "theological giant" in March 1970. Time magazine corroborated a few weeks later noting the Jesuit scholar was "considered by many intellectuals to be the finest philosophic thinker of the 20th century."¹⁵⁶

Lonergan's major work *Insight: A Study of Human Understanding* was first published in 1957.¹⁵⁷ A major goal of *Insight* was to challenge readers to come to

¹⁵⁵ A number of biographies of Lonergan are accessible online> See, for instance, www.iep.utm.edu/lonergan/ and www.bernardlonergan.com/biography.php; and the introduction in *The Realms of Desire: An Introduction to the Thought of Bernard Lonergan* at <https://www.lonerganresource.com/pdf/books/4/The%20Realms%20of%20Desire%20-%20An%20Introduction%20to%20the%20Thought%20of%20Bernard%20Lonergan.pdf>.

¹⁵⁶ CONCORDIA UNIVERSITY, from website article on Bernard Lonergan, at <https://www.concordia.ca/alumni-friends/applause/search/bernard-lonergan.html>.

¹⁵⁷ Bernard LONERGAN, *Insight: a Study of Human Understanding*. Ed. Frederick E. Crowe, Robert M. Doran. Collected Works of Bernard Lonergan Vol.3, (Toronto: University of Toronto Press, 1992).

know the structure and operations of our minds seeking to know.¹⁵⁸ In it he also sought to clarify what occurs in any discipline – science, mathematics, history, literature, philosophy, theology, or ethics.

Thoroughly understand what it is to understand, and not only will you understand the broad lines of all there is to be understood but also you will possess a fixed base, an invariant pattern, opening upon all further developments of understanding.¹⁵⁹

Lonergan referred to his method as a critical realism. By realism, as with the Aristotelian and Thomist philosophies, he affirmed that we make true judgments of fact and of value. By critical, he aimed to ground knowing and valuing in a critique of the mind. *Insight* has since been translated into French, Italian, Spanish and German, and translation to several Asian languages is underway. Lonergan's 1972 book *Method in Theology*¹⁶⁰ has since appeared in French, Italian, German, Spanish, and Polish.

The breadth of Lonergan's concerns was extensive. As early as the 1930s, his concern for social ethics appeared, accompanied by related economic, political, sociological, cultural, historical interests.¹⁶¹ His underlying concerns might surprise those who consider him too “intellectualist.” He once remarked that

¹⁵⁸ In *Foundations of Philosophy*, 8, Brian Cronin contends “that *Insight* will eventually find its place in the history of philosophy alongside such classics as the *Metaphysics* of Aristotle and the *Critique of Kant*. It is original, groundbreaking, rigorous and comprehensive. It is not just another plausible or even correct theory of knowledge; rather, it is an entry into another way of doing philosophy which makes it personal and verifiable. It is an invitation to a personal appropriation of our own intellectual potential and the implementation of norms which are immanent and operative in each one of us.”

¹⁵⁹ Bernard LONERGAN, *Insight: a Study of Human Understanding*, 22.

¹⁶⁰ Bernard LONERGAN, *Method in Theology*, (New York: Herder and Herder, 1972).

¹⁶¹ Frederick LAWRENCE, “Lonergan the Integral Postmodern?” *Journal of Lonergan Studies*, Vol. 18, No. 2 (2000) at https://www.lonerganresource.com/pdf/journals/Method_Vol_18_No_2.pdf. Lonergan is said to have written *Macroeconomic Dynamics: An Essay in Circulation Analysis* out of a desire to reverse decline in the socio-economic sphere.

the whole of his project was undertaken so that “the widows and the orphans won’t starve.”¹⁶² For Lonergan, the historical roots of the atrocities of the 20th century, the roots of the ideologies of Marxism, Naziism, and *laissez-faire* capitalism were to be found in the poverty of thought inherited from the previous century. Knowing that centuries are needed to change mentalities, Lonergan’s approach was to go deep and long, and to get to the sources of progress, decline, and redemption in history. Doing so required delving into the very workings of human consciousness.

Books and doctoral theses unpacking implications of Lonergan’s work have been multiplying over time. In recent decades, Lonergan Institutes, centers, and Research Organizations have opened at dozens of universities around the world in Australia, India, South Korea, Japan, South Africa, Italy, Mexico, Chile, Colombia, Kenya, Austria, the U.K., the U.S., and Canada. Applications of Lonergan’s method have started to appear in areas such as education, peace and conflict, business and economics, science and religion, ecumenism, ethics and bioethics, and social transformation. In 1970 Lonergan was made a Companion of the Order of Canada.

This chapter will explore Lonergan’s thought and method in areas selected to help meet the needs of developing water ethics as seen in questions raised over chapters two and three. It will prepare the way for explorations of several paths for applying Lonergan’s method in water ethics in Chapters 4 and 5.

¹⁶² Patrick H. Byrne, “Ressentiment and the Preferential Option for the Poor,” *Theological Studies* 54 (1993): 241.

3.1 Knowing and Objectivity, Facts and Values

Lonergan, takes a radical approach to epistemology and metaphysics that sets him apart from the leading currents of contemporary philosophy. He asserts the priority of a prior question: What am I doing when I am knowing? This question must be answered before an epistemology can be clarified. In answer to this question he elaborates a cognitive theory based upon an empirical phenomenological account of what we are doing when we are knowing. Thomas McPartland connects Lonergan's radical approach to what is needed for a methodical basis for handling issues in metaphysics: "Lonergan in his phenomenology of consciousness and cognitional theory, as he conceives of it, provides a non-foundationalist foundation for an alternative epistemology, which, in turn, can provide a methodical basis for handling issues in metaphysics."¹⁶⁴ Rather than theorizing on abstract and necessary conditions of knowledge, Lonergan goes behind epistemology and metaphysics to lay bare what is actually going on when we think we are knowing. Metaphysics, for Lonergan, must not be placed up front. It must be on a tertiary level that follows through from validated cognitional operations and valid knowing. Lonergan writes: "scholastic thought presupposed the priority of metaphysics, and on our present showing the priority of metaphysics no longer exists. Metaphysics finds its proper place not on the primary, not even on the secondary, but only on a tertiary level."¹⁶⁵ His turn to the

¹⁶⁴ Thomas J. MCPARTLAND, "Epistemology and the Person," *Method: Journal of Lonergan Studies*, (5, no. 1, 2014), 57-72, at 71.

¹⁶⁵ Bernard LONERGAN, "Philosophy and the Religious Phenomenon" in *Philosophical*

subject-as-subject and to the conscious intentionality of the subject opened a way no longer dependent upon a faculty psychology attached to the historic priority of metaphysics. In the post-*Insight* period, Lonergan referred, in place of faculty psychology, to the flow of consciousness in the human subject. Flow of conscious has its own fundamental and structured unity and can be adverted to empirically.¹⁶⁶ The fundamental unity of consciousness includes the existential level of freedom and responsibility and the role of feelings and affectivity as motive forces having a normative role in responses to values and disvalues.¹⁶⁷

The following section explores Lonergan's radical empiric approach to cognition, the validity of knowledge, and metaphysics. Sections 3.1 and 3.2 explore Lonergan's critical realism and some of the historically inherited problems from the incomplete 'epistemological turn' that are still common in idealism, empiricism, and most modern philosophy. The goal here is to eliminate, so far as possible, inadequate or mistaken conceptions of human knowing and valuing as these lie at the root of inadequate or mistaken conceptions of self-knowledge, being, and objectivity.

3.1.1 The Dynamic Structure of Consciousness in Human Knowing and Doing

and Theological Papers 1965 - 1980. Ed. Robert C. Croken, Robert M. Doran. Collected Works of Bernard Lonergan Vol.17, (Toronto: University of Toronto Press, 2004) 390-408, 394.

¹⁶⁶ Bernard LONERGAN, *Topics in Education*. Vol. 10, The Collected Works of Bernard Lonergan. Edited by Robert Doran and Fred Crowe. (Toronto: University of Toronto Press, 1993) 82-83, 209-210.

¹⁶⁷ Bernard LONERGAN, *Method in Theology*, 37-39.

Lonergan postulates the possibility of “correct” metaphysical affirmations, and that incorrect metaphysical affirmations derive from a lack of correct self-knowledge. Going beyond metaphysics into practical living, Lonergan bridges knowing and doing with ethics, based on the same critical self-realism.

.... Further, as a metaphysics is derived from the known structure of one's knowing, so an ethics results from knowledge of the compound structure of one's knowing and doing; and as the metaphysics, so too the ethics prolongs the initial self-criticism into an explanation of the origin of all ethical positions and into a criterion for passing judgment on each of them.¹⁶⁸

Experiencing, for Lonergan, precedes knowing. It does not constitute knowing. It provides the data of the first dimension or level of knowing. This first level is the world as seen, heard, and touched — experienced through the senses. From the cradle we begin experiencing in what Lonergan calls "the world of immediacy." But this is only the first part of what constitutes full human knowing. Lonergan writes:

Our consciousness expands in a new dimension when from mere experiencing we turn to the effort to understand what we have experienced. A third dimension of rationality emerges when the content of our acts of understanding is regarded as, of itself, a mere bright idea and we endeavor to settle what really is so. A fourth dimension comes to the fore when judgment on the facts is followed by deliberation on what we are to do about them.¹⁶⁹

The operations of consciousness identified in Lonergan's cognitional theory are experiencing, understanding, and judging. These operations are interlocking

¹⁶⁸ LONERGAN, *Insight*, 23.

¹⁶⁹ LONERGAN, *Method*, 9. In chapter 18 of *Insight* Lonergan enlarges the field of consciousness from the cognitional to the ethical self. His post-*Insight* writings continue with the human subject as both cognitive and existential, and incorporate affectivity, existential freedom and historicity.

and interdependent.¹⁷⁰ Understanding something requires data of experience that has been subject to questioning: 'What is this? How does it work? What does it mean? But understandings may be wrong, or incomplete. In seeking what is true and real, we must make judgments on our understandings and the evidence to which they relate. Questions such as 'Is it true?' move us towards judgments of fact. Because these operations are related yet distinguishable within the dynamic activity of knowing, Lonergan refers to them as 'dimensions' and more frequently as 'levels' of consciousness.

Beyond our cognitional operations, we also face questions for deliberation. Knowing this, what shall I do? What is the right thing to do? These questions constitute a fourth level — the level of decision. These interrelated operations involved in knowing and doing are both intentional and conscious. They are intentional in that they make objects psychologically present to the subject. They are also conscious in that they make the performing subject present to herself, not as an object, but as a subject.

The operations of consciousness are performed by all people, whether or not they are able to identify them. They may be performed well or badly. Lonergan contends that operations of consciousness are universally human. A principal goal of his book *Insight* is to challenge his readers to become conscious of their own use of the operations of consciousness. He challenges readers to be attentive to themselves as operating subjects and to appropriate these internal operative norms of their own consciousness.

¹⁷⁰ LONERGAN, *Insight*, 234-237.

Commonly, consciousness has been misconstrued as perception, as object-oriented. Consciousness is neither perception of things nor knowledge. Consciousness can, however, be found within the data of experience – in experience of the subject-as-subject. The unified intentional source of all human cognitional and existential operations is the subject. The unity of consciousness is a given. The subject is disclosed as subject, not through introspection, but rather through 'intentionality analysis'¹⁷¹ as being present to herself performing the operations of consciousness. Intentionality analysis reveals the conscious activities involved in knowing and acting in their variety and patterns. As conscious subject, the single agent is present to self in many acts, not as the object of some inward look, not as the subject-as-object, but in conscious self-presence. The conscious subject cannot be present to any object without first being present to self, even though that self-presence is overlooked.

These operations serve as internal dynamic norms, a capacity that promotes us towards truth, reality, and decisions for value in the degree that they are free from bias, obfuscation, distortion.¹⁷² The correct use of these internal norms constitutes full human knowing at the cognitive levels of empiric,

¹⁷¹ Lonergan's intentionality analysis brings an empirically verifiable base into theology in place of a previously dominant metaphysics of the soul dating back to Plato and Aristotle. Intentionality analysis can adjudicate between valid and invalid metaphysical terms. Controversies over relative roles of the soul's faculties (faculty psychology) were an ongoing problem. See *Method*, 343. Also, in *Philosophical and Theological Papers, 1965-1980*, 37, Lonergan writes: "A faculty psychology divides man up; it distinguishes intellect and will, sense perception and imagination, emotion and conation, only to leave us with unresolved problems of priority and rank. Is sense to be preferred to intellect, or intellect to sense? Is intellect to be preferred to will, or will to intellect? Is one to be a sensist, an intellectualist, or a voluntarist?"

¹⁷² See, for instance, LONERGAN, *Insight*, 244-250, 712, 719, and *Method*, 43-44.

intellectual, and rational consciousness, and ethical decision-making at the existential level.

The dynamism that drives and binds together these operations is questioning. It is inquiry. The 'unrestricted desire to know,' as Lonergan calls it, governs the unfolding of human cognition. The desire for the good, for value moves the human subject further into the existential realm of decisions and action.

Data of sense and experience provoke inquiry. Without the data, there would be nothing to inquire about. "What is sought by inquiry is not just an additional datum, but the idea or form, the intelligible unity or relatedness, that organizes the data into intelligible wholes."¹⁷³ Thus, the level of intellectual consciousness as distinguished presupposes and enriches empiric consciousness.

In the process of understanding, imagination is engaged in bringing forth hunches, insights, concepts and hypotheses. Questions for intelligence drive the search for intelligibility in the data: What is it? How does it work? Our initial inquiry prepares the way for the key event of insight — the "aha" moment. Insight happens when an intelligibility is grasped as immanent and emergent from the data. Lonergan uses the example of the "eureka" moment of Archimedes to explain some characteristics of insight.¹⁷⁴ Insights come unexpectedly as a release to the tension of inquiry and they pass quickly into the habitual texture of one's mind. They can often go unnoticed. Insight pivots between the concrete and the

¹⁷³ LONERGAN, *Method*, 10.

¹⁷⁴ LONERGAN, *Insight*, 27-31.

abstract. Archimedes, while in the baths of Syracuse, was wondering how he might determine the purity of the gold in King Hiero's crown. His insight was like: Eureka! Weigh the crown in water! Insight is insight *into* the concrete world of sense and imagination. By its very nature, insight is the mediator, the hinge, the pivot between the data of experience and the intelligibilities grasped and formulated in concepts. Insights possess wider relevance, such as that of Archimedes which implicitly carried the principles of displacement and specific gravity.

After having an insight and having formulated an understanding of it, the desire for correct understanding compels us to ask further questions for reflection. Is it so? Are you certain? Is there some degree of probability? Is the data complete and sufficient? Can we verify it? In this way, a third, rational level of consciousness emerges to reflect on what is given in understanding. At this level we seek in reflective understanding a further insight regarding the necessary and sufficient conditions for affirming the truth. An internal criterion of adequacy for judging the truth-status is the presence or absence of further relevant questions. Truth and knowledge are to be verifiable independently of the knower. At this level, the expanded world of science operates as a critical community bringing forth possible further questions and verifications or proofs to the contrary.

Lonergan's notion of *sublation* is a key term for this thesis. Each successive level of consciousness requires the previous level and sublates it. In sublation, higher levels presuppose the underlying manifold while introducing a radical new

principle or organization that complements the lower level without interfering with it.

[W]hat sublates goes beyond what is sublated, introduces something new and distinct, puts everything on a new basis, yet far from interfering with the sublated or destroying it, on the contrary needs it, includes it, preserves all proper features and properties, and carries them forward to a fuller realization within a richer context.¹⁷⁵

Existential consciousness manifests as a fourth level of intentional consciousness. This fourth level is distinguished by questions for deliberation that subsume and sublate the cognitional levels. Evaluating (value) and choosing what our actions should be occur at this level of rational self-consciousness. It is the level most closely associated with personal identity, with who we are in our decision-making and the self that we choose to become. It is the level of responsibility — responsibility for ourselves, for our knowledge, for our choices and actions. It is the level at which moral consciousness (conscience) obtains. Our choosing can be based upon what is best only for ourselves, maximizing our satisfactions and minimizing our pains and effort. Or our choosing can be based upon a genuine search for value: What is truly good? What is worthwhile?

3.1.2 Objectivity in a World Mediated by Meaning and Motivated by Value

The water ethics literature examined did not fully engage in the thorny question of objectivity. According to Lonergan, we need liberation towards truth, reality, objectivity and excellence. Achieving these is neither automatic nor

¹⁷⁵ LONERGAN, *Method*, 241.

foolproof.¹⁷⁶ There is a widespread myth concerning reality, objectivity, and human knowledge according to Lonergan. The myth he refers to a conception of knowing as "taking-a-look."¹⁷⁷ We will examine further in this chapter the effect of this myth in the history of thought that backgrounds the literature in the developing field of water ethics. The problem of what constitutes objectivity becomes deeply problematic when experiencing is taken to be full human knowing. Knowing as experiencing implies that the resultant world is a "world of immediacy". In this common and stubborn myth, the world is taken for a picture-world and truth and reality are conceived as taking a look at the 'already-out-there-now.' Reality somehow enters the black box of the mind and comes out as concepts and words. It is because of this problem that I have presented Lonergan's explanatory account of full knowing. The conscious and intentional operations of a person take place not only in the world of immediate experience. These operations also thrust her further into another and far larger world. Apart from the world of immediacy and there is a world mediated by meaning and motivated by values. It is this far larger world that we learn about throughout our lifetimes — the world of cognitional, constitutive and effective meanings by which science, philosophy and human society has come to be.

The distinction between the world mediated by meaning and the world of immediacy sets the fundamental problems in philosophy, because you have there two meanings of the word 'real,' two meanings of the word

¹⁷⁶ Bernard LONERGAN, "The Ongoing Genesis of Methods" in *A Third Collection: Papers by Bernard J.F. Lonergan, S.J.* Ed. Frederick E. Crowe, S.J., (New York/Mahwah: Paulist Press; London: Jeffrey Chapman, 1985) 146-165, 151.

¹⁷⁷ LONERGAN, *Insight*, 399-409. Also, chapter 13 of *Insight*, 399-407 on 'The Notion of Objectivity.'

'objectivity,' and two sets of criteria about what it is to be real and what it is to really know. You get fundamental philosophic conflicts out of those two worlds.¹⁷⁸

Lonergan breaks away from the common assumption that subjectivity and objectivity are mutually exclusive. He was not at ease with approaches that would disparage objective knowing while promoting subjectivity. Life in this world cannot be solipsistic. He contended that "[a]s man's being is *being-in-the-world*, his self-understanding has to be not only of himself, but also of his world."¹⁷⁹ Subjectivity, or inner conviction alone, does not constitute objectivity.¹⁸⁰

Objectivity, however, equally cannot be arrived at by an objectivism or conceptual systems that neglect the subject's operations of knowing and valuing. Objectivism, widely present in academia and human sciences, is basically a belief in a realm of basic, uninterpreted, hard facts that serve as a foundation for empirical knowledge. It is an example of the myth of the "already-out-there-now-real" neglecting the subject and her fuller operations of knowing. In his paper "The Subject," Lonergan notes that modernity has generated too many subject-neglecting accounts of objectivity. He argues that philosophy has been dominated for far too long by those who "have thought of truth as so objective as to get along without minds."¹⁸¹

¹⁷⁸ Bernard LONERGAN, "The Human Good," in *Philosophical and Theological Papers, 1965-1980*, Ed. Robert Croken and Robert Doran. Collected Works of Bernard Lonergan Vol. 17, (Toronto: University of Toronto Press, 2004) 332-351, 336.

¹⁷⁹ Bernard LONERGAN, "Mission and the Spirit" in *A Third Collection: Papers by Bernard J.F. Lonergan, S.J.*, Ed. Frederick E. Crowe, S.J., (New York/Mahwah: Paulist Press; London: Jeffrey Chapman, 1985) 23-34, 23.

¹⁸⁰ LONERGAN, "Religious Knowledge" in *A Third Collection*, 129-145, 140.

¹⁸¹ Bernard LONERGAN, "The Subject" in *A Second Collection*, Ed. by Robert Croken,

Distinguishing between the world of immediacy and the world mediated by meaning and motivated by value clarifies the obscuring effect on objectivity of "the ambiguities underlying naive realism, naive idealism, empiricism, critical idealism, [and] absolute idealism."¹⁸² It becomes apparent that "objectivity is simply the consequence of authentic subjectivity, of genuine attention, genuine intelligence, genuine reasonableness, genuine responsibility." Lonergan adds "[m]athematics, science, philosophy, ethics, theology differ in many manners; but they have the common feature that their objectivity is the fruit of attentiveness, intelligence, reasonableness, and responsibility."¹⁸³

Normative objectivity for Lonergan then is what satisfies the exigences of the subject as an authentic knower and doer: as attentive, as intelligent, as reasonable, and as responsible. Objectivity results from the unbiased use of the operations of consciousness — experiencing, understanding, judging, and deciding. It is also a dynamic objectivity that remains attentive to further questions, should they arise. Objectivity then cannot be separated from the knowing and deliberating subject. Objectivity is thus the fruit of authentic subjectivity.

3.1.3 Critical Realism

Lonergan is neither Cartesian nor Kantian. He provides instead a critical realism that is a valuable resource for addressing the impasse of misconceptions

Frederick E. Crowe, Robert M. Doran, (London: Darton, Longman and Todd) 60-74, [1996 e-book reprint of 1974 edition] e-location 5.

¹⁸² LONERGAN, *Method*, 265.

¹⁸³ LONERGAN, *Method*, 265.

about knowing, epistemology, and metaphysics still prevalent in modern and post-modern thought. One of the challenges of multidisciplinary collaboration is the different methods of natural sciences and within human sciences. "What then is the common core or related and recurrent operations that may be discerned in both natural science and human studies?" he asks.

Lonergan points out that both idealism and empiricism, though unable to communicate meaningfully between each other, nevertheless share the same underlying notion that knowing reality is analogous to seeing, and that "objectivity is seeing what is there to be seen and not seeing what is not there, and that the real is what is out there now to be looked at."¹⁸⁴ What these two positions are both forms of conceptualism — an automatic imposition of concepts onto experience without the mediation of questioning or the emergence of insights.

The empiricist restricts objective knowledge to sense experience; for him, understanding and conceiving, judging and believing are merely subjective activities. The idealist insists that human knowing always includes understanding as well as sense; but he retains the empiricist's notion of reality, and so he thinks of the world mediated by meaning as not real but ideal.¹⁸⁵

As realism, Lonergan's critical realism affirms that we make true judgments of fact and of value; and as critical, it bases knowing and valuing in a critique of consciousness. It acknowledges that full human knowing is driven by inquiry and involves recurrent, interlocked operations of experiencing, understanding, and judging. Conceptualization is what follows insight as an elaboration of the

¹⁸⁴ LONERGAN, *Method*, 238.

