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DOES 'EXISTENCE VALUE' EXIST?

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Environmental Economics Encroaches on Religion

In Encounters with the Archdruid, John McPhee (1971) relates a discussion he had with David Brower, regarded by McPhee and many others as the leading environmentalist of our time. Brower is talking about the real meaning of wilderness. He notes that

I have a friend named Garrett Hardin, who wears leg braces. I have heard him say that he would not want to come to a place like this by road, and that it is enough for him just to know that these mountains exist as they are, and he hopes that they will be like this in the future. (74)

As Brower said of his own views, "I believe in wilderness for itself alone."

Economics as traditionally practiced, however, finds it difficult to accommodate this perspective on the world (Norton 1991). Human beings, the economics way of thinking assumes, live for happiness. Happiness is, moreover, a product of consumption. As the economist Stanley Lebergott (1995) writes, "the goal of every economy is to provide consumption. So economists of all persuasions have agreed, from Smith and Mill to Keynes, Tobin, and Becker" (149). Historically, there has been little or no place in economic thinking for the idea that something that is never seen, touched, or otherwise experienced--that is not consumed in any direct way--can have a value to an individual.

Yet, as McPhee's discussions with Brower indicated, this thinking rooted in economics was deeply at odds with an emerging environmental awareness that in the 1960s and 1970s was spreading widely in American society. Economists, it appeared, might be faced with an awkward choice: either reject their own economic perspective on the world or disagree with a powerful new social movement. Most likely, some economists were themselves drawn personally to the environmental values difficult to express in conventional economic terms. For them, the potential dilemma was also internal: either limit their own commitment to certain environmental goals such as the intrinsic importance of wilderness and endangered species preservation or reject the economic way of thinking in an important area of their life.

However, in a famous 1967 article in the American Economic Review, John Krutilla (1967) proposed a reconciliation. Krutilla suggested that the scope of economics should be expanded to include a new concept, which has come to be known as "existence value." The enjoyment of life need not have as its limit things that can be seen and touched. Consumption, even as economists think about it, should extend to include the simple fact of knowing that a wilderness, endangered species, or other object in nature

exists. Formally, the variables in a person's "utility function" would not only comprise the amounts of food, clothing, and other ordinary goods and services consumed but also the various states of knowledge each person has of the existence of social and physical characteristics in the world. Implicitly at least, consumers would be willing to pay something for this form of consumption; hence the efforts by economists to estimate existence values in dollar terms (Mitchell and Carson 1989; Portney 1994).

By the 1980s, the concept of existence value was coming into use by a number of economists for purposes such as estimating the benefits of government actions or calculating damage assessments against corporations whose actions had harmed the environment. A federal appeals court in 1989 directed the Department of the Interior to give greater weight to existence values in its procedures for assessing damages to public resources under the Superfund law (State of Ohio v. United States Department of the Interior [D.C. Circuit. 880 F. 2d 432, 1989]). The concept has even been received favorably in literary circles such as the New York Review of Books, where the author of one article concluded that it would be central to achieving preservation of tropical forests and other world biodiversity objectives: "But why should citizens of industrialized countries pay to preserve resources that are legally the domain of other countries? An obscure tenet of economics provides a rationale. Certain things have what is known as an 'existence value'" (Terborgh 1992, 6).

The large dollar magnitudes that some economists were attributing to this new source of economic benefit emphasized its potential importance. In 1992, Walter Mead surveyed a variety of estimates of existence value. In one study the value to households across the United States of preserving visibility in the Grand Canyon was estimated to equal \$1.90 per household per year, yielding a long-run discounted value to all U.S. households of \$6.8 billion. Preservation of the northern spotted owl in the Pacific Northwest was estimated in another study to be much more valuable, having a total existence value for U.S. households of \$8.3 billion per year. Still another existence-value study came up with higher numbers, asserting that, however implausible it might seem, preserving whooping cranes would be worth \$32 billion per year for all the people of the United States. Having such impressive dollar estimates to cite raised the prospect for some environmentally concerned economists that the government might alter calculations of the economic merits of various policy proposals.

A Growing Debate

Initially, most of the economic discussion of existence value reflected the views of proponents. Beginning in the 1970s, a small circle of economists sought to introduce a novel concept to the profession and to show that it could be applied successfully in practice. At first, most mainstream economists paid little attention. However, as the potential uses have widened and the policy stakes escalated, an active debate has broken out in recent years within the economics profession concerning the merits of the existence-value concept (Bate 1994; Desvousges 1993a; Diamond and Hausman 1993; Edwards 1992; Kopp 1992; Quiggin 1993; Randall 1993; Rosenthal and Nelson 1992; Stewart 1995). Noneconomists also entered the controversy, in some cases questioning the use of existence value ("Ask a Silly Question" 1992; DiBona 1992).

