Environmental Ethics and Our Moral Relationship to Future Generations: Future Rights and Present Virtue

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I. INTRODUCTION

"The life of a people is conceived as a scheme of cooperation spread out in historical time." 1

"We do not inherit the earth from our parents, we borrow it from our children." 2

Two hundred and fifty years ago, the eastern portion of the United States was covered by a complex ecosystem consisting of deciduous forest with a diverse array of wildlife. European invaders drastically altered this environ-

2. This saying is of questionable provenance. Although described as a Native American saying, it has been tracked to speeches by, among others, President George Bush. See Carol M. Rose, Given-ness and Gift: Property and the Quest for Environmental Ethics, 24 Env't L. 1, 25, fn. 84 (1994).
ment through exploitation of the natural resources of North America. Today, pockets of this early forest system survive, but most of the continent is now covered by a simpler ecosystem consisting largely of McDonalds and Starbucks Coffee shops. Our world is different because of the actions of earlier generations. How is one to judge the “morality” of the conduct of these earlier generations? Have they violated moral “rights” that I, a current member of their future, hold? Have they failed in some “duty” or “obligation” to me?

Few issues of environmental ethics are of greater significance than an assessment of this “moral relationship” between the present and future. Our consumption of resources will limit the availability of those resources in the future. Present degradation of environmental quality will have health and aesthetic impacts on future generations. Our actions inevitably will both limit and expand options available to the future through the creation and distribution of wealth and the alteration of the environment.

In some sense, however, an ethical evaluation of actions that affect the future is no different than an evaluation of actions affecting existing humans. A polluting industry can inflict harm on neighbors while providing economic and other gains to workers and society as a whole. The location of a hazardous waste facility can raise questions of environmental justice and distributional fairness if segments of the existing population are unfairly singled out to bear a disproportionate burden. Destruction of habitat by some can impinge on the aesthetic and moral values of others.

This essay has three purposes. The first purpose is to identify those distinctive qualities that distinguish a moral analysis of our relationship to future generations from the moral analysis that will apply to an assessment of our actions on our own generation. This essay suggests that the issue of our moral relationship to future generations has a distinct component only for those actions that have irreversible consequences that will be experienced more than two generations in the future. Actions with shorter term

3. This essay uses the term “moral relationship,” perhaps to excess, to avoid characterizing the relationship in terms of obligation or duty.
4. See infra notes 8-43 and accompanying text.
consequences may be properly seen as raising the same concerns that apply to disputes among existing humans.

The second purpose is to evaluate our moral relationship to future generations in terms that are familiar in Western ethical thought. For many, this moral relationship should be analyzed in terms of “rights” and “obligations” -- moral claims that the future somehow makes on us. As discussed below, however, there are substantial conceptual and technical problems in evaluating our moral relationship to the future in rights-based terms. Furthermore, the outcome of a rights-based approach can be a set of proposed rights and obligations that are not meaningful guides for present decisions.

The third, and most important purpose of this essay, is to suggest that our moral relationship to future generations may best be viewed, not in terms of rights and obligations, but through reliance on “virtue ethics.” Our concern for the future can be seen as an expression of the principle of benevolence and a recognition of the dignity and worth of all life. Through virtue theory, the morality of our actions are to be evaluated, not from the perspective of demands or claims that the future might be said to make on us, but rather from the recognition that our concern for the future is an expression of our best virtue.

This shift in perspective has direct consequences. A focus on present virtue leads to the recognition that we must evaluate the morality of our actions in terms of our own vision of the well-being and the quality of life that we wish to see experienced in the future. It anchors the analysis of actions in the moral framework that we hold today without presuming to predict the moral and non-moral preferences of an infinite stream of future generations.

5. See infra notes 44-84 and accompanying text.
6. See infra notes 85-94 and accompanying text.
7. It is important to stress that a focus on our moral relationship to the future should not minimize other relevant moral concerns that might also affect our evaluation of the propriety of an action. Concerns about the impact of an action on existing humans, on non-human species or on nature as a whole may drive our view of the morality of an action independent of any concern about the impact on future generations.
II. IDENTIFYING THE DISTINCTIVE NATURE OF OUR MORAL RELATIONSHIP TO FUTURE GENERATIONS

All human actions that affect the physical environment may raise moral concerns. Our actions can affect the rights and well-being of non-human animals, of other present humans, and of humans in future generations. Identifying the distinctive issues associated with our moral relationship to future generations raises at least three questions. When does the "future" start for purposes of our moral analysis? What is the basis for acknowledging a moral concern for future generations? Are there relevant factual differences that distinguish the analysis of our moral relationship to future generations? The answers to these questions will affect the way in which any ethical analysis is applied to the issue of our relationship to future generations.

A. When Does the Future Start?

If we are to distinguish those ethical issues that are particularly associated with our relationship to future generations, we need to identify the point at which the differences between the present and future generations warrant distinct analysis. In other words, we need to determine when the future starts. This issue of time scale is sometimes overlooked in general discussions of the rights of future generations.

Several factors suggest that there is a sharp distinction in our moral relationship to people who will exist within the next few generations and those that will exist in the more distant future. First, we can and do have a direct emotional connection to our children and grandchildren, and even to our great-grandchildren. Whether we personally

8. There is another basis for distinguishing those actions that have special relevance to our moral relationship to the future. Those actions whose consequences are reversible within some reasonably short period of time may not raise distinct moral issues of future responsibility. Consider, for example, a present decision to build on coastal property. If those structures can be removed and the ecology and aesthetics of the coast restored within a reasonably short period of time, then future humans will have the same capacity to express their values and preferences as current humans. Their "future" status may not distinguish their moral claims from those of existing humans who may dispute alteration of the beach environment.
know them or not, our imagination is capable of including them within our immediate moral community. Beyond a few generations, the ties become more tenuous.\(^9\) Moreover, we are also capable of imagining the preferences and values of people who will exist within the immediate future. Of course we may be wrong in our projection, but the world inhabited by people of the more immediate future can still be seen as an extension of our own culture. Third, although all predictions of the future are uncertain, the likelihood that we can accurately predict events that will occur several generations in the future is small. Fourth, as discussed below, overwhelming technical problems arise in a utilitarian assessment of our moral relationship to generations in the far distant future.\(^10\) In contrast, issues such as the valuation of future preferences and the discounting of future costs to present value are difficult, but manageable, when applied to impacts in the near future. These conceptual and analytical factors suggest that the distinctive issue of our moral relationship to future generations only applies to actions that will have consequences on humans more than two or three generations, perhaps eighty to one hundred or so years, into the future.\(^11\)

Although this conclusion is not compelled, these factors also suggest that there are no distinct “future generation” ethical issues where the consequences of an action will be experienced solely by persons within the next one hundred years. This is not to minimize the ethical concerns that arise with respect to actions whose consequences are felt in the near future; it is only to suggest that it may not be productive to think of them in terms of some distinct moral relationship to the future.

Consider, for example, the issue of the proper level of remediation of property contaminated by a pollutant that will

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9. One commentator has posited a greater responsibility towards more immediate descendants since “the nearer the generations are to us, the more likely it is that our conception of the good life is relevant to them.” M.P. Golding, *Obligations to Future Generations* in *Responsibilities to Future Generations* 170 (E. Partridge, ed. 1981).

10. See infra notes 49-57 and accompanying text for a discussion of problems in comparing present and future costs and benefits.

11. Does this suggest a new “Rule in Favor of Perpetuities” where our distinctive moral concern for the future begins with, rather than excludes, those who will exist in approximately “a life in being plus 21 years?”
naturally degrade within the next one hundred years. Moral issues, such as the appropriate balance between the costs of remediation and the imposition of increased risks to human health, involve the same moral concerns regardless of whether we are dealing with threats to present humans or to grandchildren not yet born. These grandchildren, of course, are not now able to participate in the debate, but current humans who have an immediate emotional tie to their grandchildren's well-being and who understand the preferences of those grandchildren now can, and do, speak on their behalf. Furthermore, although all predictions are uncertain, the uncertainty of our estimate of the effects on present humans is likely to be the same as the uncertainty of our estimate on the effects on humans in the immediate future. In contrast, predictions of impacts in the more distant future involve greater and distinctive levels of uncertainty associated with the greater likelihood of unanticipated intervening events.\(^\text{12}\)

B. What is the Basis of Our Moral Relationship to the Future?

Why should we care about the future? A perfectly tenable case could be made that we have no obligation of any kind to consider the impact of our actions on future generations - in other words, "the future be damned."\(^\text{13}\) If, however, we recognize a moral relationship with the future, we must consider why we include future humans among the class of entities to whom we extend moral consideration. The answer can potentially affect the scope and demands of this relationship.

