

## **Apologetics, Faith, and Science in Environmental Policy-Making**

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**Abstract:** *Environmental policy is often debated; however, the ethical basis for establishing policy is not commonly discussed. Whether under Republicans or Democrats, many Americans support some environmental policy-making. However, utilitarianism inadequately establishes ethics, and policy based on perceived utilitarian values is subject to fickle and transient politics. Unless an absolute ethic exists, a universal environmental ethic cannot be established; however, absolute ethics must be revealed by God, not through human reason. Christians in science should know how to defend the assertion that an absolute ethic has been revealed by God, and legal-evidential apologetics provides the best foundation for environmental ethics and policy-making.*

Although science and Christianity may be seen as enemies, Christians have the opportunity to integrate apologetics with science in support of ethical environmental policy-making. Moreover, integration of faith and science is ultimately the only basis for developing, implementing, and enforcing universal environmental policies. A story illustrates the problem of attempting to establish environmental policy without faith. I once took several students to a Leopold Education Project workshop. The LEP's mission is to develop ecologically literate students committed to Leopold's land ethic. To begin, the facilitator asked how educators could teach children to care for nature. No one answered. Eventually, one of my students said she would ask students what they thought the God of Christianity, Judaism, Islam, or any religion, wanted people to do. She suggested teachers could explain to children that their higher power would want them to care for nature so others could enjoy it. There was silence when she finished speaking. After a pause, the moderator said teachers cannot bring God into schools due to separation of church and state. The student asked, "If we can't bring God into class, how can we teach children about morality, including environmental ethics?" The leader answered that in the interest of time we had to move on; however, Gould might have answered:

*Homo sapiens* also ranks as a ‘thing so small’ in a vast universe, a wildly improbable evolutionary event, and not the nub of universal purpose. Make of such a conclusion as you will. Some people find the prospect depressing. I have always regarded such a view of life as exhilarating—a source of both freedom and consequent moral responsibility. We are the offspring of history, and must establish our own paths in this most diverse and interesting of conceivable universes—one indifferent to our suffering, and therefore offering us maximal freedom to thrive, or to fail, in our own chosen way.<sup>1</sup>

We must avoid this answer if we discuss environmental stewardship when teaching students to be environmental stewards *and* if we want government officials to develop and implement universal environmental policies.

Not only must we avoid Gould’s answer, but anyone interested in establishing environmental policy should be able to justify an environmental ethic. Environmental ethicists and policy-makers must answer philosophical questions regarding human rights in national and international law. Although philosophy alone is inadequate, some Christians either embrace Gould’s Principle of Non-Overlapping Magisteria (NOMA)<sup>2</sup> or are suspicious of the human rights movement and environmentalism: they may associate international organizations with the Antichrist, think religion and politics should remain separate, believe legislating rights focuses narrowly on a social gospel rather than salvation, or think Christians should not be “yoked” with unbelievers. Thus, people who should be boldly proclaiming Biblical imperatives to care for creation and working to develop scientifically and ethically sound environmental policies have directed their talents elsewhere.

The InterVarsity “Following Christ 2008” Conference was designed to equip faculty and graduate students as Christ’s followers and leaders in academia. Many tracks were offered; the “God’s Green Kingdom” track was chaired by Dr. Lowell “Rusty” Pritchard, an economist who advises Christian organizations on creation care, environmental issues, environmental justice, and resource management. People from environmental studies, natural resource and wildlife

management, engineering, architecture, business, industry, science, education, economics, and public policy attended this track. First, participants discussed in groups whether “environmentalism” had a positive or a negative connotation. Although participants had chosen the track because they were interested in creation care, environmental issues, or sustainability, consensus was that “environmentalism” evoked negative feelings. If Christian environmental professionals mistrust motives of those in the environmental movement, one can infer other Christians have similar feelings.