The Exxon Corporation, facing large potential damage assessments as a result of the Exxon Valdez oil spill, and fearing that these assessments might be based in part on economic estimates of existence value for various states of nature in Prince William Sound, committed large financial resources to the issue. Exxon hired a number of leading economists to examine whether the use of existence value was an appropriate economic method. Their evaluation was on the whole negative (Hausman 1993). The state of Alaska and the federal government hired several leading environmental economists who took a more positive view (Carson and others 1992).

Reflecting the growing controversy inside and outside the economics profession, the National Oceanographic and Atmospheric Administration (NOAA) convened a panel of leading economists, chaired by Nobel Prize winners Kenneth Arrow and Robert Solow, to review the issue. In 1993 the panel declared that although great care must be exercised to prevent misuse, existence value should be included among the economic tools available to government analysts (Arrow and others 1993). However, the NOAA report failed to resolve the matter, and an active debate continues (Portney 1994).

From a technical economic standpoint, existence value raises a number of problems, which a growing

literature has been probing. Massachusetts Institute of Technology economists Peter Diamond and Jerry Hausman (1994) conclude that "surveys designed to test for consistency between stated willingness-to-pay and economic theory have found that contingent valuation responses are not consistent with economic theory" (46). Other critics find that in practice existence-value studies often yield implausible estimates (Desvousges 1993b). For example, respondents to survey questionnaires sometimes give similar estimates for saving a group of wild animals from human harm, even when the exact number of animals specified in the surveys may vary by orders of magnitude.

Thus far, those who have actually attempted to measure existence values have studied mostly wilderness areas, threatened species, and other environmental concerns. However, the use of the concept is potentially much broader. People in rich nations may value the existence of tropical forests, but these same people may value the existence of higher incomes for poor people in poor countries, a goal whose fulfillment may depend on cutting the forests.

Indeed, possibilities for the calculation of existence value are endless (Milgrom 1993). Virtually any object invested with symbolic importance will have an existence value. For example, the presence of an abortion clinic in a community will cause some of the residents to feel good, others to feel bad. Burning the American flag will have a large negative existence value for many people. However, the knowledge that freedom of speech, including flag burning, is protected will also have a large positive value for many others. Should survey questionnaires, based on statements of dollar values as a way of communicating views about the desirability of government actions, be used to help resolve such issues? One can pose the same sorts of questions for a large array of issues.

Diamond, Hausman, and several other leading economists have called on the profession to abandon the use of existence value on both theoretical and empirical grounds, such as those noted so far (Diamond and Hausman 1994; Castle and Berrens 1993). But others, although acknowledging the significant difficulties and major potential pitfalls of the theory, argue that Americans care a great deal about the environment even when they are not directly affected and that any decision-making calculus not incorporating such preferences as a benefit would suffer from serious inadequacies (Carson and others 1996; Hanemann 1994).

Despite their importance, these particular issues are not my subject here. I conclude, like other critics, that the use of existence value should be abandoned. My argument, however, is grounded in what might be called "economic theology" (Nelson 1991). To be sure, I mean theology in a broader sense than Christianity or other traditional religions alone. The distinguished theologian Paul Tillich (1967) once said in all seriousness that in terms of actual impact Karl Marx was "the most successful theologian since the Reformation" (476). Secular religions such as Marxism, it is now common to point out, have been a dominant feature of the modern age, often the decisive force in shaping the course of history (Talmon [1960] 1985).

Secular religions do not speak directly of or appeal to God for authority. However, they are religions in the sense that they set a framework of meaning by which a person understands his or her life and the fundamental values that will shape it. Moreover, secular religions are often suffused with the same themes present in Christianity and Judaism (Glover 1984). In all likelihood, that is the explanation for their great appeal (Nelson 1991).

Existence-value methods have thus far been applied mostly to issues such as wilderness and endangered species that, I will show, have a religious basis. To anticipate my conclusion, the theological problem with existence value is that in such cases it attempts to answer a religious question by applying an economic method. Making estimates of existence value then is both as silly and as meaningless as asking how much the knowledge of God is worth.

Nature as the Path to Knowledge of the Divine

McPhee's discussions with Brower went well beyond the importance of preserving wilderness areas. Indeed, for Brower, wilderness was but one element in an overall worldview. For many years, Brower toured lecture halls on college campuses and other places across the United States, preaching what

McPhee (1971) labeled "the sermon" (79). To many people, Brower's great appeal was essentially religious. As McPhee wrote,

to put it mildly, there is something evangelical about Brower. His approach is in many ways analogous to the Reverend Dr. Billy Graham's exhortations to sinners to come forward and be saved now because if you go away without making a decision for Christ coronary thrombosis may level you before you reach the exit. Brower's crusade, like Graham's, began many years ago, and Brower's may have been more effective. (83)

It was, and Brower enjoyed greatest influence in the segments of secular society where environmentalism was most popular and Graham's voice scarcely heard at all.

Indeed, Brower's approach had its own religious tradition, with its environmental prophets, great texts, and sacred sites. According to McPhee (1971), "throughout the sermon, Brower quotes the gospel--the gospel according to John Muir,...the gospel according to Henry David Thoreau" (84). As a former executive director of the Sierra Club for seventeen years in the 1950s and 1960s, Brower followed directly in the line of Muir, who had founded the Sierra Club in 1892. In the late nineteenth and early twentieth centuries, Muir was the foremost advocate of setting aside wild areas to preserve them for the future as free of human impact as possible.

