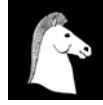




Environment & Society Portal



The White Horse Press

Full citation: Howarth, Richard B. "Intergenerational Justice and the Chain of Obligation." *Environmental Values* 1, no. 2. (1992): 133-140. <http://www.environmentandsociety.org/node/5462>.

Rights: All rights reserved. © The White Horse Press 1992. Except for the quotation of short passages for the purpose of criticism or review, no part of this article may be reprinted or reproduced or utilised in any form or by any electronic, mechanical or other means, including photocopying or recording, or in any information storage or retrieval system, without permission from the publishers. For further information please see <http://www.whpress.co.uk>.

Intergenerational Justice and the Chain of Obligation

RICHARD B. HOWARTH

*Energy and Environment Division
Lawrence Berkeley Laboratory
Berkeley CA 94720, USA*

ABSTRACT: The actions and decisions taken by the present generation will affect not only the welfare but also the composition of future generations. A number of authors have used this fact to bolster the conclusion that the present is only weakly obligated to provide for future welfare since in choosing between futures of poverty and abundance, we are not deciding the welfare of a well-defined group of future persons but instead deciding which set of potential persons – the poor or the rich – will become actual. Provided that future generations have lives that are worth living, they will be grateful to us for bringing them into existence – or so the argument goes. In this paper, I argue that this position overlooks an important aspect of the intergenerational problem. We are obligated to provide for the actual children of today, who will in turn be obligated to provide for their children, and so forth from generation to generation. A chain of obligation is thus defined that stretches from the present into the indefinite future, and unless we ensure conditions favourable to the welfare of future generations, we wrong our existing children in the sense that they will be unable to fulfill their obligation to their children while enjoying a favourable way of life themselves.

KEYWORDS: Intergenerational justice, obligations to future generations.

INTRODUCTION

The growing awareness of the relationship between human and natural systems has led to concerns that the choices and actions of this generation may have profound consequences for the welfare of future generations. The problems of global climate change, the depletion of exhaustible resources, and the destruction of biodiversity, if left unchecked, threaten to produce a world of diminished opportunities for our successors in the distant and perhaps not-so-distant future. These perceptions have led policy makers and the public at large to call for special measures to ensure the sustainability of resource utilization patterns. The

U.S. National Environmental Policy Act of 1969 (cited in MacLean, 1983, pp. 9-10), for example, was premised in part on the nation's commitment to "fulfill the responsibilities of each generation as trustee of the environment for succeeding generations". More recently, the World Commission on Environment and Development (1987, p. 43) called for the adoption of a global environmental policy that "meets the needs of the present without compromising the ability of future generations to meet their own needs".

The altruistic tendencies of the present generation provide one reason to support such positions. We may choose to leave behind a rich rather than poor environment to our descendants simply because it is our desire to do so. But the desires of the present may be too capricious to ensure the welfare of the future. Are there not moral principles that require a just distribution of welfare between generations to which we may appeal? A number of authors (Barry, 1983; Page, 1983; Green, 1981) have answered this question in the affirmative: just as distributional equity requires a fair distribution of resources between members of a particular generation, so it requires a fair distribution between generations in the sense that the life prospects of future individuals should be no worse than our own. Successive generations stand apart only because of the dates at which they are born, and why should one's birthdate determine one's moral worthiness?

This argument fits well with our moral intuition and our deep-seated desire to do well by our children and grandchildren. Nevertheless, it is vulnerable to a powerful critique. The actions of the present generation will determine not only the *welfare* but also the *composition* of future generations. To see that this is the case, consider the following example. In order to conserve scarce petroleum resources for future generations, society eliminates the private automobile and adopts mass transit systems as the prevailing means of transportation; restricts the use of petroleum as an input in industrial activities, including the manufacture of plastics and other synthetic materials; and mandates that indoor temperatures be maintained at no higher than 12.5°C during the winter months. While the impacts of these policies on lifestyles are not extreme, household chores are altered since the ease and convenience of throw-away items are rejected in favor of recyclables; people go to bed earlier in winter to cope with the rigours of their chilly accommodations, and potential parents arrive home from work at different times and in different states of mind than they would under a *laissez faire* policy. As a result of these circumstances, the timing of sexual relations and even mate selection is altered, and different gametes come together to produce different offspring.