¹⁸⁵ LONERGAN, *Method*, 238-239.

intelligibility grasped in the act of understanding. Lonergan also calls his critical realism a Generalized Empirical Method (GEM). Tad Dunne notes that

[t]he success of the empirical methods of the natural sciences confirms that the mind reaches knowledge by an ascent from data, through hypothesis, to verification. To account for disciplines that deal with humans as makers of meanings and values, Lonergan generalized the notion of data to include the data of consciousness as well as the data of sense. From that compound data, one may ascend through hypothesis to verification of the operations by which humans deal with what is meaningful and what is valuable. Hence, a "generalized empirical method."¹⁸⁶

Ethics is grounded within this generalized empirical method, also called transcendental method. For the subject, judgments of fact and judgments of value are "similar in structure."¹⁸⁷ At the same time, judgments of value sublate judgments of fact in a richer horizon of existential life. These distinctions were not possible under a prior faculty psychology of intellect and will. Generalized empirical method enables persons to appropriate their own conscious reality as existential subjects and provides a basis for assimilating and contributing to culture, science and scholarship. Lonergan, in "The Scope of Renewal," underlines the importance of decisions at the existential and moral level on the part of the subject:

[a]s a conscious existential subject he confronts and accepts the fact that ultimately it is up to him to decide whether he will really love, whether his free decisions will be responsible, whether his judgments will be reasonable, whether his investigations will be intelligent or biased, whether he will advert to the data both of sense and of consciousness or induce

¹⁸⁶ Tad DUNNE, "Bernard Lonergan" in *Internet Encyclopedia of Philosophy* (2003), www.iep.utm.edu/lonergan/.

¹⁸⁷ LONERGAN, *Philosophical and Theological Papers 1965 - 1980*, Vol. 17, 351.

the blind spots that eliminate what for him are the more unpleasant facts of life.¹⁸⁸

Lonergan concludes with a brief summary of his method's normative basis in human knowing and doing.

In brief, generalized empirical method goes beyond the empirical to the normative. It reveals the human subject to himself, reveals norms immanent in his own operations, confronts him with the alternatives of being an authentic human being or, in some measure, unauthentic, and leaves him with the responsibility of making himself whatever he makes himself.¹⁸⁹

3.1.4 A Socio-Cultural Matrix and Two 'First Philosophies'

Every individual develops within a matrix of family, society, and culture. The largest part of the knowledge of any individual, even Nobel-laureates in science, is not based on reinventing the wheel. It is based on belief – on reasoned belief. Knowledge is received from the historically developing common-pool of human knowledge available on our planet.

Human knowledge, then, is not some individual possession but rather a common fund, from which each may draw by believing, to which each may contribute in the measure that they performs their cognitional operations properly and report their results accurately. A person does not learn without the use of his or her own senses, own mind, own heart, yet not exclusively by these. One learns from others, not solely by repeating the operations they have performed but, for the most part, by taking their word for the results. Through communication and belief there are generated common sense, common knowledge, common science, common values and a common climate of opinion.¹⁹⁰

¹⁸⁸ Bernard LONERGAN, "The Scope Of Renewal," in *Philosophical and Theological Papers 1965 - 1980*, pp. 282-298, 294.

¹⁸⁹ LONERGAN, "The Scope of Renewal," 294-295.

¹⁹⁰ LONERGAN, *Method*, 44.

We exist neither as individuals working with fresh clean slates, nor as beings completely determined by our historical social reality.¹⁹² As social beings, we are both a product of, and creative contributors to society and history. We all have in fact two "First Philosophies."¹⁹³ In our youth we inherit and acquire implicit and explicit paradigms that shape us through our family, friends, education, the media, and acculturation. Having learned language in a worded world, a world mediated by meaning. Our world is foregrounded for us through the self-understandings of others. One result of this is that we have operative in our lives an unconscious, implicit "metaphysics" with its own assumptions constituting an unconscious paradigm of reality. It settles what seems real or unreal to us, and what is believable or unbelievable. A glimpse of this implicit sense of reality is caught when we say: "that's not realistic!"

Lonergan's unique contribution identifies another "First Philosophy" that is inherent in human beings. The root of this first philosophy is the pure desire to

¹⁹² Both historicism and strong social constructivism fall into determinism and are involved in performative contradictions. Strong social constructivism asserts that much of human life is an artifact of social definition, interaction, and institutionalization. Human knowing is shaped decisively by social situation limits and reality itself is a social construction. As a sociological *a priori* to the constituting of "knowledge," it reflects the influence of Kantian transcendental idealism. See Thomas McPartland, "Epistemology and the Person." Radical historicism claims a theoretic view that denies the possibility of an objective trans-historical analysis. An immediate problem with totalizing rationalist systems, including that of Hegel, is the imposition of *a prioris* that do not advert to essential human freedom and the operations of consciousness.

¹⁹³ Patrick H. BYRNE succinctly summarizes "two first philosophies" from his overall knowledge of Lonergan's works in, "The Passionateness of Being: The Legacy of Bernard Lonergan, S. J.," in *Finding God in All Things: Celebrating Bernard Lonergan, John Courtney Murray, and Karl Rahner*, ed. Mark Bosco and David Stagaman, 2007; and published to Fordham Scholarship Online at <http://fordham.universitypressscholarship.com/view/10.5422/fso/9780823228089.001.0001/upso-9780823228089-chapter-3>.

know – the root of all science and philosophy. Humans are born with this native orientation to questioning and wondering. Our questioning desire orients us towards reality, towards being. His works, especially *Insight*, are replete with reference to the pure desire to know. In his Preface to *Lonergan's Quest* biographer William Mathews notes: "That the human mind and heart at their core are constituted by a restless desire for truth and value is central in Lonergan's writings."¹⁹⁴ This native orientation to truth, reality, and the good, acts as a remote driver of the dynamic unfolding of intelligence and reflection in consciousness. We are dynamic inquiring beings.

We are shaped by an ambiguous heritage of insights and oversights and exposed to a dialectic of opinions. Yet we are ultimately responsible for our own beliefs, knowledge, and actions. It is a personal task to appropriately use the inherent inner norms of our operations of consciousness to question and verify received meanings and values. It is in this context of these 'two first philosophies' that our horizons or worldviews are formed.

3.1.5 Horizons, Bias, and Cognitive, Moral and Religious Self-Transcendence

Horizon is the term used by Lonergan for flexible boundaries to the interests and knowledge of developing persons. Horizon, in a literal sense, refers to the boundary of a person's field of vision, the line where apparently the earth and sky meet. Lonergan points out that

¹⁹⁴ William A. MATHEWS, *Lonergan's Quest: A Study of Desire in the Authoring of Insight* (Univ. of Toronto, 2005), vi.

[a]s our field of vision, so too the range of our interests and the scope of our knowledge are bounded. As fields of vision vary with one's standpoint, so too the range of one's interests and the scope of one's knowledge vary with the period in which one lives, with one's social background and milieu, with one's education and personal development.¹⁹⁵

Horizons¹⁹⁶ vary in extent, in intensity, and in selectivity as interest follows through in different directions. Different patterns of experience come to the fore and development admits a differentiation of horizons. Lonergan found the need to delineate specialization in broader terms than simply one field or another. Differentiations of consciousness are more radical, he contends, "for it results in a differentiation of outlook, mentality, horizon; it sets up barriers to mutual communication; it has people living, so to speak, in different worlds."¹⁹⁷ Beyond the prelinguistic development of the infant there is differentiation into the commonsense development of intelligence, with potential for further differentiations. Lonergan writes:

the *commonsense* development of intelligence that specializes in the concrete and immediate; ... the *religious* development that orientates man to God and in the universe; ... the *scientific* development that unifies and relates, constructs and extrapolates, serializes and generalizes to discover and reveal the cosmos; ... the *scholarly* development that enters into the commonsense of another place and time to understand its language, interpret its meanings, narrate its deeds and achievements; ... the *philosophic* development that, in what may now seem its final phase, reflects on all of these, assigns each its proper competence, and relates each to the others.¹⁹⁸

¹⁹⁵ LONERGAN, *Method*, 236.

¹⁹⁶ See "Horizons" in *Philosophical and Theological Papers 1965 - 1980*, 10-29.

¹⁹⁷ LONERGAN, "Aquinas Today: Tradition and Innovation" in *A Third Collection*, 35-54, 36.

¹⁹⁸ LONERGAN, "Aquinas Today," 37.

Commonsense intelligence, as a procedure and mode of development, is common to humankind. But the content, the products of commonsense vary enormously from place to place and through history. Theoretical and scientific intelligence go beyond commonsense in that they examine explanatory relationships between things accounting for space and time.

But as a content, [commonsense] is endlessly diversified; each village grows its own variety to mold the local 'ordinary' language, to make a man from the next village a stranger because his speech and his ways are different, and a man from another country not merely strange, but foreign.¹⁹⁹

Incomprehension and tensions may arise due to differences in horizons. They may differ genetically by way of development, or they may be opposed dialectically. What for one is sensible or good is unintelligible or evil for another. The other's horizon, at least in part, is attributed to wishful thinking, backwardness, immaturity, or infidelity. On the other hand, horizons may be different but complementary. Lonergan gives the example of workers, managers, engineers, lawyers and doctors whose many differing horizons in some measure include and complement the others in the functioning of a communal world.²⁰⁰ Horizons can both limit and enable further development while providing the context for people's goals, decisions and actions.

Horizons, finally, are the structured resultant of past achievement and, as well, both the condition and limitation of further development. ... So all our intentions, statements, deeds stand within contexts. To such contexts we appeal when we outline the reason for our goals, when we

¹⁹⁹ LONERGAN, "Aquinas Today," 39.

²⁰⁰ LONERGAN, *Method*, 236.

clarify, amplify, qualify our statements, or when we explain our deeds.²⁰¹

In "Horizons,"²⁰² Lonergan asserts the crucial importance of achieving, or failing to achieve self-transcendence for both objectivity and ethics. "The true good, the objective value, is what is judged to be good by a person achieving self-transcendence, being authentic."²⁰³ For Lonergan, the term "self-transcendence" has a central and important meaning. Authentic or genuine realization of human potentiality is a self-transcending realization and is to be found in nothing other than self-transcendence. "Man achieves authenticity in self-transcendence."²⁰⁴ For Lonergan, self-transcendence "refers primarily to the threefold achievement of 'moving beyond one's own self' that is realized in every instance of correct understanding (cognitive), responsible decision (moral), and genuine love (affective)."²⁰⁵

Achievements of self-transcendence, however, are not automatic. They occur in response to questions —questions for intelligence, questions for reflection, and questions for deliberation. These questions manifest themselves on the different levels of consciousness as "successive stages in the unfolding of a single thrust, the eros of the human spirit"²⁰⁶, the human quest for truth, meaning and value. Again, these questions, these "transcendental notions," are the

²⁰¹ LONERGAN, *Method*, 237.

²⁰² LONERGAN, "Horizons," *Philosophical and Theological Papers, 1965-1980*, 10-19.

²⁰³ LONERGAN, "Horizons," 12.

²⁰⁴ LONERGAN, *Method*, 104; see also *A Second Collection*, 166, and Walter CONN, "The Ontogenetic Ground of Value," *Theological Studies*, Vol.39, 2 (1978) 313-335.

²⁰⁵ CONN, "Ontogenetic Ground of Value," 314.

²⁰⁶ LONERGAN, *Method*, 13.

"dynamism of conscious intentionality."²⁰⁷ For Lonergan, the unbiased unfolding of conscious intentionality, of self-transcendence, is towards truth, reality, and value that are completely beyond and ontologically independent of the intending subject, thus objective. Value, or the good, is a transcendental notion. "It is what is intended in questions for deliberation."²⁰⁸

In cognitive self-transcendence, questions for reflection examine what has been understood, and in so doing, they "move beyond imagination and guesswork, idea and hypothesis, theory and system, to ask whether or not this really is so or that really could be."²⁰⁹ When questions for truth and reality are posed, the self-transcending subject seeks what satisfies all further questions and seeks what is truly independent of self.

Moral self-transcendence moves beyond the cognitive into the arena of action. Judgments of value arise from questions for deliberation in a process that "sublates and thereby unifies knowing and feeling."²¹⁰ Real moral self-transcendence must go beyond the biases of self-interest or interest of the group,

[f]or when we ask whether this or that is worthwhile, whether it is not just apparently but truly good, then we are inquiring, not about feelings of pleasure or pain, not about comfort or ill ease, not about sensitive spontaneity, but about *objective value*.²¹¹

Consistency in moral self-transcendence can bring us to become "principles of benevolence and beneficence, capable of genuine collaboration and of true

²⁰⁷ LONERGAN, *Method*, 34.

²⁰⁸ LONERGAN, *Method*, 12.

²⁰⁹ LONERGAN, "Horizons," 11.

²¹⁰ LONERGAN, *Method*, 277.

²¹¹ LONERGAN, "Horizons," 12, italics mine.

love."²¹² However, in the fallible world where the line between good and evil traverses every human heart, achieving consistency in moral self-transcendence requires grace, and is supported by religious self-transcendence.

The term "religious conversion," does not refer to a change of religions for Lonergan. It refers to religious self-transcendence. It is the entry into a new horizon where the orientation to bringing concrete value into the world is sublated within a dynamic state of being-in-love with God. In the dynamic state, "the human good becomes absorbed in an all-encompassing good,"²¹³ and, "there is a new basis for all valuing and all doing good."²¹⁴ Being in love with God, whether as something reflected on, or as an un-thematized experience, can work as an undertow in the operations of our consciousness, influencing the subject to act in a more self-transcending way.²¹⁵

In water decision-making where secularism dominates modern Western institutions, religious self-transcendence and values may be greeted with mixed measures of tolerance and skepticism. This potential fault line comes up in Section 3.3 of this thesis where I look into values, and the relation of religious values to other values.

Bias impedes or distorts the unfolding of conscious intentionality in self-transcendence. In *Insight*, Lonergan refers to "the scotosis of the dramatic subject

²¹² LONERGAN, *Method*, 35.

²¹³ LONERGAN, *Method*, 116.

²¹⁴ LONERGAN, *Method*, 242.

²¹⁵ See *Method*, 113; *Philosophical and Theological Papers, 1965-1980*, 326.

and the threefold bias of the practical subject."²¹⁶ Subjects can be biased in their knowing and doing by individual and group bias, and the general bias of commonsense. Individual bias restrains a person's interest to that which confines it to insights that serve her own advantage. Group bias is similar to individual bias, but in the form of group collaboration. Uncritical loyalty to groups infected by this bias impedes progress in the world by clinging to position and power above seeking value as a greater good. General bias seeks to bypass involvement of theory, remaining in the illusion that commonsense knowledge is all that is needed to answer questions and solve the problems.

3.2 Grounding Water Ethics in the 21st Century

Water ethics research and applications, being interdisciplinary in character, should have some common understanding of what science is, and what philosophy is, and what their methods are. A common understanding of these would help steer clear of confusion and efforts misspent due to misconceptions of scientific, philosophical, and ethical methods. In the water ethics literature examined, there is not yet clarity on the roles of logic and method. A number of the authors seem to implicitly conceive of thinking as only deductive. Others, such as Brown and Schmidt, and Schmidt and Peppard, posit the "universal and necessary" as essential to epistemology. They react against a deductivist ethics as not effective enough for complex and concrete evolving hydro-social systems.

²¹⁶ LONERGAN, *Insight*, 712; also *Insight* 244-250 and *Philosophical and Theological Papers, 1965-1980*, 305.

None of the authors offer an updated explanation of scientific methods and the role and limits of logic and deduction in science or philosophy.

Lonergan, quite possibly the most scientific of philosophers and theologians, offers a detailed account of the historical changes in scientific and philosophical knowing and their implied worldviews. In *Insight* and his later works, we find accounts of historical changes in methods and meaning in the natural sciences, philosophy and the human sciences. My references here will be mainly from his later summaries in *Method* and *A Third Collection*.

3.2.1 The Scientific Revolution and Evolving Philosophy

While acknowledging the value of the Aristotelian corpus, Lonergan points out modern misconceptions about science with roots that date back to Aristotle's *Posterior Analytics*. For Aristotle, the sciences were not autonomous. Science, whose basic concern was causal necessity, was a subdivision of metaphysics. Metaphysics, being a more general and fundamental science of being, provided the core element in the basic terms of the sciences. Aristotle's syllogistic approach rested within a deductive framework dominated by logic.

Newton's 17th century breakthrough established a key role for empirical science, yet did not fully refashion the underlying notion of science. His masterpiece, *Philosophiae Naturalis Principia Mathematica*, still bears an Aristotelian imprint.

What Newton achieved was the vindication of mechanics as an autonomous science. But what he could not bring about was the

refashioning of the Aristotelian ideal that became possible between two and three centuries later.²¹⁷

For Lonergan, science was in need of liberation in order to take on its role of progressive discovery. The enduring domination of logic and necessity was one constraint. But also problematic were misconceived worldviews and entangled extra-scientific opinions.

Aristotelian notions not directly challenged by the new science lived on in quiet possession of the field of common assumptions. Among them was the view that science consisted in true and certain knowledge of causal necessity. ... Right into the twentieth century it was common to speak of the necessary laws of nature and even the iron laws of economics.²¹⁸

Allusions to the necessity and certainty of science have continued right into the 21st century. These are even implicit in some of the water ethics literature. However, further historical contributions to the evolution of modern science from Darwin, Einstein, and Heisenberg changed science. With the advent of quantum theory in the early 20th century, probability became established along with classical law in scientific method.²¹⁹ Empirical science, with its goal of discovery, could not be confined solely to static logical operations. It no longer sought universal and necessary truths valid for all times. Rather, it sought verifiable hypotheses. It was now a cumulative, ongoing process, open to improvement within a critical scientific community. Logic was dethroned as dominating scientific

²¹⁷ LONERGAN, *A Third Collection*, 136; also 209.

²¹⁸ LONERGAN, *A Third Collection*, 137-138.

²¹⁹ LONERGAN, *Philosophical and Theological Papers, 1965-1980*, 284-285, 354-357.

method to retain a role within the larger whole ensuring clarity of terms, coherence of propositions, and the rigor of inferences.²²⁰ Science and scientific method has thus traversed a series of worldviews — Aristotelian, Galilean, and Darwinian to Indeterminism.²²¹ Indeterminism is a negation of the old determinism. In a four page discussion of indeterminism in *Insight* that includes quantum physics and probabilism at the micro and macroscopic levels, Lonergan also writes that he has "offered a unified view that anticipates both the systematic and the nonsystematic without excluding in particular cases insight into concrete nonschematic situations."²²²

Lonergan points out the liberation effected from the longstanding ubiquitous notion of mechanist determinism.²²³ Mechanist determinism conceives of a universe where relations between objects are expressed in unchanging, universal, and necessary laws. What appeared to be random in world processes was assumed to be merely a matter of ignorance that, over time, could be explained by systematic relationships. Among those subscribing to the mechanistic worldview were Descartes, Hobbes, Locke, Berkeley, and Hume.²²⁴

²²⁰ LONERGAN, *A Third Collection*, 139-141.

²²¹ LONERGAN, *Insight*, 151-162.

²²² LONERGAN, *Insight*, 161. He is referring here to his unified notion of world process as "Emergent Probability." Indeterminism is discussed in *Insight*, 157-161.

²²³ He writes "liberation from the domination of the mechanist determinism that reigned from the heyday of Newton's triumph through to the first quarter of this [20th] century." LONERGAN, *A Third Collection*, 209.

²²⁴ LONERGAN, *Insight*, 138, 151-54; Method, 280.

Against determinism, Lonergan points to an empirical indeterminacy in the laws of evolution and physics, asserting that coincidental aggregates of events are an integral aspect of world process.²²⁵

Modern science is one thing and the extra-scientific opinions of scientists are another. Among the extra-scientific opinions of scientists up to the acceptance of quantum theory was a mechanist determinism that misrepresented nature and excluded human freedom and responsibility.²²⁶

The scientific revolution has repercussions on philosophy. Immanuel Kant and Enlightenment thinkers had to come to terms with the scientific successes of Galileo and Newton. According to Patrick Byrne

Kant assumed that the rise of Newtonian science implied a deterministic universe, and thereby undermined the reasonableness of morals and faith. Thus his critique of pure reason was intended to isolate the results of modern science in a merely phenomenal realm, so that they would not imperil the noumenal realm of morals and faith.²²⁷

For Lonergan, Kant's introduction of a noumenical-phenomenal division of reality is based on erroneous philosophical interpretations of science and human knowing. "By rejecting pure reason yet granting primacy to practical reason Kant had sought a middle ground between empiricism and rationalism."²²⁸ Kant's legacy to subsequent generations was an insufficient account of science and a phenomenal realm that was taken to refer to the whole of knowledge and the

²²⁵ LONERGAN, *Insight*, 72-76.

²²⁶ LONERGAN, *Method*, 317.

²²⁷ Patrick H. BYRNE, "Lonergan's Philosophy of the Natural Sciences and Christian Faith in *Insight*," in *Going Beyond Essentialism: Bernard J.F. Lonergan, an Atypical Neo-Scholastic*, ed. Cloe Taddei-Ferretti, (Rome: Istituto Italiano Per Gli Studi Filosofici, 2012) 81-100, at 86.

²²⁸ LONERGAN, *A Third Collection*, 64.

whole of reality. More problematic was that Kant's noumenal realm, which was affirmed but not explained by practical reason, had ambiguous implications as a basis for faith and morals. Byrne asserts that "Lonergan ... rejected Kant's assumptions about the universe because even more fundamentally he also rejected Kant's analysis of science and human reason."²²⁹ Reflecting on Lonergan's achievement, Byrne continues,

[i]t is a universe whose natural yet contingent intelligibility calls out for further, extra-scientific philosophical inquiry (versus extra-scientific opinions) about its ultimate source and meaning. Hence there is no need to carve out an unknowable noumenal realm as Kant attempted, in order to provide a home for human freedom. The "upwardly but indeterminately" directed intelligible universe intended by natural scientific methods already is that home.²³⁰

Through a critical retrieval of the conscious and intentional sources of scientific knowledge, Lonergan is able to show that the sciences imply an open and dynamic universe. The universe to be known is correlative to the structure of human knowing. The universe is isomorphic with the structure of inquiry about it. As the knower is characterized by classical and statistical types of questioning, so the world being known is characterized by both the regularities of systems and the probabilities arising from non-systematic aspects of the world. Lonergan's discovery that science works with two different heuristic structures, the classical and the statistical, lead him to his formulation of an integral heuristic reflecting the anticipations of the sciences in a single worldview — a worldview he called "Emergent Probability." The most important characteristic of the concrete universe

²²⁹ BYRNE, "Lonergan's Philosophy of the Natural Sciences," 87.

²³⁰ BYRNE, "Lonergan's Philosophy of the Natural Sciences," 97-98.

for Lonergan is its “upwardly but indeterminately directed dynamism.”²³¹ It is a dynamism in which non-systematically occurring events can converge so as to set conditions for the emergence of ordered, recurring patterns of events. It is an immanent dynamism moving the universe to evolve towards greater complexity in a way that is not pre-determined, but open. It is a universe “in which are possible and essential, both intelligibility and randomness, as well as “natural laws,” emergent novelty, and genuine human freedom.”²³²

The evolution of post-classical philosophy was far from alien to Lonergan. Terse summaries can be found of its developments, limitations, and implications over the roughly four-century period following Descartes and Kant. Lonergan notes that

Kant was challenged by the absolute idealists – Fichte, Schelling, Hegel – who put practical reason back in its minor role and assigned supremacy to speculative reason. But the absolute idealists did not have the last word. In many and differing ways, in a variety of contexts, with widely differing implications, a succession of thinkers tended to reverse the view that had been held not only by absolute idealists but by rationalists, and before them by Aristotelians.²³³

Over several centuries, empirical science emerged as the paradigm of epistemic legitimacy exemplifying the ideal of continuous theoretical progress. The history for philosophy was different. “Instead of a single historical tradition with distinct and specialized departments of inquiry as in modern science, philosophy has

²³¹ For the purposes of this thesis, Emergent Probability is too vast of a topic to cover. For more on it, I refer readers to *Insight* 144-157, 290-292, 497, 656; also Kenneth MELCHIN, *History, Ethics and Emergent Probability: Ethics, Society and History in the Work of Bernard Lonergan*. 2nd ed. The Lonergan Web Site, 1999, 59-113.