For Muir, the wilderness had an explicitly religious significance. He referred to primitive forests as "temples" and to trees as "psalm-singing." As Roderick Nash (1973) writes in *Wilderness and the American Mind*, Muir believed that the "wilderness glowed, to be sure, only for those who approached it on a higher spiritual plane. ... In this condition he believed life's inner harmonies, fundamental truths of existence, stood out in bold relief" (125-26).

For Muir this was one way of saying that he experienced the presence of God in the wilderness. On other occasions he was still more explicit. He believed that in the natural objects of wild areas, one could find "terrestrial manifestations of God." They provided a "window opening into heaven, a mirror reflecting the Creator," making it possible to encounter in nature some true "sparks of the Divine Soul" (Nash 1973, 125).

By creating the world, God had enabled human beings to experience directly a product of divine workmanship. The experience of nature untouched by human hand was as close to a direct encounter with God as possible on this earth. Yet, because of the spread of science and industry in the modern era, this opening to the mind of God was being erased. People were building dams, cutting forests, farming the land, and in many ways imposing a heavy human footprint on the divine Creation. It was only in the limited remaining areas of wilderness, as Nash (1973) relates, that "wild nature provided the best 'conductor of divinity' because it was least associated with man's artificial constructs" (125). If all the wild areas should be lost, future generations would be forever cut off from this main avenue of contact with God.

All this is to say that for Muir a wilderness area was literally a church. A church is a place of spiritual inspiration, where people come to learn about and understand better the meaning of God in their life. In church especially, God communicates his intentions for the world. A wilderness church is, furthermore, in one sense more imposing and spiritual than any church people can build. A wilderness is a church literally built by God.

A Secular Religion

Today, the religious convictions that motivated Muir still lie behind the demand for wilderness, but with one significant difference. Environmentalism has become a secular religion. As Joseph Sax (1980) has said, in seeking to preserve national parks and other wild areas, he and his fellow preservationists are "secular prophets, preaching a message of secular salvation" (104). Roger Kennedy (1995), the former director of the National Park Service, agrees: "Wilderness is a religious concept," he wrote recently, adding that "we should conceive of wilderness as part of our religious life." Wilderness puts us "in the presence of the unknowable and the uncontrollable before which all humans stand in awe" (28)--that is to

say, although Kennedy does not put it in just these words, in wilderness we stand in the presence of God.

In his essay "John Muir and the Roots of American Environmentalism," the distinguished environmental historian Donald Worster (1993) explores the process of secularization. Muir was brought up in Wisconsin and immersed in the doctrines of a strict Protestant sect, Campbellism. These doctrines would play a major role in shaping his thinking for the rest of his life. But like so many others in the modern age, by his twenties he had left the traditional religious forms of his youth well behind. As Muir said, "I take more intense delight from reading the power and goodness of God from 'the things which are made' than from the Bible" (Worster 1993, 193). Worster concludes that while the influence of Muir's youthful piety remained strong, he "invented a new kind of frontier religion; one based on going to the wilderness to experience the loving presence of God." This type of religion would later prove immensely attractive for the "many Americans who have made a similar transition from Judeo-Christianity to modern environmentalism" (195-96).

Although Muir abandoned the established Christian churches of his time, his writings contain frequent references to God. Today, environmentalists such as Brower seldom speak directly of God but do regularly describe experiencing a "spiritual inspiration," "sense of awe," "source of values," "humbleness of spirit," and so forth in the wilderness. These descriptions differ little from the language used by earlier generations to describe the feeling of being in the presence of God.

Many leading environmental thinkers in the United States today explicitly characterize their mission as "religious," if not as Christian. In *The Voice of the Earth*, Theodore Roszak (1992) states that "the emerging world-view of our day will have to address questions of a frankly religious character" (101). Environmentalism, he argues, will have to provide answers to "ethical conduct, moral purpose, and the meaning of life," and thereby help to guide "the soul" to the goal of "salvation" (51). In early 1996, Interior Secretary Bruce Babbitt stated that "religious values are at the very core of the 1973 Endangered Species Act" (ESA). Babbitt and other environmental leaders have sought to enlist Christian religious organizations to support the ESA as a "Modern Noah's Ark" (Steifels 1996, A12).

The present motto of the Wilderness Society, borrowed from Thoreau, is "In wildness is the preservation of the world," that is, the salvation of the world. In its appeals for public support, the Wilderness Society typically asserts of wilderness areas that "destroy them and we destroy our spirit... destroy them and we destroy our sense of values." The issue at stake in preserving wilderness is not merely a matter of the aesthetics of a beautiful landscape or the retention of a museum piece of the geologic past. The real objective, as the Wilderness Society declares, is to maintain the moral foundations of the nation.