Not only has this been a lost opportunity for the environment, but it has also been a lost opportunity for apologetics. The two are linked for the same reasons Christian apologist John Warwick Montgomery has demonstrated that biblical revelation is the only defensible basis for human rights.<sup>3</sup> Environmentalists should have a two-fold goal: 1) establish effective, scientifically sound environmental policies at domestic and international levels and 2) define and justify a system of environmental ethics. Ideally, the latter should precede the former, but given the nature of environmental problems, practical policies have, of necessity, been implemented without much attention paid to a philosophical, ethical, or theological justification. Just as the human rights movement gained momentum following the brutality of World War II, the environmental rights movement grew following the explosion of technology after the same war. In the last few decades, Christians have become involved with environmental issues and justice as individuals, congregations, church bodies, and ecumenical organizations.

Establishing environmental policy is not merely a choice or a need; it is a duty described in Scripture which, if Scripture is true, transcends individual preferences. One must not confuse “rights” with self-perceived “wants” although many in today’s cultural and political climate freely use “rights” terminology. Invoking animal rights, women’s rights, reproductive rights, or

gay rights carries more political weight than stating similar concepts as opinions or desires. Constitutional and other legal rights exist on the basis of contractual documents. Discerning between rights and needs is more difficult. For example, the need for clothing does not equate with a rightful claim to the coat on someone else's back! It is a philosophical error to equate needs with rights because it can be argued that fallible humans don't always know what they need or what is in their best interest. Legally, a "right" for one person must be correlated with a "duty" borne by another person or group. The "interest theory" of rights defines a right as an interest that is protected by an external norm and does not depend on making a claim to the right. Thus, children, animals, fetuses, and the environment can have rights; this is not the case with the "will theory" of rights which is based on a party making a claim to a specific right. Basically, a right is an entitlement that obligates someone else. Thus, the identity of the title-giver must be established. An ultimate right must be given by God, not man. By extension, the "rights of Creation," e.g., rights similar to those of Leopold's land ethic, are correlated with the duty of Christian stewardship and based in Scripture which is a transcendent, infallible revelation binding all people, cultures, nations, and times.

Although philosophers have considered humankind's relationship to the world for thousands of years, the emphasis has traditionally focused on human rights and social relationships. Scholars began to develop the specialized, complex field of environmental ethics during the 1970s. Philosophers in environmental ethics have focused on the relationship and responsibility of humans to the natural world as well as on the rights of the natural world, both biotic and abiotic, apart from man. Broadly speaking, responses to the question of humanity's relationship with nature have developed with different emphases, e.g., frontier, utilitarian, biocentric, ecocentric, or ecofeminist ethics. Justification of each appeals to human reason or

preference. Pragmatists might appeal based on economics or usefulness for current or future human survival. Artists might appeal to beauty on aesthetic grounds. Moralists might appeal based on virtue as established by external ethical codes such as the United Nations General Assembly World Charter for Nature (1982) or the U.S. Endangered Species Act of 1973 which decrees that organisms have the right to exist. Srokosz has “outlined an approach to environmental ethics based on the biblical metanarrative”<sup>4</sup> and suggests “an eschatological perspective and Jesus’s first and second commandments, should enable us to begin to address the ethical issues raised by geoengineering.”<sup>5</sup>

“Deep ecologists” argue humans are less important than the biosphere because all life depends on survival of the biosphere. Norwegian outdoorsman and founder of the deep ecology movement, Arne Næss, based core values on biospheric egalitarianism which posits that the environment as a whole has the right to exist and flourish. Deep ecology’s basic goal is to rise above utilitarian ethics. Næss was influenced by Carson’s *Silent Spring* and Gandhi’s philosophy of nonviolence. Because human life is unnecessary for the continued existence of other living organisms, individual human lives are not of consequence when compared to the biosphere on which all life depends. According to the moral order of deep ecologists, non-rational, unthinking organisms are more deserving of protection than humans because they merely carry out life functions and are innocent of environmental degradation based on moral choices. People rank lowest on the moral order because it is people who can reason but have degraded the environment through technology and poor choices.