²³² BYRNE, “Lonergan’s Philosophy of the Natural Sciences,” 87.

²³³ LONERGAN, *Philosophical and Theological Papers, 1965-1980*, 285.

experienced a cumulative multiplication of rival and opposed traditions."²³⁴ Unlike the single method of the sciences, philosophy had to deal with many different methods arising "from different orientations of historically developing but polymorphic consciousness of man." In *Method*, Lonergan refers to succession of thinkers in a later phase of the Enlightenment including Schopenhauer, Kierkegaard, Newman, Nietzsche, Dilthey, Blondel, Ricoeur, Scheler, Habermas, Brentano, and Husserl. He mentions as well as groupings of thinkers – utilitarians, pragmatists, personalists, existentialists, and phenomenologists.²³⁵ He points out that "[w]ill and decision, action and results, came up for emphasis in Kierkegaard, Schopenhauer, Nietzsche, Blondel, the pragmatists. Brentano inspired Husserl, and intentionality analysis routed faculty psychology."²³⁶ For Lonergan, the full philosophic challenge went beyond coming to grips with its multi-millennial historical development to the need for a method for philosophers based in cognitive self-appropriation. The significance of Lonergan in relation to the ongoing foundational problems of epistemology and metaphysics in the later phase of modern philosophy is summarized Frederick Lawrence:

Because of what Kierkegaard, Marx, Nietzsche, Freud, and Heidegger have done, foundational thinkers are now required to go behind epistemology and metaphysics to lay bare not the abstract and necessary conditions of knowledge but what is actually going on when we think we are knowing and evaluating. That sort of inquiry is the business of cognitional theory or method in Lonergan's sense.²³⁷

²³⁴ LONERGAN, *Insight*, 453-454.

²³⁵ See for example LONERGAN, *Philosophical and Theological Papers, 1965-1980*, 80, 127, 285; and *A Third Collection*, 64, 160, 184-5, 242.

²³⁶ LONERGAN, *Method*, 96.

²³⁷ Frederick LAWRENCE, "A Response to Gerald McCool," *CSTA Proceedings* 32 (1975): 90–96, at 96.

3.2.2 The Neglected Subject, Perceptualism, Conceptualism, And Classicism

Recovery of the liberty of the human subject and her freedom of consciousness is a concern that comes to the fore in Lonergan's post-*Insight* works. In *Topics in Education*, he relates the need to recover the human subject, lost amidst philosophical doctrines in politics, economics, and education. These, he asserts, have contributed much towards making human life unlivable.²³⁸ His 1968 lecture "The Subject," critiques a series of modern philosophical objectifications in which the subject is neglected, truncated, immanent, and alienated.²³⁹ Lonergan turns to three historical causes for this neglect advising that we eliminate them from our own thinking. First, there is a tendency to be fascinated by the objectivity of truth and to "so emphasize objective truth as to disregard or undermine the very conditions of its emergence and existence."²⁴⁰ He points out that arriving at truth is "a slow and laborious process" from experiencing data through understanding to finally judgment that conditions of truth have been fulfilled — a process that is "not independent of the subject, of times and places, of psychological, social, historical conditions." "Intentionally [truth] is independent of the subject, but ontologically it resides only in the subject."²⁴¹ Because what is true goes beyond the subject, it is seemingly in "a realm that is non-spatial, atemporal, impersonal." Lonergan quips that some theologians "seem to have

²³⁸ LONERGAN, *Topics in Education*, 232.

²³⁹ LONERGAN, "The Subject," *A Second Collection*, 72f.

²⁴⁰ LONERGAN, "The Subject," 61.

²⁴¹ LONERGAN, "The Subject," 61.

thought of truth as so objective as to get along without minds."²⁴² Secondly, deductive systems originating remotely in the Aristotelian notion of science (*Posterior Analytics*) and proximately in the rationalist notion of pure reason give the impression that "[w]hen scientific and philosophic conclusions follow necessarily from premises that are self-evident" truth is easily obtained with "no need for concern with the subject, ... for intellectual conversion, for open-mindedness, striving, humility, perseverance."²⁴³ A third reason is the metaphysical account of the soul. It is a "totally objective" method "applied to study of plants, animals, and men." The study of the subject is different since "[i]t prescind[s] from the soul, its essence, potencies, its habits, for none of these are given in consciousness."²⁴⁴

The "truncated subject," for Lonergan, "not only does not know himself, but also is unaware of his ignorance." Although palpable facts of sensation and speech are admitted, "logical positivists would confine meaning to sensible data and the structures of mathematical logic", "behaviourists would pay no attention to the inner workings of the subject," and "pragmatists would divert our attention to

²⁴² LONERGAN, "The Subject," 72.

²⁴³ Fred LAWRENCE in "Lonergan, the Integral Postmodern?" notes "Lonergan's position is postmodern in that he does not hold the exorbitant view of true judgments that many postmodern thinkers object to. ... Lonergan, like the postmodernist, disagrees with this account of truth. Rather, almost everything we judge to be the case- every matter of fact – is contingent. (*Insight*, 353,355) This means it is a conditioned state of affairs, with conditions that only happen to be, yet may not have been fulfilled. The integral postmodernist also understands that contingency is compatible with intelligibility and truth and that to affirm truth absolutely is to assert verified possibility, not an absolute necessity." In *Journal of Lonergan Studies*, Vol. 18, No. 2 (2000).

https://www.lonerganresource.com/pdf/journals/Method_Vol_18_No_2.pdf.

²⁴⁴ LONERGAN, "The Subject," 63.

action and results."²⁴⁵ Invariably, attention to the data of consciousness, to insights and acts of understanding are missed. In their place arises a conceptualism.

The "immanentist subject" does not know that her knowing involves intentional self-transcendence. As knowledge of knowing is denied the neglected and truncated subject, we find the subject within, or immanent. For Lonergan, "doctrines of immanence" have an inadequate notion of objectivity. Although "three components all function in the objectivity of adult human knowing, still it is one thing for them to function and it is quite another to become explicitly aware that they function." There is not just experiential objectivity based on sensation and perception, but the exigences of human intelligence and reasonableness. However, when knowing is taken as "something like looking, peering, seeing, intuiting, perceiving", then objectivity becomes "a matter of seeing all that there is there to be seen and nothing that is not there." For Lonergan, "[t]he conclusion of immanence is inevitable once picture thinking is admitted."²⁴⁶

Lonergan claimed in *Insight* that the "notable interval of time" of five centuries between Duns Scotus and Hegel "was largely devoted to working out in a variety of manners the possibilities of the assumption that knowing consists in taking a look."²⁴⁷ Related to the ocular model of knowing are problems of perceptualism, conceptualism, and classicism.

Perceptualism is a tendency common to most modern philosophies to image consciousness as some form of perception. It is common to naive realists,

²⁴⁵ LONERGAN, "The Subject," 64.

²⁴⁶ LONERGAN, "The Subject," 68.

²⁴⁷ LONERGAN, *Insight*, 396.

empiricists, and idealists alike.²⁴⁸ Frederick Lawrence argues that neither Descartes nor Kant could do justice to knowledge of the subject as subject rather than as object "because in one way or another they each identified consciousness with perception."²⁴⁹

Conceptualism is the notion that universal concepts arise out of experiencing, and that judgments are just syntheses of concepts. What comes first in knowledge are concepts or ideas, universal ideas that we apply to the world in order to understand it. It is linked to the Aristotelian notion of science wherein reasoning is conceived as a "matter of deducing necessary conclusions from self-evident principles."²⁵⁰ In "The Subject," Lonergan enumerates three basic defects of conceptualism. The first is an "anti-historical immobilism" that results in a static worldview. Conceptualist fixations on concepts, logic, and the necessary and immutable impedes the recognition of the real process of development in history (historicity) going on in human reality. Static conceptual systems and deductive reasoning cannot account for ongoing discovery in science, evolution, or evolving ideas. The second and third defects relate to an overemphasis on 'abstractness' that prioritizes the universal over the particular and a notion of being "as the most abstract of all abstractions." This ignores the concrete mode of human understanding that grasps intelligibility in the sensible itself. For Lonergan, being is concrete - that which is sought in questions for intelligence and questions for truth.

²⁴⁸ LONERGAN, see *Philosophical and Theological Papers, 1965-1980*, 234; also "Theology and Man's Future," *A Second Collection*.

²⁴⁹ Frederick LAWRENCE, "Fragility of Consciousness," 70.

²⁵⁰ On conceptualism see Lonergan, 'The Subject', *A Second Collection*, 72; *Method*, 316–317.

Conceptualism "is confined to the world of abstract universals, and its only link with the concrete is the relation of universal to particular."²⁵¹

The classicist notion of culture was that there was but one culture that was normative. Its accomplishments were universal and permanent. The uncultured, the young, and outsiders were to aspire to its norms and ideals. The empirical notion of culture, on the other hand, is that culture "is the set of meanings and values that informs a way of life."²⁵² It is a notion of culture "that recognizes cultural variation, difference, development, breakdown, that investigates each of the many cultures ... it refuses to take flight from the particular to the universal, and it endeavors to meet the challenge of knowing people in all their diversity and mutability."²⁵³ Lonergan critiqued what he called "classicism." Its idea of one dominant culture to which all must measure up, and its account of which was conceptualist, dominated by logic, by the "universal and necessary."²⁵⁴

A benefit for water ethics of the turn to historicity and an empirical notion of culture is that justice can be refined when we can meet others as they are in all their diversity and mutability. Dealing with multiple perspectives has been recognized as an ongoing task for water ethics. But with this benefit comes the huge challenge of relativism. With classicism, relativism becomes nearly impossible to avoid once one has acknowledged both the turn to historicity and the turn to an empirical notion of culture. Jeremy Wilkins, in a 2017 summary of

²⁵¹ LONERGAN, "The Subject," 74.

²⁵² LONERGAN, *Method*, xi.

²⁵³ LONERGAN, *Second Collection*, 161.

²⁵⁴ See also *Insight*, 427-432; *Method*, 326, 338-339; *Topics in Education*, 75-77.

hermeneutical themes of Fred Lawrence, highlights the origins and challenges of an installed cultural perspectivism.

If hermeneutical philosophers have largely succeeded in their critique of the subject-as-object, they have generally not succeeded in proposing a satisfactory alternative. They therefore settled into a denial of the possibility of any kind of adequate self-knowledge that could ground objective moral foundations.²⁵⁵

Accordingly, the postmodern subject has thus been left "alienated from the normativity of truth for intelligence and trapped in a discourse of 'relative perspectivism'." With an inability to successfully bridge the cognitive-existential gap, a problem opens up for modern living. A commitment to tolerance and diversity is necessary. However, "an ungrounded commitment to diversity easily becomes a merely aesthetic appreciation for cultural differences surprisingly incapable of acknowledging the real moral alternatives they represent." More benevolent forms of this discourse are tolerant, but there is also the 'alienated subject' caught in "a nihilistic or malevolent shadow that despises regard for the other as weakness."²⁵⁶

3.3 Value Judgment and the Existential Subject

Can there be a water ethics or ethics in general without persons as subjects evaluating and deciding? Conceptualism and truncated or reductionist concepts of the human subject fail on this count. Attending to the full human subject is needed

²⁵⁵ Jeremy D. WILKINS, "The Fragility of Conversation: Consciousness, Culture, and Christian Friendship in the Thought of Frederick Lawrence," Paper presented on June 20, 2017 at the Lonergan Workshop, Boston College, 8.

²⁵⁶ WILKINS, "The Fragility of Conversation", 8.

in ethics. When the intending subject goes missing, conceptualism makes the search for metaethics into a search for basic concepts.

Subject-neglecting philosophic impasses have already been explored in this thesis. Section 3.2.2 explored the emergence of the subject or self in post-classical thought as neglected, truncated, immanentist, existential, and alienated. In reference to such impasses Elizabeth Murray writes "the obstacles to self-knowledge ... such as objectivism, conceptualism, and epistemological obfuscation, variously ignore the subject as freely self-constituting, as reasonable, or as intelligent."²⁵⁷ Murray points out that philosophy is divided over the nature of the self and sometimes denies that there is a self. For example, "[r]eductionistic empiricists are comfortable dealing with neural networks, but shrink away in Humean fashion from personal identity."²⁵⁸ Yet it is the self, it is the subject who values and deliberates, decides and acts. In this chapter we look further into Lonergan's treatment of the subject seeking the good and value in a world mediated by meaning and motivated by values. The role of feelings cannot be neglected since the human subject of ethical decision-making is a complex of inquiry, feelings, and thought.

3.3.1 Feelings, Conversions, and Self-Transcendence

For Lonergan, the self is "a concrete and intelligible unity-identity-whole." The unity of consciousness is a given and "concretely, consciousness pertains to

²⁵⁷ Elizabeth MURRAY "The Self of Critical Realism" in *Going beyond essentialism*, 123-137, 123.

²⁵⁸ MURRAY "The Self of Critical Realism," 123.

the single acting agent."²⁵⁹ As conscious subject, the single agent is present to self in many acts. As a developing subject, the human person is a complex unity-in-tension made up of interdependent physical, chemical, biological, zoological, and intellectual-rational-affective dimensions. These dimensions or levels are related to each other through sublation and reach a higher integration in the self under the dominance of sensitive, intelligent, rational, and existential consciousness. The acting embodied subject differs greatly from the disembodied reason of Descarte's *cogito*.

Feelings are an integral and important part of the self. Feelings can be non-intentional such as thirst, hunger, or fatigue. Feelings that are intentional relate us to causes, objectives, and objects. Lonergan points out that

Such feeling gives intentional consciousness its mass, momentum, drive, power. Without these feelings our knowing and deciding would be paper thin. Because of our feelings, our desires and our fears, our hope or despair, our joys and sorrows, our enthusiasm and indignation, our esteem and contempt, our trust and distrust, our love and hatred, our tenderness and wrath, our admiration, veneration, reverence, our dread, horror, terror, we are oriented massively and dynamically in a world mediated by meaning.²⁶⁰

As intentional responses to objects, feelings may respond in different ways. There are two main classes of responses: "one the one hand, the agreeable of disagreeable, the satisfying or dissatisfying; on the other hand, values, whether the ontic value of persons or the qualitative value of beauty, understanding, truth, virtuous acts, noble deeds."²⁶¹ Feelings are often ambiguous, and play an

²⁵⁹ LONERGAN, *Insight*, 343 and 350.

²⁶⁰ LONERGAN, *Method*, 30-31.

²⁶¹ LONERGAN, *Method*, 31.

important though sometimes overlooked role in ethical decision-making. Feelings, as apprehensions of value, are intermediate between judgments of fact and judgments of value. Feelings as responses to values can carry us towards self-transcendence. Such feelings select objects and achievements for the sake of whom or which we transcend ourselves.

Judgments of value are made at the fourth level of consciousness – the level of deliberation and decision. They may be simple or comparative, choosing x as better, more important, or more urgent than y. Lonergan points out three inseparable components in judgments of value.

In judgments of value, then, three components unite. First, there is knowledge of reality and especially human reality. Secondly, there are intentional responses to values. Thirdly, there is the initial thrust towards moral self-transcendence constituted by the judgment of value itself.²⁶²

These components of judgments of value are worth emphasizing. An adequate knowledge of reality is a necessity for moral decision-making. Decisions are conditioned by knowledge and without adequate knowledge of the concrete reality being dealt-with, there can be no more than fine general moral feelings and idealism. However, factual knowledge is not enough. Values are apprehended in feelings, not any feelings, but value-oriented feelings cultivated in the developing subject. Lonergan writes "... knowledge alone is not enough ... moral feelings have to be cultivated, enlightened, strengthened, refined, criticized, and pruned of

²⁶² LONERGAN, *Method*, 38.

oddities."²⁶³ The thrust toward self-transcendence, the third component, is part of the *eros* of the human spirit towards truth, objectivity, reality, beauty, and goodness. This thrust may be weakened by factors such as bias, obfuscation, or cynicism. It may also be recognized and cultivated by conscious decisions and conversions.

The developing subject, growing in knowledge and moral feelings, heads towards the existential discovery, the discovery that her decisions effect both herself and the world in which she is living. It is the discovery of herself as a moral being, as a person who can be authentic or inauthentic. "With that discovery, there emerges in consciousness the significance of personal value and the meaning of personal responsibility."²⁶⁴

Authenticity and conversion are fundamental terms in Lonergan's treatment of the human subject. For Lonergan, humans are easily inauthentic and "[d]evelopment is not inevitable, so results may vary."²⁶⁵ Human authenticity is achieved in self-transcendence and is open to all meaning and values. Conversion has been briefly addressed in 4.1.5. For Lonergan, conversion can be religious, but it has much broader connotations than the way people ordinarily use the term. Conversion opens the subject's field of intended questions to all meaning and values. It "involves a new understanding of oneself because, more fundamentally, it brings about a new self to be understood." Conversion thus opens and changes horizons. It can happen over short durations, but is also "an ongoing process,

²⁶³ LONERGAN, *Method*, 38.

²⁶⁴ LONERGAN, *Method*, 38.

²⁶⁵ LONERGAN, *Method*, 254, 51.

concrete and dynamic, personal, communal, and historical."²⁶⁶ Lonergan describes three dimensions of conversion: intellectual in one's orientation to the intelligible and true; moral in regards to our orientation to the good; and religious in regards to our orientation to God.²⁶⁷

As intellectual and moral conversion, so also religious conversion is a modality of self-transcendence. Intellectual conversion is to truth attained by cognitional self-transcendence. Moral conversion is to values apprehended, affirmed, and realized by a real self-transcendence. Religious conversion is to a total being-in-love as the efficacious ground of all self-transcendence, whether in the pursuit of truth, or in the realization of human values, or in the orientation a man adopts to the universe, it's ground, and it's goal.²⁶⁸

Through conversion, a person reorients towards authenticity – authentic knowing and doing. For Walter Conn, human self-realization requires authenticity and the authentic developing person transcends herself cognitively, morally, and affectively.

Authentic self-realization, in other words, is to be found in nothing other than self-transcendence. ... [t]he criterion of human authenticity (as an ideal) is precisely the self-transcendence that is effected through sensitive and creative understanding, critical judgment, responsible decision, loyal commitment, and genuine love. Though the term "self-transcendence" has many meanings, some of them quite vague and mysterious, for Lonergan it refers primarily to the threefold achievement of "moving beyond one's own self" that is realized in every instance of correct understanding (cognitive), responsible decision (moral), and genuine love (affective).²⁶⁹

²⁶⁶ LONERGAN, *A Second Collection*, 67.

²⁶⁷ A fourth modality called "psychic conversion" pertains to the integration of organic and psychic spontaneities with conscious operations. It has been developed by Robert Doran in books such as *Psychic Conversion and Theological Foundations* (Marquette University Press, 2006), and mentioned by Lonergan in *Philosophical and Theological Papers, 1965-1980*, 390.

²⁶⁸ LONERGAN, *Method*, 241.

²⁶⁹ CONN, "Ontogenetic Ground of Value," 314.

3.3.2 The Dynamic Structure of the Good, Particular Goods, Goods of Order, and Value

Values have frequently been referred to in water ethics literature. But what exactly is value? Can it be measured and compared? Are there any criteria? With Lonergan, value, or the good, is a transcendental notion. Value "is what is intended in questions for deliberation, just as the intelligible is what is intended in questions for intelligence, and just as truth and being are what are intended in questions for reflection. Such intending is not knowing."²⁷⁰ Transcendental notions are the dynamism of conscious intentionality, the drive towards meaning and value. The transcendental notions direct the subject to her goals and also provide the criteria of whether the goals are being reached. The drive to understanding is dissatisfied and raises further questions until understanding is reached. Similarly, "the drive to value rewards success in self-transcendence with a happy conscience and saddens failure with an unhappy conscience."²⁷¹ It would be a mistake to think of the transcendental notions as abstract. They are broader than any category, but "they are utterly concrete. For the concrete is the real not under this or that aspect but under its every aspect in its every instance."²⁷²

The human good is treated in numerous places by Lonergan.²⁷³ Such a complex notion cannot be confined to definitions without the danger of

²⁷⁰ LONERGAN, *Method* 34.

²⁷¹ LONERGAN, *Method*, 35.

²⁷² LONERGAN, *Method*, 36.

²⁷³ A partial list of references on 'the human good' includes *Insight* (chapters 1, 2, 4, 6, 7, 18), *Understanding and Being* (chapters 1, 2, 3, 4, 10), and *Topics in Education* (chapters

misrepresentations. Lonergan takes a heuristic and explanatory approach that clarifies components, structure, and dynamic relations involved in the human good. Three major points gleaned from his *Insight* and post-*Insight* treatment should not be missed in this thesis. First, the human good in the broadest sense emerges from and is dynamically nested within the ongoing antecedent and broader context of emergent probability. The ongoing evolution of the universe towards higher and more complex integrations becomes, on the human historical level, a conscious directed dynamism. The human good is situated in and part of the developing universe upon which it depends. Humanity emerges with the ability to direct world processes with intelligence, freedom, cooperation and responsibility within the larger world order.

Second, the good is never abstract. In many and different ways, Lonergan emphasizes that "[w]hat is good, always is concrete." Third, historical process reveals an ongoing dialectic of progress, decline, and redemption. The human good "is a history, a concrete cumulative process resulting from human apprehension and choices that may be good or evil."²⁷⁴ In this complicated amalgam the thrust of authentic cognitive and moral self-transcendence brings about progress in the human good, whereas human agency marred by the personal, group and general bias causes decline. The structure of the human good can thus be examined in two ways — first, as an object, and secondly, as the developing subject.

2, 3, 4, 8, 10), *Method* (chapter 2), and *Philosophical and Theological Papers, 1965-1980*, (chapter 18).

²⁷⁴ LONERGAN, *Topics in Education*, 33.

As in the quest for better understanding and higher viewpoints, the concomitant quest of the self for value has an expanding nature. Kenneth Melchin points out that Lonergan presents three levels of the good in *Topics in Education*, 33-38, and *Insight* 18.1.1. Each level is more expansive, more comprehensive. The third level of moral meaning is when we have expanded our horizon to the extent of dealing with long term impacts on history, and impacts beyond borders to the whole world. Melchin observes that,

In some cases, “good” seems to mean little more than something that satisfies an individual desire or a personal interest. In other cases “good” seems to imply an accountability to a wider social order that transcends personal desire. In still other cases, invoking “the good” seems to call for a critical evaluation of social orders within wider, more universal horizons of historical progress or decline.²⁷⁵

The human good is an ongoing process and has structure and texture. It involves people, human apprehension and choice, collaborative relationships, conditions, development, value, and the world. An invariant structure can be identified which consists of three parts — particular goods, goods of order, and value. This structure does not vary with geography, culture, or period within history. It is true “at any place or time.”²⁷⁶

Particular goods are the objects of an individual’s appetite and need, things such as drink, food, shelter, and so on. These are “what everything wants, goes after.” Though each individual can pursue particular goods and develop certain skills to do so, Lonergan’s notion of the human good goes further. It takes into

²⁷⁵ Kenneth MELCHIN, *Living with Other People: An Introduction to Christian Ethics Based on Bernard Lonergan* (Ottawa: Novalis, Saint Paul University, 1998) 43.