This declaration might seem outlandish, or mere fund-raising rhetoric, to those who know little of the theological history of the idea of wilderness. However, in a long religious tradition that dates to seventeenth-century New England, "a genuine reading of the book of [wild] nature is an ascension to the mind of God, both theoretical and practical" (Miller 1954, 209). When the Wilderness Society tells us today that our national values depend on preserving the wilderness, it is only expressing in a secularized way what many others have asserted before: that without God, no foundation for values exists. And God, as Muir said explicitly and contemporary secular environmentalists say implicitly, is encountered most closely in the wilderness.

Although some people have seen modern environmentalism as borrowing from Asian, pantheistic, and other sources, the core of the religious conviction for most environmentalists is a secularized Christianity. This should not be surprising in a nation where Christian influence is ingrained in the national psyche, whether recognized explicitly in all cases or not.

A Secular Puritanism

The process of secularization did not begin with Muir. He regarded himself as a follower of Emerson, whose writings he had studied closely. The philosophy of New England transcendentalism represented the critical point at which Christian theology--largely of a Puritan variety--adapted rapidly to the new demands of the modern age. Historian Arthur Ekirch (1963) observes that in the transcendentalist philosophy "nature was the connecting link between God and man"; thus, "God spoke to man through

nature" (51-52).

Emerson, Thoreau, and other transcendentalists, in turn, drew much of their inspiration from their Boston forebears. If the transcendentalists saw an empty worship of false economic gods spreading across the land, the Puritans had always said that income and wealth were among the most dangerous corrupters of the souls of men. The Puritans also, as the Harvard historian Perry Miller (1954) commented, were "obsessed with" the "theology of nature." In Puritan theology of the colonial era,

the creatures ... are a glass in which we perceive the one art which fashions all the world, they are subordinate arguments and testimonies of the most wise God, pages of the book of nature, ministers and apostles of God, the vehicles and the way by which we are carried to God. (208-9)

The idea of a moral imperative to preserve every species--God's decree that every species has a right to exist--has religious origins deep in Western civilization. In the sixteenth century, Calvin said that human beings should be "instructed by this bare and simple testimony which the [animal] creatures render splendidly to the glory of God" (Kerr 1989, 27). Indeed, according to Calvin, God intends for "the preservation of each species until the Last Day" (41). The Bible, which some current environmental leaders are invoking, gave explicit instructions on this matter in the story of Noah and his Ark.

Jonathan Edwards, by some accounts America's greatest theologian, linked the seventeenth-century Puritans and their nineteenth-century New England intellectual heirs. Edwards said that "the disposition to communicate himself ... was what moved [God] to create the world" (Miller 1964, 194). As Miller (1964) observed, "what is persistent, from the [Puritan] covenant theology (and from the heretics against the covenant) to Edwards and to Emerson is the Puritan's effort to confront, face to face, the image of a blinding divinity in the physical universe, and to look upon that universe without the intermediacy of ritual, of ceremony, of the Mass and the confessional" (185).

The present environmental movement offers a secular Puritanism in more than its attitudes toward wild nature. As McPhee (1971,83) relates, Brower commonly referred in his sermon to the human presence in the world as a "cancer." More recently, Dave Foreman, the founder of Earth First!, again said that "humans are a disease, a cancer on nature" (Looney 1991). As Paul Watson (1988), a founder of Greenpeace, put it, "we, the human species, have become a viral epidemic to the earth"--in truth, "the AIDS of the earth" (82). This all harks back to the doom and gloom of a Puritan world of depraved human beings infected with sin, tempted to their own destruction at every step by the devil and his devious tricks. It should be expected, the Puritan ministers said, that a sinful world would soon have to suffer a harsh punishment imposed by God, both on this earth and for most people in a life to come in hell.

In these and still other ways, environmentalism is today a powerful secular embodiment of the Puritan impulse in American life (Nelson 1993). Indeed, the Puritan tradition has had an extraordinary and enduring influence on the entire history of the United States. It is hardly surprising that although it is taking new and most often secular forms today, the Puritan influence is exerting itself once again. As Worster (1993) explains:

The second legacy [of the environmental movement] from Protestantism is ascetic discipline. In large measure Protestantism began as a reaction against a European culture that seemed to be given over, outside the monastic orders, to sensuous, gratification-seeking behavior. ... There was from the beginning, and it reappeared with vigor from time to time, a deep suspicion of unrestrained play, extravagant consumption, and self-indulgence, a suspicion that tended to be very skeptical of human nature, to fear that humans were born depraved and were in need of strict management.

The Protestant tradition may someday survive only among the nation's environmentalists. ... Too often for the public they sound like gloomy echoes of Gilbert Burnet's ringing jeremiad of 1679: "The whole Nation is corrupted...and we may justly look for unheard of Calamities." Nonetheless, the environmentalists persist in warning that a return to the disciplined, self denying life may be the only way out for a world heading towards environmental catastrophe.