In choosing between futures of poverty and abundance, we arguably are not deciding the welfare of a single well-defined set of individuals, but rather choosing which set of *potential* individuals – the poor or the rich – become actual (Parfit, 1983). In either case, the individuals that come to exist will be grateful to us for realizing their existence provided that they have lives that are worth

living. Thus our only duty to the future is to ensure that we do not cause individuals to come into existence who have lives that are worth *not* living, since to do so would cause harm to those individuals (Schwartz, 1978).

In this essay, I argue that this latter argument is unsound and that criteria defining a just distribution of resources between contemporaries may indeed be extended to define standards of just distribution between generations. The basis of my argument is as follows. The children of today are not future contingencies but rather flesh and blood, and justice requires us to provide for their needs and desires. Amongst their needs is the obligation to provide for the welfare of *their* children, who may be contingent today but will be actual to their parents. In creating a world that provides reduced living standards for our descendants fifty or one hundred years into the future, we may not be harming these particular individuals since their identities have yet to be determined. But we are harming our children by compromising their ability to fulfill their moral obligations while maintaining a favourable way of life for themselves. A generalization of this argument, motivated in part by the overlapping generations models from economic theory (see Blanchard and Fisher (1989) for a general discussion and Howarth (1990) for applications to natural resource allocation) shows that the responsibility of one generation to provide for the next defines a *chain of obligation* that extends into the indefinite future. To the extent that principles of justice require equal treatment for contemporaries, they require equal treatment for future generations as well.

A CORN-EATING SOCIETY

I begin by stating the moral premises of my argument:

(P1) Principles of justice require a uniform distribution of resources between contemporaries if each individual would derive similar benefits given equivalent life opportunities.

(P2) It is wrong to place others in a position where they are unable to fulfill their moral obligations to third parties.

To these principles it is convenient to add a third that is useful in the ensuing argument although it is not required to support my conclusions:

(P3) It is wrong to cause individuals to come into existence whose lives are worth *not* living.

Consider the application of these principles in the following hypothetical society. At time zero, two classes of individuals exist: generation 0, a group of morally cognizant adults that subsist on a renewable resource, 'corn'; and generation 1, the infant children of generation 0 who subsist on the 'mother's

milk' provided by their parents and exist in a state of blissful ignorance. With the passing of time, the adults of period t pass on, the infants of period t become the adults of period $t + 1$, and a new generation of infants comes into being. The individuals of each generation are identical, and there are no physical or psychological distinctions between the individuals born at different dates. For simplicity, I shall assume that the population is constant over time. The rate of reproduction is thus fixed regardless of the circumstances faced by each successive generation.¹

The mother's milk that is consumed by infants engenders no costs to parents, so infants may consume it to their hearts' content. Corn, however, is a scarce good. Let S_t be the stock of corn available at time t and c_t be the corn consumption of the adults alive at that time, divided equally between them. The residual that is not consumed is planted in the ground and left to grow at the positive rate n per period for the use of the next generation of adults. The stock of corn at date $t + 1$ is thus:

$$S_{t+1} = (1 + n)(S_t - c_t) \quad (1)$$

Since mother's milk is a free good while corn is a scarce commodity, it is reasonable to conclude that each generation's welfare depends strictly on the amount of corn it consumes in adulthood. I shall assume that generation t has a life that is worth living provided that it enjoys a corn consumption level $c_t > \bar{c}$ where \bar{c} might be interpreted as the subsistence consumption level. The initial stock of corn S_0 is large enough that it is feasible to find consumption paths such that each generation has a life that is more than worth living. To be precise, I shall assume that $(1 + n)(S_0 - \bar{c}) > S_0$.

How should generation 0 choose its consumption level in light of these technical constraints and the moral premises I defined above? Suppose for the moment that it accepts premises P1 and P3 but fails to consider the restrictions implied by P2. Clearly, P1 implies that the consumption level c_t must be shared equally amongst the members of generation t , but it has other consequences as well. In particular, the infants of generation $t + 1$ demand moral consideration as the *contemporaries* of the adults of generation t since the two groups differ only in the dates of their birth and in no other morally relevant characteristic. Thus generation 0 must ensure that the corn consumption of its children in adulthood equals its own so that $c_1 = c_0$.

