

THE INTRINSIC VALUE OF NATURE AND THE PROPER STEWARDSHIP OF THE CLIMATE

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Abstract: Historically there have been three broad ways of viewing the natural world. Primitive cultures viewed it as a personal entity with a mind of its own. Biblical cultures view it as the work of a Supreme creator. Modern secularists view it as a random, uncreated entity. Each view implies very different attitudes towards the environment. I argue that the functional worldview leads most easily to a coherent ethic of environmental protection, but also subordinates it to the interests of humans. It implies that nature has intrinsic, but not infinite, value. The secular view does not privilege human action, but neither does it establish a rationale for viewing nature as intrinsically valuable. I conclude by setting out some general conclusions about how these ideas might affect the way we approach climate policy, with specific reference to the Biblical doctrine of stewardship and the parable of the talents.

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DOES NATURE HAVE INTRINSIC VALUE?

1 INTRODUCTION

1.1 THE VALUE OF NATURE

The other day I received an email announcing a new report from the World Wildlife Fund that apparently calls upon western nations to accept a sharp reduction in living standards in order to preserve the environment. The plan was described disparagingly by the writer with the headline “Only global poverty can save the planet.” This brought to mind one of the questions our host has raised: does theology affect the way one thinks about climate change, if at all? My answer is that it does. Modern environmental thought draws a qualitative distinction between *homo sapiens* and the rest of nature, while denying every theological premise that would justify such a distinction. As a result it embeds a contradiction, for without such a distinction, everything humans do is as much a part of nature as everything else, so cutting back human actions would not improve the environment. Anyone who wants to distinguish between the interests of nature and those of *homo sapiens* needs to explain why the latter are not simply a subset of the former. I can only think of two theories that do so, and both are derived from theological premises.

I will organize the discussion of the various theories around the question posed in my title. If nature has an intrinsic value, in other words if it would have value in and of itself even if there were no humans around to perceive it, then there is a sense in which we have a moral duty to protect it, even if doing so is to our own disadvantage. However it is not an open-ended duty. It arises from, and is bounded by, the moral framework which establishes and ranks intrinsic values.

I use the terms “material,” “primal” and “functional” to describe three different theories of nature. The differences among them are abstract, but they have practical implications. In materialism, nature is neither personal nor the product of a personal being, it is only a material entity, lacking in any purpose or inherent meaning. In primalism, nature is a personal entity with its own mind and intentions, or is an embodiment of spirits who have such properties. In functionalism (or, more accurately, a teleological view), nature is not itself personal, but was created by a supreme personal being who had certain purposes in mind, and who endowed nature with specific functions related to those purposes. This is the outlook associated with creationist monotheism, including Biblical religions.

It seems to me that the third approach is the only one in which something like the modern attitude of concern for the environment can arise in a coherent way. In recent decades there has been a popular view among some environmentalists that if we just got rid of the influence of the Christian Bible and rediscovered aspects of the primal mindset, we would learn to see nature as sacred, which would help motivate a more serious approach to environmentalism. But I will argue that such a move would likely have the opposite effect. Another irony is that the materialist view provides no basis for environmentalism, yet is probably the default worldview among modern environmental activists and scientists. After working through these topics I conclude by looking at what the functional view might actually imply as an ethical framework for environmental issues in general, and climate change in particular.

1.2 THE NATURE OF VALUE

Modern economics is built on a purely subjective theory of value. The value of a thing is the amount someone is willing to pay for it. Value is not intrinsic to the thing, but a subjective thought

in a potential buyer's mind. The idea of things having intrinsic value, however odd-sounding to us now, has a long history. Xenophon's *Oeconomicus*,² written in the 4th century BC, presents a dialogue in which Socrates and a farmer named Kritoboulos investigate the meaning of wealth. They note the paradox that a man's wealth is said to make him well off, but if he then spends his money on a prostitute, and through her become worse in body and soul, his wealth was of no benefit, and he would have been better off without it. Therefore, they reason, the amount one pays for something does not necessarily measure whether it is morally beneficial, which to Socrates is the true measure of its value. Likewise CS Lewis' *The Abolition of Man*³ emphasizes that people have long held a view that evaluative properties reside in things themselves, and are not merely subjective, warning that modern subjectivism in values will ultimately make it impossible to sustain traditional concepts of virtue and morals.