Surely it cannot be surprising that in a culture deeply rooted in Protestantism, we should find ourselves

speaking its language, expressing its temperament, even when we thought we were free of all that. (197-98,200)

Today the environmental movement is strongest in Germany, Sweden, and Holland--all countries with strong Protestant heritages. By contrast, in France, Spain, and Italy, shaped much more by Catholicism, green parties and environmental groups play a much smaller role. In Latin countries the full body of the Catholic church itself--with all its history and authority--was the means by which God communicated with the world. The Pope was God's agent on earth; in the Catholic church the faithful could encounter the majesty and mystery of God.

Having expelled Catholicism, Protestants had to look elsewhere. They often found their spiritual inspiration in nature, hearing there the voice of God. The Puritans, who most ruthlessly eliminated ceremony and imagery, had a special need to find in nature a substitute for an abandoned mother church.

How Much Is a Church Worth?

This brief excursion into theological and environmental history should suffice to show that the existence value of wilderness, endangered species, and other wild objects in nature is as much a theological as an economic subject. Indeed, extending the concept of existence value to the maximum, one might conclude that God has the ultimate existence value. But unlike God, a candidate wilderness area can at least potentially be tangibly visited, even by those who value it most for the very fact of its existence.

Certainly, many people will find any talk of the dollar value of God to be sacrilegious. Not that long ago a person could be burned at the stake for less. Yet, as the previous discussion has indicated, calculating a monetary value for the knowledge of the existence of a wilderness area comes close to valuing God. Nature untouched by human hand, as found in a wilderness, gives access to knowledge of the existence and qualities of God. In secular environmentalism this message comes in an only slightly revised form: wild nature is "the true source of values for the world."

Admittedly, to value a wilderness in this way is to value the instrument of communication of religious truth rather than the actual knowledge itself. Thus, a more precisely analogous question would be: How much is the knowledge of the existence of a church worth?

At least in concept, this is an answerable question. Economists can point out that although leaders of institutional religions may be offended by the question, they do in fact make such calculations. Other things being equal, they regard more churches as better. But more churches also cost money. In making a decision at some point not to build another church, a religious organization is saying in effect that the religious benefit of the additional church is not worth the cost of building and maintaining it.

How would one go about putting a marginal value on the existence of one more church (wilderness)? Answering this question, assuming a person is willing to think about the matter in these terms, would involve multiple concerns. One question would be: How much does a particular new church (wilderness) add to the religious education of the faithful? How many new people might it draw into the faith? A related question would be: How many churches (wildernesses) should a religious denomination ideally maintain and how many does it have already? The answers obviously depend partly on the total number of faithful, their geographic distribution, and the expected growth of the religious group in the future.

Yet another factor is that the building of a church is not just a way to be spiritually uplifted. It can also serve to publicly and symbolically announce a depth of religious commitment and formally take an action for the glory of God. Building a grand cathedral, such as Notre Dame in Paris can acquire a special religious significance when it involves a great sacrifice of effort--as religions have historically found meaning in making large sacrifices of many kinds. A wilderness area might become more meaningful in the same way: the more valuable the mineral, timber, and other natural resources given up, the greater the sacrifice and therefore the symbolic statement of allegiance to the faith.

The symbolic value of great sacrifice explains why the Arctic National Wildlife Refuge (ANWR) has become so important to the environmental movement. Its importance springs not just from the on-the-

ground environmental features of the area--many other equally desolate and isolated places are also important to some group of wild animals. The truly distinctive feature of ANWR is that by leaving it untouched, so much valuable oil would potentially be sacrificed. Protecting the area offers a rare opportunity to make a powerful religious statement. An analysis of the benefits and cost of ANWR oil development thus becomes in major part an assessment of trade-off between two alternative "uses" of the oil: (1) as fuel for a modern economy, and (2) as a symbol signifying the willingness of society to commit vast resources to preserve a multibillion-dollar cathedral, a religious edifice requiring such large sacrifice that it would stand as one of the greatest (certainly most expensive) testimonies ever made to the glory of the faith.

From a social point of view extending beyond the immediate member of the denomination, a church may be valued also by others outside the religion. Just as non-Catholics may admire the Vatican as a work of art or an important part of their history, many people today no doubt value wilderness as a museum of natural history. Wilderness areas often have beautiful scenery that can be set aside for others in the future to enjoy.

To be sure, the discussion of the potential analytical problems that surround putting a marginal value on the existence of a new church (wilderness) has begged the question of whether a religious body would ever want to do such a thing. Indeed, most religious leaders would likely reject any such suggestion out of hand. A church partakes of the sacred; to assign a money value to it profanes the faith. The very act of regarding the church in economic terms would in itself diminish the value of the church.

Many environmental leaders do in fact react much as other religious leaders would to proposals to measure the existence value of a wilderness. While recognizing a potential for political gain by making their case in economic terms, environmentalists on the whole have reacted coolly if not antagonistically to efforts by economists to calculate existence values for wild objects in nature.