There is considerable debate over the basis for any moral responsibility we have to the future.\(^\text{14}\) One possible ap-

12. See infra notes 61-64 and accompanying text for a discussion of the distinctive aspect of uncertainty that arises from the possibility of unanticipated intervening events.

13. See Robert L. Heilbroner, What Has Posterity Ever Done for Me?, in Responsibilities to Future Generations, supra note 9 at 191. Mr. Heilbroner notes that "[n]o argument based on reason will lead me to care for posterity or to lift a finger in its behalf. Indeed, by every rational consideration, precisely the opposite answer is thrust upon us with irresistible force." He then goes on to find the basis for concern outside the limits of "rational argument."

14. See generally Responsibilities to Future Generations, supra note 9; Obligations to Future Generations (R.I. Sikora and Brian Barry, eds. 1978);
proach is to determine whether future humans have moral "rights." The issue of rights can be significant since identification of rights may imply that others have a duty not to infringe upon those rights. In other words, rights-based arguments lead to the language of duty and obligation. In Dworkin's memorable description, rights are "trump."\(^{15}\)

The literature reflects a variety of arguments as to whether future humans can be said to have "rights." For some, identification of a group as a "moral agent" may be a basis for identification of that group as a "rights" holder.\(^{16}\) To identify a group as "moral agents" involves, in part, an analysis of whether that group has the capacity to understand and exercise autonomous choice relating to moral decisions.\(^{17}\) In this view, current humans are moral agents who have both moral status as rights holders and obligations to exercise their moral reasoning.\(^{18}\) For some, non-human animals are not moral agents and thus cannot be viewed as having moral rights themselves.\(^{19}\) The debate, with respect to future humans, focuses on whether our non-existent (or not yet existent) descendants can be said to have the insight and understanding necessary to classify them now as moral agents.

Others have argued that moral rights stem from the recognition of some inherent interests, needs or preferences of an entity.\(^{20}\) Since a rock has no inherent interests, some

Christopher Stone, Earth and Other Ethics (1987).

15. Ronald Dworkin, Taking Rights Seriously xi (1977). Dworkin writes: Individual rights are political trumps held by individuals. Individuals have rights when, for some reason, a collective goal is not a sufficient justification for denying them what they wish, as individuals, to have or to do, or not a sufficient justification for imposing some loss or injury upon them.

Id.

16. See Stone, supra note 14 at 73-83 (discussion of the arguments relating to the "moral considerateness" of entities).


18. Christopher Stone describes a traditional moral focus on "persons." He defines this class of "persons" as "limited to normal adult human beings who, possessing full human faculties and living as neighbors in time and space, are capable of knitting the bonds of a common community." Stone, supra note 14 at 20.

19. Feinberg, supra note 17 at 141 (discussing arguments relating to animal rights).

20. Id.
would exclude rocks from the class of entities holding moral rights. Present humans and non-human organisms hold rights because it is possible to identify their inherent interests, such as their needs to eat and breathe and pro-create.

For others, the moral rights of the future come from some implicit contract among an intergenerational moral community. In this view, there is some grand intergenerational pact under which we, the present generation, have been the beneficiaries of the actions of past generations and have concomitant duties to future generations. There may also be a biblical basis for this contractual duty. The covenants made by God of the Old Testament with Abraham, Isaac, Jacob, and Noah also apparently run to "heirs and assigns," thus creating an implicit relationship among generations. This has led to suggestions that there is a theological basis for humanity's moral obligation to consider the needs of future generations.

Questions of future generations as "rights" holders inevitably involves concerns about the "contingent" nature of future generations. We do not know what humans, if any, will be born. For some this suggests a lack of moral

21. Id. at 140.
24. One scholar has actually suggested, in an argument reminiscent of traditional science fiction time travel paradox literature, that we cannot properly take actions to promote the well-being of future generations since the very actions we might take will alter the identity of the persons who are later born to receive such benefits. See Anthony D'Amato, Do We Owe a Duty to Future Generations to Preserve the Global Environment, 84 Am. J. Int'l L. 190 (1990)(restating argument first put forth by Derek Parfit in PARFIT, ON DOING THE BEST FOR OUR CHILDREN, IN ETHICS AND POPULATION 100 (M. Bayles ed. 1976)). In other words, by acting to protect the future, we alter the future and, thus, interfere with the rights of those people who would have been, but will not now, be born as a result of our actions. Perhaps we should think of this as the "Malthusian Uncertainty Principle." DEREK PARFIT, IN REASONS AND PERSONS (1984), makes a number of other fascinating and subtle points about the ethical issues that arise from the fact that present actions alter the identity of future humans. This is an issue that he refers to gen-
standing for future generations since they have no identity. Since many would conclude that we have no moral obligation to procreate to ensure the existence of future generations, it is also possible to conclude that we have no moral duty to contingent humans who may, or may not, come into existence. In this view, future humans become the holders of moral rights only when they in fact come into existence. For others the "contingency" of future existence does not limit the rights of future generations since we know with certainty that some future humans will exist. We can no more deny the rights of unknown future humans than we can deny the rights of existing humans we may affect, even though we do not know their identity.

Although recognition of future humans as rights holders can be a basis for requiring moral concern for the future, such concern can be justified without resolving the rights issue. Entities can be "moral subjects" and entitled to be included within a moral assessment of our actions without being rights holders. It is probably safe to say that every article or book rejecting rights status for non-human animals begins with a statement that the author would never kick his or her dog.25

Ultimately, the rationalization for our moral concern for the future may simply be empirical. For whatever reasons, we present humans do care about the future. Certainly we care about the immediate future that our children and grandchildren will inhabit, but, more curiously but no less certainly, we also care about the more distant future. The generally as the "non-identity problem." Id. at 351-379. Parfit's arguments create an image of an infinite number of alternative future generations spinning out of each instant in time as our present decisions create alternative futures. Parfit's arguments are similar to multi-universe interpretations arising from the probabilistic nature of quantum physics. It is difficult, at least for this writer, to make much of the moral consequences that arise from such a view. Since every action (or inaction) alters the identity of an infinite number of ephemeral and contingent humans, it seems fair to treat their competing infinite interests as "canceling out." In other words, we can "renormalize" the equations to cancel infinite values just as physicists have done in quantum equations. Thus, we may be able to focus our moral concern on the uncertain, but at least singular, class of future humans that will exist as a result of our actions.

25. See, e.g., Peter Carruthers, The Animals Issue xii (1992). As Feinberg notes, "Almost all modern writers agree that we ought to be kind to animals, but that is quite another thing from holding that animals can claim kind treatment from us as their due." Feinberg, supra note 17 at 140.
source of such concern may be rooted in biology or some belief in the universality of human value, both present and future, but the existence of such a generalized human concern in the future is universally recognized.

This leads to a conclusion that we should consider the future in our moral calculus because there is consensus that we should. Of course, no such conclusion is logically warranted. The fact that we may have some universally recognized concern for the future does not convert that concern into a moral imperative. Evolution may have developed a genetic predisposition to ensure the survival through time of our genetic endowment, but that does not mean that this fact of nature becomes a fact of morality. This conflation of "what is" with "what should be" (between "is" and "ought") has been described as the "naturalistic fallacy." On the other hand, widely accepted consensus of the morality of a position may reflect a preexisting morality that individuals, through their capacity for moral "intuition," have expressed. Although translating a general concern for future generations into a moral obligation may pass the risk and go straight to the certainty of tautology, so be it. For whatever reason, we humans accept (within undefined limits) this moral concern.

C. Are There Relevant Factual Differences that Distinguish the Analysis of Our Moral Relationship to Future Generations?

1. The Moral and Non-Moral Preferences of Future Generations

An understanding of human moral and non-moral preferences (what an individual believes and wants) is critical to

26. Some have suggested that evolutionary pressures that lead to behaviors that promote concern for the survival of offspring may be the basis for this widely held recognition of the appropriateness of concern for the future. See, e.g., Richard A. Epstein, Justice Across the Generations, 67 Tex. L.Rev. 1465, 1472 (1989); Barresi, supra note 22 at 69-73.

27. See, e.g., Weiss, supra note 23 at 17-21 (discussing historical and multicultural examples of concern for future generations).


evaluating the moral consequences of our actions. Although the satisfaction of preferences may not in itself be the exclusive moral goal, an understanding of preferences is important whether we engage in an assessment of our actions in utilitarian terms, in terms of distributive fairness, or in terms of interference with the autonomy of individuals.

There are imperfect mechanisms by which present humans can express their preferences for both moral and non-moral values. In political contexts, preferences can be expressed through means such as voting (or revolting). In economic contexts, preferences can be measured through market prices or, for non-market goods, through methods of contingent valuation such as questionnaires. No such mechanisms exist for expressing the values and desires that will be held by persons sometime in the future. Quite simply, we do not know what the future wants.