On this topic I am inherently conflicted because as an economist I am strongly persuaded of the subjective theory of value, but by theological inclination I am not persuaded of the materialist premises upon which it rests, nor do I accept strict consequentialism as a moral theory. John Stuart Mill's defence of utilitarianism is, however, sufficiently congenial to someone in my predicament as to make the subjective theory of value acceptable for practical purposes. Certainly the alternatives all look worse. Its major rival in the past century was the Marxian labour theory of value, which claimed that the true value of a thing accrues in proportion to amount of human effort it embodies. There is no great difficulty thinking up reasons why this could not possibly be correct. It would

² Xenophon, *Oeconomicus*. Tr. Carnes Lord (1970), Ithaca: Cornell University Press.

³ Lewis, C.S. (1990). *The Abolition of Man*. Glasgow:Collins

imply, for instance, that a rusted out old Chevy is more valuable than an untouched tract of old growth forest, which I suppose is why after several generations of being governed by Marxist academics, politicians and dictators, Eastern Europe ended up looking like a rusted out old Chevy. So any misgivings I express below about subjective theories of value are dwarfed by larger ones about all the alternatives.

2 THREE VIEWS OF NATURE

2.1 THE MATERIALIST VIEW

A while ago I saw a headline on a news satire website that read: “Environmental Protection Agency to impose tighter emission limits on volcanoes.” There is a lot of philosophy packed into that joke. A volcano isn’t pollution, it’s part of nature. When Mount St. Helen’s erupted in 1980, it tore off a third of the mountain, killed everything in a 230 square mile area around it, and blew millions of tons of dirt, gases and aerosols into the atmosphere. If a multinational mining corporation had done all this, there would be howls of outrage. But nobody protests if a volcano does it, instead we marvel. It is not considered an abuse of nature, because it is nature itself. The planet, by definition, doesn’t pollute the planet, nor does the environment abuse the environment; it is all just nature going about its business.

Once that point is grasped we face a conundrum. If everything that happens in nature is natural, why aren’t the actions of humans? Taking a purely secular view of things, humans themselves are just another part of nature, so everything humans do is natural, and we can no more harm nature than can whales or volcanoes. Our actions may *affect* our surroundings, but it is not “harm” if it is

just nature taking its course.⁴ In order to say that the actions of humans harm the natural world, we must first impose a qualitative distinction between humans and nature. And it is not obvious to me how that can be done in a secular framework.

Suppose we take the secular view and try to develop a theory of what we are looking at when we see the world around us. From what little I know about current speculations on the origins of life, there began to be, long ago, some chemical reactions of a repetitive character, possibly involving crystalline geometry, and at a certain point they became sufficiently complex in their self-replication to be what we now call “organic.” At every step thereafter, nature was just going about its random, meaningless mechanical business. Simple organisms took shape, acquired sources of energy and chemical inputs, then multiplied in number, undergoing a process of random variation and natural selection, such that new species of organic, self-replicating and increasingly fit structures started appearing regularly, year by year, through to the present.

Over time, uncountable millions of different kinds of plants, fish, insects, crustaceans, mammals, bacteria and other life forms appeared on the scene. And, in keeping with our secular premises, none of them had or have any special significance. They are all nothing more than organic self-replicating structures, randomly selected for survival in a meaningless corner of the galaxy. We could say that some are more complex than others, or that some are better fitted towards survival than others, but these are merely descriptive, not qualitative distinctions. Nature doesn’t make value judgments. Nature does not regard grasshoppers as better than grass, or granite for that matter. The Earth, with all its rich life forms, means no more to the universe than does the lifeless

⁴ I first encountered this line of argument in Sober, Elliott. “Philosophical Problems for Environmentalism.” In Elliott, Robert, ed. (1995). *Environmental Ethics* Oxford: Oxford University Press, 226-247.

Moon. Nature does not cluck its tongue in disapproval at all the sulphur dioxide and carbon dioxide in the atmosphere of Venus, even though it makes the existence of organic self-replicating structures impossible there. Nature “likes” sulphur dioxide as much as oxygen, which is to say, not at all.

The world I have described thus far is identical to the one in which we live in every respect but one: there is no “environment.” There is no natural space qualitatively distinct from the *homo sapiens* space. There are no environmental *problems*, because there is nothing but environment. In this new world, the human is as much a part of nature as a sparrow, a bullfrog or seaweed. So everything the human does is natural. In the strictly secular view, what we call “pollution” is nothing of the sort, it is just nature going about its business. Humans find energy sources and use them, they consume molecules and they drive out competitors so as to expand their territory and improve their probability of surviving and replicating. Nature is unoffended by any of this.