Mark Sagoff (1994), current president of the International Society of Environmental Ethics, writes that "contingent valuation [is] an attempt to expand economic theory to cover environmental values. ... But what makes environmental values important--what makes them values--often has little or nothing to do with 'preferences,' with perceived well-being, or with the 'satisfaction' people may feel in taking principled positions" (7-8). Aside from the many practical analytical problems, Sagoff rejects the calculation of existence value in principle as an imperialistic attempt by economists to substitute clever techniques for "the role that the public discussion of values should play in formulating environmental policy" (8). In short, the practice attempts to decide religious questions on (pseudo) scientific grounds.

Negative Existence Value

For Sagoff and many others, the very act of attempting to attach a money value to the existence of an endangered species, a wilderness, or other object of wild nature is itself a source of mental distress. It is like trying to put a money value on God, a sacrilege in any faith. Indeed, "negative existence values" may be almost as common as positive evaluations, because in any diverse society a cultural or religious symbol regarded favorably by one group will often be regarded unfavorably by some other groups. Not surprisingly, the members of the economics profession who advocate use of existence value have largely neglected this possibility.

Indeed, in the specific case of wilderness, some people do regard the existence of a newly created wilderness area as a symbolic affront to their own values. For some, it is offensive in the manner of throwing away good food, a deliberate waste of good timber, mineral, and other natural resources. A leader of the current Wise Use movement, Ron Arnold (1982), writes that wilderness and other curbs on development "have bit by bit impaired our productivity with excessive and unwise restrictions on forest and rangelands, on water and agriculture, on construction and manufacture, on energy and mineral, on every material value upon which our society is built" (123).

Although they might not phrase it precisely this way, other critics sense intuitively the following: the legal designation of a wilderness area represents symbolically a testimony to the glory of one faith, but this may be a faith different from their own, and they may thereby feel their own religious convictions diminished.

One analyst has characterized the current fierce policy dispute over the creation of wilderness areas in southern Utah as at heart a clash between the Mormon theology of many Utah natives and a competing set of secular religious precepts (Williams 1991).

Still others might object that a wilderness is not a church of any institutional Christian religion. Indeed, the rise of environmentalism reflects the increasing secularization of American society--in itself an unpleasant thought to contemplate for some traditional Christians.[1] "Negative utility" may also arise when secular religions borrow Christian messages and values, even though the followers in these secular faiths may no longer be aware of the original inspiration.

Environmental Creationism

A "secular religion" is, in truth, an awkward construction. Such a religion typically appropriates the values, religious energy, organizational forms, and other features of an earlier established religion, usually in the Judeo-Christian tradition. Yet, frequently it sets all these attributes in what is said to be a naturalistic or scientific context. The dressing of religion in the garb of science may end up as an attempt to blend contradictory elements.

Consider the theology of wilderness as found in the secular faith of much of contemporary environmentalism. The Puritans believed one could go to the wilderness to gain a unique access to the mind of God. In the sixteenth and seventeenth centuries the Puritans could accept easily enough the biblical message of the Creation, identifying nature as a literal work of God untouched by human hand. But geological, biological, and other sciences since that time have determined that the earth is many billions of years old and has undergone countless upheavals and transformations. Perhaps a wilderness can help to reveal natural laws of the universe, and these laws may themselves reflect a divine source. However, a wilderness can no longer in any real sense be said to reveal the original condition of the earth, as created by God.

Wilderness theology, in short, involves a form of creationism: sometimes with an explicit link to the Judeo-Christian story in Genesis; in other cases, with no explicit mention of God--a "secular creationism." Current environmental writings contain many references of both kinds to "the Creation"; two recent books on environmental matters are *Caring for Creation and Covenant for a New Creation* (Oelschlagger 1994; Robb and Casebolt 1991). A magazine article on environmental philosophers describes the belief that the current need is for a "spiritual bond between ourselves and the natural world similar to God's covenant with creation" (Borelli 1988, 35). In much the same vein, and perhaps even more commonly, natural environments isolated from much European contact are widely referred to as a newly found, or currently sought after, "Eden" or "paradise" of the earth ("Inside the World's Last Eden" 1992; McCormick 1989).

Such language has begun to invade even mainstream politics: Vice-President Gore has said that we must cease "heaping contempt on God's creation" (Niebuhr 1993, A13). In a December 1995 speech remarkable for its candor in linking his environmental policy making to his religious beliefs, Interior Secretary Bruce Babbitt said that "our covenant" requires that we "protect the whole of Creation." Harking back to John Muir and to earlier Puritan theology, the secretary said that wild areas are a source of our "values" because they are "a manifestation of the presence of our Creator." It is necessary to protect every animal and plant species, he stated, because "the earth is a sacred precinct, designed by and for the purposes of the Creator." [2]

Such new forms of environmental creationism involve as much tension with the canons of scientific knowledge as with the older more familiar forms of Christian creationism. Although Babbitt referred specifically to God, others do not, even though they speak religiously of "the Creation." Some might find the secular version the most objectionable of all: prominent biologists and other physical scientists sally forth to attack Christian creationism as ignorant obscurism, even as some of them actively proselytize their own secular style of environmental creationism.