Indeed, even to raise the question of what the future prefers reflects an error. When we consider our moral relationship to future generations, it is tempting to think of "the future" as a discrete group of humans whose views could be known if we could only find their phone numbers. Obviously, however, the future would not speak with one voice. Our actions may have consequences on humans who will live one hundred, five hundred, or a thousand years hence, and there is no single set of preferences held by "the future."

Identification of the moral and non-moral preferences of temporally distant civilizations is not a trivial concern. In past centuries, social views about humanity's relationships to nature and to one another have varied widely. Native American reverence and integration with nature and the rather less reverential European views during the industrial revolution both existed. Medieval Japan (at least as conceived by James Clavell) may have held a far different view of the relationship of the individual to the community than

30. See infra notes 49-50.
that held by many people today. Humans living in the late Pleistocene have been implicated in the mass extinction of North American mammals. We cannot, without hubris about our own current moral superiority, state what values will be held at various times in the future.32

Still, it has been claimed that we can identify core or universal preferences that will undoubtedly be held by all humans for all time in the future.33 Chief among any such universal human preferences must be life. Perhaps we can agree that all societies will recognize the value in preserving the capacity of the earth to support human life. In other words, there is a universal interest in not annihilating all future humanity. Recognition of an interest in preserving humanity as a whole, however, is of little practical value in

32. Note that this observation is limited to the descriptive question of whether we can know the moral and non-moral preferences or values that will be held in the future. It is quite a different matter to make normative statements regarding the relative worth of moral values held by different cultures.

33. Kavka, for example, discounting the argument that the preferences of the future are unknowable, has written:

Does this relative ignorance of what future people will want, and how to get it for them, justify us in paying less attention to their interests in decision making? I am doubtful that it does to any substantial degree. For we do know with a high degree of certainty the basic biological and economic needs of future generations - enough food to eat, air to breathe, space to move in, and fuel to run machines. The satisfaction of these need will surely be a prerequisite to satisfaction of most of the other desires and interests of future people, whatever they may be.

G. Kavka, The Futurity Problem, in RESPONSIBILITIES TO FUTURE GENERATIONS, supra note 9 at 111. See also J. Spear, Remedy Selection Under CERCLA and Our Responsibilities to Future Generations, 2 N.Y.U. Envt'l. L.J. 117, 129-130 (1993)("Certain fundamental interests exist such that no passage of time could conceivably be said to lessen their importance for sustaining the basic qualities of human life. These fundamental interests at a minimum would comprise interests in food, shelter, health, and, in the environmental context, interests in clean air, water and land.")

Ackerman also acknowledges the difficulties of understanding the values and preferences of remote generations. He would rely on his concept of a "liberal education" to create citizens who will attempt, even if imperfectly, to project or predict the preferences of the future. The citizen's goal is to "try to sort out his own preferences from those that, on the basis of his liberal education, he recognizes as within the probable range of moral evolution." BRUCE A. ACKERMAN, SOCIAL JUSTICE IN THE LIBERAL STATE 216 (1980).

Callahan, discussing whether we can know the interests of future generations, concludes that "since we cannot know what their social ideal will be, we should act on the assumption that it will not be all that dissimilar from our own; we have no special reason to think otherwise." D. Callahan, What Obligations Do We Have to Future Generations?, in RESPONSIBILITIES TO FUTURE GENERATIONS, supra note 9 at 80 (emphasis in original).
addressing most environmental issues.\textsuperscript{34}

It could also perhaps be taken as axiomatic that individuals would prefer not to be killed, but even this basic premise is not beyond dispute. People can and do give up their lives, and therefore express a preference that the end served by their deaths is more valuable than their lives. Different societies have, over time, placed different values on the sanctity or worth of life and the relationship of the individual to society as a whole.

A universal and timeless belief in the value of life becomes even more problematic when the issue involves not the certainty, but the risk, of death or injury. The willingness, as a matter of personal choice or preference, to incur health risks certainly seems to be variable.\textsuperscript{35} Among other things it seems to involve issues of wealth, social values and perhaps personal temperament. For whatever reasons, different people are willing to incur different levels of risk for varying amounts of gain. Different social conditions will presumably result in different social views on the appropriate trade-off of risk for benefits.

Beyond life and health, it is difficult to conceive of a universal set of preferences. Stating that people have a preference for clean air and water may simply be another way of expressing the general preference for life and health, but it

\textsuperscript{34} At that level of generality, however, our obligations to the future become largely meaningless. Some issues, such as the threat of nuclear war, in fact raise the concern for the total annihilation of humanity. Most ethical problems raise difficult questions, however, about the effect of our actions on the quality of future life and the trade-off between environmental and other values. Consequently, meaningful moral discourse about our moral relationship to the future inevitably involves issues of the preferences and values of future generations.

More interesting questions arise regarding our right to undertake actions that have the potential, however remote, of producing global catastrophe. Prior to the first test of an atomic bomb, scientists were not sure whether the test could ignite the atmosphere and produce a global holocaust. Calculations by Hans Bethe indicated that the likelihood of atmospheric ignition was extremely small (although not zero), and the test went ahead. Arthur Compton, a minister's son deeply involved in the administration of the U.S. atom bomb program, wrote in response to the concern: "Better to accept the slavery of the Nazis than to run a chance of drawing the final curtain on mankind!" \textsc{Richard Rhodes}, \textit{The Making of the Atomic Bomb} 417-419 (1988).

also may reflect a view that there is some universal preference for a pristine environment. But can we assume the existence of any universal view of the inherent value of nature? Can we assume what attitudes will be held by future generations on the value of natural vistas or the existence of other species? More importantly, general statements that future generations will prefer cleaner air and water to more polluted air and water say nothing about future preferences regarding the priority to be accorded clean air and water as against other preferences. Given the variability of human views toward the environment that previous generations have held, we cannot conclude that our views are the ones that "must" be held by the future. Indeed, we can be sure that the preferences and values of future generations will be different from our own.

2. The Future Cannot Speak

No future humans are now present to assert whatever moral claims they might have. Present humans can express their views of the morality of present actions that affect the future, and some have argued for the creation of special representatives for the future.36 Indeed, the Supreme Court of the Philippines has upheld the standing of children to speak for future generations.37 Nonetheless, without access to an understanding of the preferences or "interests" of the future, no present human can properly claim to speak for the distant future.

3. We Cannot Quantify the Impact of Our Actions on the Future

Almost all forms of moral analysis of our relationship to future generations involve an assessment of the future impact of our present actions. A utilitarian assessment, for example, that attempts to maximize the welfare of both present and future generations will require both the calcula-

36. See, e.g., Weiss, supra note 23 at 120-126 (1989); G.S. Kavka and V. Warren, Political Representation for Future Generations, in Environmental Philosophy 21 (R. Elliot and A. Gare, eds. 1983).

tion of the impact of our actions on future humans and, for purposes of comparison, the discounting of that future impact to present value. As discussed below, it may not be possible to meaningfully perform such calculations when we are considering the impact of our actions on the more distant future.38

4. We Cannot Know the Future

In virtually all cases, decisions must be made in the absence of certainty about the environmental consequences of our actions. Policy makers, for example, are required to make decisions about emission levels for environmental pollutants with imperfect information about the human health and environmental effects of such exposure. Uncertainty in this context can arise both from a lack of data or limited understanding of the biological mechanisms through which human health or environmental problems occur.

An additional, and distinct, element of uncertainty is introduced when we consider the impact on future humans. In considering the probability of impacts on the future, it is possible that intervening events will occur that affect future impacts. It is comforting, if naive, to believe that future ingenuity will allow humans to avoid the adverse health and environmental consequences of its present decisions, but it is possible. We may cure cancer; we may develop non-polluting sources of energy. But then again, maybe we won't. This possibility of such intervening events creates an element of uncertainty that is different in kind from the uncertainty surrounding our assessment of impacts on the present.39

5. Present Actions Shape and Alter Future Preferences

Our present actions will shape not only the options available but also the preferences that will be held by future humans. In one sense it is difficult to prefer what you do not know, and alternative environments that might have existed but for our current actions, might not even be per-

38. See infra notes 49-57 and accompanying text.
39. See infra notes 61-64 and accompanying text for a discussion of the implications of this distinctive element of uncertainty.
ceived as options by future generations.40

Further, people appear to hold a preference for their current situation. This has been described as "adaptive preference."41 "Adaptive preference" can lead people in terrible situations to show a preference for their current situation regardless of how irrational such a preference may seem.