²⁷⁶ LONERGAN, *Topics in Education*, 26,33.

account not only the individual, but also the social realm. There is also the “concrete functioning of human cooperation to bring about a sustained succession of particular goods.”²⁷⁷

As appetite wants breakfast, so an economic system is to ensure breakfast every morning. As appetite wants union, so marriage is to ensure life-long union. As appetite wants knowledge, so an educational system ensures the imparting of knowledge to each successive generation.²⁷⁸

Humans collaborate in shaping and working through institutions to attain a flow of particular goods in a coherent, expansive, and progressive way. These schemes of collaboration constitute *goods of order*. Thus the human good is concerned with the ordering of society. This expansion of collaborative good covers all kinds and sizes of organizational units – the family, education, churches, legal systems, governments, economies. All of these institutions have human apprehension, choice, and schemes or patterns of relations and interaction in common. None of the myriad of organizational units can remain healthy if static. They are part of an unfolding history. As they require human insights for their emergence, they require an ongoing flow of insights for survival and improvement. The human good is also concerned with the healthy functioning of Earth's support systems which are also goods of order. Not making such a case for healthy water and ecosystems would be incongruous with the broadest horizon of moral meaning and the interdependence of the human good and planetary systems.

²⁷⁷ LONERGAN, *Method*, 50.

²⁷⁸ LONERGAN, *A Second Collection: Papers*, Volume 13, 81.

Lonergan provides a more detailed analysis of the human good in Chapter Two of *Method*. Although it cannot be completely covered here, his analysis explores and relates the various components that enter into the human good such as skills, feelings, values, beliefs, and cooperation. He also presents an outline table of eighteen elements covering individual and social aspects, as well as developmental aspects from potentiality through actuation towards the ends of particular goods, goods of order, and terminal value.²⁷⁹

3.3.3 Differing Values — Vital, Social, Cultural, Personal, and Religious

We have seen that implicit values are at play in water policy and management. Values are of differing kinds and rooted in differing horizons or worldviews. There exist also, often implicitly, different ways of prioritizing values, different scales of preference. Personal scales of value preference are subjective and not necessarily normative. A question remains as to whether there is a normative scale of values that could be transcultural and useful in water ethics. Lonergan puts forward a scale of value types worth exploring.²⁸⁰ In it, he distinguishes vital, social, cultural, personal, or religious values as differing classes of values. He contends that “we may distinguish vital, social, cultural, personal, or religious values in an ascending order.”²⁸¹ Vital values cover a broad class of basic needs for life and health such as fresh water, or food. Social values are the

²⁷⁹ LONERGAN, *Method*, 48.

²⁸⁰ LONERGAN, *Method*, 31; also chapter 9 in Patrick BYRNE, *The Ethics of Discernment: Lonergan's Foundations for Ethics* (Toronto, Buffalo, and London: University of Toronto Press, 2016) 241-284.

²⁸¹ LONERGAN, *Method*, 31.

values on the level of goods of order that enable the continual provision of vital values. They are values that enable ordered systemic functioning in the institutions involved in social-political-economic setups. But society is guided by higher values and disvalues. These are cultural, personal, and religious.

Culture – the set of meanings and values that inform a way of life, permeates society and is subject to various factors influencing continuity or change over time. Society is culture as operative. Culture has a higher integral function. People seek meaning and value in their living, Reflective insights and judgment on the level of cultural value can bring critical light to the whole social system setup. It is the function of culture to express, validate, criticize, correct, develop, improve such meaning and value.”²⁸² Cultural values exist because of the underpinning of vital and social values, but they rank higher.

Personal value is the person in her self-transcendence. It is the person open to all meaning and value and seeking and originating values in herself and her milieu. There are also religious values that orient a person's whole life in the cosmos in relation to the transcendent mystery of love and awe.

Why did Lonergan order values in this way? Both Patrick Byrne and Robert Doran²⁸⁴ contend that it is because there is a reciprocal form of conditioning in the values in both ascending and descending orders (top-down). Because there are degrees of existential self-transcendence, top-down conditioning takes a role of

²⁸² LONERGAN, *Method*, 32.

²⁸⁴ Discussions of the scale of value can be found in Patrick BYRNE, *The Ethics of Discernment*, 403-406; and Robert DORAN, *Psychic Conversion and Theological Foundations* (Marquette University Press, 2006) 94-95, 102.

primacy over the bottom-up conditioning which is one of dependency. Bottom-up conditioning recognizes that the more basic levels make possible the emergence of the higher levels, e.g., one must eat and drink (vital) in order to go to work (social) or to pray (religious). Top-down conditioning recognizes that it is the subject (person) that receives and critically improves culture (cultural values). The cultural pursuit of meaning and purpose is objective only inasmuch as the persons engaged in it are themselves intelligent, reasonable, and responsible. Thus the cultivation of authenticity in the person (personal value) ranks higher. The function of culture, then, is to improve the functioning of goods of order and bring conditions for more just societies (social values), thereby bringing about a positive impact on vital sources for sustaining the community of life (vital). Religious values, as highest, give new meanings and motivation to persons, orienting them to an all-encompassing good in the love of God and creation. It is the sense of purpose from the higher values that motivate people in their lives to set and improve the conditions of the social and vital levels. A value level is higher because of its capacity to operate "from above" in setting conditions for sustained recurrence of a whole series of values at the lower levels.

3.4 An Ethics of Authenticity – Existential, Empirical, and Critical

Michael McCarthy characterizes Lonergan's ethics as an "existential ethics" and as "an empirical and critical ethics" of the incarnate developing subject. Lonergan, in shifting to the intentional analysis of the subject in place of a classical

metaphysics of the soul, profoundly opens the concrete reality of human subjects in evolving historical communities in which they are situated.

Lonergan's heuristically oriented ethics in no way excludes terminal values or denies the importance of the moral and intellectual virtues, but it grounds its evaluative judgments and decisions not in a metaphysics of the rational soul but in a normative intentional analysis of the incarnate, polymorphic developing subject.

Existential ethics begins with human beings as they actually are: embodied, polymorphic subjects, situated in a web of interpersonal relations, and manifestly dependent on the comprehensive orders of nature and history.²⁸⁵

The exercise of moral and intellectual virtues are integral here, yet they are transposed in Lonergan's ethics within the terms of authenticity, conversions, and expanding horizons of concern and knowledge in developing subjects. Lonergan distinguished the desirability of an ethic of achievement over an ethic of law. Self-transcending persons, fully living out their orientation to meaning and value, bring terminal value into their milieu as "principles of benevolence and beneficence, capable of genuine collaboration and of true love."²⁸⁶

McCarthy, again, argues that the core of ethics "is the unrestricted human desire to know and actualize the good, the truly worthwhile, in all of its aspects and enabling conditions. ... We are constituted as human knowers and doers by the unrestricted *eros* that orients us in a fundamental way towards the universe of

²⁸⁵ Michael MCCARTHY, "Theological Reflection and Christian Renewal," *Lonergan Workshop*, Vol. 15 (1999) Lonergan Resource, Boston College, 77-97, at 92-93.; accessed November 4, 2016 at www.lonerganresource.com/pdf/journals/Lonergan_Workshop_Vol_15.pdf.

²⁸⁶ LONERGAN, *Method*, 35.

being and value."²⁸⁷ This drive for meaning and value unfolds through four levels of intentional consciousness. This unfolding culminates at the fourth level of consciousness as knowledge is sublated in the subject's free and responsible decisions and actions.

Our previous exploration of Lonergan pointed to the operations of consciousness, inasmuch as unbiased, are the operative principles or norms of ethics in human subjects. The exigence of these norms for existential living were thematized by Lonergan in the transcendental precepts: *Be attentive!* (to your experience), *Be intelligent!* (in your enquiry for meaning), *Be reasonable!* (in judging the veracity of your understanding and experience), and, *Be responsible!* (in your deliberations, decisions, and actions). Authentically following these norms reverses decline and brings openness to all meanings and values. Authenticity is so central that Lonergan's ethics has also been described as "an ethics of authenticity" by Lawrence.²⁸⁸

Human beings are easily inauthentic, however, and according to Lonergan, "human authenticity never is some pure and serene and secure possession. It is ever a withdrawal from unauthenticity, and every successful withdrawal only brings to light the need for still further withdrawals."²⁸⁹ Conversion, mentioned earlier, is a road of continual withdrawal from inauthenticity. Referring to the operations of consciousness, McCarthy points out that "it is the operative principles as

²⁸⁷ MCCARTHY, "Theological Reflection and Christian Renewal," 91.

²⁸⁸ Frederick LAWRENCE, "The Ethics Of Authenticity and the Human Good, in Honour of Michael Vertin, an Authentic Colleague," in *The Importance of Insight*, Ed. John J. Jr Liptay and David, S. Liptay, (Toronto: UTP, 2007) 127-150.

²⁸⁹ LONERGAN, *Philosophical and Theological Papers, 1965-1980*, 44.

concretely experienced in human consciousness that are actively sublated by the gift of God's grace and profoundly distorted by the multiple forms of bias and sin."²⁹⁰

Water ethics and governance finds itself at the intersection of human agency and water issues. Better results will come about inasmuch as those involved have authentically appropriated their operations of intentional consciousness. However, it will be wise to remember our earlier section on two "First Philosophies" and the following point of Lonergan.

The end of the age of innocence means that authenticity is never to be taken for granted. ... human studies have to cope with the complexity that recognizes both (1) that the data may be a mixed product of authenticity and of unauthenticity and (2) that the very investigation of the data may be affected by the personal or inherited unauthenticity of the investigators.²⁹¹

Water ethics in the 21st century would do well to be aware of how this dialectic between inauthenticity and authenticity might apply to all involved, including water managers, policy makers, and stakeholders.

²⁹⁰ MCCARTHY, "Theological Reflection and Christian Renewal," 91.

²⁹¹ LONERGAN, *A Third Collection*, 157.

Chapter 4 Engaging Lonergan's Method for Water Ethics Problems

Exploration and critical examination of water ethics literature in chapters two and three has found a number of unresolved questions and needs. For example, how might water ethics be situated in relation to arguments between anthropocentric and ecocentric positions, or whether human rights can serve as a foundation for water ethics, or how to ground water ethics? In conflictual situations and when dealing with incommensurable values, water ethics needs to be equipped to justify decisions.

Ultimately, ethical water governance should be able to ground and justify its judgments philosophically. Philosophy, for Lonergan, is "the basic and total science" that "fulfills an essential mediating role between theology, other sciences, human cultures and societies."²⁹² Philosophy does not usurp the empirical sciences, but rather is the ground of all interdisciplinary work. Philosophy "is not just metaphysics, but the compound of (1) cognitional theory, (2) epistemology, (3) the metaphysics of proportionate being, and (4) existential ethics."²⁹³ This chapter explores how Lonergan might help with these questions. Also, because water governance is done through institutions, section 5.5 provides an example of one application of how Lonergan might be of assistance in developing responsible ethical water institutions. This is only one of many possible applications.

²⁹² LONERGAN, *Philosophical and Theological Papers, 1965-1980*, 355.

²⁹³ LONERGAN, *Philosophical and Theological Papers, 1965-1980*, 357.

4.1 Questions of Anthropocentrism and Ecocentrism

"Anthropocentrism, ecocentrism, and rivers with rights" in Chapter 2 looked into some of the discourse regarding the need to move beyond anthropocentric interests in water governance. UNESCO-sponsored water ethics reports recognized human rights, as per the 1948 UN declaration, as a basis of reference for their work. A later UNESCO report in 2011 acknowledged the anthropocentric basis in earlier UNESCO work and affirmed the need to embrace a more ecocentric approach. Deep respect of nature and more ecocentric approaches are inherited or embraced by both Indigenous Peoples and Ecofeminism as seen in Chapter 1. My question here is whether Lonergan's work can provide a philosophical basis for water ethics that is not anthropocentric, or at least help clarify the anthropocentric-ecocentric question.

4.1.1 Emergent Probability and Self-Transcendence

Lonergan's approach is rather unique in the realms of philosophy and theology in that it does not treat humanity in a silo, but rather grounds humans and human agency within the universe of emergent probability. For him, what underlies the intelligible orders of human invention are the intelligible orders of nature which precede and condition the orders of human invention. Humans are dependant upon and functionally nested within a dynamic emerging world.

If the intelligible orders of human invention are a good because they systematically ensure the satisfaction of desires, then so also are the intelligible orders that underlie, condition, precede, and include man's

invention. Finally, intelligible orders and their contents, as possible objects of rational choice, are values.²⁹⁴

Patrick Byrne reflects on whether Lonergan's argument is, or is not, anthropocentric in *The Ethics of Discernment*. He writes that,

fundamentally, the grasp of a value as virtually unconditioned is a recognition of the value of oneself and one's actions as participants in a valuable "universal order," a dynamic evolving order in which one's own human action is only the most recent addition. Hence, far from making the value of the universe depend upon human choice, Lonergan's argument shows that the value of any human choice depends upon the conditioning value of the evolving universe as it extends into the ongoing story of human history.²⁹⁵

The value of the universe, or of earth's ecosystemic community of life, are not dependent upon human decisions in Lonergan's account. On the contrary, the very possibility of judgments of value depends on the evolving universe. Byrne concludes that Lonergan's argument ultimately is not anthropomorphic since "it does not argue that the natural universe is good *because* of human judgment and choice; quite the contrary — the possibility of an ethically valuable human choice is substantially conditioned upon the goodness of the universe."²⁹⁶

Authentic human living according to Lonergan's method means self-transcendent and responsible living. Cognitively, it requires considering all the appropriate data, and questioning, testing, and improving the best understandings of it. Morally, it requires finding, deliberating, and deciding on scenarios of value grounded in the best evidence and understandings. We have seen Melchin's reflection in section 3.3 on Lonergan's three levels of the good. Each level is more

²⁹⁴ LONERGAN, *Insight*, 628.

²⁹⁵ BYRNE, *The Ethics of Discernment*, 365.

²⁹⁶ BYRNE, *The Ethics of Discernment*, 365.

expansive and more comprehensive. Ecosystems are goods of order. Similar to human goods of order, ecosystems are necessary for the continual provision of conditions of life for multiple species, including human life. The third level of moral meaning deals not only with the local and particular, but with all pertinent horizons up to long term impacts on history and global geographic dimensions. Unfettered and unbiased questioning brings us to these levels. Lonergan urged readers to live and operate on the level of the times, and to work in interdisciplinary collaboration.²⁹⁷ To be on the level of the times in the early 21st century means considering all the pertinent data including the ways humans are changing and harming the earth. It means participating in the challenge of living ethically and sustainably as members of humanity in the Anthropocene.

4.1.2 Rivers with Rights

The conundrum facing ecocentric conceptualism came up in Chapter 2. It was found there that, even when rivers are accorded legal rights similar to rights of humans, the rivers still have need of human spokespersons. This conundrum surfaces when rivers such as the Whanganui, the Ganges, and the Yamuna are accorded legal rights as persons. As voiceless, the rivers need spokespersons to uphold their rights. But who shall be the spokespersons for the rivers? This is a fundamental inevitable question in the anthropocentric-ecocentric problem. Nature's need of spokespersons is indeed the crux of the problem. Whether

²⁹⁷ LONERGAN, *A Third Collection*, 8; *Philosophical and Theological Papers, 1965-1980*, 366.

speaking of 'deep ecology' or legal intrinsic rights, there is no bypassing the question of human spokespersons for nature. In the case of rivers, most people would agree that the spokespersons selected should be those who know the rivers best and care about them. In India, the designation of middle rank public officials and lawyers as 'custodians' of the rights of the Ganges, and Yamuna rivers sounds like a recipe for decline. In New Zealand, designating the Iwi aboriginal people in conjunction with a natural resource agency at least gives more hope for the fate of the Whanganui river.

Securing or enhancing ecologic rights for a watershed is complicated by further factors including the history of development, geographic scale, and institutional capacity and culture. There is neither a short term nor a cookie-cutter approach available for achieving sustainability and better water and ecologic function as desired by an ecocentric-oriented ethic. Levels of development and scales vary enormously across geographies of river basins. I refer briefly as an example to a major effort to implement an ecosystem approach in water management in the 766,000 sq. km. basin of the Great Lakes of North America.

4.1.3 An Ecosystem Approach — Examples of the Great Lakes Water Quality Agreement and of St. Lawrence River Regulation

In 1972, well prior to the water ethics literature examined in this thesis, Canada and the United States forged the Great Lakes Water Quality Agreement (GLWQA). The 1978 revision of the agreement included an ecosystem approach.

Restoring and maintaining the chemical, physical and biological integrity of the Great Lakes Basin Ecosystem required recognition of the interconnectedness of all of the interacting components of air, land, water and living organisms within the drainage basin, including humans. An amendment to the GLWQA in 1987 included development of 'Remedial Action Plans' for 'Areas of Concern,' as well as 'Lakewide Management Plans.' It recognized the need to address individually and cumulatively all sources of stress to the ecosystem. The history of the GLWQA cannot be given here, but a few points are in order. First, ethical and political commitment are a *sine qua non* for the successful unfolding of this large and long term effort. It includes coordinated binational participation of natural resource agencies from both countries and an ongoing role for the International Joint Commission (IJC) in assessing progress and holding forums engaging the public around the basin. Second, a holistic approach is being taken that includes both human and ecosystem health. Third, human spokespersons for the ecosystem along with the use of best science cannot be bypassed. Science-based management is a core principle in the 2012 revision and in earlier versions of the GLWQA. It assures that decisions, policies and programs are "based on best available science, research and knowledge, as well as traditional ecological knowledge."²⁹⁸

²⁹⁸ The agreement, amendments and background are available through http://www.ijc.org/en/Great_Lakes_Water_Quality. Another reference is *Law and Ecology: The Rise of the Ecosystem Regime* by Richard O. Brooks, Ross Jones, and Ross Virginia, Routledge, London and New York, 2002, 177-182.

Protecting natural ecologies in nearly undeveloped rivers can, and is often done by designating watershed areas as natural parks with delimited human uses. However, apart from headwater areas, the majority of river basins on our planet have some level of human development. How does one protect or improve natural function in these rivers? An example that highlights the entwined complexity of ecologic and anthropic concerns in a highly developed international basin can be found in the review of the IJC's Order of Approval for regulation of the St. Lawrence River. The Commission's Order governs the discharge of water through the Moses-Saunders dam between Cornwall, Ontario and Massena, New York. Regulation of the flow of the St. Lawrence, North America's second largest river by volume, determines to a large extent the water levels of Lake Ontario as well as levels on the river to well downstream of Montreal. The dam construction and original regulation plan dated to the late 1950s, co-synchronous with the construction of the international St. Lawrence Seaway. An attempt to propose a new regulation plan in the 1990s was set aside by the IJC, largely because of a lack of studies on the environmental effects of different ways of regulating flows and water levels in the system.

Construction of the dam and Seaway megaproject in a pre-environmental assessment era had had irreversible negative impacts on the aquatic ecosystems and certain migratory fish species. Once major hydroelectric dams are installed, there is almost always no going back. Some half-century later, one of the unanswered questions was whether a new flow and level regime control at the

dam could improve the health and productivity of wetlands around the system. Wetlands are important habitats for fish reproduction as well as avian and mammal species like muskrats. Some 26,000 hectares (64,000 acres) of wetlands upstream of the dam around Lake Ontario had been in declining, with monocultures of cattails taking over in many locations due to the compressed water level range.

Review of the Orders required shared Canada and US government funding and a five-year (2000 – 2005) binational Lake Ontario-St. Lawrence River Study (LOSLR)²⁹⁹ involving a Study Board, a Public Interest Advisory Group, and technical work groups for all of the impacted natural and human interests including the Environmental, the Commercial Navigation, the Hydroelectric Power, the Recreational Boating and Tourism, the Coastal Processes, and the Domestic, Industrial and Municipal Water Uses technical working groups. Two members of the Study Board were from the Mohawk territories of Akwasasne and St. Regis which straddle the St. Lawrence River not far downstream of the dam. Consideration was also given to the Akwasasne Task Force on the Environment (ATFE) report³⁰⁰ on assessment of the Akwasasne First Nation's environment in relation to riverine issues. The ATFE approach, respecting both modern science

²⁹⁹ The report *Options for Managing Lake Ontario and St. Lawrence River Water Levels and Flows* is accessible at <http://www.ijc.org/loslr/en/library/reports.php>. I was the IJC's lead Canadian advisor on the LOSLR study for all five years.

³⁰⁰ Akwesasne Task Force on the Environment, "An Assessment of the Environment, Shoreline Erosion, and Recreational Boating within the Mohawk Territory of Akwesasne: A Review of Literature Supplemented by Empirical Data from Mohawk Elders, Gatherers, and Key Informants," Volumes I and II, Mohawk Territory of Akwesasne, March 2004.

and Traditional Ecological Knowledge, used a literature review and information of Mohawk Elders, gatherers, and key informants.

The environmental working group was the largest in the study at about 40 in number. These persons, strong on biologists and ecologists, were the principal spokespersons for the whole of the non-human aquatic-based environment. The Environmental Technical Working Group developed 32 water level dependent indicators for species and lifecycle-habitat processes in the differently affected reaches of the lake and river system. These indicators were tested with proposed new regulation plans through 500 centuries of stochastically generated hydrologic supplies and four modeled climate change scenarios. All anthropic uses were tested through the same hydrologic scenarios with results ultimately reduced to monetary impacts for comparable evaluations. The Study Board, needing a comparable evaluative basis for the proposed regulation plans for the environment, decided wisely to not attempt monetary estimates of environmental effects. Instead, a summary factor showing the quantitative improvement of all the environmental indicators was used.

In its 2006 final report to the IJC, the Study Board brought forward three proposed optional plans³⁰² with associated annual economic impacts and environmental scores. Henry Lickers, a board member from Akwasasne, remarked to me near the end of the study that his first choice was having the water levels and flows as prior to the dam and Seaway. But, as that was not on the table, he

³⁰² *Options for Managing Lake Ontario and St. Lawrence River Water Levels and Flows*, 29-87.

preferred Plan B+, which had the highest environmental benefits.³⁰³ Lake Ontario south shore property owners and two board members allied with them were opposed to Plan B+, which tended towards a more natural range of water levels. It was up to the IJC Commissioners to make the final decision. But in this case, concurrence of the two national governments was necessary. Eventually, after a long, contentious, and often political struggle, an improved descendant version of Plan B+ named Plan 2014 was officially implemented along with a Supplementary Order of Approval for regulation of the river. The achievement of a more beneficent environmental regulation plan for Lake Ontario and the St. Lawrence River by the IJC could not have come about without these factors: 1) a heightened sense of responsibility towards the environment, 2) a realistic accounting for all anthropic uses of water, 3) the use of best available science, and 4) the freedom to make water decisions outside the ambit of powerful interests and governmental inertia.

We have seen how humans are part of nature in Lonergan's account. However they are the part of nature uniquely capable of questioning experience, gaining insights and understandings, and further questioning for truth and reality, and finally deliberating over value and deciding for that which is truly good (or better). Ethical questioning happens at the fourth level of the levels of consciousness. These levels are interlocking and self-constructing parts of consciousness which is itself a unity. This fourth level is the level of responsibility -

³⁰³ Plan B+ was called the "balanced environmental plan." A description of it is on pages 38-39 in *Options for Managing Lake Ontario and St. Lawrence River Water Levels and Flows*.

responsibility for one's knowledge, for one's decisions, and for one's actions.