One of the most influential thinkers in environmental ethics was Aldo Leopold, a forestry professor at the University of Wisconsin. In 1949, Leopold published *A Sand County Almanac* in which he proposed his famous “land ethic.”<sup>6</sup> The thesis of Leopold’s land ethic is that non-

human species, ecosystems, and the land itself all have an intrinsic right to continued existence in an unspoiled, natural state. The land ethic is a cornerstone of environmentalism. However, Leopold assigned *a priori* rights to plants, animals, and nature, and, in so doing, he made the following basic assumptions: 1) each generation should practice good stewardship of non-human species and the land; 2) humans are only tenants on land they own by legal title; 3) the present generation will bequeath the land to future generations by default if not by choice; 4) humans choose to live in harmony materially and spiritually with the land or abuse it; and 5) humans are a part of natural ecosystems. Although the land ethic appeals to many people, including Christians, who passionately care about environmental issues, it is, nevertheless, founded on human reason and judgment. Unless justification for Leopold's land ethic can be made on moral grounds applicable to all people, cultures, religions, and times, human beings are free to live according to an ethic of their choosing. How can someone claim one ethic is better or worse than another? On what grounds does one advocate a frontier, utilitarian, deontological, biocentric, ecocentric, ecofeminist, deep ecologist, anthropocentric, theocentric, or land ethic? Boorse has noted, "Ethical assumptions underlie many of the quandaries posed by modern environmental science. ... These decisions are not easy to agree upon and are not scientific. Fundamentally, they are questions of values and ethics."<sup>7</sup>

A fully naturalistic, atheistic Darwinist or Neo-Darwinist could argue that because competition in the struggle for survival defines "success," organisms, including the strongest and most "fit" individuals of the species *Homo sapiens*, are free to use as many resources as they need to survive and reproduce. Does an organism that is merely the product of chance and necessity have ethical responsibilities to other organisms? It follows logically that "if fully naturalistic evolution were the explanation for man's existence as a top predator, then each

person would be fully justified in his or her preference to use, or abuse as the case may be, the earth and other creatures as he or she sees fit. An organism that has evolved by random chance, with no purpose or design, has no moral obligation or responsibility to be a wise steward or to consider the needs of those weaker than itself.”<sup>8</sup> Leopold noted, “An ethic, ecologically, is a limitation on freedom of action in the struggle for existence.”<sup>9</sup> Leopold also wrote:

It is a century now since Darwin gave us the first glimpse of the origin of the species. We know now what was unknown to all the preceding caravan of generations: that men are only fellow-voyagers with other creatures in the odyssey of evolution. This new knowledge should have given us, by this time, a sense of kinship with fellow-creatures; a wish to live and let live; a sense of wonder over the magnitude and duration of the biotic enterprise.<sup>10</sup>

It should be apparent that the only way one ethic can be demonstrated as universally desirable is if it conforms to an absolute ethic that has not been derived by human reason or affirmed solely through human choice.

If universalists are wrong and no fundamental, eternal ethical principles exist, then relativists who argue that moral decisions and values depend on the specific context for an individual person, situation, or culture are correct. If so, wouldn't an environmental ethic also be merely contextual? Who or what would determine in which context, if any, it is acceptable for people to disregard detrimental environmental effects of their actions? If nihilists are correct and existence is meaningless, what difference does it make if humans practice environmental stewardship or not? After all, life is only a struggle for existence in a bleak world devoid of standards of truth, goodness, or beauty. If utilitarians are correct, whatever produces the “greatest good” for the greatest number of people is ethical. A purely utilitarian ethic can easily devolve into simple hedonism. Bentham, a British philosopher of the late 18<sup>th</sup> and early 19<sup>th</sup> centuries, concluded pleasure was the ultimate standard by which to establish goodness and, consequently,

the rightness of an action. Thus, humans who produced the greatest pleasure for the greatest number were acting morally. Of course, one must ask, “What is pleasure?” Mill modified Bentham’s hedonism by asserting that the greatest pleasure was not associated with the body but with the mind so the greatest good was to become educated in order to live and act in an enlightened, humanitarian manner. Pioneering conservationists such as Marsh and Pinchot were greatly influenced by Mill’s modified utilitarianism. They, and others, extended Mill’s thought to develop a conservation ethic built on the principle that natural resources must be managed to yield the greatest good for the greatest number for the longest time. Postmodernists would have to deny that “nature” has a definitive meaning. Nature, like anything else, could be constructed to mean whatever individuals perceive it to be. Consider a Caribbean coral reef. A biologist might see the reef as a marine sanctuary deserving protection, a SCUBA diver might see it as a recreational area, a local fisherman might see the reef as resource to feed his family in the present, and a real estate mogul might see a resource for a new resort. From a postmodern perspective, all views about the best use of the reef have to be equally valid. How can intrinsic rights proposed by Leopold’s land ethic be ascribed to an ecosystem such as a coral reef and the biota that inhabit it if “nature” is only a cultural or contextual creation?