Additionally, there may simply be something akin to inertia associated with our commitment to the status quo. The asymmetry of preferences when expressed in terms of "willingness to pay" or "willingness to accept" seems based, at least in part, on a somewhat irrational commitment to the status quo.42 This suggests the possibility that future generations will be biased to accept the world they inherit.43

III. EVALUATING OUR MORAL RELATIONSHIP IN TERMS OF RIGHT, DUTY, OR OBLIGATION

For many, the issue of our moral relationship to future generations should be analyzed in terms of moral "rights"

40. Discussing the problem of identifying the preferences that will be held by future generations, Christopher Stone has noted:

The burden is heavier, however, because their very tastes are destined to be affected by the legacy we leave them: whether, for example, they ever have the opportunity to experience clear skies and equatorial forests. Therefore, even if we are committed to account for their interests in principle, we cannot simply rely on our best possible projection of what those interests shall be. The wants of future persons is not some independent fact beyond our influence, like the distance to the moon.

STONE, supra note 14 at 87 (1987).

41. See, e.g., Jon Elster, Sour Grapes - Utilitarianism and the Genesis of Wants, in UTILITARIANISM AND BEYOND 219 (Amartya Sen and Bernard Williams, eds., 1982); Cass R. Sunstein, Endogenous Preferences, Environmental Law, 22 J. Legal Stud. 217, 236-237 (1993). It also can be described as "sweet lemon" (the analogue to "sour grapes"). In other words, people stuck with an unpleasant situation may rationalize their predicament by perceiving the situation as, in fact, pleasant. This may not just be a brave front, but in fact the actual perception of the situation by the individual.


43. This observation could be used to justify environmental degradation. Indeed one could argue that a possible social goal would be to shape the preferences of the future to accept what we would now judge to be unacceptable conditions. Cf. Martin H. Krieger, What's Wrong with Plastic Trees, 179 SCIENCE 446 (1973). Arguments relying on claims of adaptive preference can also have pernicious effects that justify the treatment of persons in less preferred conditions in society. See AMARTYA SEN, INEQUALITY REEXAMINED (1992).
held by future generations that result in "obligations" imposed on the present generation. Applying the language of "right," "claim," or "duty," some have posited a variety of obligations that the present generation has to future generations.\textsuperscript{44} Traditional utilitarian and deontological ethical theories that have been used to evaluate rights and obligations among existing humans have, however, distinct limitations when applied to evaluate the relationship between present and future humans.

A. A Utilitarian Assessment of the Future

Many Western ethical theories focus on the consequences of actions. In these consequentialist or teleological views, the morality of an action is judged by the effect or outcome produced by that action.\textsuperscript{45} Perhaps the most influential statement of such a consequentialist view is a form of utilitarianism most closely associated with Jeremy Bentham. In the utilitarian view, the morality of a system is judged by its capacity to produce the greatest "good" for the greatest number of people. One of the fundamental issues in utilitarianism is the nature of the "good" that is to be maximized, but for most this "good" consists in the satisfaction of the non-moral preferences of individuals in society.\textsuperscript{46} Utilitarianism thus measures the morality of an action by the extent to which it maximizes the satisfaction of society as a whole. If we are willing to equate this "good" with maximization of wealth, then an economic cost/benefit analysis may be viewed as a technical expression of the moral principle of utilitarianism.\textsuperscript{47} Although few people

\textsuperscript{44} See infra notes 76-84 and accompanying text.

\textsuperscript{45} Although perhaps not "right" based, certain consequentialist or utilitarian views do suggest an imperative that we must act to maximize the good of people. In some sense, a utilitarian view is a logical expression of the duty of beneficence - a moral duty to promote the well-being of others. See infra note 58. In another view, utilitarianism is an expression of the duty or value of autonomy since it measures the morality of an action by the extent to which the individual preferences of members of society are maximized. See infra note 65.

\textsuperscript{46} See, e.g., FRANKENA, supra note 29 at 34.

\textsuperscript{47} Through a cost/benefit analysis, the total costs of a proposed action can be compared with the total benefits where both costs and benefits are expressed in comparable units - present discounted dollar value. Actions, in cost/benefit terms, can be justified only when the overall benefits to society warrant the action regardless of distributional or other concerns that might warrant the action. The ethical basis of cost/benefit analysis in U.S. environmental policy is a matter
would view utilitarianism as a sufficient basis for making moral evaluations, it is clear that utilitarianism, at least as expressed through some form of cost/benefit analysis, is a theme in U.S. environmental policy.

There appear to be no conceptual problems with including the welfare of future humans in a utilitarian calculus. A utilitarian could require that actions maximize the welfare of all humans both existing and future. There are, however, at least two distinct classes of problems that make application of utilitarian principles to future humans problematic.

1. Calculating the Value of Benefits and Burdens in the Future

One class of problems arises from the problem of assigning values to future costs and benefits. In order to evaluate the net utility of a policy, we must be able to compare costs and benefits. This requires that costs and benefits be reduced to a common unit, which for cost/benefit purposes is the present value of a dollar. The costs of pollution control equipment can be measured through use of their price in a market economy. The dollar values of non-market of considerable dispute. See, e.g., Mark Sagoff, The Economy of the Earth: Philosophy, Law, and the Environment (1988); Steven Kelman, Cost-Benefit Analysis - An Ethical Critique, Regulation, January-February, 1981 at 33. Indeed, whether cost/benefit analysis is an expression of a utilitarian philosophy is open to question. See, e.g., Richard A. Posner, Utilitarianism, Economics and Legal Theory, 8 J. Legal Stud. 103 (1979).

48. One is forced to wonder about the moral values of politicians who would require justification of environmental regulations in cost/benefit terms.

49. Expression of environmental values in dollar terms is a problem that generally exists in evaluating the effects of a policy on present humans. This problem is especially acute for non-market goods such as clean air and water or the aesthetic or culture value of environmental preservation. See, e.g., James Salzman, Valuing Ecosystem Services, 24 Ecology L. Q. 887 (1997); Brian R. Binger et al., The Use of Contingent Valuation Methodology in Natural Resource Damage Assessments: Legal Fact and Economic Fiction, 89 Nw. U. L. Rev. 1029 (1995); Frank B. Cross, Natural Resource Damage Valuation, 42 Vand. L. Rev. 269 (1989); Haigh, Harrison & Nichols, supra note 35.

The problem of valuation exists most acutely when the non-market good is human life. A strict utilitarian assessment will require a comparison of the value of a lost human life with the benefits of an action that produced the loss. The need for this comparison has produced a "rich" literature on the estimation of the dollar value of human life. See, e.g., Richard Zeckhauser, Procedures for Valuing Lives, 23 Pub. Pol'y 419 (1975); Lewis A. Kornhauser, The Value of Life, 38 Clev. St. L. Rev. 209 (1990).
goods, such as improved air quality, can be assessed through various methods of contingent valuation.

Both market prices and estimates of non-market value reflect an estimate of the preferences of existing humans by comparing how much they value one item as opposed to others. The problem of expressing these preferences for future humans is, however, different in kind. Existing humans have preferences; future humans do not (or at least not yet).  

Closely related to the problem of identifying the preferences of future generations (expressed as a dollar value) is the problem of estimating the economic cost of the loss of a resource to future generations. For some, a major aspect of intergenerational equity involves actions by the present generation that either deprive future generations of access to a resource or substantially raise the marginal cost of access to a resource. Yet history suggests that we cannot predict the marginal utility of resources one hundred years from now. Little over one hundred years ago petroleum was not a significant resource. Until recently, salt was a scarce commodity that represented significant wealth.

2. Comparing Present and Future Costs and Benefits

Another class of problems arises from the comparison of present costs and benefits to future costs and benefits. If we attempt to maximize the utility experienced by all future humans, we run into the inescapable fact that there are simply more of them then there are of us. Therefore, if we compare the benefits of present consumption enjoyed by the finite class of existing humans with the costs imposed by that consumption on the potentially infinite class of future humans, existing humans lose. Whatever costs, however small, that would be experienced by all future hu-
mans, will overwhelm whatever benefit, however great, to present humans. Even if, as discussed below, we are able to discount the present value of future costs, the discounted value of an infinite cost is still infinite (or at least really, really big). This leads to the conclusion that each generation should sacrifice its present interests, at least beyond consumption to ensure minimal survival, to provide benefits to the future. Since this logic applies equally to each generation, we are led to a world of perpetual denial for the sake of a future that never arrives.

Another problem of comparison arises when we “discount” the value of future costs and benefits. Since the value of receipt of a dollar today is not the same as the right to receive a dollar in 100 years, cost/benefit analysis typically reduces the value of all future costs and benefits to present value. Methods of discounting which, among other things, require use of some discount rate or projected interest rate on current dollars, provide the technical means for comparing present and future dollars in equal terms.

Discounting, however, raises very difficult issues. The general problem of discounting to reflect future environmental harms and benefits has been well described elsewhere. Suffice it to say that discounting some future benefits (at least those benefits that have some finite duration so that we avoid the problem of infinite benefit) produces a “perverse” preference in favor of present consumption. We enter a paradoxical world where we are discouraged from spending present money to provide a distant discounted benefit.