If awareness of these matters spreads, the designation of a wilderness area could come to represent yet another cultural symbol: the existence of a large element of religious naivete, if not rank hypocrisy, among portions of the scientific establishment--yet another potential source of negative existence value for at

least some people.

Whether the cultural symbol is established through a public or private action also affects the various forms of potential negative existence value. If a private group builds its own church, at least in America (it can be much different in other countries), few people are likely to be greatly upset, even though they may disagree strongly with the church creed. However, if the government builds the church, matters are altogether different. The government is not only spending taxpayers' money but making an official declaration formally affirming a particular set of religious values. A person might object strongly to the establishment of a government-owned and -operated wilderness area but have little or no objection to a private group's undertaking precisely the same mission. My arguments suggest that the present national system of wilderness areas should be privatized and any further wildernesses created privately as well (Nelson 1992).

Who Asks the Question Determines the Answer

The multiple meanings of wilderness are typical of cultural symbols. An X-rated movie provides valued sexual titillation to one person, while its very existence signifies society's moral decay to another. To some, the existence of a government welfare program may represent the compassion of society for the poor, but for others it may symbolize the coercive confiscation of hard-earned money from deserving people in order to give it away to undeserving others.

The proponents of the use of existence-value methods suggest that they can apply their techniques according to the canons of the scientific method. They suggest further that existence-value measurement, as a scientific exercise, will be replicable. Also, they argue that despite some people's suspicions, the results will not reflect the beliefs of the scientific investigators and that the more resources put into the investigation, the more consistent and reliable the estimates of monetary existence value presumably should become.

None of these things, however, is likely to occur in practice. In fact, when economists estimate existence value, they use uncomplicated methods. In essence, the economic researcher solicits answers to a survey questionnaire. The questions and the answers may be oral or written (sometimes with follow-up). For a particular wilderness area, for example, the questionnaire might begin with a brief description of the potential site and then ask how much money the person--who may be a thousand or more miles away--would be willing to pay to know that this place will be preserved for the future as a wilderness with minimal human intrusion.

However, since the respondent often knows essentially nothing about the possible wilderness, it is typically necessary to provide some background for answering the question. This raises many potential difficulties. Consider some of the possible items that might be mentioned:

1. A brief physical description of the wilderness;
2. in order to provide some needed context, a brief description of how many total wilderness areas have already been established in the United States and how the particular potential wilderness area being studied fits into that broader picture;
3. inclusion of some historical context, such as an explanation of how the belief in preserving wilderness has been traced by leading scholars to John Muir and New England transcendentalists, for whom the purpose of visiting wild nature was to experience the presence of God;
4. for the survey respondents with an interest in theological analysis, brief reference to the idea that in light of modern scientific knowledge, the theology of wilderness today represents a kind of secular creationism.

To be sure, existence-value researchers no doubt would object strongly that administering the questionnaire with any such accompanying materials would bias the results, which is probably true.

However, there may be no escaping this problem. To say that only "the facts" will be provided is untenable. Presenting all the facts is not feasible; one must make a ruthless selection. Why would a geologic description be factually more appropriate than a historic or theological description? To argue for the exclusion of the theological information may merely affirm the cultural values of a secular society.

Moreover, the more financial resources that are available and thus the more information that can be conveyed to respondents, the better a scientific analysis should be. However, in this case it will also exacerbate the selection problem. Unlike the normal scientific undertaking, the more systematic the effort, the more variable and thus problematic existence-value results may become. The only truly replicable analysis may well be one that conveys little information beyond the simple identification of the natural object under study, the replicability resting on nothing more than the commonality of ignorance.

Even stating such a minimal detail as that the wilderness has "a total area of such and such" would emphasize this feature relative to other potential descriptions. Another person might think that a more important detail is that the potential wild area has, say, "the second highest elevation in Colorado." Who knows? The point is that no one can provide the background in objective terms. When it comes to matters of cultural symbolism, the researcher can supply the information needed by respondents only by knowing in advance the appropriate cultural frame of reference.

Yet, in matters of public policy debate that relate to the creation of cultural (in many cases religious) symbols, the appropriate cultural frame of reference is very often precisely the matter at issue. The economic researcher thus ends up merely translating his or her own value system, or that of the client providing the money, into a more formal and ultimately pseudo-scientific economic result.

Conclusion: Scientific Economics in Crisis

Economists introduced the idea of existence value in an attempt to solve a new problem facing their profession. The problem was real, but the existence-value cure is worse than the disease.

The economics profession emerged in the Progressive Era as part of the design for the scientific management of American life (Nelson 1987). Since then, economists have occupied a privileged position in American professional and intellectual life. The secular religion of America for much of the twentieth century was economic progress, a concept that transcended the mere satisfaction of crass material desires. The faithful believed that economic progress would bring the end of scarcity, and hence--or so it was supposed--eliminate most human conflict. The end result of economic progress therefore would be nothing less than the salvation of humankind, the arrival of heaven on earth (Nelson 1991).