In recognition of problems deciding among various environmental ethics, as well as to acknowledge that humanity does have a responsibility to care for nature, many Christians have embraced environmental stewardship as an obligation first given to Adam. The creation care or Christian environmental stewardship movement has gained momentum as awareness and concern for the environment have grown within and outside of the Church. Christians in organizations associated with creation care such as the Evangelical Environmental Network or other non-profit advocacy organizations use Scripture to establish the premise that humans have



a moral calling to care for nature, live sustainably, be stewards of Earth's resources, and adhere to a biblically based environmental ethic as they participate in Christ's reconciliation of creation to God the Father. Interfaith groups have been founded. The National Religious Partnership for the Environment, a Judeo-Christian alliance, was established in 1993 by four major religious groups: the U.S. Conference of Catholic Bishops, the National Council of Churches, the Coalition on the Environment and Jewish Life, and the Evangelical Environmental Network. An important goal of this partnership is to study Jewish and Christian Scriptures in light of environmental issues.

Environmental science was the theme of *Perspectives on Science and Christian Faith* (PSCF), December 2014. Articles investigated connections among environmental science, environmental justice, faith, and Scripture; however, none addressed *why* Scripture is a valid basis for discussing the implications for Christians of research in environmental science, evaluating possible Christian responses to environmental concerns, or practicing reconciliation ecology in addition to environmental stewardship. PSCF readers will be more effective advocates in the scientific community if they can articulate a Christian apologetic for basing environmental ethics, decisions, and responses on the authority and reliability of Scripture. Being able to do so within the context of scientific discussions can provide opportunities to witness to colleagues who do not know Christ. As Boorse noted, "Environmental science can point out likely outcomes, but it is ethics that will help us decide what our obligations to future generations are."<sup>11</sup> Similarly, Sluka and Simonin proposed that

a radically Christocentric metanarrative of scripture that places the focus on God and his work on the cross to redeem all of creation from the results of the Fall, focuses our attention rightly on God's glory and his story which includes his valuing of creation as good, independent of its value in relation to us.<sup>12</sup>

Christians of different denominations agree with basing stewardship on Scripture; however, agreement begs the question of whether stewardship based on Scripture is more or less valid than other humanly derived ethics. To broaden support and witness to non-believers, Christian environmentalists should be able to argue effectively for Scripture's authority. Unless it can be demonstrated that Scripture is true, creation care is just one possible choice among others. One must ask, "Is the Bible true?" If yes, an environmental ethic based on Scripture would be authoritative. If no, we are left with no grounds on which to base a universal environmental ethic. Moral relativism trumps any ethical system, including any environmental ethic, developed solely by human reasoning, regardless of how logical it may seem to a majority of people.

Evaluating whether an environmental ethic can be justified is related to answering the question of how a foundation for human rights can be laid within a legal system. In both cases, one must establish an absolute authority for granting rights, i.e., to humans *or* to nature. Additionally, an important aspect for many environmentalists is the necessity of considering fair and godly treatment for all people within the context of an environmental ethic. An environmental ethic should address not only protection of land and non-human species but also establishment of just relationships among people with regard to Earth's resources, i.e. environmental justice. One example of a human rights concern that is often cited in association with environmental justice is the problem of environmental racism which refers to locating waste sites or potentially hazardous industries in predominantly poor or non-white neighborhoods. Justice for third world people, including concerns about poverty and pollution, also falls under the human rights umbrella of environmental justice. Rights of future generations for access to resources, clean air, and clean water are also essentially human rights. The rights of nature and

human rights would be ethically and philosophically linked by an all-encompassing environmental ethic. This is not merely the view of a Christian concerned with creation care. In their environmental science textbook, Raven, Hassenzahl, and Berg concluded, “Viewed ethically, environmental justice is a fundamental human right. Although we may never completely eliminate environmental injustices of the past, we have a moral imperative to prevent them today.”<sup>13</sup> How one justifies human rights is closely allied with how one establishes an environmental ethic.