Individually and collectively, we are responsible for what we know and what we do.

Authentic human living is self-transcendent. It supports being attentive to all of the data and being reasonable about all understandings, meanings and values.

The anthropocentric-ecocentric question cannot avoid understanding the irreplaceable need for human spokespersons for rivers and nature. The debate must move beyond conceptualism and to better understand of self-transcendence in the full sense of Lonergan's account. Using Lonergan's method, we cannot avoid examining all water-based issues, both human and ecosystemic. The Cartesian wedge of me-in-here and world-out-there that still burdens philosophic epistemology and ethics with objectivism and conceptualism is now replaced by a critical realism. We cannot avoid the "turn to the environment" which has been a turn to understanding and redressing human abuses of water and nature. Avoiding such central and pertinent data and confirmed insights would simply be biased. Nor can we avoid examining our historic societal, cultural, and religious heritage in light of the ways they have been interpreted to either abuse or enhance the natural world and water, which has long been quietly and vitally underpinning complex societal and ecosystemic goods of order.

4.2 Human Rights as a Basis for Water Ethics

Human rights, more specifically the 1948 UN declaration on human rights (UNDHR), came up in several water ethics sources as being an appropriate

foundation of water ethics. Marcus Moench et al. summarize briefly some of the links between water and human rights:

Human rights and water issues are interlinked on multiple levels. The displacement of populations and destruction of cultures that commonly accompany major water projects are perhaps the best-known sets of interlinked issues. In many parts of the world, however, pervasive health, basic needs and poverty concerns arise when access to water is limited.³⁰⁴

In Chapter Two we saw how Martin Kowarsch asserts that his triangle of justice constitutes a general moral standpoint based on human rights. As well, the authors of the 2004 overview covering the UNESCO water ethics workshops argue that:

[t]o achieve agreement on ethical issues is not easy but it is not impossible. In the general sphere of human rights, many problems remain but at least conditions in any given situation can be evaluated in the light of the agreed principles of the Universal Declaration of Human Rights.³⁰⁵

Again, according to the 2007 Marcelino Botín Foundation (UNESCO sponsored) workshop on water ethics,

[t]he common starting point and framework for discussion to all contributing authors was the 1948 UN Declaration on Human Rights, and more precisely, basic aspects related to water ethics: the inherent dignity and worth of every human being, and the equal and inalienable rights of all members of the human family, i.e. solidarity among all human beings, present and future.³⁰⁶

³⁰⁴ Marcus MOENCH, A. DIXIT, and E. CASPARI, "Water, Human Rights and Governance: Issues, Debates and Perspectives" in *Water Nepal*, Vol. 9/10, No. 1/2, (2003)1-9, at 2.

³⁰⁵ PRISCOLI, DOOGE, and LLAMAS, "Water and Ethics: Overview," 7.

³⁰⁶ M. RAHAMAN and O. VARIS, "Ethics of Water," in *Water Ethics – Marcelino Botín Water Forum 2007* (UNESCO sponsored), Editors M. Ramón Llamas, Luis Martínez-Cortina, Aditi Mukherji, (London: Taylor & Francis Group, 2009) VII.

Since the UNESCO workshops, further UN declarations have been made pertaining to water ethics, particularly the 2007 Declaration on the Rights of Indigenous Peoples, and the 2010 resolution on the human right to water. There is no question as to the importance for society of these historic benchmarks for human rights achieved at crucial moments in the forum of the United Nations. They create moral standards of reference for states and all political levels. However, they constitute what is termed "soft law" in that they are not enforceable as law except as adopted legally in each nation. A further question arises as to whether human rights declarations are sufficient to change water problems for the better in regional and local situations. Marcus Moench et al. reflect on the enforceability and less than ideal effectiveness of human rights for the actualization of access to water in Nepal.

At a global level, notions of human rights or environmental justice have focused heavily on law and international covenants. Regionally, however, legal approaches are often unproductive (the Supreme Court of Nepal, for example, had a backlog of some 18,000 cases in January 2003). Furthermore, at a local level, issues of access to water depend heavily on governance, power relations, cultural norms and the operation of economic systems in ways that make little reference to international covenants or legal frameworks. ... Actualisation is a key issue. If a right cannot be actualised then perhaps it is better to focus on pragmatic questions of governance that control access to water rather than less enforceable notions of rights.³⁰⁷

³⁰⁷ MOENCH et al., "Water, Human Rights and Governance," 7.

Moench et al. bring up the related question of responsibility and duty towards actualization of rights. One very interesting point that they note is that "local people often take responsibility before demanding rights."³⁰⁸

Although human rights have sometimes been given the aura of having foundational value, inspection of the UNDHR documents reveals that rights are not the foundation. The documents refer to the inherent dignity of the human person and other values as foundational concepts. At the time of drafting the UNDHR, Jacques Maritain commented that there was considerable difficulty in achieving any consensus on a specific religious or philosophical foundation.³⁰⁹ The emphasis was placed on agreeing on rights rather than the reasons for rights. Having just passed the horrors of WWII, the drafters of the declaration prioritized the pragmatic political imperative of responding to the need for an agreement on human rights. At this point, this thesis does not delve into philosophical and theological foundations for human dignity. Rather, it turns to examine what light might be shed on human rights and responsibilities for water ethics by Bernard Lonergan.

Lonergan did not write directly on the topic of human rights. He was more interested in an ethics of achievement than an ethics of law. "While an ethics of law regards rules of conduct – don't do this, don't do that – an ethics of achievement reveals that there is the world and that there is something for me to

³⁰⁸ MOENCH et al., "Water, Human Rights and Governance," 6.

³⁰⁹ Jacques MARITAIN, "Introduction", in *Human rights - Comments and Interpretations*, ed. UNESCO, 1948, I-IX.

do in it."³¹⁰ We could fairly say that his interest was in how to achieve not only what is intended in human rights theory, but much more. Developing subjects, through their intellectual, moral and religious conversions are to become "principles of benevolence and beneficence, capable of genuine collaboration and of true love." This deeper approach will require taking a step back from a categorial concept of rights as objects, and a turn to the conscious operations of subjects. Such are the subjects that have conceived of human rights, and the subjects as responsible for the good of others, respecting their rights.

John Haughey addressed this same challenge in his article "Responsibility for human rights: contributions from Bernard Lonergan." He points out that

[Lonergan's] interest in rights then (an interest which never formally surfaced) would have been captured only if they were construed in terms that included the subject operating with a consciousness of his or her discrete operations of experiencing, understanding, judging, deciding, or choosing. He ascribes different adjectives such as immanent, neglected, truncated, or alienated, to the various ways in which subjects misunderstand themselves, all of them by being inattentive to their own consciousness. If one wishes to gain any light from Lonergan on human rights as objects worthy of both one's attention and responsibility, one must take into account each of these inept ways one has of circumventing one's own subjectivity.³¹¹

Thus, human rights as proposed are the results of human subjects making judgments of value over experience and understanding of human history. Further, rights as concepts are abstract. They become concrete only if they arise in a consciousness that is both informed and seeking answers to specific questions about the good to be done. Haughey notes that "Lonergan disdained formulaic

³¹⁰ LONERGAN, *Topics in Education*, 106; See also 103.

³¹¹ John HAUGHEY, "Responsibility for Human Rights: Contributions from Bernard Lonergan." *Theological Studies* 63 (2002) 764-785, 767.

morality and trusted responses that emerged through the subject seeking to understand the specifics of a given situation."³¹²

Haughey also recognizes an ambiguity in the several ways of understanding human rights. When understood in the light of the human dignity of all persons, human rights is a culturally transcendent moral category. But insofar as they are understood in terms personal interests, human rights can accent an individualism that trivializes what should be true insights into human dignity. There must be insight into other persons' dignity and some virtue such as compassion to actualize their rights. Abstractions, conceptualism, and circumventing one's own subjectivity will not work. Actualization presumes not only knowledge of human rights, but a self-aware subject acting with a self-transcending intentionality.

Further,

[s]ince the weakness of human rights in theory is precisely locating "who has responsibility for them?" one must be able to see that, just as with any other responsibility, responsibility for meeting the other's rights claim is embedded in the invariant structures of human consciousness if they are deployed in the way that will allow their intrinsic potential to produce its yield.³¹³

One can always ask, as has often been done, about how rights and responsibilities can 'hang together.' A notable effort has been made since the late 1990s to bring about a declaration on human responsibilities similar to the UNDHR. Few people have heard of these, and they have not been brought to prominence anywhere near that of the UNDHR. As it has been 70 years since the 1948 declaration, the jury is probably still out on this. However, the situation is the

³¹² HAUGHEY, "Responsibility for Human Rights," 770.

³¹³ HAUGHEY, "Responsibility for Human Rights," 772.

same for water issues and water ethics. Rights alone do not bring desired results. How can the world water crisis be alleviated without a major uptake of responsibility to insuring the needs and rights of humans and nature?

The question of how rights and responsibilities hang together is problematic for contemporary thought, fragmented as it is by multiple and seemingly unrelated concepts. Responsibility, for Lonergan, is located foundationally in the invariant structures of human consciousness. It is human, universal, and trans-cultural. Human rights are a product of our own immanent and invariant operations of consciousness. Rights are grounded at the fourth level, the level of freedom and responsibility, of deliberation and decision. That is where taking responsibility for others' claims of need and rights comes into play. Responsibility is built into consciousness conscientiously used. For Haughey "responsibility for another is triggered within human consciousness itself notwithstanding the undoubted value of such add-ons as religion, history, affectivity, culture, or virtue." He concludes referring to Lonergan's thought and intrinsic responsibility:

The more I have studied Bernard Lonergan's thought, the more I am sure that he would place his hopes for observing human rights and taking responsibility for them inside the structures of human consciousness rather than on further declarations such as a universal declaration of human responsibility. He would do so because he was sure that taking responsibility for what was seen to be "so" is intrinsic to right thinking. So when it comes to right thinking about human rights he would see responsibility falling equally on every claimant and rights holder and withholder and responder. Responsibility enfolds all equally.³¹⁴

³¹⁴ HAUGHEY, "Responsibility for Human Rights," 785.

4.3 Grounding Water Ethics

Ethics are based on, and integrally related to, knowledge of truth and reality. We are human agents in a real world, and our decisions affect both ourselves, and the world around us. Water ethics, as we have seen in Chapter 3, needs to be grounded philosophically if there is to be any foundational normativity for ethical judgements of value in water decisions.

Examination of water ethics literature in this thesis has demonstrated that there is a clear need for philosophical clarity in grounding water ethics. It bears repeating summarily here. The UNESCO-sponsored water ethics workshops in this century's first decade referred to foundations in the UNDHR and its foundational principles such as human dignity. The 2010 book *Water Ethics: Foundational Readings* revealed obvious divergences beyond simple perspectival variety indicative of very different philosophical approaches. Kowarsch, examining a diversity of water ethics approaches, pointed to what he called "philosophical flaws" of unrelated principles and concepts, and the "lack of comprehensive water ethics."³¹⁵ For him, a greater coherence and comprehensiveness is needed to match the complexity of the water crisis and all the interconnecting factors. Kowarsch claimed his own Deweyan pragmatic solution of a conceptual triangle of justice as a general moral standpoint based on human rights. Doorn argued for philosophical rigor and a full and proper account of ethics. For him this means involving political philosophers, applied ethicists, and scholars of other disciplines.

³¹⁵ KOWARSCH, "Diversity of Water Ethics," 40-41.

Doorn argued that these disciplines using "a strong conceptual method" can work at the most abstract level which he indicates as being "basic moral concepts," such as justice, autonomy, and democracy.³¹⁶

Schmidt and Peppard argued against the use of Western rationality with key tenets of universality and necessity for water ethics. Doubtful that there is any general water ethic specifiable for all circumstances, they argued that a viable water ethic can only be articulated in the interplay of grounding principles and their pragmatic mobilization in specific contexts.³¹⁷ Meisch took Schmidt and Peppard to task for being ambiguous with regard to ethical relativism. He highlighted challenges in metaethical questions for water ethics such as oppositions of universalism vs. relativism and cognitivist vs. non-cognitivist ethics. For Meisch, a challenge remains in finding an ethical frame able to acknowledge different perspectives on values and a good life, and to formulate universal ethical principles to structure value debates.

The hopes of authors like Doorn, Kowarsch, and Meisch for a vigorous philosophical grounding of water ethics would seem to be in peril given the actual weakened and divisive situation in philosophy. In a revealing article on the situation of contemporary philosophy, the philosophy in which water ethics would seek meta-ethical foundations, McCarthy directs our attention to the sobering range of conflict, and "the resurgence of epistemic and ethical theories that are

³¹⁶ DOORN, "Water and Justice," 108.

³¹⁷ SCHMIDT and PEPPARD "Water Ethics on a Human-Dominated Planet," 534, and footnote 104.

skeptical or relativistic in character."³¹⁸ He points to uncertainty and suspicion about the philosophical enterprise growing more acute over the past two centuries with publics questioning the intellectual and cultural importance of philosophy. McCarthy points out some specifically philosophical sources of this condition from Kant's critique of traditional metaphysics, to the logical positivists' debunking of ethics and theology, and to Wittgenstein's restrictions on the scope of meaningful discourse. As well, there is "Richard Rorty's call for an end to epistemology, and the deconstructionist attempt to envisage a postphilosophical world."³¹⁹

How then can water ethics be grounded? Is there a way through the current philosophical impasses? According to McCarthy, in the current situation

[e]very aspect of the cognitional matrix is a subject of divisive controversy: there is no critically accepted account of being, the objective pole of human cognition, or of knowledge, truth, and objectivity, the mediating intentional bridge between the knower and the known; there is even less agreement about the cognitive subject in whom, we have argued, the invariant principles of intentionality reside.³²⁰

The current philosophical crisis is not the end of the story however. Many people use their minds correctly and decide for value with neither awareness of their cognitive operations nor concern for a crisis in philosophy. Yet there remains the entangled problem of our world of both inauthentic traditions and as well bias impeding authentic operations of knowing and deciding. McCarthy points out the basic cognitional matrix — a matrix which cannot be bypassed or truncated for the achievement of truth and objectivity in knowing and doing. It consists of: 1) the

³¹⁸ MCCARTHY, "Pluralism, Invariance, and Conflict," 1, par.2.

³¹⁹ MCCARTHY, "Pluralism, Invariance, and Conflict," 3 (est.).

³²⁰ MCCARTHY, "Pluralism, Invariance, and Conflict," Part II, par.3.

subject pole, 2) the object pole, and 3) the epistemic bridge that connects and unites them.³²¹ He argues that philosophical errors come from inadequate or incomplete understandings of the cognitional matrix. "[E]rrors in metaphysics, epistemology, and cognitional theory are in fact uncritical accounts of being, objectivity, truth, and knowing."³²² That they are uncritical and incomplete does not deny them a partial basis in fact.

As explained in *Insight*, Lonergan grounds cognitional theory, epistemology and metaphysics—the cognitional matrix—not in verbal propositions, but in the phenomenological experience, analysis, and objectification of the invariant structure of human cognitional process.

On the basis of an adequate cognitional theory, it is possible to develop a nuanced account of cognitive meaning, a normative theory of epistemic objectivity, and a progressive and verifiable metaphysics. Rather than abandoning metaphysics and epistemology, as the deconstructionist critics suggest, Lonergan grounds them methodically on a theory of cognitional fact.³²³

Present in all subjects in all forms of knowing, whether common sense, technological activity, aesthetic or religious expression, economic analysis, scientific explanation, or philosophic reasoning, there is the data of cognitive activity. This cognitive activity, prior to all products of knowledge, unfolds according to a normative pattern of conscious operations that begins in experience, proceeds through the questioning and understanding of that experience, and concludes in the reasonable affirmation or negation of answers to

³²¹ MCCARTHY, "Pluralism, Invariance, and Conflict," Part II, par.6.

³²² MCCARTHY, "Pluralism, Invariance, and Conflict," Part II, par.6.

³²³ MCCARTHY, "Pluralism, Invariance, and Conflict," Part I, par.6.

the questions that give inquiry its focus. Its immanent ground is in the desire to know and its immanent regulative controls are found in the natural exigencies of intellectual and rational consciousness. These operators are questions for understanding, truth, and reality to which the mind seeks meaningful and reasonable answers. Further, in questions for deliberation and choosing, the immanent natural exigence is the question of value. Beyond self-satisfaction, what is truly and not just apparently good?

The foundation of water ethics, according to Lonergan's account, is a foundation underlying all first principles that have been or might be offered. It is the invariant structure of conscious intentionality found in the human subject questioning and seeking the good in all things related to water-human interactions.

4.4 Essential and Effective Freedom for Ethical Water Institutions: the Example of the International Joint Commission

In this section, I refer to the International Joint Commission in order to explore some of the factors favoring ethical water decision-making. This exploration will employ two of Lonergan's terms in ethics: "essential" and "effective" freedom.³²⁴ These terms were chosen because of the need of both essential and effective freedom for institutions to achieve the good—in this case in water-related matters. Essential freedom in these cases is the capacity to make decisions, issue policy, or rule over water-related matters. Effective freedom goes beyond this capacity to originate and bring about valuable results.

³²⁴ LONERGAN, *Insight*, 643-647.

For this institutional context, essential freedom is thus the freedom to be able to make meaningful decisions for the good without being constrained by other parties, be they political or economical. Essential freedom refers to the capacity to exercise a determinate control over a certain range of decisions and actions for moral ends. A water institution with essential freedom of decision cannot be simply an advisory committee or a rubber-stamping institution. It has the freedom to act on conscience. Further, it has the ability to decide for alternatives of value. To assure essential freedom for water institutions means to require enforceable legal foundations protecting decision-making along with appropriate structures and functions. For transboundary institutions to function even in periods of inter-state water tensions, essential freedom means having an institutional decisional space that is autonomous, and not subject to political direction from the participating states. When no such space is legally guaranteed, water conflicts between states can stymy or halt the institution's work.

The difference between essential and effective freedom, according to Lonergan, is the difference "between a dynamic structure and its operational range."³²⁵ Persons and institutions may be effectively free to a greater or a lesser extent. For Lonergan, effective freedom will be conditioned by the extent to which there is authentic implementation of the immanent and intentional operations of consciousness. Achievement can and does occur in institutions that do not explicitly advert to the structure of consciousness that is in use. The example here is the case of the International Joint Commission, which, during more than a

³²⁵ LONERGAN, *Insight*, 643.

century of water and environmental decision-making, has operated with an institutional culture that evidences effective freedom in its value-added results.

Founded and guided by the 1909 Boundary Waters Treaty (BWT) between Canada and the United States, the IJC's mission is to prevent and resolve disputes between the two countries and to pursue the common good of both countries as an independent and objective advisor to the two governments. The mission statement of the International Joint Commission is shown at the end of this section 4.4 in figure 1. The guiding principles follow in figures 2a and 2b. The essential freedom of the IJC to carry out its mission is guaranteed by the BWT and the fact that it is founded as an independent and objective advisor. It is a unitary binational organization with legal jurisdiction to rule upon applications for projects affecting boundary or transboundary waters and to regulate the operation of these projects. It has Canadian and US section offices in Ottawa and Washington, a binational Great Lakes Water Quality office in Windsor, Ontario, and is supported by about 20 binational boards from Atlantic to Pacific.

For Lonergan, the good of order is not just the institutional framework. Rather it is the concrete manner in which cooperation actually is working out.³²⁶ Development is not inevitable. There are failures, there are mediocrities, and there is the orientation of individuals and the institution. Insofar as the possible courses of action and terminal values that are chosen are not for the merely apparent good, but for the true good, the members and institution is achieving moral self-

³²⁶ LONERGAN, *Method*, 49-51.

transcendence. Let's look at some of the values and institutional culture that contribute to effective freedom in accomplishing the IJC's mission.

First, there are a number of values that serve to set a direction of seeking objectivity and sound knowledge. These appear in the guiding principles as openness, honesty, objectivity, well-founded science. Of particular note is the collegial aspect of the work. The boundary is erased in pursuit of a truth beyond national flavours. The Commission is thus enjoined in "joint fact-finding," as "a single integrated body working collegially in a spirit of openness, mutual trust and confidence, and in the common interest of both countries."³²⁷ Granting such a high trans-national value at the time of the BWT is a major accomplishment. Without it, the work of the commission would be menaced by competing nationalisms rather than overcoming them. The importance of joint fact-finding is appreciated when one considers how so many groups come to problems in negotiations because of differing sets of "facts" — 'our facts', and 'their facts'.

Second, there is an emphasis on seeking consensus in deliberations of the commission and its boards. Seeking consensus is sometimes a lengthier and more difficult process than deciding by a simple majority vote. However, where voting can leave issues unresolved between voting parties, consensus-seeking brings about dialogue that seeks to find the root of different lines of reasoning, or of different value positions. The consensus exercise can, at the same time, reveal

³²⁷ Guiding Principles of the International Joint Commission, #4 and #5. At www.ijc.org/files/tinymce/uploaded/guiding%20principles%20of%20the%20international%20joint%20commission.pdf.

the mutual similarity of authenticity in dialogue partners which in no small measure facilitates relations of respect and closure on decisions.

Leonard Legault, a former Canadian IJC co-chair, draws attention to the fact that over nearly 90 years (at the time of writing), the IJC usually reached unanimous agreement and had divided along national lines in only two cases out of 117.³²⁸ Reflecting on elements contributing to this success, he highlights the Commission's independent and unitary nature as well as joint fact-finding and consensus.

Another striking feature of the Commission's procedures is joint factfinding. In both quasi-judicial and advisory proceedings, the Commission normally establishes a board to advise it on issues that arise with respect to the matter at hand. These boards are composed of an equal number of members from each country, who are often drawn from federal, provincial, or state government agencies but may also come from the private sector. Whatever their background, board members are expected to act in their personal and professional capacity and not as representatives of their government or their employer. Like the Commission itself, the boards seek to work on the basis of consensus. This method of dealing with factual issues is almost certainly more reliable and more effective than any method normally available in a third-party settlement or negotiation. ... Joint fact-finding is a most important element in building consensus not only within the Commission itself but also within the communities that may be affected by the Commission's decision or recommendations.³²⁹

Third, the IJC's guiding principles call for each person to work "in their personal and professional capacity." What is the meaning of working in a person's own personal and professional capacity? For me, this simple phrase brought recognition to the value of each person. At the same time, it was an appeal to

³²⁸ L. H. LEGAULT, "Roles of Law and Diplomacy in Dispute Resolution: The IJC as a Possible Model," *Can.-U.S. Law Journal* 47 (2000), 52. Available at: <http://scholarlycommons.law.case.edu/cuslj/vol26/iss/12>.

³²⁹ LEGAULT, "Roles of Law and Diplomacy," 52.

conscience, to be authentically responsible for the value each person can bring about. As well, there is an appeal to impartiality, an appeal to not wear the cap of your particular team, agency, or government.