Discounting of future benefits is perverse and paradoxical since, for example, it can lead to a conclusion that one life

52. Notwithstanding Zeno’s paradox, it is possible to identify a finite value for a converging, but infinite, series, but the problem of the comparing the benefits to a potentially infinite stream of future humans with the benefits to a finite group of existing humans still remains.

53. This argument, however, assumes pure consumption of resources by the present, and ignores the critical distinction between consumption and investment in evaluating our obligations to the future. This distinction is discussed below. See infra notes 67-73 and accompanying text.

saved today is of greater benefit than billions of lives saved hundreds of years from now. For example, with a five percent discount rate, one life today would have the same value as more than 3 billion lives in four hundred fifty years. Therefore, cost-benefit analysis would suggest that those 3 billion lives could be rationally sacrificed if the cost to the present generation exceeded the value of a single existing life.

This also raises the moral question of whether we should discount the value of a future life when comparing it to the value of saving an existing life. The issue of the relationship of the value of a present life to a future life is discussed below.

For these, and certainly other reasons, a utilitarian moral evaluation of our responsibility to the future has problems that are different in kind from those presented by a utilitarian analysis of our obligation to our fellow current humans.

B. Deontological Values and the Rights of the Future

Independent of any utilitarian calculus, there are some values that can be claimed regardless of whether recognition of these values maximizes the good of society as a whole. This class of "deontological" theories (from the Greek "deontos" or duty) attempts to identify fundamental ethical values. A deontological basis has been asserted for such values as beneficence (an affirmative obligation to take steps to promote the welfare of others), nonmaleficence (a negative obligation to avoid inflicting harm on others), the autonomy of individuals, truth telling, promise keeping and, in some forms of deontological analysis, fairness or justice.


56. PARFIT, REASONS AND PERSONS, supra note 24 at 482 (exploring arguments for discounting one billion deaths in four hundred years).

57. See infra notes 59-64 and accompanying text.
1. Beneficence: An Obligation to Improve the Future

Do we have a duty of “beneficence” to future generations? The concept of beneficence implies an affirmative obligation to promote the well-being of others. Although U.S. environmental policy clearly supports regulation of conduct that would adversely affect others (non-maleficence), it is more problematic as to whether we recognize an affirmative duty on society to improve the well-being of others.

Given our limited understanding of the needs of future generations, recognition of an affirmative moral claim by the future that we “improve” their lot seems problematic. Can we say that we have “improved” the life of future humans if we reduce the level of material wealth that they inherit in order to preserve environmental options? Did European invaders fail in a duty of beneficence by drastically altering the North American environment? However problematic in application, many might acknowledge a moral duty to ensure that our descendants have a “better” life than we have.

2. Avoiding the Infliction of Harm on the Future

One central value in Western ethical thought has been the obligation to avoid inflicting harm on others. This has been described as a duty of “non-maleficence.” Such a value is reflected in a persistent issue in environmental ethics - the morality of inflicting physical harm, or at least the statistical likelihood of physical harm, on some present humans for the benefit of other present humans. Although U.S. environmental policy may be somewhat incoherent in its implementation of the concept of “non-maleficence,” our policy at least honors both the abstract concepts that harming others is wrong and that all humans have equal

58. See, FRANKENA, supra note 29 at 45-48 (describing beneficence as the obligation to do good and prevent harm); TOM L. BEAUCHAMP AND JAMES F. CHILDRESS, PRINCIPLES OF BIOMEDICAL ETHICS 260 (1994) (describing beneficence as the moral obligation to act for the benefit of others, and distinguished from non-maleficence which is the duty to avoid harm to others).

59. See, e.g., BEAUCHAMP AND CHILDRESS, Id. at 189-259. This can be seen as contrasting with a duty of “beneficence” that implies an affirmative obligation to promote the good of others. See supra note 58.
value.\textsuperscript{60}

Recognition of a moral duty to avoid harming future humans raises complex questions. Is an action that might harm three humans today morally equivalent to an action that is projected to harm three humans in a hundred years? Is it morally permissible to prefer an action that will avoid harming one human today over an action that will avoid harming three people in the future? In other words, is all human life of equal value regardless of when it exists?

This statement of the issue may elicit a feeling of unease in many people. On the one hand, most people would probably assert that all humans have the same inherent moral worth; the lives of some unknown future humans are no less worthy than the lives of unknown present humans. On the other hand, many people would also feel that the possibility of inflicting physical harm on present humans is somehow more morally blameworthy than the possible infliction of harm on persons who may live hundreds of years in the future.

This apparent conflict can be resolved by the recognition of an unstated premise - estimates of risk to future humans are inherently less certain than estimates of risks to present humans. As discussed above, estimates of the impact of our actions on existing humans are frequently uncertain, but there is an additional, and distinct, element of uncertainty associated with the prediction of the impact of an action on future humans.

That distinctive uncertainty factor arises from the many unknowable intervening events that may occur. How can we compare the risk of cancer to someone today with the risk to someone hundreds of years from now when so many potential variables intervene? Cancer may be cured. Pol-

\textsuperscript{60} Aspirational goals of zero pollution and environmental quality standards that purport to protect against human health and environmental harms, with an ample margin of safety, reflect some concern that harm to others is wrong. See, e.g., Clean Water Act, 33 U.S.C. § 1251(a)(1) (1994)(national goal of elimination of all discharge of pollutants to water); Clean Air Act, 42 U.S.C. § 7409(b)(1)(1994)(primary national ambient air quality standards to be set “requisite to protect the public health” with an ample margin of safety.) The Environmental Justice movement is one expression of both the aspirations and failures of environmental policy to treat all humans equally. See, e.g., 12,898, Exec. Order No. 59 Fed. Reg. 7629 (1994) (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations).
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olution may be contained or eliminated with future technology. Whether or not such events do in fact occur, there is some element of uncertainty in evaluating the impacts on future humans that does not appear in evaluating the impacts on present humans. Such uncertainty could be expressed as a "futurity discount factor" representing the possibility of unanticipated intervening events. 61

Application of such a "futurity discount factor" could reduce our estimates of future adverse effects. Although it is not certain, most intervening events that we can reasonably imagine are likely to mitigate impacts. Such events might include the development of new technology, the switch to alternative resources, or the discovery of new medical treatments. Obviously future panaceas may not occur, but the possibility of their occurrence does justify some discounting of the probability of future impacts. Use of such a "futurity discount factor" would alter the "expected value" of the projected impacts and therefore reduce the present expected impact on future lives.

Use of such a distinctive "futurity discount factor" helps resolve several problems associated with discounting the value of future lives. First, a futurity discount allows us to treat the value of present and future lives as equal, both in moral and financial terms. Application of a futurity discount allows us to rationally account for the likelihood that future deaths will occur from intervening events. Thus, we can justify some discount on the predicted impact on future lives without the moral dissonance that arises if we view discounting as an expression of the unequal value of present and future lives.

Recognition of the unique futurity discount factor also helps resolve certain conceptual problems associated with performing cost/benefit analysis. As discussed above, proper comparison between costs and benefits requires calculation of the present discounted value of future costs and benefits. 62 This discounting of future dollars has some conceptual logic. If you discount the value of one hundred

61. Derek Parfit makes a similar argument in developing a moral justification for discounting of future impacts in his evaluation of a "social discount rate." See PARFIT, IN REASONS AND PERSONS supra note 24 at 480-486.

62. See supra notes 52-57 and accompanying text.
dollars to be received ten years from now, you are essentially stating that if you take the present discounted value and invest it at a specified interest rate, you will actually have one hundred dollars in ten years.\textsuperscript{63}

There is no such conceptual basis for discounting the value of a life lost in the future. One cannot invest one life today to produce additional lives in the future.\textsuperscript{64} Therefore, discounting the value of future lives as an expression of their "present value" makes little sense. Application of a "futurity discount factor," however, allows discounting based on the uncertainty of future events, and therefore may be a more logical basis to justify discounting the impacts on future lives.

3. Limiting the Autonomy of Future Humans

Another key value in western ethical thought is the autonomy of the individual.\textsuperscript{65} The concept of individual autonomy has a variety of meanings, but in one sense (and the way in which it will be used here), it expresses the value of the ability of moral agents to form and express their own individual moral and non-moral judgments. Autonomy in this sense is furthered by policies that increase the ability of persons to make informed decisions and which maximize the opportunity for individuals to realize their chosen values and preferences.

Any choice we make today, however, forecloses some options (and creates others) in the future. Our present ability

\textsuperscript{63} See Farber and Hemmersbaugh, \textit{supra} note 54 at 277.

\textsuperscript{64} Perhaps you can. Hillel N. Jacobson, the student editor of this essay, suggests an argument that would "technically" justify discounting of future lives. As he notes, "Since one person today can expect to have a certain number of descendants, a life today can be expected to produce five lives in a hundred years thus allowing one to discount lives to present value."