When addressing human rights and the rights of nature, one must consider what it means to be a moral agent. A moral agent must be capable of choosing to act morally or immorally and have the means and autonomy to carry out those choices. A moral agent is responsible for the consequences of his or her choices. Most people would agree that only human beings can act as moral agents. However, not all human beings are moral agents. For example, a newborn child or a comatose person is not a moral agent. Although some societies have held that certain categories of humans were not moral subjects but merely property, today most agree that all humans are moral subjects, i.e., they deserve moral treatment and have certain inalienable human rights. Most people would deny that animals are moral agents. However, are non-human species at least moral subjects? Do they, and the land itself, have a right to be treated morally by those who are moral agents? How is intrinsic value or conferred value assigned to non-human and non-living things? Inherent in the land ethic is the assumption that all organisms have intrinsic value and rights apart from value conferred on them because they are useful. Leopold wrote:

Of the 22,000 higher plants and animals native to Wisconsin, it is doubtful whether more than 5 percent can be sold, fed, eaten, or otherwise put to economic use. Yet these creatures are members of the land community, and if (as I believe) its stability depends on its integrity, they are entitled to continuance.<sup>14</sup>

He concluded, “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.”<sup>15</sup> The land ethic asks, “To what extent, if any, should human rights be extended to other things?” Before these questions can be answered, the problem of how human rights are derived must be addressed.

Natural law theory and legal positivism have been the classic ways of regarding absolute law and human rights. Unfortunately, neither works. Rooted Greek Stoic philosophy, natural law theory was assimilated into Roman law through Cicero, into the Muslim world through Aristotle, and into the Christian West through Aquinas where it was the dominant legal theory until the 19<sup>th</sup> century. Natural law theory assumes human beings inherently have knowledge of human rights, i.e., a “natural law,” written on their hearts. Natural rights are those contributing to the “common good” of society. In the West, it was argued that natural law is biblical and the God of Scripture implanted natural knowledge of human rights into human hearts. As a consequence of the Enlightenment, 18<sup>th</sup> century natural law theorists replaced the God of revelation with the god of deism. With declining theism in the 19<sup>th</sup> century, natural law theorists argued God is not needed; instead, natural law is universally self-evident to everyone. Two elements are common to natural law theories regardless of how they are justified: 1) the concept of “rights” is built into human hearts, and 2) human rights do not come from an external source but from internal human knowledge. In essence, natural law theory rests on the concept of “Let conscience be your guide.” But what does conscience guide one to do?

There are three difficulties with natural law theory. First, rights supposedly arising from it are ambiguous. Montgomery paraphrases the 6<sup>th</sup> century Justinian Law Code which was the ideal of Greco-Roman law as “Live honestly, harm no one, give to each his own.”<sup>16</sup> However, the Buchenwald Death Camp slogan was “Each man gets what he deserves.” Thus, concepts of

the Justinian Code depend on context and can be defined in virtually any terms one chooses. Second, natural law theory commits the naturalistic fallacy. It is not logical to move from “what is” to “what ought to be.” Even if humans have a built-in sense of “right,” that doesn’t necessarily translate into a sense of truth. It is a logical fallacy to argue that if people agree on something, then it is true. Third, consensus among humans is lacking. Diverse cultures and value systems exist; people do not all agree about ethics, morals, or religion. For example, environmentalists often point out that Native Americans lacked a concept of land ownership; however, rights of property owners are an important part of the American judicial system. Natural law theory does not work because, as a consequence of Adam’s sin, humankind has fallen into egocentricity, greed, and selfishness.