The Commission and its boards function at the empiric, intellectual, and rational levels of consciousness in their knowing, and at the existential level in their deliberating and deciding according to Lonergan's account. The extent to which the commission functions well or not depends on the degree of fidelity to the internal norms of conscious intentionality. The transcendental precepts enjoin fidelity to these norms: *Be attentive! Be intelligent! Be reasonable! Be responsible!* These precepts highlight the exigence towards cognitive and moral self-transcendence. The level of reflexive self-consciousness is the level at which we decide what we are to make of ourselves. It is at this fourth level of consciousness where we are responsible for our knowledge, our decisions, and our actions. It is the level at which we decide or not for authenticity. Major decisions can be made at this level for self-appropriation resulting in cognitive, moral, and religious self-transcendence. Both individual and collective self-appropriation of the structure of conscious intentionality would move institutions forward to a method producing cumulative and progressive results.

Efforts at designing or transforming water institutions should thus aim at providing essential freedom and at setting conditions conducive to effective freedom. Effective freedom is enhanced by individual and institutional orientations to self-transcendence. It is enhanced as well by the recognition of personal value

and conscience. Using the example of the IJC, positive orientations towards ethical accomplishment can be set in founding documents and guiding principles. These alone would not suffice without appropriation by the water institution into a living ongoing culture.

Thus, in light of Lonergan's method, the Commission's practices of joint fact-finding, working collegially, and respecting each person's "personal and professional capacity," implicitly favors the proper use of intentional cognitive operations. In the IJC case, collaborative experiencing, understanding, and judgment of facts provide the basis for deliberations. These four interdependent levels of operations of GEM can be recognized as implicitly operative, to a certain degree, in the IJC. Authentic performance of members and participating individuals cannot, of course, be guaranteed for any institution. However, awareness of GEM along with commitments to self-appropriation of the operations of consciousness could very likely enhance results. From this brief example, I find grounds for belief that GEM shows promise for use in the formation and transformation of the very institutions that mediate water to humans and nature in the world.

MISSION STATEMENT

The International Joint Commission prevents and resolves disputes between the United States of America and Canada under the 1909 Boundary Waters Treaty and pursues the common good of both countries as an independent and objective advisor to the two governments.

In particular, the Commission rules upon applications for approval of projects affecting boundary or transboundary waters and may regulate the operation of these projects; it assists the two countries in the protection of the transboundary environment, including the implementation of the Great Lakes Water Quality Agreement and the improvement of transboundary air quality; and it alerts the governments to emerging issues along the boundary that may give rise to bilateral disputes.

Figure 1. The mission of the International Joint Commission

GUIDING PRINCIPLES OF THE INTERNATIONAL JOINT COMMISSION

1. The Commission gives full effect to the spirit and purpose of its mandate as expressed in relevant agreements and references.
2. As a binational institution, the Commission maintains strict impartiality in the performance of its duties.
3. Commissioners represent only the Commission and not the government that has appointed them. Advisers and staff members serve only the Commission and not their respective governments. Members of the Commission's boards or similar bodies serve on such bodies in their personal and professional capacity and not as representatives of the agencies or organizations that employ them.
4. While the Commission comprises two sections and maintains offices in Washington, Ottawa and Windsor, it remains a single integrated body working collegially in a spirit of openness, mutual trust and confidence, and in the common interest of both countries.
5. The Commission seeks to achieve consensus wherever possible, both in its own deliberations and those of its boards and similar bodies.
6. The Commission employs joint fact-finding as a foundation for building consensus and determining appropriate action.
7. The Commission affords all parties interested in any matter before it a convenient opportunity to be heard. It promotes the engagement of state, provincial and municipal governments and other authorities in the resolution of these matters.

Figure 2a. The Guiding Principles of the International Joint Commission (part 1).

8. While directing its advice and assistance to governments, the Commission takes account of the need to foster public awareness of the issue in question and ensure that the public is able to contribute to the consideration and implementation of its assessments by governments.
9. The Commission's advice must be not only independent and objective but also timely, well-founded, honest, and relevant.
10. In environmental matters, the Commission affirms the concept of sustainable development, the ecosystem approach, and the virtual elimination and zero discharge of persistent toxic substances. While emphasizing the importance of a sound scientific basis for its conclusions and recommendations, the Commission also recognizes that it may sometimes be necessary to adopt a precautionary approach and to act even in the absence of a scientific consensus where prudence is essential to protect the public welfare.
11. The Commission's rules of procedure must be in accordance with justice and equity.
12. The Commission adheres to the highest ethical standards in all its activities.
13. The Commission seeks to ensure the inclusion of appropriate expertise in the membership of its boards, while drawing that expertise from a diversity of sources on a non-discriminatory basis.

Figure 2b. The Guiding Principles of the International Joint Commission (II).³³⁰

³³⁰ INTERNATIONAL JOINT COMMISSION, Documents available at www.ijc.org/en/_/IJC_Mandates; and www.ijc.org/files/tinymce/uploaded/guiding%20principles%20of%20the%20international%20joint%20commission.pdf.

4.5 Limitations of Lonergan

In this thesis I have been investigating the value that the thought of Bernard Lonergan can bring into the new field of water ethics. It would be remiss not to mention his limitations in this regard. A first limitation can be seen in the language he used. Lonergan was a man of his times in this regard and it is visible in quotes of his work where words such as 'mankind, 'men,' etc. appear. This reflects the broader linguistic culture of all but the last decades of the 20th century. It also reflects the use of Latin (e.g. 'homo' as in 'homo sapiens') in theology and seminaries until the 1960s. A more contemporary language uses instead words like 'humankind,' 'humans,' or 'persons.'

Another limitation is that the 'Lonergan-analysis' began in this thesis does not, of itself, provide on-the-spot contextual answers for problems of ethical water management. It does not eliminate the need for use of the many more subject-focused accounts of experts, theoreticians, and practitioners. These diverse accounts carry invaluable experience, insights and knowledge. As well, human achievements that have lead to priority concepts such as 'human rights' and 'sustainable development' remain necessary as guiding principles. The Lonergan contribution does not give specific answers for those involved at the various levels of discussions and deliberation over water-related problems. It is limited to method and framework and does not, in itself, provide concrete insights into the relevant issue-related data. That work has to be continued as an ongoing pursuit. That

ongoing work is, of course, best carried out when all participants are able to distinguish the proper working of their mind from its many possible products.

In these times of the Anthropocene when the achievement of a sustainable world is a vital priority, I also suggest that Lonergan scholars would do well to explicitly integrate Lonergan's compact and rich work on "the human good" into its pre-established roots in the natural world of emergent probability. I believe it would be quite appropriate to use a new term such as "the human and global good" when referring to Lonergan's irreplaceable work on "the human good."

Chapter 5: Engaging the Theological Horizon

*Then he showed me a river of the water of life, clear as crystal,
coming from the throne of God and of the Lamb*

Rev. 22:1

5.1 Connecting the Dots

A few points are in order about how I connect the dots between elements in this chapter. I first ask how theology and philosophy fit together in regards to water ethics (5.2). This is because both theology and philosophy have roles to play in water-related dialogues, especially over large water projects in regional and transboundary basins. Since the 1977 UN water conference in Mar del Plata, stakeholder participation has been increasingly enshrined in most water management standards. Multi-stakeholder discussions are desirable and these discussions require adequate understanding inclusive of the water issues and of the social, cultural and religious geographies involved. Done well, they should be dialogues that are transdisciplinary, and, as per the geography, transcultural and inter-religious in nature (5.3). Theology therefore has a role in such dialogues.

In the context of such dialogues, another challenge regards complexity. "Problem-sheds" most often exceed watershed boundaries. In a world where water ethical problems are often locally manifested but at the same time globally connected, understanding underlying structural socio-economic causes is necessary. Understandings of complex shared data are needed, not only in the

horizons of human studies and theology, but eventually by all participants. For this reason, section 6.3 takes a brief look into several analyses of global scale economic problems. The subject is too vast for this thesis, yet needs mention because of its connection as underlying and perpetuating global poverty and water poverty.

Lonergan's account continues to be helpful in this chapter. It is used in clarifying the roles and horizons of philosophy and theology, and for his take on the 'nature-grace' dialectic and the need for updated methodological theology. As well, reference is made to his theme of self-transcendence and the importance of love, authenticity in dialogue, and the notions of the structure of the human good and the integral scale of values. Section 5.4.3 looks into the background of the structural causes outlined in 5.4.2, but this time as a distortion and truncation of the integral scale of values.

Finally, Pope Francis' encyclical *Laudato Si': On Care for our Common Home* is selected for a summary in this chapter because it deals with ethics, water, and the environment in ways that parallel parts of this thesis, and because it does so from a theological horizon.

5.2 Theology and Water Ethics — What is the Fit?

In the perusal of water ethics literature in Chapter 2, we had a first view of the approach of a theological ethicist. Christiana Peppard, in her book *Just Water: Theology, Ethics, and the Global Water Crisis*, draws on Christian tradition and

Catholic Social Teaching, especially since a post-Vatican II turn to the environment. She argues that access to clean fresh water has been considered a fundamental 'right-to-life issue' in magisterial documents since 2003. For Peppard, the central Judeo-Christian command of love of God and love of neighbour must also be applied to the water domain. Love of neighbour is effectively interwoven with, and a sign of loving God. With that comes the obligation to look after the most vulnerable among our neighbours. Love of neighbour must be freed from false images and abstract notions of the neighbour, and instead, cultivate attention to the lives and needs of people on the underside of history.

5.2.1 Philosophy, Theology, and Water Ethics: Differing Horizons

Philosophy is called to be the "basic and total science of human living" for Lonergan. He writes, "[i]f there is to be in the twentieth century a basic and total science, it will have to be a basic and total method."³³¹ Philosophy cannot usurp science, nor can science usurp philosophy, as all sciences are ruled by their particular methods. Philosophy, with its more general method, however, fulfills an essential mediating role in the integration of the disciplines. "Philosophy as the 'basic and total science' is not just metaphysics, but the compound of (1) cognitional theory, (2) epistemology, (3) the metaphysics of proportionate being, and (4) existential ethics."³³² Following the method of philosophy opens to

³³¹ LONERGAN, *Philosophical and Theological Papers, 1965-1980*, 359, 375.

³³² LONERGAN, *Philosophical and Theological Papers, 1965-1980*, 357.

creativity beyond the formerly hegemonic services of logic. Following the method is also a value judgment placing primacy on the judgment of value of the full existential subject. In so doing, it contradicts any rationalist primacy of reason or intellect and "it opens the way for theology, other human disciplines, and the common sense (purged of its common nonsense) of every culture, region, and village."³³³ Philosophy in its new broadened context thus has an irreplaceable mediating role – a role that is necessary to theology. As well, philosophy and its integral component ethics, "finds itself in congenial continuity with theology, in which the basic horizon is one of love and value."³³⁴ For Lonergan, a philosophy of cognitional theory, epistemology, and metaphysics is needed but is not enough. He argues that it must be subsumed and integrated at the existential level, the level of living and doing.

[These] have to be subsumed under the higher operations that integrate knowing and feeling and consist in deliberating, evaluating, deciding, acting. It is on this level that people move from unauthenticity to authenticity; it is on this level that they decide to believe; it is at the root of this level that God's love floods their hearts through the gift of the Holy Spirit (Rom. 5:5).³³⁵

Again for Lonergan, the human quest for truth, meaning and value is manifest in the transcendental notions. This inbuilt eros of the human spirit is unlimited in scope. He argues that we can reach basic fulfillment, peace, and joy only by moving into "the realm in which God is known and loved." This realm is an

³³³ LONERGAN, *Philosophical and Theological Papers, 1965-1980*, 381.

³³⁴ LONERGAN, *Philosophical and Theological Papers, 1965-1980*, 381.

³³⁵ LONERGAN, "Philosophy and Theology" in *A Second Collection*, Kindle edition, Location 2884.

unrestricted horizon of value and love, and is, *de facto*, the realm of theology. For Lonergan again, human living comes to fulfillment in all kinds of love — love of family, love of community, and ultimately in the dynamic state of being in love with God.

But that capacity [for self-transcendence] meets fulfillment, that desire turns to joy, when religious conversion transforms the existential subject into a subject in love, a subject held, grasped, possessed, owned through a total and so an other-worldly love. Then there is a new basis for all valuing and all doing good.³³⁶

At this point, philosophical horizon-analysis must acknowledge the need to yield to theological horizon-analysis. Horizon is defined as the maximum field of vision determined by the range of questions implicit within a person's standpoint or worldview. Religious conversion is a change of horizon that sublates all previous horizons within an ultimate concern for an all-encompassing good. Lawrence observes that the theological horizon is needed for a second reason. That is because "in concrete human living, the social and cultural surd of sin can only be countered adequately by a transformation due to the gift of God's love that is disproportionate to human nature's capacity to achieve."³³⁷

In *Insight*, Lonergan asserted that the solution to the problem of evil would involve a higher integration concordant with a world of emergent probability. The solution would respect human freedom, and would, at the same time, overcome the problem of moral evil by meeting abundant evils with a more generous good. This higher integration would provide a new and more solid base upon which

³³⁶ LONERGAN, *Method*, 242.

³³⁷ LAWRENCE, "Ethics of Authenticity," 134; See also "Horizon Analysis" in *Philosophical and Theological Papers, 1965-1980*, 425-426.

intellectual and social development could rise to undreamed of heights.³³⁸

Loneragan's approach to religion is thus both mystical and practical. The mystical aspect is the central role of God's transforming love.³³⁹ The 'practical' aspect involves the outworking of that love in human history as a solution to the problem of moral impotence and evil. It works as a redemptive and healing vector in history.

Loneragan's theology respects the freedom of divine grace and human freedom in religious conversion and collaboration with grace. Subjects in the dynamic state, through their ongoing "yes" to religious conversion, have their full capacities of cognitive and moral self-transcendence motivated and directed within a new basis for all valuing and all doing of good.

In no way are fruits of intellectual or moral conversion negated or diminished. On the contrary, all human pursuit of the true and the good is included within and furthered by a cosmic context and purpose and, as well, there now accrues to man the power of love to enable him to accept the suffering involved in undoing the effects of decline.³⁴⁰

5.2.2 Not to be Missed: Grace Healing and Elevating Nature

Historically, the philosophical and theological ideas operative in societal worldviews have largely carried an anthropocentric viewpoint, if only implicitly.

Insofar as past Christian theologies have been implicated in a non-consideration of

³³⁸ LONERAGAN, *Insight*, 680-692.

³³⁹ Raymond MOLONEY remarks that "[w]hat is most striking in Lonergan's account of this movement is the way in which the notion of love predominates. Lonergan's is clearly a theology and spirituality of transforming love." See his article "Conversion and Spirituality: Bernard Lonergan (1904-1984)," *The Way* 43/3 (2004) 123-134 at 127, 132.

³⁴⁰ LONERAGAN, *Method*, 242.

the environment, they have been complicit in the ecological decline and water crises of modernity. Church Father St. Athanasius wrote in the 4th century about how the purpose of the Incarnation was for healing and restoration. In the 13th century, Thomas Aquinas also set a sound theological basis for the greening of theology with his central dialectic of nature and grace. For Aquinas, grace does not destroy nature, but heals and elevates it. This basic 'nature-grace' dialectic enables theological consideration of creation and the environment, much more than the more anthropocentric Augustinian dialectic of sin and grace. The intrinsically dynamic dialectic, however, was historically misinterpreted through ahistoric, static conceptualist works of Scotus, Suarez and many later theologians. A case could be made that abstract theologies such as these, in their influence lasting up to the mid-20th century and Vatican II, have been complicit in anthropocentrist environmental decline inasmuch as they have been unable to engage in concrete human living and its environment. Lawrence reminds us that Lonergan had brushed aside modern scholastic perceptualism and conceptualism in the 1940s.³⁴¹ *Insight* takes up the Thomist theme of grace and nature, emphasizing how grace is not a substitute for nature, nor theology for empirical human science. At the same time, Lonergan highlights both his practical concerns for solving human problems, and the consequent need for methodical theological involvement in interdisciplinary collaboration.

Grace perfects nature both in the sense that it adds a perfection beyond nature and in the sense that it confers on nature the effective freedom to

³⁴¹ LAWRENCE, "Postmodern," 111.

attain its own perfection. But grace is not a substitute for nature, and theology is not a substitute for empirical human science. It is a fuller viewpoint that both reinforces the scientist's detached, disinterested, unrestricted desire to know and reveals the concrete possibility of intelligent and reasonable solutions to human problems.³⁴²

The Thomist 'nature-grace' dialectic opened the way for a better understanding of both nature and grace using appropriate methods. It had thus remotely opened the way for the Scientific Revolution and the autonomous and empiric study of nature.

The nature-grace dialectic, properly understood, furnishes a central theological theme and basis for a theology engaging in water and environment issues. Proper understanding of this dialectic at the level of the 21st century requires clarifying two historic theological issues. First, neoscholastic interpretations of nature and grace separated 'nature' and 'grace' extrinsically with 'nature' having its own end or finality and with 'grace' relegated to being an extrinsic principle. Rather than providing a hypothetical background for the gratuitous action of grace, 'pure nature' was taken to be the state of affairs outside the church. *Extra Ecclesiam nulla salus*. Such an interpretation carried important and negative implications, not only for nature, but for the view of the human person, the Church, the kingdom of God, and Christian involvement in the world. Henri de Lubac is credited for recognizing the problems linked to conceiving creation as 'pure nature' and grace as extrinsic. His book on the supernatural

³⁴² LONERGAN, *Insight*, 767.

along with the work of others such as theologian Karl Rahner contributed to correcting this distortion in the pre-Vatican II period.³⁴³

A second adjustment may be no less important than the first. Modern science, with its enormous discoveries over the past four centuries, has changed the way we understand humans, nature, and the cosmos. Moving from an age-long classical theology based on a static world order and Aristotelian science to a theology that fully comprehends implications of modern science and culture is a formidable task. In place of a static cosmos, we now know ourselves as inhabiting a dynamic cosmogenesis. The simplest forms of life emerged on earth about 4 billion years ago within our 13.7 billion-year-old evolving universe. The community of life, linked by helical DNA, has seen dead ends, major extinctions, and new phases of emergence. Our human bodies are composed of water and a mix of elements originating in the Big Bang and explosions of stars billions of years later. Multi-billion-year-old microbial species are still active in our bodies. The same water that flowed through Jesus of Nazareth's life some 2,000 years ago is still circulating within the hydrological cycle and supporting the current community of life. This fact alone has a great potential for further sacramental-theological reflections. In the face of this fascinating evolutionary process, now endangered

³⁴³ See Henri de Lubac, *Surnaturel. Études historiques*, (Paris: Aubier, 1946); also the original article of Karl Rahner, who first coined the term "supernatural existential" in 1950 in "Eine Antwort," *Orientierung* 14 (1950) 141–45, is in an English translation, "Concerning the Relationship between Nature and Grace," *Theological Investigations* 1 [translated by Cornelius Ernst](Baltimore: Helicon, 1961) 297–317.

world of the Anthropocene, some still current Christian interpretations of the world as a soulless testing ground for getting to heaven pale as an irresponsible abandonment of God's creation. Australian theologian Anthony Kelly, a former member of the Vatican's International Theological Commission, invites us to a stance of loving humility before the whole Mystery of God and creation.

What have been long considered as separate structures or aspects of revealed doctrines of one kind of another, for example, creation, Trinity, incarnation, cross and resurrection, the Church, the sacraments, eschatology, are now treated in a far more dynamically unified manner. The whole range of separated theological themes tends now to be focused in the one mystery of the self-communication of God to creation.³⁴⁴

For Kelly, the divine self-gift of love calls for our participation. Participation in God's loving nurtures all our relations — with God, other humans, and creation.

Kelly writes:

[b]y participating in the gift of love, the believer dwells in the universe as God's creation, to perceive it, however dimly or inchoately, in its religious wholeness. Here contemplation blossoms, as it nurtures the ultimate relationality of our conscious being.³⁴⁵

How might Lonergan's notion of emergent probability fit with Kelly's argument for updating theology in a way appropriate to the advances of modern science? Anne Marie Dalton argues that Lonergan's notion of emergent probability can provide the theoretical framework within which theologians can construct a

³⁴⁴ Anthony KELLY, *An Expanding Theology: Faith in a World of Connections* (Newtown, NSW: E.J. Dwyer, 1993) at <http://dlibrary.acu.edu.au/staffhome/ankelly/theology.htm>, quote in Sec.2.3, par.11.

³⁴⁵ KELLY, *An Expanding Theology*, Sec. 2.8, par.2 (The Transformation of Love).

convincing theology of ecology.³⁴⁶ As she relates it "emergent probability is "an explanatory account of those characteristics of the universe that make a story of the universe possible at all."³⁴⁷

A further implication relates to the historic misapprehension of nature and grace as extrinsically related. For Bernard Lonergan, the most important characteristic of the concrete universe is its "finality," which is its "upwardly but indeterminately directed dynamism."³⁴⁸ The universe of emergent probability is known through classical laws and statistical methods. Human judgments of value and human responses to the divine gift of love are neither necessary nor certain. For Lonergan, the extrinsic distinction between natural and supernatural resides in an earlier static metaphysics, a context he had set aside when he moved toward intentionality analysis. Raymond Moloney asserts that Lonergan, although sympathetic towards de Lubac's efforts, brought forth a dynamic and existential approach that opened up a whole new way for considering questions about the natural and supernatural.

In this more existential approach, the gift of God's love is first described as a religious experience; it belongs in the first place not to a world mediated by meaning but to the unmediated experience of the mystery of God. Only consequently is it objectified in theoretical categories such as natural and supernatural.³⁴⁹

³⁴⁶ Anne Marie DALTON, *A Theology for the Earth: The Contributions of Thomas Berry and Bernard Lonergan* (Ottawa: University of Ottawa Press, 1999).

³⁴⁷ DALTON, *A Theology for the Earth*, 146.

³⁴⁸ LONERGAN, *Insight*, 656; see also 497

³⁴⁹ Raymond MOLONEY, "De Lubac and Lonergan on the Supernatural," *Theological Studies* 69, 2008) 509-527, at 524.

The foundation of the theological horizon is neither metaphysics nor doctrines. It is religious conversion, the experience and 'yes-saying' to God's self-gift of love. For Lonergan, religious conversion is the efficacious ground of all self-transcendence. He writes, "[r]eligious conversion is to a total being-in-love as the efficacious ground of all self-transcendence, whether in the pursuit of truth, or in the realization of human values, or in the orientation a man adopts to the universe, its ground, and its goal."³⁵⁰

5.3 Inter-Religious, Transcultural, and Transdisciplinary Dialogue

The goal of a new water ethic is to steer way from water 'malpractice' to better water futures for Earth's community of life. A trend to favour participatory water management has increasingly been adopted in UN water agencies and by many countries over the past four decades. In a diversely cultured world in which river basins shared by two or more countries cover nearly half of the planet's continents, the basis for collaboration on water issues and management needs to be well thought-out. The four largest world religions represented about 77% of global population in 2015.³⁵¹ Religions of the world have enormous potential for improving the global water situation according to Gary Chamberlain. He argues that religious meanings form fundamental attitudes towards nature and the cosmos for billions of people, and these must be considered in developing

³⁵⁰ LONERGAN, *Method*, 241.

³⁵¹ PEW FORUM, The Changing Global Religious Landscape, at <http://www.pewforum.org/2017/04/05/the-changing-global-religious-landscape>, (2017).

approaches to the global water crisis.³⁵² Obviously, there are current and future obstacles related to differences in cultures and religions. Participatory water management then has the task of achieving collaboration between scientific, cultural, and religious components.