In such a world it is possible to come up with efficiency-based arguments for limiting consumption and waste disposal on utilitarian grounds. A secular argument for protecting air and water “quality” (meaning its subjective appeal to humans) arises insofar as doing so yields a net increase in the perceived overall *human* standard of living. The theory of how and when to do that is taught in textbooks on environmental economics, including my own.⁵ But it does not say that human actions can be harmful to *nature* in and of themselves. It only frames the policy issue in terms of harm to other *humans*, and it accepts tradeoffs in cases where benefits to some exceed costs to others.

⁵ McKittrick, Ross R. (2010) *Economic Analysis of Environmental Policy*. Toronto: University of Toronto Press.

If we are going to talk about the environment as a thing distinct from humans, towards which we have both the capacity to injure and the obligation to try not to, we need to have a logical basis for drawing a qualitative distinction between humans and the rest of nature. As far as I can tell there are only two ways to do this: one leads to saying that humans rank above nature, and the other that we rank below it.

2.2 THE PRIMAL VIEW

John Passmore⁶ usefully categorized historical views toward nature by considering exemplars of the things that humans relate to in their surroundings. Is nature like another person, or like a thing created by someone with a specific function in mind, or just a meaningless thing? The secular view claims the latter, and as I stated, this causes difficulty for providing a logical basis for thinking about the environment. The other views at least provide a qualitative distinction between humans and nature, but imply different moral constraints.

One category of worldview is associated with primal religions, superstitions etc. It regards nature or elements within nature (i.e. a forest, a river, a tree) as having a *mind* with specific *intentions*. In the *primal* view, either the organism itself is believed to be sentient or it is believed to be indwelt by a sentient spirit, daemon, demiurge, *genius loci*, demi-god, god, etc. According to the primal view we relate to nature by learning to address it, persuade it, appease it, etc. We understand nature by understanding the gods who indwell it, by telling their stories through ritual and mythology. Echoes of this view remain in our language of natural disasters (i.e. the river *claimed* another victim). Nature is either sacred or inseparable from sacred spirits, yet humans

⁶ Passmore, John (1975) "Attitudes to Nature". In Elliott, Robert (1995), *op. cit.*

know themselves not to be sacred. As such they find they are continuously encroaching on the sacred, and eventually society becomes frozen and nothing can be altered, which is why tribal cultures can still be found that haven't changed in thousands of years.⁷ Since the value of nature is based on the sacred and superior entities within it, the primal view ends up making humans less valuable than nature, even to the extent of requiring human sacrifice to appease the gods of nature. This attitude of pagan dread and communal self-doubt, which up until recently was the predominant mindset of humanity, is, I suspect, behind the misanthropy of some of the aggressive strains of modern environmentalism.

Primal societies see nature as objectively valuable, in the sense that young people are taught a great respect for the plants and animals. But this doesn't provide a path towards a strong environmental ethic. The complication is that, where nature is treated gently, it is not necessarily the trees and rivers themselves which are respected, but sometimes the spirits immanent within them, which amounts to a very different thing. To leave a tree standing out of fear of the indwelling tree god is not the same as leaving it standing out of respect for the tree. This means that primal societies which allow nature to remain untouched for many centuries may not be doing so because they regard nature *per se* as intrinsically valuable.⁸

⁷ See "The Mythological Consciousness", chapter 2 in Schneidau, Herbert (1976). *Sacred Discontent: The Bible and Western Tradition*. Baton Rouge: Louisiana State University Press.

⁸ See Schaeffer, Francis (1976). *Pollution and the Death of Man*. Wheaton: Tyndale, for a further discussion of the difficulties primal religion has in sustaining an environmental ethic.

Of course many indigenous tribes lived for centuries in geographic areas upon which they made minimal physical impact. Some of this lightness of touch is due to their religion, but some is also due to their very low population density and nomadic way of life, which would have ruled out making much impact even if they had intended to.