\textsuperscript{65} See, e.g., \textit{BEAUCHAMP AND CHILDRESS, supra} note 58 at 120-131. Much of the analysis of ethical systems and judgments can be explained in terms of this core value. In one sense, for example, utilitarianism can be seen as based on the value of individual autonomy if its goal is the maximization, not of some abstract concept of good or pleasure, but the individual and unique expressions of preferences by individuals. (Some forms of utilitarianism would then sacrifice individual autonomy for the greater good of the greatest number.) More specifically, forms of environmental policies that require dissemination of information to the public can be seen as furthering the value of individual autonomy of persons who now have better information on which to base their individual judgments and preferences. \textit{Id.}
to express our preference for a deciduous forest ecology for North America has been substantially limited by the actions of our ancestors. Our ability to express our preferences and the range of options we now have to express our choice with regard to scientific and medical matters has, presumably, been expanded by the actions of our ancestors.

The impact of our present actions on the autonomy of future generations is one of the crucial elements, perhaps the crucial element, of a moral analysis of actions affecting future generations. A focus on autonomy makes the issue of the preferences of future generations particularly important, since an evaluation of the extent to which our present actions foreclose, or expand, meaningful options available to the future depends on an understanding of the options that are significant to them.

4. Distributional Justice and the Future

Different forms or levels of environmental control will produce varying distributions of benefits and harms within existing members of society. To what extent should some be forced to bear potential health impairment as a consequence of the pursuit of profit by others? How much should some person's conception of an aesthetic value of the environment be limited to promote another's view? These concerns raise fundamental ethical issues when phrased in terms of the distribution of benefits and harms to present humans.

The problem of distributional fairness has unique elements when the issue focuses on the distribution of bene-

66. Many commentators have noted the significance of a loss of "choice" for future generations. See, e.g., Weiss, supra note 23 at 40; Brian Barry, Circumstances of Justice and Future Generations, in Obligations to Future Generations, supra note 14 at 204. Indeed, Barry claims that demands of justice in the intergenerational context is largely concerned with issues of choice. He writes:

In the case of justice between generations, equality of opportunity has to be taken in sufficiently broad terms. What justice requires, I suggest, is that the overall range of opportunities open to successor generations should not be narrowed. If some openings are closed off by depletion or other irreversible damage to the environment, others should be created (if necessary at the cost of some sacrifice) to make up.

Id. at 243.

Barry, of course, seems to be focusing more on the quantity than the quality of choices available to the future.
fits and harms between present and future generations. Some present actions truly consume resources for our current benefit. Such actions raise purely distributional questions of our right to receive present benefits at the expense of the future. Other actions, however, can be seen as investments in which one capital resource is converted into another such that the overall “wealth” of society, both present and future, is increased. To return to our example of the European invaders and the North American environment, the exploitation of resources has produced enormous wealth on this continent. All current Americans are receiving some benefits from the past investments made by our ancestors. In the case of “investments,” issues of distributational fairness are far more complex than when evaluating the fairness of pure consumption at the expense of the future.

Assuming that the investment of resources by the present generation creates the potential for future wealth, then perhaps the issue is not the fairness of the allocation of resources. Is it, for example, “unjust” for my parents to sell a family heirloom and invest in stocks that appreciate in value? There may be other bases for criticizing the morality of such an action, but these issues may not be captured by a focus on “distributional justice.” The real issue, once again, may be one of autonomy. Present decisions to reinvest or reallocate existing resources limit the options and alternatives available to the future.

John Rawls, in *A Theory of Justice*, has explored the ethical obligations implicit in this consumption/investment distinction.\(^\text{67}\) In his view, “[e]ach generation must not only preserve the gains of culture and civilization, and maintain intact those just institutions that have been established, but it must also put aside in each period of time a suitable amount of real capital accumulation.”\(^\text{68}\) The extent to which an existing generation should forego consumption in favor of the future is determined by identifying a “just savings rate.”\(^\text{69}\)

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67. *See John Rawls*, supra note 1 at 284-293 (Chapter entitled *The Problem of Justice Between Generations*).
68. *Id.* at 285.
69. *Id.*
Rawls' analysis of a just savings rate is an extension of his general approach to identifying just social institutions. Just institutions are developed pursuant to a hypothetical contractual agreement, or bargaining game, among affected parties. Just institutions are those that would be mutually agreeable to all parties participating in this hypothetical bargaining session. Several predicates must be satisfied to ensure the justice of any proposed institutions. The parties must operate under a "veil of ignorance" as to their status in society. No person would know their relative wealth or personal abilities in the society they are designing. Another critical predicate, that Rawls calls the "difference principle," is that institutions must be designed in such a manner that the expectations of the least advantaged members of society are maximized.

Rawls recognizes several distinct applications of this general approach as it applies to his theory of "justice between generations." He recognizes, for example, that the "veil of ignorance" in this context means that the hypothetical persons who will define the just institutions are not only ignorant of their particular status in society but also ignorant of their position in time. They do not know to which generation they will belong. Additionally, Rawls recognizes that any "just savings rate" will vary depending on the relative wealth of the society. Earlier (and presumably poorer societies) are entitled to a greater level of consumption. Later, wealthier societies must ensure greater savings for the future. Ultimately, however, once some undefined minimum level of wealth and culture is achieved, justice is ensured by practices that provide subsequent generations the same

70. Professor Ackerman has also explored the obligations between generations and describes his own form of "bargaining game" to determine an equitable transfer of gain to future generations. Professor Ackerman's analysis, however, seems to focus on the implications for inequality within a generation that arises from an unfair allocation of inherited wealth. He does, however, suggest that under a "trusteeship" model, the present generation may be limited in its ability to consume, at the expense of future generations, the capital that it received. ACKERMAN, supra note 33 at 201-227.

71. The "veil of ignorance" regarding their unique status in society ensures that the hypothetical participants in the bargaining game will not shape social institutions to satisfy their special situation; it is intended to eliminate bias and self-interest. The veil of ignorance does not, however, apply to generalized knowledge of the world and "whatever general facts affect the choice of the principles of justice." RAWLS, supra note 1 at 136-37.
level of "civilization" without a savings rate that ensures "growth" of the society. One reading of Rawls' view, therefore, is that distributional fairness across generations is to be measured, not by a focus on individual resources, but generally on the preservation of broad institutions and the increase in capital to be transferred to successive generations.

Rawls is hardly blind to the inherent difficulties and limitations of defining "just" obligations between generations, and, in fact, his analysis has deep difficulties as a meaningful guide to identifying environmental obligations between generations. First, by reducing the analysis to development of a "just savings rate," Rawls appears to be defining ethical obligations in terms of wealth or utility. Although his difference principle avoids some criticisms that could be applied to a strict utilitarian analysis, Rawls' approach still seems to ignore other profound values that could be relevant. His analysis, for example, fails to guide us in determining what decisions can be made that limit the ultimate autonomy of future generations to choose between wealth and other environmental values.

Also, his rather terse reference to the fact that the term "savings" applies to general "conditions of civilization" beyond simple wealth is no guide in determining what it means to apply a savings rate to culture. Must we ensure that elements of country music are preserved for the future? Must the perceived cultural advantages of "foot binding" or "female circumcision" be passed as part of an obligation to ensure a "just savings rate" of culture? If, however, any given generation is authorized to reject past cultural and social decisions based on its current moral views, then the concept of an intergenerational bargaining game is called into question since each generation may be free to substitute its judgment for that of the initial hypothetical negotiators. Indeed, a "just savings rate" as applied to cultural and environmental issues may be meaningless. Further, his approach assumes that all generations are

72. Ackerman is sensitive, if not wholly satisfying, in addressing the problem of evaluating and expressing future preferences for "irreplaceable resources." Id. at 212-216.

73. There is probably universal agreement on the need to preserve Hank Williams for future generations. Beyond that, moral intuition fails.
"at the table" in developing just institutions, and each generation is operating under a "veil of ignorance" about their own future conditions. Yet, if anything is clear in the analysis of the ethical relationship among generations, it is that we do not have access to the varying preferences and values that will be and have been expressed throughout time. Rawls' predicate of a "veil of ignorance" has a special and unintended implication in his analysis of justice between generations. We, who are actually engaged in the development of justice institutions through this hypothetical dialogue among affected parties, are in fact operating in ignorance of the preferences of the peoples whose contract we are presumably negotiating.

C. The Futility of Analyzing the Moral Relationship in Terms of Rights and Obligations

Expressions of our moral relationship to the future in terms of rights and obligations have a strong appeal. Identification of the "rights" of future generations expresses the moral equivalence between present and future humans and may serve to place limits on the actions of the present. For several reasons, however, expression of the moral relationship in "rights" terms may be seen as futile.