First, with regards to science: our knowledge of climate change and concomitant changes in the hydrologic cycle comes through the use of scientific method and the natural sciences. Increased variability and risk regarding flooding, erosion and drought damage involve climate studies, hydrology and hydraulics, and modeling. As central to water resources engineering, climate and rainfall modeling use empirical and statistical methods to increase knowledge of what is and could be happening over time in river and lake systems. What is the quality of the water? What are the ways flows and quality affect humans, ecosystems, all species? Water chemistry, ecology and biology are among the sciences needed. Dealing adequately with water in the 21st century is clearly an interdisciplinary task. It requires not just romantic feelings for pristine nature, but the use of science. For water decisions and policy however, one must consider and be intelligent about an even more expansive data that includes human cultures and agency. This means considering human and natural ecosystem interactions — data that is aesthetic, cultural-religious, historic, and scientific. One must come to an explanatory account that allows for real options for ensuing judgments of value in water decisions.

³⁵² CHAMBERLAIN, *Troubled Waters*, 3-5, 156.

The transcultural and universal nature of religious conversion is important in considerations of the nexus of water ethics with theology, religious conversion, and world religions. God's self-gift of love is universal and transcultural. It is prior to any conceptualization of religious experience and prior to any study of divine revelation.

Before it enters the world mediated by meaning, religion is the prior soundless word God speaks to us inasmuch as he floods our hearts with his love. That prior word pertains, not to the world mediated by meaning, but to the world of immediacy, to the unmediated experience of the mystery of love and awe.³⁵³

Because of this 'prior soundless word' of God's love, Robert Doran asserts that "Christians share a religious community with all human beings, including the people of the world's other religions, because of this universal gift of what we call the Holy Spirit".³⁵⁴ Reflecting on Lonergan's theology, Doran argues that the Holy Spirit is God's first gift. What this means for water ethics is that there is a transcultural element at the very core of religious experience, though it may be expressed through very different histories of acculturation and belief. The transcultural basis that Lonergan offers water ethics is thus twofold:

- 1) the common orientation of human nature to meaning and value through intentional consciousness, and
- 2) the universal gift of God's love through what Christians call the Holy Spirit.

³⁵³ LONERGAN, *Philosophical and Theological Papers, 1965-1980*, 327-8.

³⁵⁴ Robert DORAN, "Social Grace and the Mission of the Word," 2010. Available at www.lonerganresource.com/pdf/contributors/Doran-Social_Grace_and_the_Mission_of_the_Word.pdf.

Religious traditions can be abused, however, by inauthentic followers. As well, the traditions can carry within themselves a mix of authenticity and inauthenticity depending on the personal authenticity of the individuals who began and transmit the tradition. Humans are easily inauthentic, and authenticity, rather than being a pure and secure possession, is ever a withdrawal from inauthenticity.³⁵⁵ In referring to world religions as a new style of development 'from above' in "Healing and Creating in History,"³⁵⁶ Lonergan places love in a central role. He writes of the transformative power of love — love of family, of community, of humankind, and the divine love that orients a person in her cosmos and expresses itself in worship. But there can be ambiguous and deceptive mixtures of love and hatred. These admixtures exist in secular ideologies as well as religions. For Lonergan, the healing vector of religions "can have no truck with hatred." Discernment, dialectic, and finally dialogue are necessary. Lonergan lays down some criteria regarding love and hatred:

Where hatred sees only evil, love reveals values. ... Where hatred reinforces bias, love dissolves it ... Where hatred plods around in ever narrower vicious circles, love breaks the bonds of social and psychological determinisms with the conviction of faith and the power of hope.³⁵⁷

Such criteria could also be useful for discernment within ethical-religious contributions on water issues.

Dialogue is essential to ethical water management. The basis of 'universal dialogue' advanced by Lonergan is the moral principle "that men individually are

³⁵⁵ LONERGAN, *Philosophical and Theological Papers, 1965-1980*, 44.

³⁵⁶ LONERGAN, "Healing and Creating in History," *A Third Collection*, 100-109.

³⁵⁷ LONERGAN, "Healing and Creating in History," 106.

responsible for what they make of themselves, but collectively they are responsible for the world in which they live."³⁵⁸ Dialectic supports, but cannot replace dialogue. Dialectic sorts out ambiguities and contradictions in the "concrete process in which intelligence and obtuseness, reasonableness and silliness, responsibility and sin, love and hatred commingle and conflict."

But it can be more helpful, especially when oppositions are less radical, for the investigators to move beyond dialectic to dialogue, to transpose issues from a conflict of statements to an encounter of persons. For every person is an embodiment of natural right. Every person can reveal to any other his natural propensity to seek understanding, to judge reasonably, to evaluate fairly, to be open to friendship. While the dialectic of history coldly relates our conflicts, dialogue adds the principle that prompts us to cure them, the natural right that is the inmost core of our being.³⁵⁹

Dialogue towards decisions on water issues between multi-disciplinary, transcultural and multi-religious parties represents the best paradigm of transboundary water management and IWRM. To be effective, it should appeal to the twofold human transcultural basis that is, 1) the common orientation of human nature to meaning and value through intentional consciousness, and, 2) the universal gift of God's love. Such dialogues run an unnecessary risk of encountering traps and obstacles unless the facilitators or mediators have significantly appropriated their own cognitive, moral and religious operations of intentional consciousness. The road to objectivity by way of authentic subjectivity becomes central. Horizons, worldviews, and methods of the diverse participants differ. Important distinctions between the world of immediacy and the world

³⁵⁸ LONERGAN, *Method*, 360.

³⁵⁹ LONERGAN, *A Third Collection*, 182.

mediated by meaning and motivated by values can be missed. Transcendental method is proposed by Lonergan to rise above such differences. As a generalized empirical method, it goes beyond the empirical to the normative. It reveals the dialogue participants to themselves by making known the norms immanent in their own conscious operations. It confronts them with the alternatives of being authentic human beings or, in some measure, inauthentic.³⁶⁰ Dialogue led this way becomes an appeal to moral conversion and responsibility for knowledge, beliefs, and actions. Discussions may undoubtedly refer to best principles for sustainable development and eco-social justice. But each situation has discrete geographic, cultural, and historical components. Essentially, these dialogues are an appeal to individual and collective authenticity in seeking value together.

5.4 Facing a Serious Problem

Water ethics is as vast as there are human decisions affecting water and water outcomes on the rest of life. Yet there remains a water problem with serious consequences that is like the 'elephant in the room.' Water poverty is that elephant. The encyclical *Laudato Si'*³⁶¹ draws connections between its underlying structural causes and those of environmental decline. How can one claim to be responsive to the love of God without being concerned for those whose life and opportunities are seriously constrained by lack of safe water and sanitation? How

³⁶⁰ LONERGAN, "The Scope of Renewal," 294.

³⁶¹ POPE FRANCIS, *Laudato Si': On Care for our Common Home*, Vatican, 2015.

can one claim to be a good neighbour, as in Jesus' parable of the Good Samaritan, without working in some way to reduce such burdens?

5.4.1 Water Poverty

Access to consistent sources of clean water is crucial to poverty reduction. Water and poverty are intricately linked. Lack of safe water and poverty create a vicious circle. "[N]o single intervention is more likely to have a significant impact on global poverty than the provision of safe water."³⁶² Former UN Secretary General Ban Ki-moon, writing in the foreword to the *World Water Development Report 2015: Water for a Sustainable World*, affirms that "[w]ater resources, and the essential services they provide, are among the keys to achieving poverty reduction, inclusive growth, public health, food security, lives of dignity for all and long-lasting harmony with earth's essential ecosystems."³⁶³

Yet there are over a billion people without access to safe water and 2.5 billion live without adequate sanitation. These twin global deficits are much more the result of institutions and political choices than water's natural availability.³⁶⁴ The poor pay the highest price for water. There is the burden of a daily struggle for water, especially for women and girls who spend hours carrying water over long

³⁶² LIFEWATER, "The Water Crisis," <https://lifewater.org/water-poverty/>.

³⁶³ UNITED NATIONS WORLD WATER ASSESSMENT PROGRAMME, *The United Nations World Water Development Report 2015: Water for a Sustainable World*, Paris: UNESCO, at <https://sustainabledevelopment.un.org/content/documents/1711Water%20for%20a%20Sustainable%20World.pdf>.

³⁶⁴ UNITED NATIONS DEVELOPMENT PROGRAMME, *Human Development Report 2006: Beyond scarcity: Power, poverty and the global water crisis*, New York: UNDP, 2006. At <http://www.undp.org/content/dam/undp/library/corporate/HDR/2006%20Global%20HDR/HDR-2006-Beyond%20scarcity-Power-poverty-and-the-global-water-crisis.pdf>.

distances. There are also the poor in peri-urban slums. Poor people living in slums often pay five to ten times more per litre of water than wealthy people living in the same city. Households not connected to city water have limited options such as collecting water from untreated sources or purchasing water from standpipe operators, water vendors, or tanker truck operators. A majority of the poor are already purchasing their water in these private markets – water of variable quality at high prices. The toll of water poverty is serious. Almost two million children die each year from diseases related to lack of clean water and adequate sanitation. According to the UNDP, poor health related to deficits in water and sanitation

undermines productivity and economic growth, reinforcing the deep inequalities that characterize current patterns of globalization and trapping vulnerable households in cycles of poverty. ... 'Not having access' to water and sanitation is a polite euphemism for a form of deprivation that threatens life, destroys opportunity and undermines human dignity.³⁶⁵

5.4.2 Underlying Structural Causes

Discussions of development, globalization and poverty focus inevitably on the large wealth gaps that separate the rich and poor, and rich and poor countries. Such gaps are highly visible. Over the past 30 years, the rich-poor gap, rather than being diminished, has grown. In 2014 Oxfam reported that in 2013 "seven out of 10 people lived in countries where economic inequality was worse than 30 years ago."³⁶⁶ In 2018, they reported that the richest one percent of the world received

³⁶⁵ UNDP, *Human Development Report 2006*, 5.

³⁶⁶ OXFAM, *Even it Up: Time to End Extreme Inequality*, 2014 report, available at <https://www.oxfamamerica.org/static/media/files/even-it-up-inequality-oxfam.pdf>. The 2018

82 percent of wealth created in 2017 while the poorest half of humanity got nothing.

Less attention, however, is paid to structural causes of inequalities that contribute to disparities, both within countries, and across the world. These structural causes are to be found in the political and economic setups of countries increasingly tied to a globalized economy. Particular goods vital to humanity are the outcomes of human collaboration. Human collaboration occurs within social schemes of recurrence which are goods of order. According to Lonergan's notion of the invariant structure of the human good, it is these goods of order as the underpinning of human collaboration at the collective and institutional level that provide the various particular goods in an ongoing way. Disparities in access to particular goods such as clean water point to missing and distorted social schemes which are problems in the social-political and economic setups. The global fault line separating those with and those without access to clean water and sanitation is one important case in point. There are many other manifestations of harm to water and social groups, for instance, from water use and contamination in many countries by transnational mining companies, or from over-extraction of water for water and beverage sales, again by large transnational corporations. In such cases, the 'eco-hydro-social' system is detrimentally impacted.

A moral response to the world's water poverty requires questioning the setup of structural causes from the local to global scales, as these are most often

interconnected. One does not have to dig very deeply to find that the world's poverty, rather than being inevitable, is largely a result of deliberate political and corporate decisions spanning many decades. The 2014 Oxfam report summarizes two principal causes for rising economic inequality:

Rising economic inequality is *not* the unavoidable impact of supposedly elemental economic forces – it is the product of deliberate economic and political policies. [There are] two economic and political drivers of inequality, which go a long way towards explaining the extremes we see today.

1. The first is the rise of an extreme variant of capitalism, known as 'market fundamentalism.'
2. The second is the capture of power and influence by economic elites, including companies, which in turn drives further inequality, as political policies and public debate are shaped to suit the richest in society instead of benefiting the majority. Together these two drivers form a dangerous mix that greatly increases economic inequality.³⁶⁷

Along with its role in global inequality, market fundamentalism has contributed in no small way to environmental and water decline, and to climate change.

Joseph Stiglitz, former senior vice president and chief economist of the World Bank and winner of the Nobel Prize for Economics, argues that neither developing nor developed countries are happy with globalisation as it has worked so far. The global economy has come to favour corporations, banks, the rich and powerful. These players slope the playing field towards themselves. The 'free' market is not free when its rules are manipulated and tampered with by the rich. Trickle-down economics, wherein benefits supposedly trickle down to all levels of society from the rich, are a proven policy failure. The opposite has happened, and

³⁶⁷ OXFAM, *Even it Up: Time to End Extreme Inequality*, 54-55. Italics mine.

society cannot continue to function without shared prosperity. To avert social and economic decline, the rules of economic globalisation need to be changed in a way that benefits all.³⁶⁸

In conjunction with analyses such as those of Oxfam and Stiglitz, one can follow the roots of a large number of water problem cases, and particularly water poverty, to a global economic system with distorted values.

5.4.3 Disordered Scale of Values

We have seen in Chapters 3 and 4 that implicit values are at play in water policy and management, and that values of differing kinds are rooted in differing horizons or worldviews. I return to one of the principal questions of this thesis: Is there a way of coming to normative judgments about differing values in the field of water ethics? In one way or another, this question has to do with everything that has been written in water ethics literature. Whenever harm or moral wrong is critiqued, whenever a better ethic is being proposed, judgments of value are being made. Without a normative value scale, all knowledge and valuing fall under a relativism of the socially and historically conditioned. No soundly objective case could be made then for what are truly the best decisions and policies in the water domain.

³⁶⁸ I summarize some of STIGLITZ's points from several of his books, articles, and interviews, mainly "Globalisation: Time to Look at Historic Mistakes to Plot the Future," at <https://www.theguardian.com/business/2017/dec/05/globalisation-time-look-at-past-plot-the-future-joseph-stiglitz>; and, Joseph Stiglitz, *The Great Divide: Unequal Societies and What We Can Do About Them* (W.W. Norton and Company, Inc., 2015).

Fred Lawrence asserts that Lonergan's notion of the human good provides a normative intelligibility for political evaluation. Particular goods are subordinate to goods of order, and goods of order are to be subordinated to terminal values. This ordering towards the human good can come to full effect in concrete reality only insofar as the integral scale of values are implemented by authentic persons. Lonergan's integral scale ascends through vital, social, cultural, personal, and religious values. Lawrence argues that today's advanced technology and efficiency in providing multiple particular goods can verge on the elimination of cultural, personal, and religious values.

When this happens, two distortions result; first, values come to be equated with needs and desires on the level of appetite; and second, social goods of order come to be conceived as efficient means to the satisfaction of self-interested covetousness. Then, the end of human living is conceived as an unlimited and disoriented satisfaction of needs and capacities disguised as freedom.³⁶⁹

Implications of such a distorted scale of values for society are enormous and far-reaching. The normative order of civil society is turned upside down. The polity becomes the servant of the economy and technology, and a triumphant technocracy organizes human living around economic value and through competing egoisms of persons and groups. Gold, diamonds, and luxury items, all relatively useless in sustaining life, are highly valued. Robert Doran alludes to a Hobbesian derailment of the Western cultural tradition's discovery of the soul such that "no higher order of values [are acknowledged] than the social value of the good of order, and some of them neglect even this level of value. Since

³⁶⁹ LAWRENCE, "The Ethics of Authenticity and the Human Good," 146.

autonomous cultural, personal, and religious values are a threat either to spontaneous passional desire or to the good of order, they must be relegated to a realm of oblivion." ³⁷⁰

The globalized neoliberal economic engine reduces all arguments to economic ones. The race to the bottom sees transnational corporations seeking global locations with the lowest labour cost and laxest environmental protections in order to obtain higher profit margins. Individualistic consumer-oriented superficial lifestyles are promoted. A dehumanisation occurs. Humans are assessed by their worth in terms of the economy — by their buying power, or by their ability to provide cheap labour. In spite of laudable efforts to reverse this large-scale trend, the waters, the poor, and the community of life on Earth continue to take a beating.

The analysis potential for the use of Lonergan's notion of the human good and integral scale of values is massive. Beyond the summary introduction of this thesis, it could be applied extensively to the situation of water poverty and its underlying structural and historical causes.

For Lonergan, living and operating on the level of the times is essential, and not doing so is backwardness. This means being aware of causes and connections between past, present and future issues unfolding in history. Being on the level of the times in this early part of the 21st century requires considering all pertinent historic and scientific data going forward. This includes the ways humans are changing and harming the earth. Existentially, being on the level of the times, also means seeking the good, the human good along with the interconnected

³⁷⁰ DORAN, *Psychic Conversion and Theological Foundations*, 98.

global good. The underlying and ever-present eco-environmental support system already mentioned in *Insight*³⁷¹ should not remain only implicit as a dynamic foundation for the "human good." In these times called the Anthropocene, Lonergan scholars would do well to explicitly integrate Lonergan's compact and rich work on "the human good" into its pre-established roots in the natural world of emergent probability. I suggest it would be quite appropriate to use a new term such as "the human and global good" when referring to "the human good." Thus, the objective of morally transcending existential consciousness is *the intention, the promotion, and the active pursuit of the human and global good*.³⁷²

³⁷¹ The broader planetary good is easily unpacked from Lonergan's theological ethics and notion of Emergent Probability as a dynamic backdrop for 'the human good.'

³⁷² DORAN, *Psychic Conversion and Theological Foundations*, 57, 71-72. Doran points to Lonergan's post-1965 differentiation of the existential dimension of intentional consciousness, the existential intention of value, and its objective correlative in the concrete process of the human good. For Doran, "[t]he clearing of the existential differentiation, then, is explanatory of the course of human affairs in history. Moreover, without this clearing, something remains too obscure in the account of an intelligent emergent probability challenged to think and act on the level of history. Once this clearing has been made, the heuristic structure of historical understanding and decision can be established." 71. Regarding the objective of morally transcending existential consciousness as the intention, the promotion, and the active pursuit of the human and global good, my italicized expansion builds upon Doran's page 27 wording: "the intention and the active pursuit of the human good."

5.5 *Laudato Si'*, Water, and "Integral Ecology"

Moving towards a new water ethic is not possible in isolation from the religious and cultural resources of humanity. Of relevance here is what has been termed by some "the environmental encyclical:" Pope Francis' 2015 encyclical *Laudato Si': On Care for our Common Home*. (LS)³⁷⁴ There are connections that could be drawn out between LS and the discussion in the previous section on the term "human good" extended through Emergent Probability to "the human and global good." The objective of morally transcending existential consciousness is the intention, the promotion, and the active pursuit of the human and global good. Such is the central orientation discernable in LS in its urgent appeal to dialogue on how we are shaping the future of our planet (LS 3, 14).

Laudato Si' recognizes links between poverty, water, and ecology, and a moral imperative towards the water poor. It also recognizes that problems cannot be solved on their own without understanding their connectedness and underlying causes which are political, economic, and ideological in nature. Some of these underlying problems, such as utilitarianism water governance, have also been critiqued within the water ethics literature. Both LS and the applications of Lonergan's integral scale of values (Sec. 5.4.3) offer extended analyses of such problems.

³⁷⁴ POPE FRANCIS, *Laudato Si': On Care for our Common Home*, Vatican, 2015. All subsequent references will be indicated as LS, with the paragraph numbers in the body of the text..

The moral appeal in *Laudato Si'* is to both individual and collective responsibility for how we build the Earth's future. A new water ethic could be considered a differentiable component within the overarching "integral ecology" and "new ecological culture" called for in LS.

Laudato Si' speaks specifically about water in section two of the first chapter (27-31), and "water" is disseminated throughout the document in 15 other sentences. In May 2014, one year prior to its release, a joint session of the Pontifical Academy of Sciences and the Pontifical Academy of Social Sciences brought together a group of globally known experts (including economist Jeffrey Sachs and Nobel prize winner Paul Crutzen) for several days of discussions. The group issued a public statement, *Sustainable Humanity, Sustainable Nature: Our Responsibility*.³⁷⁵ These discussions helped to lay the groundwork for *Laudato Si'*.

Laudato Si' also touches on the many interconnections between contemporary concerns about the environment, climate change, poverty, development, human responsibilities, education, ecological spirituality, Catholic teaching, lines of orientation for future action, and the roles of politics, economics, science and technology, to name a few. Climate change is clearly important in this encyclical, however, to call LS 'the climate change encyclical' would be reductionist. My concern here is to highlight a number of common points between LS and themes in this thesis.

³⁷⁵ PONTIFICAL ACADEMY OF SCIENCES, "Sustainable Humanity, Sustainable Nature: Our Responsibility," Proceedings of the Joint Workshop, 2-6 May 2014, Extra Series 41 (Vatican City, 2015).

First, the primary importance of water, particularly fresh drinking water is clearly asserted. Water "is indispensable for human life and for supporting terrestrial and aquatic ecosystems." It has a necessary role in health care, agriculture, and industry (LS 30). Water is threatened. The availability, quality, and security of water are threatened by global warming and pollution from industrial waste, mining, farming, disease-causing microorganisms, and chemical substances (LS 24, 29).

Second, the links between poverty, water, and ecology are clearly acknowledged. We need "to hear both the cry of the earth and the cry of the poor"(LS 49). "Our world has a grave social debt towards the poor who lack access to drinking water, because they are denied the right to a life consistent with their inalienable dignity"(LS 30). The quality of water available to the poor is a serious concern and unsafe water with water-related diseases result in many death including significant infant mortality (LS 29). The basis of the universal destination of goods is that God created the world for everyone. "Hence every ecological approach needs to incorporate a social perspective which takes into account the fundamental rights of the poor and the underprivileged." (LS 93).

Third, problems cannot be solved on their own without understanding their connectedness and underlying causes (LS 16, 70, 93, 138). There are underlying and interrelated structural causes playing out at different levels that are political, economic, and ideological in nature. LS attempts "to get to the roots of the present situation, so as to consider not only its symptoms but also its deepest causes" (LS

15). On the ideological level, LS exposes and critiques the "'myths' of a modernity grounded in a utilitarian mindset (individualism, unlimited progress, competition, consumerism, [and] the unregulated market)"(LS 210). It affirms that protective legal frameworks are necessary but these lose effectiveness when surrounded by a corrupt culture that has lost a sense of truth and objectivity. "We should not think that political efforts or the force of law will be sufficient to prevent actions which affect the environment because, when the culture itself is corrupt and objective truth and universally valid principles are no longer upheld, then laws can only be seen as arbitrary impositions or obstacles to be avoided" (LS 53, 123).

On a geopolitical level, the 21st century "is witnessing a weakening of the power of nation states, chiefly because the economic and financial sectors, being transnational, tends to prevail over the political" (LS 175). LS asserts that "[a] healthy politics is sorely needed, capable of reforming and coordinating institutions, promoting best practices and overcoming undue pressure and bureaucratic inertia" (LS 181). Politics must not be subject to the economy, nor should the economy be subject to the dictates of an efficiency-driven paradigm of technocracy (LS 189). Multiple problems common in politics come under scathing critique – short-term myopic thinking, corruption, impotence in yielding to the organized rich and powerful, failure to enact sound public policies, and remaining caught up in inconsequential discussions while avoiding facing the major problems of humanity (LS 197). These issues require constant attention and a concern for their ethical implications (LS 135).