2.3 THE FUNCTIONAL VIEW

The *functional* view sees nature as a thing created by an intelligent Supreme Being who acts with a certain purpose. Understanding the world means learning what it is *for*. It is the same mental operation that one goes through when confronted with a novel kitchen gadget. Our curiosity is not satisfied simply by seeing what it is made of, instead we want to figure out what it does, i.e. its function. Thus we understand nature in part by discerning its purpose, and it follows that the right use of nature is that which is consistent with the end for which it has been given. Creational monotheism (Judaism, Christianity and Islam) teaches that there is one God who created the entire cosmos to accomplish a larger purpose centered on the well-being of humans who, being created “a little lower than the heavenly beings and crowned with glory and honor” (Psalm 8), are distinct from, and more valuable than, the rest of nature. The command to Adam and Eve, and to Noah’s family later on, was to fill the world and have dominion over it. To this end the Jews saw Israel as Holy Land (i.e. intrinsically valuable), but knew it was given to them to use for their own benefit. Origen of Alexandria, an early Christian theologian, suggested that the purpose of creation is that a diversity of free creatures might learn to act in harmony with one another and with God.⁹ Natural

⁹ In *De Principiis* (First Principles) Book III Origen writes: “For it is one power which grasps and holds together all the diversity of the world, and leads the different movements towards one work, lest so immense an undertaking as that of the world should be dissolved by the dissensions of souls. And for this reason we think that God, the Father of all things, in order to ensure the salvation of all His creatures through the

theologians of the medieval era were motivated in their studies by the view that nature reveals the mind of God. The interpretation of science as probing the ‘mind of God’ is still expressed, for instance in the popular writings of Steven Hawking, and is echoed in the so-called Strong Anthropic Principle; the observation that the universe seems finely tuned to bring about complex life.¹⁰

The Functional view relaxes the principal constraint on the abuse of nature arising from the primal view, by denying the presence of indwelling spirits. Creational monotheists believe that God is not embodied in or equal to nature, but has a transcendent existence apart from the physical world. Consequently, manipulation of the physical world is not sacrilegious, since it is not a defilement of a god’s person. This led to Lynn White Jr.’s famous 1967 article in *Science*¹¹ in which he claimed the root of our environmental crisis was the rise of Biblical religion. The idea has lingered in popular environmentalism, but doesn’t hold up very well on close examination.¹² Primal societies can be aggressively exploitive of nature outside those areas deemed sacred. The functional view, meanwhile, imposes a number of moral constraints on the manipulation of nature by humans, by assigning to humans the role of *stewardship*, which carries with it the requirement to acknowledge the Creator’s dominion over the cosmos and to use nature in accordance with the

ineffable plan of His word and wisdom, so arranged each of these, that every spirit, whether soul or rational existence, however called, should not be compelled by force, against the liberty of his own will, to any other course than that to which the motives of his own mind led him (lest by so doing the power of exercising free-will should seem to be taken away, which certainly would produce a change in the nature of the being itself); and that the varying purposes of these would be suitably and usefully adapted to the harmony of one world.” The translation is from the Christian Classics Ethereal Library at Wheaton College, <http://www.ccel.org/fathers2/ANF-04/TOC.htm>.

¹⁰ Barrow, John (1988). *The World Within the World*. Oxford: Oxford University Press.

¹¹ White, Lynn Jr. (1967). “The Historical Roots of our Ecological Crisis.” *Science* 155: 1203—07.

¹² For some responses to White see: Passmore *op. cit.*; Berry, R.J. (1991). “Christianity and the Environment: Escapist Mysticism or Responsible Stewardship.” *Science and Christian Belief* 3:3—18; Power-Bratton, Susan (1995) “The ‘New’ Christian Ecology.” In Sterba, James, ed. (1995). *Earth Ethics*. New Jersey: Prentice-Hall; and references in each.

Creator's purpose. It also it requires us to do good to our fellow humans, which can involve protecting the environment upon which their well-being depends.

But it needs to be admitted that an attitude of good stewardship is not the same as a focus on environmental preservation. One of the few places in the gospels in which "stewards" actually appear is the parable of the talents in Matthew 25, which praises the risk-taking servant who puts his master's wealth to work, while decrying the one whose excessive worries about losing it lead him to bury it and thereby do no good with it.

While environmentalists are quick to decry the idea that the Bible privileges humans over nature, it is worth pointing out that the secular alternative does not imply that nature is just as *valuable* as humans, but just as *worthless* as humans. Also, the Biblical view suggests a solution to the paradox that while the subjective theory of value is attractive on practical grounds, it doesn't seem adequate for establishing the intrinsic moral worth of things. To the extent that prices reflect relative human need they indicate the relative moral good of increasing availability at the margin. But unlike utilitarianism, the Bible does not endorse our subjective judgment concerning our own needs, and instead warns us that our senses and appetites are excessive and often corrupt. But unlike Socratic reasoning this in no way furnishes an argument for an elite central planning regime in which an enlightened dictator overrides peoples' own preferences, since the Bible warns that kings and leaders are equally corrupt in their thinking about the good of others, let alone themselves. Instead the Biblical prescription is for each individual to be reconciled to God, leading to a moral regeneration in which one's desires are transformed to reflect God's own will.