Generations of the more distant future, however, hold different moral status. I shall assume that the identities of the potential individuals that become the actual members of generations $t = 2, 3, \dots$ are determined as they are born at the outset of period $t - 1$ and depend on the actions taken by previous generations. From the perspective of generation 0, the individuals that constitute generations $t = 2, 3, \dots$ are not contemporaries, so premise P1 implies no direct obligation to these individuals. The only requirement, which follows from P3, is that

generation 0 establish conditions that permit for $c_t > \bar{c}$ ($t = 2, 3, \dots$) so that each of the potential individuals that become actual members of generation t – whoever they may be – have lives that are worth living.

According to this line of reasoning, generation 0 chooses the consumption level:

$$c_0 = [(n^2 + n)S_0 - \bar{c}]/(n^2 + 2n) \tag{2}$$

This permits generation 1 to enjoy the consumption level $c_t = c_0$ while passing on enough resources to more distant generations so that $c_t = \bar{c} < c_0$ for $t = 2, 3, \dots$. But could generation 1 in good conscience follow this plan? Bear in mind that generation 1’s offspring, while contingent from the perspective of generation 0, will be real-life contemporaries of the members of generation 1 as they decide upon how much to consume versus how much to pass on to the future. That is, I assume that the children of a given generation are born *before* it commits itself to choosing its consumption level. Hence the principle of justice P1 requires that generation 1 provide its defenceless offspring with consumption opportunities equivalent to its own. Under these conditions, generation 1 is morally bound to choose some consumption level $c_1 < c_0$.

In choosing the consumption level specified by equation (2), generation 0 is confronting its successors with an unsavoury choice: they may either achieve the same consumption standard enjoyed by their parents or else renege on their well-founded obligations to their own offspring. Our intuition instructs us that this is unjust, and it is here that the principle embodied in P2 comes into play: generation 0 must act so as to allow generation 1 to enjoy an equivalent consumption level without violating its own moral commitments to its offspring in generation 2. Thus the consumption level c_0 must be selected so that $c_0 = c_1 = c_2$ and $c_t \geq \bar{c}$ for $t = 3, 4, \dots$. In fact, however, the joint implications of P1 and P2 are even more restrictive. For an intergenerational distribution of resources to be just as defined by these criteria, the corn consumption of each successive generation must be identical.

To see that this is the case, suppose that c^* is the largest consumption level that may be sustained into the indefinite future. In mathematical terms, the assumptions outlined above imply that:

$$c^* = [n/(1 + n)]S_0 \tag{3}$$

so that the stock of corn is constant at the level $S^* = S_0$. Now suppose that generation 0 chooses a consumption level $c_0 > c^*$ and that this consumption level may in principle be sustained for t periods into the future, after which consumption must fall to lower levels. No matter how large t may be, the following argument holds. Generation t may not in good conscience allow $c_{t+1} < c_t$ and must

therefore reduce its own consumption accordingly; generation $t - 1$ is in turn obligated to reduce its consumption and pass on a larger stock of corn to its successors, and so the argument goes all the way back to generation 0.

While principles P1 and P2 do not imply a direct obligation on the part of generation 0 to provide more than subsistence consumption levels to generations of the distant future, they define a chain of obligation mediated by the requirements of justice between contemporaries that mandates our concern for future welfare. We owe it to our children, who will owe it to their children, who will owe it to their children, and so on as far as the mind can see. Thus our responsibility for the distant future follows directly from our obligation to our existing children, not to undifferentiated potential beings whose existence depends on our actions and decisions. The notion of intergenerational obligation is therefore rooted in plausible ethical propositions.

CONCLUSIONS

The intent of this essay is to show that the argument made by Schwartz (1978) that the contingent status of future generations implies that the present generation is under only limited obligations to provide for future welfare is false under reasonably plausible normative and positive assumptions. I by no means presume that the simple argument advanced above fully captures the nuances of the problem of intergenerational equity. There is in fact a highly relevant moral distinction to be drawn between parents and their juvenile offspring: while parents generally may not demand sacrifices of their children to sustain improvements in their (the parents') welfare, we all recognize that it is ethically permissible, and indeed virtuous, for altruistic parents to effect voluntary sacrifices so that their children may grow up to live in a better world (Rawls, 1971, pp. 284-93). This fact implies that proposition P1 may be a stronger notion than we need to ensure intergenerational equity. We might as well define as equitable any intertemporal path along which the consumption of successive generations is non-decreasing.