Fourth, *Laudato Si'* is essentially a moral appeal, a major call to collective and individual responsibility. The term 'moral' is used 10 times, and 'ethical' is used 23 times. The document speaks of 'responsibility' more than 30 times in 27 sections. This appeal, addressed to all humanity is about the serious planetary crisis which will continue, and even worsen, without a radical and urgent response of all humanity. In section 14 Francis writes: "I put out an urgent invitation to renew the dialogue on how we are constructing the future of this planet." The call is for a vast *conscientisation*, dialogue, and collaboration on change. It is based on a moral and religious imperative to cease harming the water, the atmosphere, species and ecosystems, and the billions of present and future people suffering the consequences of the present state of the world. Not to act would be "a failure of conscience and responsibility" (169). This moral appeal of Francis integrates water ethics, environmental and climate ethics, and social ethics and grounds them in the conscience and responsibility of individual and collective subjects.

Fifth, dialogue is proposed to explore paths to a new future. Although the word 'urgent' is used some 16 times, LS is very realistic about the fact that the way forward involves a long cultural transformation. "Thus emerges a great cultural, spiritual and educational challenge which implies a long process of transformation" (LS 202). The cultural, political, social and economic roots of current global harm patterns must be brought into scrutiny and into dialogues for change. Existing economic powers continue to justify the current global system where priority tends to be given to speculation and the pursuit of financial gain, which fail to take into

account the context, let alone the effects on human dignity and the natural environment (LS 56). We urgently need a humanism capable of bringing together the different fields of knowledge, including economics, in the service of a more integral and integrating vision (LS 141). We need to broaden our vision and direct technology to "the service of another type of progress, one which is healthier, more human, more social, more integral" (LS 112). In the chapter "Lines of Approach and Action," Pope Francis calls for multiple open, honest national and international dialogues (LS 163):

- Dialogue on the Environment in the International Community (LS 164-175)
- Dialogue for New National and Local Policies (LS 176-181)
- Dialogue and Transparency in Decision-Making (LS 182-188)
- Politics and Economy in Dialogue for Human Fulfillment (LS 189-198)
- Religions in Dialogue with Science (LS 199-201).

Sixth, a new ecological culture is presented as a direction and visionary goal. It is an integral ecology that brings together nature and the human beings that are part of it, and emphasizes the connection between balanced natural systems and balanced social systems. A new ecological culture must be in accord with modern concepts in ecology and restoration that consider human interactions with natural systems as the key to sustainability overall (LS 58, 210). It is not merely change in certain sectors in response to problems. Rather, it is a distinctive way of looking at things, a way of thinking, policies, an educational program, a lifestyle and a spirituality; these altogether in a way that can redress the deepest

problems of the global system (LS 111). It is a formation of a global citizenship with ecological sensitivity, care, and advocacy (LS 209).

Seventh, spirituality and new lifestyles must be pursued that include ecological education in various settings. Environmental education should facilitate making the leap towards the transcendent which gives ecological ethics its deepest meaning (LS 210). Our relationship with God should include "a loving awareness that we are not disconnected from the rest of creatures, but joined in a splendid universal communion" (LS 220). Christians are in need of greater "ecological conversion" to make the effects of the encounter with Jesus Christ more evident in relationships with the whole surrounding world. Protecting creation is not an optional or a secondary aspect of our Christian experience (LS 220, 217).

In future work, Lonergan's account could be used for achieving a more extensive analysis of the major points and directions in LS, and towards overcoming problems of water poverty. Examining these together suggests a role for the structure of the human good within emergent probability, i.e. the human and global good, in gaining a better understanding of the underlying structural causes of water poverty. The integral scale of values, and problems resulting from its distortion, offer new avenues for analysis and engagement of individual and collective responsibility in reordering the scale in the broader context of achieving a new water ethic within a new integral ecology.

Summary and Conclusions

In the midst of a growing global water crisis, water ethics grew out of concerns for water and its (mis)management. The thesis Introduction outlined some of the sobering facts about the world water situation, while Chapter 5 examined some of the serious implications of water poverty. Water ethics is extremely broad and difficult to pin down. If you "follow the water"³⁷⁶ upstream and down, you find many decision points where human choices make a difference. You also find historical and cultural conditions and reasons contributing to these choices.

In recent history, a major drama playing out in water ethics has been the commodification and privatization of water. Along with the human right to water, this issue is, for some, their central concern and sole focus. For others, it is only part of what draws attention in the complex world of human water interactions. Conflicts over water as a common good versus water as an economic commodity have historical roots dating to the Reagan-Thatcher period. At that time in the 1980s, the US and Great Britain opened wide the doors to deregulation and *laissez-faire* capitalism, ultimately facilitating the growth of what is now a globally dominant neoliberalism. The fourth guiding principle of the 1992 "Dublin Statement on Water and Sustainable Development" reflects this trend in stating that "water

³⁷⁶ During my 2016 visit to the Water Culture Institute in Santa Fe, NM, David Groenfeldt used the phrase "follow the water." This expression links up with my own memories as a young teen, when I used to hike upstream to find the waterfalls on streams flowing down from the Canadian Shield near Sault Ste. Marie, Ontario.

has an economic value in all its competing uses and should be recognized as an economic good."³⁷⁷ Loans for developing countries from the World Bank and the International Monetary Fund came with conditions that public services had to be opened to corporate enterprises. A battleground opened over water services in a number of countries. One of the largest mobilizations for water took place in Cochabamba, Bolivia. It brought 10,000 people into the streets in the year 2000 and ultimately reclaimed publicly operated water services from a US transnational corporation. The public versus private water services debate is actually more nuanced and does not fit into a simple good versus evil binary. Transnational corporate engagement in water, however, cannot be assumed to be neutral. The networked power and resources of TNCs often elicit preferential treatment from governments, and even policy and regulatory capture.

Water ethics literature has critiqued some major traits of current water governance and management. In spite of a positive yet incomplete turn towards Integrated Water Resources Management (IWRM), explicit attention to ethics has been largely absent from water governance discussions. There are, however, pervasive tacit or implicit values operative in such management. David Groenfeldt highlights "the fiction that decisions about water are made through objective logic unencumbered by subjective values."³⁷⁸ Instead, he argues, there is a default ethic operative — a kind of divide-and-conquer utilitarianism. The malleability of hydraulic utilitarianism made it a kind of default ethic according to Jeremy Schmidt

³⁷⁷ UN DOCUMENTS, "Dublin Statement on Water and Sustainable Development," (1992), www.un-documents.net/h2o-dub.htm.

³⁷⁸ GROENFELDT, *Water Ethics*, 155, 4.

and Christiana Peppard. Even in IWRM, hydraulic utilitarianism as an implicit ethical position assumes that all values are commensurable once seen in, or leveled to, utilitarian, consequentialist terms.

In their concerns, the water ethics authors we have seen point to the need for a new water ethic. It also points to the need to expand the tent beyond the scope of concerns of traditional circles of water management. Beyond the traditional engineers, scientists, economists, managers and lawyers, there is a need to pay greater attention to ecology, the environment, and to the makeup of societies including relationships of privilege and exclusion. The direction towards greater public and stakeholder participation within IWRM is positive, but comes with a set of new challenges.

In 2010, a collection of readings was published entitled *Water Ethics: Foundational Readings for Students and Professionals*. It was evident from this book that the water ethics domain has a broad variety of inputs. What appeared as problematic, at least to me, was the lack of any search for philosophical foundations in what were called, according to the title, "foundational" readings. The collection revealed a wide divergence of philosophical and religious approaches. These went beyond simple perspectival variety to what could only be underlying philosophical differences. A year later in 2011, philosopher Martin Kowarsch reviewed water ethics literature and grouped the approaches under the headings of utilitarianism, liberal equality, libertarian and threshold concepts, feminism, Marxism, priority approaches, physiocentric ethics, and communitarian, pragmatist

and non-philosophical water ethics. In summarizing, he argued that this review of water ethics literature revealed a need for greater coherence and a lack of comprehensive water ethics able to match the complexity of the water crisis and all its interconnecting factors.

There have been many values and principles proposed in the water ethics literature that are worthy of attention. A number of these principles are summarized in Chapter 2, which looked into the ethical/moral response to water problems. One example of primary principles is the fact that water is *sine qua non* and *sui generis*. A number of authors have also pointed out that water ethics requires attention to human rights and human dignity. All have recognized in different ways that the general direction forward calls for a framework of sustainable development. As well, justice is to be applied between human activities and ecosystem needs, and between groups, genders, and generations. Fair procedures are necessary involving participation of all those impacted by water issues. Concerned publics along with their cultural and religious makeup must be respected. Many, including Pope Francis, also argue that the anthropocentric tendency cannot continue to dominate as it has in the past.

The challenges for achieving ethical outcomes when combining both traditional experts and real public participation in water management require further attention. First, water ethics needs to be truly multidisciplinary. 'Transdisciplinary' best encapsulates this effort where members of each of the many disciplines, in evaluating together over what could be and what should be,

go beyond existing disciplinary boundaries in a future-oriented exercise. Secondly, there is the challenge of adequately doing justice to the complex fabric of cultures, religions, and their values. One example is that of respecting Indigenous Peoples, their heritage, their territories, and the principle of 'free, prior, and informed consent.' Another involves the extent to which women and marginal groups are included. As well, in large regional and transboundary watersheds around the world, respect for different cultures, languages, and religions cannot be neglected. Because of the importance of religious identity and motivation in the world, and the need for religious collaboration towards a new water ethic, parts of this thesis looked into the theological horizon and religious aspects pertinent to water ethics, notably sections 1.8, 1.9, 3.13, 3.33 and Chapter 5.

Thirdly, the cognitive and existential elements operative in the thought and decisions of all parties involved need to be better understood. We are dealing with human agency, and the ways diverse humans know, evaluate and decide. All of the human operations involved in knowing, evaluating and deciding require both subjective and objective components. The water ethics literature examined so far has largely missed the subject in the subject-object referent. A realm of concepts, principles, and "knowledge" can quickly become abstract, dated and static when not anchored by adequate cognitional theory and epistemology in developing human subjects. Further, engagement at the existential level suffers from lack of attention to the fourth level of human intentionality—responsible deliberation and self-transcendent decision-making. Most of the critical needs found in my analysis

and summary of problematic areas in the water ethics literature point to this underlying missing subject in the subject-object referent.

Clear foundations were not apparent in the water ethics literature examined. There were some signs of an incipient search for metaethics and a valid epistemology, but these were lacking cognitional theory. A search for foundations seems to have been mainly a search for best first principles. A few references to logical deduction were made but there was no explanation of how persons think, feel and decide. I can surmise that it may have been expected that the way to finding moral answers for specific water cases would be through logical deduction, possibly combined with some synthesis of experience. Logic and deduction are necessary, but as tools serving the emergent and creative power of insight. "Embodied experience" was pitted in one case against abstract rational knowledge. Such ways of proceeding without adequate understanding of cognition risk running into the problems of conceptualism, objectivism, and perceptualism. These problems were examined in Chapter 3. Contrary to Kant, *a priori* concepts do not arise out of experience. The long historical shadow of Descartes, Kant, and Aristotle's *Posterior Analytics* seems not easily avoidable and, without an account like Lonergan's, any further efforts in a search for objectivity and grounding would eventually run into the numerous philosophical problems that have evolved over the past four centuries. Such attempts would inevitably run into an epistemological turn that, since the times of Descartes and Kant, has been either incomplete or abandoned. As well, other philosophers since that time have revealed aspects of

the problems involved. Some of these include Hegel, Kierkegaard, Nietzsche, Heidegger, Wittgenstein and Rorty. There are also the considerations of utilitarianism, pragmatism, personalism, existentialism, and phenomenology. As Frederick Lawrence has observed,

foundational thinkers are now required to go behind epistemology and metaphysics to lay bare not the abstract and necessary conditions of knowledge but what is actually going on when we think we are knowing and evaluating. That sort of inquiry is the business of cognitional theory or method in Lonergan's sense.³⁷⁹

This thesis has endeavored to analyze the literature and to contribute towards a more comprehensive and well-founded water ethics with the help of Bernard Lonergan. In the course of the thesis research, it was found that Lonergan, in his philosophy, theology and method, provides ample and profound resources to benefit the water ethics discourse. These resources were explored in Chapters 3, 4 and 5 in relation to the needs of water ethics found in the analysis of previous chapters.

Chapter 2 summarized a number of basic needs of current water ethics. There was found a need to go beyond utilitarianism and rights. Water management and water ethics should no longer be anthropocentric. The anthropocentric-ecocentric question, examined in Chapter 4, found the irreplaceable need for human spokespersons for rivers and nature, and the need to move beyond conceptualism to better understand of self-transcendence in the full sense of Lonergan's account. Grounding water ethics is another fundamental

³⁷⁹ LAWRENCE, "A Response," 96.

need. Water ethics needs to go beyond relativism and fragmentation and therefore must be grounded in a way that can claim objectivity. As well, institutions have a predominant role in water management and water ethics needs an awareness of institutional and personal bias, and an understanding of what makes for effective freedom to advance ethical water policy and decision-making. Achievement and effective freedom in water governance institutions is conditioned by the extent to which there is authentic implementation of the immanent and intentional operations of consciousness in institutional cultures.

Finally, water ethics needs clarity on the importance and role of religion. It should be able to distinguish and adjudicate within a field of values of differing value orders – vital, social, cultural, personal and religious values. Water ethics must be able to give ethically justified reasons for water decisions at scales which involve multiple cultures and religions. Public participation and dialogue is now a recognized part of fair water governance. Engagement of the theological horizon in water ethics comes in at this level, and has a broader role as well. Theology contributes to a fuller understanding of both local and global causes of water poverty. Religious love and engagement is part of the solution for this problem. It is fair to say that the creation and implementation of a new water ethic cannot be done in a way that excludes religious resources and engagement. The role of religions is increasingly acknowledged, even in United Nations world water reports. One example is the "Messages for Religious Leaders" that accompanied the rollout of the 2009 World Water Development Report 3, *Water in a Changing*

World. In the three pages of messages, we read, "[r]eligion is a cardinal influence on the thought and behaviour of huge numbers of people, both believers and non-believers." [and] "Water has often been referred to as a gift from God."³⁸⁰

The need for a grounded water ethics has been given more attention in this thesis because of its centrality and relation to all other needs. Water ethics can be grounded and come to greater cohesiveness and comprehensiveness through appropriating Lonergan's understanding of the conscious intentional subject — the experiencing, enquiring, understanding, judging, and deliberating subject that has largely gone missing in the existing discourse. Lonergan placed the subject-as-subject in the centre of the pursuit of truth, objectivity and value in a way that engages the full sweep of human cognitive and ethico-religious intentionality. With this he breaks away from the common assumption that subjectivity and objectivity are mutually exclusive. Without conscious intending subjects, a realm of concepts, principles, and "knowledge" can quickly become abstract, dated and static. It has to be anchored by adequate cognitional theory and epistemology in developing human subjects. Lacking a critical realism like Lonergan's, the water ethics discourse can easily and implicitly regard knowing as if it were experiencing or seeing a world of immediacy rather than a world mediated by meaning.

I found that the operations of consciousness in Lonergan's transcendental method point to an unfolding of the very drivers behind the human pursuit of truth, reality, and value. This human orientation and the operations of consciousness

³⁸⁰ WORLD WATER ASSESSMENT PROGRAMME (UNESCO), "Messages for Religious Leaders," *World Water Development Report 3*, (2009), at unesco.org/new/fileadmin/MULTIMEDIA/HQ/SC/pdf/wwap_wwdr3_Messages_for_Religious_Leaders.pdf.

should receive attention in water ethics. The desire to know and the desire for value underpin all the different kinds of questions which move persons towards knowing reality and choosing the good. Human experience provides the ground floor of the process. Regarding our experiencing, or the 'data' of experience, our first questions are for understanding. *What is it?* In response to insights, we formulate our understandings or hypotheses. Further questions arise: *Are our understandings are really true?* They could be wrong. Do they fit the evidence best, or is there a better way to understand this? Such questions promote our knowing to judgments of fact. If all further questions are satisfied, a one can affirm a fact – *yes, it is so*. If they are not, one may say 'maybe' or 'probably,' and go back to the drawing board if warranted. In this knowing process, Lonergan distinguishes three interlocking levels — experiencing, understanding, and judging. But humans are not simply knowers. We are doers, and our deliberations about what to do involve questions of value. Moral self-transcendence brings us beyond immediate questions about "what's in it for me or us" to questions of what is the right or the truly good thing to do. Objectivity, for Lonergan, "is simply the consequence of authentic subjectivity, of genuine attention, genuine intelligence, genuine reasonableness, genuine responsibility." In practice, "[m]athematics, science, philosophy, ethics, theology differ in many manners; but they have the common feature that their objectivity is the fruit of attentiveness, intelligence, reasonableness, and responsibility."³⁸¹

³⁸¹ LONERGAN, *Method*, 265.

The foundation of water ethics then is the human subject³⁸² responsibly using her inner norms of conscious intentionality. Lonergan's transcendental imperatives apply: *Be attentive! Be intelligent! Be reasonable!* and, *Be responsible!* Participatory ethical water decision-making requires the best knowledge possible in all the pertinent domains. Be attentive to all data of experience, all partners, all existing insights, and to the local and global history and background. Be intelligent. Make sure all the relevant questions are asked. Be reasonable in judgments of fact. Be responsible in deliberations and decisions. Conscience may be concerned about what is missing, what seems not right. Is the box too small? Has some group been left behind? Is there a better way? Such further questions may call for creating a new alternative solution pathway that requires a fresh look at both the data and the understandings of it. A fifth imperative applies, especially for the religiously converted: *Be in love!* Bring the gracious gift of God's love into creating and healing this world.

Future Potential

Beyond what I have been able to cover in this thesis, I believe there are areas for future development in applying Lonergan's work in water governance and ethics. What I write here is only a beginning. I believe there is much room for both theoretical and praxis-oriented applications of Lonergan's method and thought in water ethics. Several possibilities do come easily to mind, however. One has to do with applying the Generalized Empirical Method to analyze and

³⁸² I cannot avoid adding that this foundational human subject is over 70% water by weight, and dependent on water for life.

assist water decision-making institutions. An introductory example can be found in Chapter 4 of this thesis as a brief analysis of one such institution, the International Joint Commission. Lonergan's thought could be further applied in creating or transforming water governance institutions with a view to ethical governance and management. Another potential application, which could entail a thesis on its own, is the use of insight and cognitive-ethical self-appropriation in the mediation of water conflicts. This creative solution-finding method could even be expanded for broader use for any kind of forum seeking creative policy and management solutions.

Both water and environmental ethics could profit from further studies on ways of adopting Generalized Empirical Method within the context of the invariant structure of the good — particular goods, goods of order, and value. Regarding goods of order, Patrick Byrne has proposed the use of terms like "social ecosystem" or "ethical ecosystem" in place of the traditional term "the common good."³⁸³ As he argues, "the common good" has been interpreted at times as a static and abstract concept. It takes on, with the word "ecosystem," a better appreciation of the complex and concrete patterns of interdependence that, at the same time, are involved in an ongoing evolutionary process. Further distinctions can be developed around these terms. Social ecosystems as goods of order are not necessarily healthy ecosystems. Nor are they necessarily ethical ecosystems in the usual use of the term. Inasmuch as they are not, fundamental water problems continue or worsen. Water's interconnection with all human activities and

³⁸³ BYRNE, *Ethics of Discernment*, Chapter 11, 475, footnote 9.

ecosystems means that it cannot always be neatly separated from social ecosystems, nor can it be rendered healthy and treated ethically without social, economic, and political adjustments. This is where the third level of value is to be engaged.

Much more work could be done on looking into the roles and relationships of individuals and institutions seeking value in their involvement in improving water affairs and interconnected social and natural ecosystems. The installation of a new and holistic water ethic is a component of the broader long-term mission requiring cultural change in order to make these interconnected ecosystems healthy and ethical. In the first chapter we heard the call for a new water ethic from authors like Postel, Brown and Schmidt, Groenfeldt, Peppard, Chamberlain, and Sandford and Phare. A new water ethic must be understood as constitutive of, and complementary to our broader social and moral obligations. It needs to be an integral part of a new ethic that guides our relationship to the earth's natural systems, to other species, and to each other. It must be woven into broad cultural, religious and moral values, but seen in a new way that surpasses anthropocentric modernity in recognizing that we are part of a life-support network we depend on, and that our lives must fit within water's limits.

The health of water and water's dependent natural ecosystems depends now in the Anthropocene on meanings and values operative in social ecosystems, the polity and the economy. Transforming old and creating new social ecologies is a cultural work that requires morally converted persons. Whether religious or not,

the "personal value" of such persons is operative in finding and instantiating value and changing culture and society for the good. Religiously converted persons recognize that their mission requires collaboration with the ultimate originating value — divine light and love.³⁸⁴ Their "religious values" enhance, heal and fortify their "personal value" towards greater consistency in moral self-transcendence so as to become "principles of benevolence and beneficence, capable of genuine collaboration and of true love."³⁸⁵

What has been elaborated above is in accord with Lonergan's integral scale of values. The higher values depend on but condition the lower values. In this way, personal values condition cultural values, and cultural values condition social values. Social values, necessary to keep the schemes of order of society working, are culture as operative. Cultural transformation changes institutions and societies. The integral relationship between classes or levels of values becomes clearer when inversions and distortions of the integral scale are examined. One example pertains to when social and political values are held higher than religious, personal and cultural values. The atrocities of the 20th century brought widespread abuse of human dignity and freedom. This happened when powerful ideologies captured and suppressed religious, personal and cultural values. Another inversion occurs if the "golden calf" or any other created priority is elevated to the rightful place of the Divine Creator and the law of love. Much more could be developed in the future in

³⁸⁴ LONERGAN, *Method*, 116.

³⁸⁵ LONERGAN, *Method*, 35.

terms of the heuristic structure of the human and global good in relation to the integral scale of values.

In the long view, much remains to be accomplished in cultural change within a modernity that, almost as a second nature, is still largely anthropocentric and technocratic in tendency. Humanity still keeps chipping-away at water and nature, and eco-deficits continue to increase. As a further reflection on the idea of "ethical ecosystem," I believe Pope Francis lays out the right direction and visionary goal in *Laudato si'*. That goal extends an earlier integral humanism into an "integral ecology," and "a new ecological culture." Rather than merely bringing changes in certain sectors in response to problems, Francis writes that what is needed is a distinctive new paradigm. It requires new ways of thinking, and a new integration of lifestyles, spirituality, and relationships. It means a turn to a more environmental and ecological education that includes both a critique of modernity and a facilitation of 'yes-saying' and collaboration with the divine. In dispelling incorrect reductionist views of the human person that suppress our moral and spiritual dimensions, it can bring us to the deepest meaning of what it is to be human.

These goals and steps forward proposed in *Laudato Si'* go hand-in-hand with a 21st century appropriation of the meanings of Lonergan's challenge to self-appropriation.. Self-appropriation is an appropriation of the operations of consciousness, and of the inner drive for truth, reality and value. It is appropriation of the deepest meaning of what it is to be human—to be authentically developing

through cognitive, moral, affective and religious self-transcendence. This orientation brings continual learning and expanding horizons. Its moral-existential orientation becomes the intention, promotion, and active pursuit of the human and global good. Living out the deepest meaning of what it is to be human in this time of planetary crisis goes hand in hand with working to redress the deepest problems of the global system.

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