3 BEAUTIFUL BUT NOT SACRED

My argument to this point is that the functional view of nature is the only one that provides a logically-consistent basis for drawing a qualitative distinction between humans and nature in which humans count for more than nature (rather than less) and also have a moral obligation towards it. The question a functionalist like Saint Paul would put to primalists is, should we conform ourselves to the creation or the Creator?¹³ At every turn, the Bible knocks down the idea of nature as sacred. Good, yes; beautiful, yes; sacred—no. The challenge is implicit in all the ancient narratives of the Bible, as Israel alone among the pagan cultures rejected nature worship, seeking instead the will of a transcendent God to whom their ancestor Abraham had devoted himself. The battles of the ancient Hebrews are uniformly interpreted by the Biblical writers as a war against an idea: the natural idolatry as found occasionally within and everywhere around the beleaguered tribes of Israel.

Functionalism gives a consistent rationale for the belief that humans stand apart from nature as the greater stands apart from the lesser. A nice illustration of this is the story in Luke 10, in which Jesus is sending His disciples out to rally Israelites to his cause. He warns them about the opposition they will encounter, and says they must trust God for protection: “Are not two sparrows sold for a penny? Yet not one of them falls to the ground without the Father knowing. And you are worth much more than sparrows.” The Lord cares for each sparrow—they have intrinsic value—but He cares for people even more. This grants a high status to humans, but also carries potential moral obligations in much the same way as Biblical religion consistently asserts the moral obligations which the strong have towards the weak. What was different for the Biblical writers was that the

¹³ Romans 1:18-25.

wilderness was strong and men were weak, yet the wilderness knew no obligations. Today, it is more often the case that we are strong and the wilderness is threatened, a situation which has the advantage that now the stronger party understands its obligations.

But these obligations do not extend to veneration. Calvin Beisner¹⁴ has argued that the theme of “untamed wilderness” in the Bible is generally a negative one. To live in a desolate land inhabited by beasts and birds of prey is a *curse*, not a blessing. Schneidau¹⁵ has argued that the pastoral motif running through the Bible has its root in the rejection of nature as a *norm*. Many of the heroes of the Bible: Abel, Moses, the patriarchs, the early kings, Jesus; were identified as shepherds, and specifically *not* as farmers. The shepherd is mobile, and is less at the mercy of the climate of a particular place. The farmer, by settling in one place, becomes vulnerable to the vagaries of its weather. The pagan tribes during the agricultural revolution responded to this vulnerability by developing elaborate rituals to appease the nature gods, the symbols of which filled the cities they built. The Hebrews saw in these cities and their idols the embodiment of the nature-paganism they hated.

One of the most ancient stories of the Bible comes to us from this time. Brothers Cain and Abel present offerings to the Lord. The shepherd Abel brings a lamb, but the farmer Cain brings an offering of grain. Cain’s offering is found to be polluted, and is rejected by God, who decrees that Cain must henceforth wander shepherd-like through the land.¹⁶

¹⁴ Beisner, Calvin (1999). *Where Garden Meets Wilderness*. Grand Rapids: Eerdmans/Acton.

¹⁵ Schneidau, Herbert (1976), *op. cit.* See especially chapter 3: “The Hebrews against the High Cultures.”

¹⁶ Genesis 4:1-10. Cain, it should also be noted, is the first city-builder in the Bible: see Genesis 4:17.

Humans, as stewards, are invited to make raw nature into something better. Beisner points out that the positive symbol of the *garden* throughout the Biblical narrative exemplifies this potential. Human nature being what it is, it remains inevitable that some of the change imposed by humans will be for the worse, and sometimes the right thing to do for nature is leave large tracts of it alone. But the functional view, as developed in the Bible, is that our drive to transform the environment into forms that are more fruitful and beneficial for humans is fully in keeping with the purpose for which the world exists. The modern environmentalist rejection of the “dominion mandate” reflects a loss of nerve, a burial of our talents and ultimately a repudiation of our humanity.