The reader may object to my conclusion that the principles of justice require an equal distribution of resources amongst contemporaries. My response is that, in reality, there are variations in the characteristics of individuals that might justify a non-uniform resource distribution even under strict justice criteria. I have chosen, however, to avoid this interesting but difficult problem by assuming that the members of a particular generation are identical – an approach that allows me to focus squarely on the problem of intergenerational equity, where it is much less plausible to maintain that one generation of individuals *as a class* is less deserving than another.

As Barry (1983) has noted, practical disputes often arise between those who advocate the redistribution of wealth between the poor and the rich of today's

world and those concerned about intergenerational equity as a policy priority. The argument presented above shows that, at root, there is no meaningful distinction to be made between the two classes of issues. If I have approached the problem correctly, the principles of intergenerational justice follow directly from the principle of justice between contemporaries. Thus commitment to intra- and intergenerational justice need not be mutually exclusive. In fact, adherence to one would seem to require adherence to the other if one's views are to be internally consistent.

Finally, a few words about the definition of 'consumption' are in order. In the simple corn-eating society described above, each individual's sense of well-being depends only on the amount of corn she consumes as an adult. In the real world, values are heterogeneous, and we desire not only to consume hard goods but also to listen to Mozart, to walk in the quiet of the woods, and to enjoy good companionship. Thus the corn consumption of the model world is a stand-in for an array of factors, both tangible and intangible, that affect the overall quality of life. My argument, properly understood, is that we are obligated to leave behind a world that is qualitatively as satisfying to our successors as the world left to us by those who came before.

NOTES

This paper is based on chapter 6 of the author's doctoral dissertation (Howarth, 1990), completed in the Energy and Resources Program at the University of California, Berkeley. Richard Norgaard, Bryan Norton, and the reviewers provided insightful comments and suggestions. Any errors or omissions are, of course, the sole responsibility of the author.

¹ An anonymous reviewer suggested that making fertility a matter of choice would introduce interesting complications to the argument. While I believe that similar results could be established under endogenous fertility given appropriate moral premises, I will leave the issue for future investigation.

REFERENCES

- Barry, B. 1983 "Intergenerational Justice in Energy Policy", in *Energy and the Future*, edited by D. MacLean and P. G. Brown, pp. 15-30. Totowa, New Jersey, Rowman and Littlefield.
- Blanchard, O. J. and Fischer, S. 1989 *Lectures on Macroeconomics*. Cambridge, Massachusetts, MIT Press.
- Green, R. M. 1981 "Intergenerational Distributive Justice and Environmental Responsibility", in *Responsibilities to Future Generations*, edited by E. Partridge, pp. 91-101. Buffalo, Prometheus.

- Howarth, R. B. 1990 "Economic Theory, Natural Resources, and Intergenerational Equity". Doctoral dissertation, Energy and Resources Program, University of California, Berkeley.
- MacLean, D. 1983 Introduction in *Energy and the Future*, edited by D. MacLean and P. G. Brown, pp. 1-12. Totowa, New Jersey, Rowman and Littlefield.
- Page, T. 1983 "Intergenerational Justice as Opportunity", in *Energy and the Future*, edited by D. MacLean and P. G. Brown, pp. 38-58. Totowa, New Jersey, Rowman and Littlefield.
- Parfit, D. 1983 "Energy Policy and the Further Future: The Identity Problem", in *Energy and the Future*, edited by D. MacLean and P. G. Brown, pp. 31-7. Totowa, New Jersey, Rowman and Littlefield.
- Rawls, J. 1971 *A Theory of Justice*. Cambridge, Massachusetts, Belknap.
- Schwartz, T. 1978 "Obligations to Posterity", in *Obligations to Future Generations*, edited by R. I. Sikora and B. Barry, pp. 3-13. Philadelphia, Temple University Press.
- World Commission on Environment and Development 1987 *Our Common Future*. Oxford, Oxford University Press.