First, there is no consensus on the class of rights held by the future. As discussed below, a variety of rights have been proposed.74

Second, phrasing the moral relationship in terms of "right" or "obligation" may not help in resolving the most difficult element issue - resolving disputes when there are conflicting "rights" held by present and future generations. Although recognition of a "right" would, for some, raise the priority of a claim based on that right, most recognize that rights are not absolutes. It can be morally appropriate to limit some rights, at least when they conflict with other rights. Dworkin, who in Taking Rights Seriously champions the granting of a priority to rights in disputes among present humans, seems to be saying that identification of a "right" may simply limit the use of utilitarian arguments as a basis for limiting that right.75 Once we enter the realm of

74. See infra notes 76-79 and accompanying text.
75. See DWORKIN, supra note 15 at 191-192. As discussed above, however, a
conflicts among rights, we are left with profound uncertainties as to the manner of their reconciliation.

Third, even if we recognize a moral obligation to the future stemming from principles of beneficence, nonmaleficence, autonomy and fairness, it may not be possible to frame rights or duties that arise from these principles in any manner that can meaningfully guide our present actions. Numerous intergenerational rights and obligations have been proposed, but most have serious limitations as useful tools for deciding moral controversies.

Some, such as Ackerman, conclude that each generation has the obligation to pass on at least as much capital as it received. Others, such as Rawls, conclude that there is an obligation not only to preserve and pass on to future generations a quality of civilization at least equal to what this generation received but also to apply a "just savings principle" such that future generations receive more than previous generations. Many have suggested that the present generation can be viewed as being a "trustee" for future generations. This has led to suggestions to apply legal rules associated with trust law to evaluate the obligations that apply to the present generation. Professor Edith Brown Weiss, relying on a principle of "intergenerational equity," has posited a variety of obligations that the present owes to the future which, among other things, would impose a duty on the present to conserve resources and avoid

utilitarian analysis of our relationship with future generations may be technically and conceptually flawed, and the role of utilitarian arguments in this context is problematic. That said, a rights-based approach could be seen as limiting our ability to assert our welfare as a justification for limiting some defined class of future rights.

76. Stemming from a basis of moral neutrality among generations, Ackerman concludes that a position of "undominated equality" must be ensured among successive generations. This requires, at a minimum, that the each generation have access to at least as much capital as that received by prior generations. See ACKERMAN, supra note 33 at 201-202. His version of a bargaining game focuses on methods for an equitable distribution of accumulations beyond that minimum. Id. at 204-207.

77. See RAWLS supra note 1. Rawls would limit this obligation to ensure greater wealth in future generations once some acceptable level of wealth has been achieved. At that point, he would require only maintenance of that level.

adverse impacts.  

These proposed obligations, however, seem to have little power to guide our current search for answers to moral disputes. Virtually all of these proposed rights and duties focus on some obligation to pass on the quality of the planet and its resources in as "good" a condition as we received it or to ensure "equitable distribution" of resources, or to maintain a "sustainable" environment. As noted above, however, it is difficult to determine which are the critical components of the environment that must be "passed on" to the future. Did early inhabitants of the British Isles have a duty to conserve access to peat bogs? Can we truly project the value that resources, including aesthetic resources, will hold for the future so that we can ensure that they receive their "fair share" of these resources?

If such obligations ignore the quality of life and become merely an obligation to ensure a world in which humans are capable of existing, then surely the obligation has been reduced to triviality. A moral limitation that prevents us from obliterating the possibility of any future human existence has little force in evaluating the real questions that confront us.

Rights that stem from institutions designed to address

79. Edith Brown Weiss, in In Fairness to Future Generations, identifies five "Planetary Obligations" that stem from her principle of Intergenerational Equity. These include duties to 1) conserve resources in order to maintain sufficient diversity to preserve options for the future, 2) ensure equitable access to resources by all generations, 3) avoid adverse impacts from our present actions so that we pass on the planet in as good a condition as we received it, 4) prevent disasters, minimize damage, and provide emergency assistance, and 5) compensate for environmental harm. Weiss, supra note 23 at 47-86.

Professor Weiss, in In Fairness to Future Generations, also includes the text of "GOA Guidelines on Intergenerational Equity" developed by the "Advisory Committee" to the "United Nations University Project on International Law, Common Patrimony and Intergenerational Equity." Id., Appendix A. These Guidelines recite principles of intergenerational equity that mirror concerns for conservation of resources and the obligation to "pass on" our natural and cultural heritage.

80. Professor Epstein, in an essay on Rawls' approach to justice between generations, states that "the debate on equity between the generations focuses too much on duty and too little on practice and incentive." Epstein, supra note 26 at 1466. Perhaps not surprisingly, Professor Epstein concludes that, the present generation's concern for its descendants, reliance on free market mechanisms will best ensure equity to the future.

81. See supra note 34 and accompanying text.
relations among existing humans, such as trust law, also pose significant conceptual difficulties.  

The difficulty with these "obligations" lies not in their moral stature. Our concern for the well-being of future generations may lead us to consider similar factors in assessing the morality of our actions. The problem lies in phrasing these factors as "obligations" stemming from the "rights" of a distant future. This language requires us to view the situation from the perspective (and the preferences) of future generations. This cannot easily be done.

Ultimately, the focus on future rights may be unnecessary since we need not rely on principles based on rights or obligations in order to express properly our concern for future generations. It is possible to identify a group as "worthy" of our moral consideration without ascribing rights to that group. A group, in other words, can be a "moral subject" without being a "moral agent." Some, for

82. It is attractive to think of the relationship of the present generation to the future as analogous to the relationship between a trustee and beneficiary. However, there are critical distinctions in the relationship between trustee and beneficiary, especially in the context of charitable trusts, and the relationship between present and future generations. First, trusts are created by grantors who specify the objectives of the trust. Outside of possible theological arguments, it is difficult to resort to the grantor's intent in resolving conflicts between present and future generations. Further, to the extent that the goal of the trustee is to satisfy the interests of the beneficiary, we are faced, as noted above, with the fact that the preferences and values of the infinite class of future beneficiaries is not be within the understanding of the trustees. Additionally, trust rules that limit self-dealing by the trustee presuppose the very issues with which we are grappling - the moral relationship between the present and future. It is not clear what trust rules can tell us about the extent to which the present generation, the trustee if you will, must sacrifice its present interests to satisfy the interests of future generations.

Finally, the charitable trust as described by Professor Edith Brown Weiss in The Planetary Trust, supra note 78, may have more in common with a legal life estate. Under traditional rules for life estates, the present interest holder has full right of use of property, but must, with certain exceptions, pass on the property to future interest holders in largely the same state in which it was received. A trust model, however, recognizes that the identity of the assets in the trust can be altered by the trustee in the exercise of his or her best judgment. Thus, a trust model says little about the limits on the present generation's ability to alter the environment, if such alteration constitutes an economically beneficial investment to be realized by future generations. In other words, the trust model may not be suitable for evaluating the issue of "autonomy" as it relates to future generations.

83. As discussed below, these concerns are better viewed as expressions of the moral virtue of "benevolence." See infra notes 92-93 and accompanying text.

84. There is also a debate, not to be raised here, as to whether the concept of rights inherently involves reciprocal duties or obligations.
example, are unwilling to ascribe moral rights to non-human animals, and yet those same people would acknowledge some moral responsibility to consider the effect of human actions on those animals. As discussed below, there may be alternative ethical approaches that may capture our concern for the future in more satisfactory ways.

IV. OUR MORAL RELATIONSHIP AS VIRTUE

Rather than focus on the obligations we have to the future, perhaps we should focus on our obligations to ourselves. Another class of moral analysis might be helpful in this regard. The form of moral analysis known as "virtue ethics" evaluates the morality of an action as judged in relation to the moral virtue of the actor. For example, truth-telling can be seen as moral because the act of telling the truth reflects the virtue of the truth-teller independent of the effect of truth-telling on other individuals or society. The focus of virtue ethics actually seems two-fold. First, it focuses on the cultivation of virtue as an end that is valuable in itself. Second, it seems to ensure the adoption of morally acceptable decisions by focusing on the moral qualities of the decision-makers.