4 THE INTRINSIC VALUE OF NATURE

4.1 AN ANALOGY WITH ART

The problem with the view that beauty is entirely in the eye of the beholder is, to paraphrase Athanasius, we have not yet taken full account of bad taste. Taste is developed through education, whether in painting or music or architecture or wine; or the appreciation of nature. Moreover, matters of taste are open for public debate, and the debaters bring their knowledge and aesthetic training to bear on pertinent questions of value with the conviction that there is an objective element awaiting discovery. A consensus about a great work of art, once reached, has a stability approaching that concerning a proven mathematical theorem. It may take a while to decide on the importance of any particular modern composer’s work, but no one with taste will question the value of, say, Handel’s *Messiah* or the Beethoven piano sonatas. There is an objective value in such music, in the sense that a listener who does not think it excellent is mistaken, and needs proper training in music appreciation.

Similarly, the settled judgments about the art of ages past are accomplishments of the critical enterprise, the aim of which is to identify the genuinely valuable amidst the abundance of lesser work. It is not surprising that many environmental philosophers¹⁷ have sought a basis for asserting the intrinsic value of nature by using the analogy of art. But an obvious fact is that art is created by a creator, on purpose. So it is hopeless for secularists to try to appropriate this analogy, but it follows quite naturally in a functional worldview.

There was a long medieval debate over how God could act *reliably* without thereby being bound by *necessity*, which would imply a higher authority than God, which is a contradiction. The solution within Christian theology was that God is utterly free to create, yet having ordained an order of things, is faithful to His own purposes within that order. As such, nature as we experience it is both governed by, yet autonomous from, God. Physicist John Polkinghorne has observed¹⁸ that the physical laws by which the universe is governed have a deep alliance of structure and indeterminacy: nature stays true to form yet is genuinely open to future possibilities. The laws of nature are deterministic, yet the outcome is not simply contained within the initial conditions. That this property has come to be called “chaos” is unfortunate, since the principle it embodies is *cosmos*, more or less the opposite of chaos. In saying that God ordained both the actual and the hypothetical, Christianity found a way to understand how a created order could have a capacity for both *being*

¹⁷ See Elliott, Robert, ed. (1995). *Environmental Ethics* Oxford: Oxford University Press

¹⁸ Polkinghorne, John (1988). *Science and Creation*. London:SPCK, ch. 3.

and *becoming*, which was a genuinely new way of seeing things, and which opens up the possibility of seeing the world as a form of artistry.¹⁹

As expressed in the Bible, the value of nature is never a sentimental concept, it is always subordinate to the sovereign purpose of God, and is often connected to the benefit of mankind. For instance, Psalm 104 is an extended meditation on the wonders of the natural world, but it is not praise to creation, instead it praises the creator. It also ties the value of nature to its provision for humans:

He makes grass grow for the cattle, and plants for man to cultivate—bringing forth food from the earth; wine that gladdens the heart of man, oil to make his face shine, and bread that sustains his heart.²⁰

Psalm 65 likewise expresses the idea of God’s care for creation, tying it to his concern for people:

You [God] care for the land and water it; you enrich it abundantly. The streams of God are filled with water, *to provide the people with grain.*

I suppose an analogy with art, pursued within the framework of a religious outlook other than Judaism or Christianity, might lead to other conclusions about the intrinsic value of nature. But it is not obvious to me how any of them could lead to the kind of misanthropic view we hear from modern Malthusians that the world would be better off without humans, or with far fewer of them. The Biblical framework is the one with which I am familiar, and it seems to me that while it

¹⁹ McGrath, Alister. (1987). *The Intellectual Origins of the European Reformation*. Oxford: Blackwell, pp. 77-79, also Polkinghorne *op. cit.* p. 63.

²⁰ Passages here and elsewhere quoted from the NIV.

establishes an intrinsic value for every sparrow, even the ones never observed by humans, it ties that value to the sovereignty of the artist, whose ultimate purpose in creation involves the well-being of humans. Also, the artwork analogy can't arise in the strictly secular outlook because there is no artist (or watchmaker).

4.2 INTRINSIC BUT NOT INFINITE

Before turning to the application of these ideas to climate change I just want to note a couple of points regarding the concept of value—intrinsic or otherwise. Those who operate on the visceral, emotional level might suppose that declaring nature to have intrinsic value immediately trumps all other considerations. For instance, the Earth First! website states:²¹

[Earth First!] is a belief in biocentrism, that life of the Earth comes first, and a practice of putting our beliefs into action... Our actions are tied to Deep Ecology, the spiritual and visceral recognition of the intrinsic, sacred value of every living thing.