Because of limitations of natural law theory, legal positivism developed in the 19<sup>th</sup> century. Legal positivists argue the only genuine human rights are established by governments or the sovereign, i.e., “law” is whatever the state or sovereign says it is. Legal positivism solves the ambiguity of natural law; however, it fails to establish standards by which to judge the morality of a society’s laws. This dilemma can be illustrated by considering the Nuremberg trials. Some analysts argue the Nuremberg trials were illegal because one system forced its values on another, autonomous system. The chief United States prosecutor, Robert Jackson, prosecuted Nazis for war crimes under the London Charter of the International Military Tribunal (Nuremberg Charter) which established grounds and procedures for the trials. Jackson argued against the defense that individuals were not criminally responsible if they were following orders when performing state-ordered actions. He also attacked national sovereign immunity because many atrocities committed by the defendants were legal under Nazi law. In successfully prosecuting individuals for war crimes and crimes against humanity, Jackson, in the spirit of natural law, appealed to the

existence of an international higher law which he argued was violated by Nazi officials executing Hitler's policies because they had an alternative moral choice. Although some trace the international human rights movement to Jackson's success, others argue in the spirit of legal positivism that the verdict was simply victor's justice.

Disagreement over the legitimacy of the Nuremberg trials highlights difficulties and legal technicalities associated with establishing law and standards of justice through human logic and reasoning. International violations of human rights must go beyond natural law; the challenge is to answer the question, "How do we find human rights principles that transcend human legal systems?" At Nuremberg, Jackson based his prosecution on natural law theory due to the failure of legal positivism. If legal positivists are correct and human rights are given by governments, then they can be taken away by governments. Legal positivism empowers any system to do whatever it wants regarding human rights or, by extension, to any use or abuse of Earth's resources, non-human species, or land ethic.

The Nuremberg trials demonstrate that neither natural law theory nor legal positivism provides the necessary basis for an ethical system. To develop an ethical system, one must identify a perspective from outside the world rather than one from within the world. To identify an absolute ethic, whether it be in human rights or environmental ethics, requires a transcendent revelation. If laws or ethics arise from human logic, they will be fallible and limited by the culture and time in which they arise. Mankind must go beyond the human condition when considering ethical questions; however, without God, there is no absolute ethic for either human rights or environmental ethics. Ultimately, human reasoning is faulty and cannot be authoritative; therefore, revealed religion is necessary to establish ethical systems, including an environmental ethic or human rights associated with environmental justice.

This solution must answer the question, “Which purported revelation is true?” because they cannot all be true. Just because a religion claims a revelation comes from God does not mean it is from God. Since there are many different religious truth claims, one must try to determine which religion, if any, is true. Of all world religions, Christianity is the most logical starting point because only Christianity is based on an *event* that happened in history, i.e., the discovery of Jesus’ empty tomb, rather than on the *teachings* of the religion’s founder. This event can be examined with the same historical methods used to determine the probability that other events recorded in ancient history happened. Gospel accounts of this event can be evaluated by the same tests used to determine the reliability of other ancient documents. If the Gospels are reliable historical documents, then humanity has a revelation on which to establish all ethics. Montgomery’s evidential-legal apologetic is uniquely suited to demonstrate within reason that Scripture is reliable and that mankind has been blessed with a transcendent, revealed ethic not based on human reasoning. Montgomery validates the Gospels the same way secular documents are validated and determines that the New Testament is sound on historical and legal grounds.<sup>17</sup> Evidence for the resurrection is carefully evaluated. Once the Gospel account of the resurrection is established as a reliable historical account, it becomes obvious that a miracle occurred. Jesus claimed to be God incarnate, and He said that He would rise from the dead to validate His claim. The Gospels are clear that Jesus highly regarded all of Scripture; He said Scripture was the authoritative word of God. Since Jesus demonstrated that He is God by his resurrection, his view of Scripture validates Biblical authority and the doctrine of *Sola Scriptura*. All philosophical and scientific arguments are actually secondary to a legal-historical apologetic. Because an evidential-legal apologetic argues successfully that God’s revelation in Scripture is true, it should be the foundation on which an environmental stewardship ethic is built.

Montgomery's evidential-legal apologetic is the "missing link" in the creation care movement because it avoids *a priori* assumptions that the biblical mandate to care for creation is a valid starting point.