Virtue ethics has a long tradition in Western ethical thought. It is, historically, most closely associated with Aristotle in his *Nicomachian Ethics*. There are several important elements of this view of virtue ethics. First, as noted, moral evaluation focuses not on the act and its consequences, but rather on the actor and his or her under-

85. See Frankena, supra note 29 at 63; Beauchamp and Childress, supra note 58 at 62.
86. For example, Beauchamp notes that "[m]ajor writers in the virtue tradition have long held that, to cite an observation of Hume's, 'If a man have a lively sense of honour and virtue, with moderate passions, his conduct will always be conformable to the rules of morality; or if he depart from them, his return will be easy and expeditious.'" Tom L. Beauchamp, Principles and Other Emerging Paradigms in Bioethics, 69 Ind. L.J. 955 (1994)(quoting David Hume, The Skeptic, in Essays 176 (Eugene Miller ed. 1987)).
standing and motives. Second, virtue ethics involves very little emphasis on rules. The determination of virtue resides in an evaluation by the actor of a virtuous "mean" between intemperate extremes. This, of course, leads to a central aspect of virtue ethics. As stated by Aristotle, "virtue . . . is a state of character involving choice . . . . "88 The expression of virtue is the deliberative act of determining the proper course of action. In this view, an important element of virtue is development of the faculty of "practical wisdom" - the capacity, distinct from cleverness or pure exercise of logic, to evaluate and determine proper conduct. 89

Although utilitarian and rights based approaches have dominated Western ethical thought for several hundred years, virtue theory has in the last few decades received renewed attention in both philosophical and legal scholarship. 90 Virtue theory has its own problems when evaluating the moral relationships among existing humans, 91 but, whatever its limitations, it has particular appeal when dealing with the relationship between the present and the future. Virtue theory avoids the need to resolve the "rights" status of distant generations and allows us to evaluate the morality of actions that affect the future by reference to our preferences and values.

88. NICOMACHEAN ETHICS, supra note 87 at Book II.6. 1107a.
89. The term used by Aristotle was phronesis. This concept is critical to the application of virtue theory since it involves the capacity to deliberate on, and arrive at proper conclusions regarding the means and ends of a virtuous life. See HARDIE, supra note 87 at 236. As one writer has stated: "The product of phronesis is action, not understanding. The phronimos is one who simply does the right thing in the given circumstances." Kyron Huigens, Virtue and Inculpation, 108 Harv. L.Rev. 1423, 1455 (1995).
91. Virtue theory raises fundamental questions such as "why seek to lead a virtuous life" and "what are virtues." It has been criticized for failing to result in practical guidance, beyond an appeal to the character of the actor, on how to resolve ethical dilemmas. From a modern perspective, perhaps the most troubling issues involve the relationship between virtue theory and rights. Virtuous people make decisions that can be regarded as morally incorrect and a violation of rights-based claims. See, e.g., David Solomon, Internal Objections to Virtue Ethics in Ethical Theory: Character and Virtue, 428 (Peter A. French, Theodore E. Uehling, Jr., Howard K. Wettstein. Eds. 1988); Pence, supra note 87.
A "virtue theory" approach to future generations would not find expression in a list of future rights but might contain the following elements:

A. An Evaluation of Our Actions that Affect the Future Is Grounded in a Virtue of Benevolence

Our concern for the future expresses a view of the universal value of human life regardless of when it exists. This view can be seen as a reflection of the virtue of benevolence which expresses the rightness of promoting the well-being and quality of life of humanity; the cultivation and expression of this virtue therefore lies at the core of our moral relationship to the future.

One criticism of virtue theory has been that it is self-centered and focuses only on improvement of the virtue and understanding of the actor. But virtue theory clearly contemplates that a proper understanding of virtue includes consideration by the individual of the welfare of others. As Aristotle noted, "The [good man] is related to his friend as to himself (for his friend is another self)." Thus, concern for future generations can easily be incorporated into the conception of benevolence by present humans.

Grounding our moral relationship in terms of benevolence also avoids the need to resolve the contentious issues of the rights status of distant generations. One can recognize the virtue of promoting the well being of others without ascribing rights or duties with respect to those others.

92. The virtue of benevolence has been described by one scholar as "a genus or family of virtues which kindness, generosity, humaneness and compassion are (overlapping) species or forms. All of these virtues, at least in their primary manifestations, involve a direct concern for the happiness and well-being of others - or, as I shall say, for the good of others." JAMES D. WALLACE, VIRTUES AND VICES 128 (1978).

93. NICOMACHEAN ETHICS, supra note 87 at Book IX. 4, 1166a. Indeed, Aristotle clearly placed virtue within the context of politics and viewed the virtuous individual as expressing concern for the political community. See, e.g., NICOMACHEAN ETHICS, Id. at 1.2.1094b. As one writer frames it, "Eudaimonia [essentially the conception of a well-lived life] requires an extended concern for friends and others in the political community because only that sort of concern will lead to a full development of one's capacities and potential as a human being. Political life is genuinely constitutive of the person." Huigens, supra note 89 at 1445.
B. Our Actions Must Be Evaluated in Terms of Our Vision of the Proper Life for the Future

Perhaps the most significant consequence of a focus on virtue theory arises from the recognition that the morality of actions that affect the future must be evaluated based on our current moral values and preferences. What we must strive to achieve are decisions which reflect our best and deepest moral concerns for benevolence to all humanity. Therefore, when we make decisions that affect the future, our evaluation must involve our view of the quality of life we wish to see lived in the future.

This may, in fact, be a more powerful and useful guide to action than an identification of general normative rules based on utilitarian or deontological theories. Contemporary disputes over the morality of our actions would expressly be couched in terms of competing visions for life in the future. The debate itself becomes the expression of moral virtue - virtue as choice. Different people may express their "practical wisdom" in ways that reach differing conclusions about proper conduct. But the debate itself, if phrased as a debate over our view of the well-being for the future, becomes a challenge to exercise and understand the virtue of benevolence.

C. There May Be No Limit, Other Than Our Virtue, on the Choices We Make that Affect the Future

Rights-based ethics stand as an imperfect barrier to interference with the interests of the rights holders. Rights language in connection with future generations produces, as discussed above, a litany of "shall"s and "shall not"s that place limits on present action.

Carried to its furthest expression, virtue ethics, devoid of a complementary rights component, removes all absolute barriers to our choices. No demands or moral obligations

94. Pence states that virtue theorists such as MacIntyre can be read as seeking to abandon rights-based theories in favor of virtue ethics. He is critical of this "eliminatism." Pence, supra note 87 at 253-255. Acceptance of the significance of virtue theory does not inherently require rejection of rights-based theories; it is possible to view the different approaches as complementary. Beauchamp, for example, has stated:

The arguments in defense of virtue ethics are entirely compelling, but giving the
constrain our choice; rights no longer trump our choices. We are free to make "investment" decisions that alter the environment even as they provide other forms of wealth to our descendants. We are free to consume existing resources. The autonomy and base of wealth of future generations may ultimately be limited, but they have no reason to fault us.

What constrains us are the moral values of the present, and our vision of the life we choose for the future. Inevitably this means that our current moral and aesthetic preferences are the only relevant factors in the debate. Different societies, at different times will no doubt have different visions of the future, and this will produce different expressions of benevolence. The moral obligation is to ensure that the actions of present humans properly represent an expression of our best moral character. There can be no correct answer to the extent to which we must sacrifice for the future; there can only be the correct answer of how our current vision of benevolence to all humanity compels us to sacrifice.

D. Virtue Theory Leaves a Legacy of Virtue.

Reliance on an appeal to benevolence to promote the interests of the future leaves a legacy that is greater than the protection of the environment. By acknowledging and justifying our actions in terms of virtue, the present generation also leaves a tradition and culture of virtue to our descendants. This may, ultimately, be the greatest contribution to the unknown stream of humans who will follow us.

V. CONCLUSION: SEARCHING FOR THE METAPHOR

Although most people recognize that it is ethically appropriate to consider the impact of our actions on future generations, there is little consensus on the moral basis for our relationship with the future or the proper actions that are virtues a central place in the moral life does not indicate that a virtue-based paradigm should displace or take priority over a principle-based paradigm. The two approaches have different emphases, but they can be mutually reinforcing if one believes that ethical theory is richer and more complete if the virtues are included.

Beauchamp, supra note 86 at 968.
compelled by this concern. Part of the problem may stem from the fact that there is also no consensus on a metaphor that helps us to understand or visualize this relationship. Some have suggested that the present/future relationship is analogous to the parent/child relationship. But the immediacy and closeness of the parent/child relationship makes it an inappropriate metaphor for our concern for distant generations. Others have suggested a “trustee” model for this relationship, in which the present generation acts as a trustee of the earth and future generations are the beneficiaries of this trust. Although appealing as a metaphor, the trustee model may not capture the complexity of the moral relationship.

A focus on present virtue provides a somewhat different metaphor. The image is not of the future speaking to us of their needs, nor of us seeking to identify and satisfy their needs. Rather, the metaphor is of the good person struggling to express his or her vision as a benevolent concern for others. It is a strange, and non-legal, image that at its core relies on a vision of love. Ultimately, it means that the relationship between the present and the future does not derive by what the future demands of us based on their needs, but what we say to the future about our aspirations.

95. See, e.g., M.P. Golding, Obligations to Future Generations, in RESPONSIBILITIES TO FUTURE GENERATIONS, supra note 9 at 63.
96. See supra note 82.