But this is a bridge too far. *Intrinsic* value does not imply *infinite* value. Intrinsic values can still be ranked. Just as Jesus said God knows every sparrow that falls, yet you are worth more than sparrows, so in the same way we might agree with the EarthFirst!ers that all of nature has an intrinsic value, yet still say that human welfare counts for more. (And of course I cannot endorse the idea of nature being sacred.)

²¹ <http://www.earthfirst.org/about.htm>, accessed May 22, 2012.

Intrinsic value also has no meaning if it is *indivisible*. The cliché that every living thing has intrinsic value gives no guidance for actual decision-making if it does not address the fact that changes occur at the margin. One is never in a position to preserve or dispose of “nature” as a whole; only to decide on the fate of this or that bit of it. Declaring nature to be an indivisible whole is meaningless for someone who faces the task of deciding among several environmental policy options, only one of which can be undertaken. In short, the reality of intrinsic value implies the reality of *opportunity cost*: choosing one option means foregoing another.

Finally, intrinsic value as a transcendental reality must impinge on experience in some way. You can think whatever you like about the law of gravity and the principles of physics, but if your beliefs do not accord with reality you will eventually be forced to correct them, possibly following a painful injury. But if there are no consequences to being wrong about intrinsic value then it is irrelevant, since we have no way of measuring it or applying it to actual decisions. I hold that there are consequences, and they seem to involve regret, or the pain of realizing that one’s decision has made one’s own surroundings uglier and more foul, perhaps irreversibly.

It has long been held that our subjective valuations must be trained to accord with the correct, objective values of things. The dialogue cited above from the *Oeconomicus* of Xenophon is part of a conversation in which Socrates argues that only the wise can be wealthy, since only the one with knowledge knows how to use his wealth in a beneficial way, hence the possessions of a fool are of no real value, and are not wealth. Similar teachings echo throughout the book of Proverbs. In *The Abolition of Man* C.S. Lewis tells the story of Coleridge at a waterfall, overhearing one tourist say it is “pretty” and another say it is “sublime”, whereupon Coleridge confidently endorsed the second judgment and dismissed the first. This, says Lewis, exemplifies the view, widely held before the 20th

century, that things have an intrinsic value or worth, and the task of education is to train the young to have an ordinate appreciation of these values.

5 APPLICATIONS TO CLIMATE CHANGE

And so to climate change, as all roads these days seem to lead. The discussion to this point has proceeded at a very general and abstract level, so these few concluding thoughts won't offer a survey of specific debates.²² Here I only want to sketch out some implications for how a well-intentioned researcher might approach the topic in a way that is intellectually consistent with an underlying theology, which in my case is Christian.

The natural world has intrinsic value, that is, it would be pleasing and valuable to God even if humans did not exist. But humans do exist, and as such, a principal value of the natural world is its capacity to provide for our benefit. The doctrine of stewardship does not automatically equate to a bias in favour of preservation or conservation. The unfaithful steward in Matthew 25 was the one who, while knowing that the resources entrusted to him were capable of unexpected fruitfulness and bounty, nonetheless let his fears get the better of him and focused only on preserving what he was given, rather than doing something constructive with it. This was not the master's purpose, and the steward was condemned.

The Christian view of the intrinsic value of nature leads me to a practical doctrine of environmental policy that looks a lot like the secular utilitarian approach, insofar as the valuation of environmental quality is rooted in benefits experienced by people, and these private valuations

²² My views on many aspects of the climate debates are found in papers posted at rossmckittrick.com.

imply public policy is needed to correct situations where voluntary, decentralized market exchanges fail to create outcomes that are optimal from the point of view of the market participants themselves. Philosophically, however, I think my outlook is better justified than the secular version of the same ideas, since I can say why the interests of humans do, in fact, hold primacy; whereas the secularist has little to offer against environmentalist misanthropic rhetoric except a counter-rhetoric of self-interest.

Policies for correcting externalities in decentralized outcomes are based on taking preferences as given. Christian theology tells us that these preferences, and the ensuing valuations of specific things as expressed by people in the market place, are likely biased by excesses of appetite, vanity and greed. But it also tells us that the remedy is not to substitute the preferences of a dictator or an elite planner for that of individuals, since the dictator's preferences are also distorted by appetite, vanity and greed; instead the remedy is to encourage people to seek their own moral regeneration through spiritual disciplines and to have the freedom to conduct their affairs according to such values. So it would be invalid to argue, for instance, that because people are sinful, the government ought to put extra taxes on gasoline. It would, however, be valid to argue that gasoline usage creates externalities that need to be addressed with public policy, and indeed many such policies already exist. From the theological angle, it would also be valid to argue that, because people are sinful, they use too much gasoline; therefore we ought to encourage people to become more virtuous, and if that were to happen, we could predict that consumption of gasoline would fall.