Biblically, moral actions lead to salvation. Now, in Progressive theology, efficient and inefficient became virtually synonymous with good and evil. The efficiency of an action determined whether it contributed to economic progress and thus to the secular salvation of the world. Historians have aptly described Progressivism as "the gospel of efficiency" (Hays 1959).

As the group responsible for judging efficiency, professional economists became more than expert technicians; they became the ultimate judges of the morality of government programs, policies, and other actions. Not by accident were members of the economics profession, not Christian clergy or other social science professionals, designated by law to sit at the door of the president, by the Employment Act of 1946, which created the Council of Economic Advisors.

By the 1960s, however, this priestly role of economists as the dispensers of moral legitimacy in American society was confronting growing challenge. Many factors contributed, but one development probably had the greatest impact: the claims for the redeeming benefits of economic progress were not borne out by the actual history of the twentieth century. As a matter of material gains alone, the economic progress promised had in significant degree taken place in developed countries (rare success, it might be noted, for a theological prophesy). But the concurrent moral transformation also promised had not occurred. Heaven on earth seemed as far off as ever. Indeed, despite immense material advance, the twentieth century brought world warfare, the Holocaust, mass imprisonments in Siberian camps, and many other horrible events.

With belief in economic progress--or, as one might say more formally, "economic theology"--entering a period of crisis, environmentalism offered a new set of cultural symbols (Nelson 1995) and a new religious vocabulary. If a dam taming a raging river, showing human mastery of the wildest forces in nature, had been a cathedral to economic progress, in environmental religion the same dam became a virtual evil. For environmentalists the new cathedral would be a wilderness area. The Wilderness Act of 1964 officially announced the advent of a powerful new religious symbol in American public life.

Progressive religion had looked to the future; constant change signified continuing advance in building heaven on earth. The constant striving for efficiency ensured that progress would take place as rapidly as possible. The status quo, by contrast, was something to be left behind as rapidly as possible. What was "in existence" per se had no value.

All these ideals came into question, however, as the hopes for moral as well as economic progress clashed against the many unhappy events in the twentieth century. Perhaps constant change was not the path to salvation. Perhaps greater attention and value should be placed on what already existed. Indeed, preservation of wilderness took on such cultural significance because wilderness represented the longest existing thing of all: nature as it had existed since the Creation (or at least this image could be the symbolism, if hard to square with modern geologic science).

The economists who promoted a whole new realm of economic valuation, putting a value on "existence" for its own sake, very likely sensed all this. They saw that the vocabulary of economics, grounded as it was in the values of change, efficiency, and progress, faced growing doubts in important parts of American life. Many of these economists themselves probably sympathized in some ways with this trend of events..

But economists using the concept of existence value sought in effect to elevate new environmental values without abandoning the authority of the reigning economic language, as if to say that Christians and Muslims should stop fighting about religion because both are correct. If efficiency had long been a basic term of social legitimacy, why not simply redefine efficiency to encompass the value of preserving the existing state of the world?

This scheme was bound to fail. Theologically, it required that the forward march of progress should be measured by the extent to which people liked the cessation of progress. If belief in progress were to be displaced in the American value system, the accompanying vocabulary of progress would be abandoned. Existence value would lack pertinence because the very framework of efficiency analysis would no longer have much interest. Some new vocabulary and source of moral legitimacy--one can only guess at what it might be--would take the place of professional economics.

That economists continue to be consulted, receiving large payments to make estimates of existence value, merely indicates that the vocabulary of progress remains a contender in the American value arena. Appealing to efficiency still pays, even in cases in which the underlying goal may be to abolish efficiency. The remaining true believers in progress, however, should recognize that the introduction of existence value amounts to a Trojan horse. Seeming for a time to sustain the social role of economics, in the long run it can only help to undermine it.

I am not arguing that the critics of progress are wrong. Surely, they are right, at least in part, insofar as the Progressive gospel promised heaven on earth. Yet, few people seem prepared to abandon the material comforts that modern science and industry have delivered in such abundance. The ultimate future of progress, in any case, lies outside the scope of this article. The important point is that existence value has little or nothing to contribute to this particular religious discussion. The fate of progress will have to be resolved the old-fashioned way, through empirical observation, historical awareness, reasoned argument, moral judgment, testimonies of faith, theological analysis, and other traditional means of religious communication.

1. The Catholic League for Religious and Civil Rights, for example, reacting to speeches by Interior Secretary Bruce Babbitt that defended the Endangered Species Act in biblical terms, issued a press release "Bruce Babbitt Maligns

Catholicism." Babbitt had said in his speech that he found more spiritual inspiration in nature than in the Catholic church of his youth. The president of the league, William Donohue, declared that the secretary's explanation of his religious turn away from Catholicism showed political "stupidity as well as unfairness." See Human Events, 12 January 1996.

2. Bruce Babbitt, "Our Covenant: To Protect the Whole of Creation," circulated to top staff of the Department of the Interior through the e-mail system, 14 December 1995. This speech was delivered on various occasions, including to the League of Conservation Voters in New York City in early December 1995.

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