Many people believe religion and science should not "interfere" with one another. Gould was unable "to see how science and religion could be unified, or even synthesized, under any common scheme."<sup>18</sup> According to him, "Science tries to document the factual character of the natural world...religion on the other hand, operates in the...realm of human purposes, meanings, and values."<sup>19</sup> Believing that science, but not religion, is founded on fact, Gould proposed the Principle of NOMA, or Non-Overlapping Magisteria. NOMA assigns the empirical realm of fact or matter to science and the moral realm of value or meaning to religion with the goal of resolving what he sees as a false conflict between science and religion. Gould asked, "Are we worth more than bugs or bacteria because we have evolved a much more complex neurology? Under what conditions (if ever) do we have a right to drive other species to extinction by elimination of their habitats?"<sup>20</sup> And he recognized that science cannot answer these questions. Gould concluded we must turn to religion for answers; however, the most he hoped for is that discussion would be a fruitful "quest for consensus, or at least a clarification of assumptions and criteria, about ethical 'ought' rather than a search for any factual 'is' about the...natural world."<sup>21</sup> It is important to remember that consensus is not truth. Even if consensus is reached by the majority of people that a given environmental ethic is morally desirable, there is no way to determine if the consensus is true unless it can be measured against an external authority. Regardless of what ecologists might tell us about the material world, if NOMA is valid, there can be no factual grounds on which environmental scientists can build an environmental stewardship



ethic because NOMA forbids “scientific entry into fields where many arrogant scientists love to walk, and yearn to control.”<sup>22</sup>

Common sense, which is not self-evident, and intuition cannot determine truth, and an appeal to authority fails to determine how one can know which authority is correct. Competing truth claims must be tested because authorities are contradictory: just because something claims to be authoritative does not make it so. An absolute authority must ultimately judge the truthfulness of any secular authority. Since ethics and religion cannot be divorced from environmental ethics, the magisteria of faith and science do, and must, overlap in environmental science. What NOMA fails to recognize is that Christianity is unique among religions because it, too, is founded on fact...the fact of Jesus’ empty tomb and resurrection which can be investigated as other historical facts. That factuality provides a basis on which to establish environmental ethics. Conversely, if Gould’s reasoning is correct, then “NOMA demands separation between nature’s factuality and humankind’s morality.”<sup>23</sup> Even the militant atheist Dawkins understood that religion interfaces with science in the natural, physical world. Dawkins noted that “the existence of God is a scientific hypothesis like any other.”<sup>24</sup> He also believed that

a universe with a supernatural presence would be a fundamentally and qualitatively different kind of universe from one without. The difference is, inescapably, a scientific difference. Religions make existence claims, and this means scientific claims. ...There is something dishonestly self-serving in the tactic of claiming that all religious beliefs are outside the domain of science.<sup>25</sup>

Francis Collins, Director of the Human Genome Project and a Christian, agrees scientifically with Gould about development of life over time. He also agrees the only logical way to study the material world is through scientific investigation. Nevertheless, in *The Language of God*, Collins eloquently chronicles how the magisteria of his scientific and spiritual journeys overlapped as he came to embrace a form of theistic evolution, which he calls

BioLogos, as the explanation for life. In contrast to NOMA, Collins concludes that BioLogos is “scientifically consistent and spiritually satisfying. . . . It is intellectually rigorous, it provides answers to many otherwise puzzling questions, and it allows science and faith to fortify each other like two unshakable pillars, holding up a building called Truth.”<sup>26</sup> Collins believes, “The God of the Bible is also the God of the genome. He can be worshipped in the cathedral or in the laboratory.”<sup>27</sup>

In contrast to those in the creation care movement who begin *a priori* with Scripture and to Gould who believed there is a “sharp difference in logic between scientific and religious arguments,”<sup>28</sup> Christians in science should be prepared to defend the historical fact of Jesus’ empty tomb and resurrection by normative legal and historical methods. Once Jesus’ resurrection has been verified historically, it is logical to accept his claim to be God, which validates his view of Scripture as the authoritative Word of God.<sup>29</sup> With this in mind, we can heed White’s overlooked advice that perhaps we should model our environmental ethic on St. Francis, whom White suggested tried to establish equality among all God’s creatures. White concluded, “Since the roots of our trouble are so largely religious, the remedy must also be essentially religious, whether we call it that or not.”<sup>30</sup> Today, insights from research in environmental science “raise questions for Christians, who need to leap into the fray with theologically sound answers.”<sup>31</sup> Integration of legal-evidential apologetics, faith, and science is ultimately the best, and possibly the only, foundation for the leap to establishing an environmental ethic on which to base environmental policy-making.