Regarding climate, since it is a feature of the created order, the state of the climate is valuable and important, but not sacred. Climate matters because it affects people. Likewise climate *policy*

affects people, and proposals to reduce human impacts on the climate must be evaluated based on whether, as best we can reckon it, they do more harm than good.

In making environmental valuations, specifically as regards the climate, I think it is legitimate to take the view that where costs and benefits are roughly equal, or so ambiguous that a decision comes down to a value judgment, I would go back to the parable of the talents. The world in which we live repeatedly shows unexpected robustness and fruitfulness, and people themselves have shown an amazing capacity to live and even prosper in every climate from the tropics to the Arctic regions. Knowing this, my value judgment regarding the climate issue would be that, other things being equal, we should have a doctrine that favours putting the talents and resources of our world, including fossil energy, to work in ways that are likely to be of benefit to people. The unfaithful steward is the one who opts to bury resources and talents that we know are powerfully beneficial in the name of abstract fears and groundless speculations. On a purely intuitive level, when I find myself instinctively recoiling against the environmentalist position on global warming, it is often because I see the mindset of the unfaithful steward taking over.

I believe it is possible to distinguish this view from mere recklessness. With regards to climate policy, anyone who has studied the numbers knows that small local reductions in greenhouse gas emissions, however costly, have no global effect. The only scale of policy worth considering involves deep emission reductions at the global scale. Under current technology, as far as I can tell, there is no way to reduce global greenhouse gas emissions by a large fraction without scaling back energy availability and global income by an equally large fraction, and doing so would entail devastating human costs. So I could only envision supporting an aggressive global effort at climate mitigation if it were known with a high degree of certainty that the risks of greenhouse gas emissions were so

high as to more than offset the risks of reversing the economic development that comes from putting our abundant fossil energy resources to work. I don't find the arguments for such a stance persuasive. Climate models have greatly exaggerated the atmospheric response to greenhouse gases over the past 30²³ and 50²⁴ years, and they do a very poor job at representing the spatial pattern of temperature change since 1979.²⁵ The data used to measure global warming over land likely has a warm bias due to urbanization and related socioeconomic effects.²⁶ And perhaps most frustratingly, the agencies whose job it is to assess the evidence seem incapable of handling matters with objectivity.²⁷ In the areas where I can claim specific expertise, the problem is not that agencies like the Intergovernmental Panel on Climate Change (IPCC) make mistakes, but that all their mistakes and misrepresentations go in the same direction, towards overstating the problem. Based on what I have seen of the available data, and taking into account the propensity of the IPCC to ignore or misrepresent, rather than rebut, counterarguments, I take the view that wise use of the Earth's fossil fuel resources does involve their continued actual *use*, and that being the case, abundance and affordability are good things.

To take the discussion any further however would involve opening up many lines of specific inquiry I don't want to pursue here. I am mainly trying to defend a general attitude or ethic, to be

²³ McKittrick, Ross R., Stephen McIntyre and Chad Herman (2010) "Panel and Multivariate Methods for Tests of Trend Equivalence in Climate Data Sets". *Atmospheric Science Letters*, DOI: 10.1002/asl.290. <http://onlinelibrary.wiley.com/doi/10.1002/asl.290/abstract>.

²⁴ McKittrick, Ross R and Timothy Vogelsang (2011) Multivariate trend comparisons between autocorrelated climate series with general trend regressors. University of Guelph Discussion Paper 2011-09: <http://www.uoguelph.ca/economics/sites/uoguelph.ca/economics/files/2011-09.pdf>.

²⁵ McKittrick, Ross R. and Nicolas Nierenberg (2010) *Socioeconomic Patterns in Climate Data*. *Journal of Economic and Social Measurement*, 35(3,4) pp. 149-175. DOI 10.3233/JEM-2010-0336

²⁶ See papers at <http://www.rossmckittrick.com/temperature-data-quality.html>.

²⁷ See http://thegwpc.org/images/stories/gwpc-reports/mckittrick-ipcc_reforms.pdf.

considered alongside the need to be as utterly truthful as we can in assessing the effects of our actions upon creation and upon our fellow humans with whom we share it.