## Notes

<sup>1</sup>Stephen Jay Gould, *Rocks of Ages: Science and Religion in the Fullness of Life* (NY: Ballantine Books, 1999), 206-7.

<sup>2</sup>Stephen Jay Gould, “Nonoverlapping Magisteria,” in *Leonardo's Mountain of Clams and the Diet of Worms* (NY: Harmony Books, 1998), 269-83.

<sup>3</sup>John Warwick Montgomery, *Human Rights and Human Dignity* (Edmonton, Canada: Canadian Institute for Law, Theology, and Public Policy, Inc., 1995).

<sup>4</sup>M. A. Srokosz, “Geoengineering or Planet Hacking?” *Perspectives on Science and Christian Faith* 66 (2014):216.

<sup>5</sup>*Ibid.*, 219.

<sup>6</sup>Aldo Leopold, *A Sand County Almanac* (NY: Oxford University Press).

<sup>7</sup>Dorothy Boorse, “New Findings in Environmental Science and Their Implications for Christians,” *Perspectives on Science and Christian Faith* 66 (2014):200.

<sup>8</sup>Korte, Mary H., “Environmental Education, Ethics, and Evidential Apologetics” in *Tough-Minded Christianity*, eds. William Dembski and Thomas Schirrmacher (Nashville, TN: B&H Publishing Group, 2008), 514-37.

<sup>9</sup>Aldo Leopold, *A Sand County*, 202.

<sup>10</sup>*Ibid.*, 109.

<sup>11</sup>Dorothy Boorse, “New Findings in Environmental Science,” 200.

<sup>12</sup>Robert D. Sluka and Paul Simonin, “Marine Capture Fisheries—A Call to Action in Response to Limits, Unintended Consequences, and Ethics,” *Perspectives on Science and Christian Faith* 66 (2014):210.

<sup>13</sup>Peter Raven, David Hassenzahl, and Linda Berg, *Environment*, 8<sup>th</sup> ed. (Hoboken, NJ: John Wiley & Sons), 35.

<sup>14</sup>Aldo Leopold, *A Sand County*, 210.

<sup>15</sup>*Ibid.*, 224-5.

<sup>16</sup>John Warwick Montgomery, *Human Rights*, 125.

<sup>17</sup>John Warwick Montgomery, *Tractatus Logico-Theologicus* (Bonn: Verlag für Kultur und Wissenschaft, 2002).

<sup>18</sup>Stephen Jay Gould, *Rocks of Ages*, 4.

<sup>19</sup>*Ibid.*

<sup>20</sup>Ibid., 54.

<sup>21</sup>Ibid., 55.

<sup>22</sup>Ibid., 93.

<sup>23</sup> Ibid., 189.

<sup>24</sup>Richard Dawkins, *The God Delusion* (Boston: Houghton Mifflin, 2006), 50.

<sup>25</sup>Richard Dawkins, "When Religion Steps on Science's Turf: The Alleged Separation between the Two Is Not So Tidy," *Free Inquiry* 18, no. 2 (1998). Available at [http://www.secularhumanism.org/library/fi/dawkins\\_18\\_2.html](http://www.secularhumanism.org/library/fi/dawkins_18_2.html).

<sup>26</sup>Francis Collins, *The Language of God: A Scientist Presents Evidence for Belief* (NY: Free Press, 2007), 210.

<sup>27</sup>Ibid., 211.

<sup>28</sup>Stephen Jay Gould, *Rocks of Ages*, 99.

<sup>29</sup>John Warwick Montgomery, *Tractatus Logico-Theologicus*.

<sup>30</sup>Lynn White Jr., "The Historical Roots of Our Ecological Crisis," *Science* 155 (1967):1207.

<sup>31</sup>Dorothy Boorse, "New Findings in Environmental Science," 200.