

Intergenerational Justice

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Problems for a Theory of Intergenerational Justice

Skepticism about intergenerational justice

According to a familiar view, the requirements of justice are the most minimal moral requirements that apply to us. Because unjust actions are harmful to others, duties of justice are the most pressing and urgent of obligations. If we fail to be courageous or charitable, we may have only our conscience to chide us. But when we fail to be just, then those to whom we have been unjust have a well-founded complaint or claim against us. On this familiar view, unjust actions and institutions are those that create victims or “complainants” who have wrongly or unfairly suffered a setback to their interests, whose rights have been violated, and who may be owed compensation.

Those who accept this familiar account of justice may find it difficult to explain how we could possibly have obligations of justice toward members of distant future generations. Suppose we understand “future generations” to include all and only those persons who will exist, but whose lives will not overlap the life of any presently existing person. The people who will be members of these “future generations” do not now exist. Their very existence may crucially depend on the choices of presently existing persons; for example, if we poison our drinking water so that everyone becomes sterile, then they will not exist. It can be argued that their very *identities* depend on our choices, since different people may come to exist depending on what we do now. If a couple decides to have a child this year rather than next, then the child they have will (it is sometimes argued) be a different child from the one they would have had if they had chosen differently. If the child they have is worse off than the child they would have had – even *much* worse off – can she claim to have been harmed by her parents’ choice? How could one be harmed by a choice but for which one would not have existed at all? Call choices that determine *who* will exist “*identity-determining choices*.” It can be argued that many of our important choices are identity-determining choices, and that the identity-determining effects of these choices will expand and increase over time. Eventually none of the same people will exist who would have existed if we had chosen differently. But if

one cannot be harmed by a prior identity-determining choice (a choice but for which one would not have existed at all) then distant future persons cannot be the victims or complainants of present choices.

Considerations like these have led some to conclude that present actions cannot harm the members of future generations and that the issue of "intergenerational justice" does not arise (Schwartz, 1979). It would follow that nothing we can do in the present could possibly be unjust to the people who will exist in the distant future. And there are other difficulties that face any theory of justice between generations. Future persons are in no position to press claims of injustice against us, since they will not exist until we have all died. And what sense could it make to say that non-existent persons could have rights, or that we might owe *compensation* to them? How could non-existent persons *have* anything at all? If they cannot "have" anything, then they surely cannot "have rights." These are difficult questions, but a full theory of intergenerational justice would need to answer them. Pessimism about the prospects for such a theory has led some to conclude that obligations of "justice" simply cannot extend to distant future generations. It would follow that if our present behavior causes human misery in the distant future, this may be unfortunate for members of future generations, but it would not be unjust.

In favor of intergenerational justice

It is easy to see why one might conclude that there can be no question of "justice" between distant generations. But other considerations should motivate us to consider the problem carefully before accepting such an extreme conclusion. In many important respects, our present actions (and omissions) can affect future persons in much the same way that they affect present persons. For example, our choices may make future generations better or worse off in a variety of different ways. It is presently in our power to destroy the earth's great ecosystems, and decrease the rich diversity of species. Our choice to consume (or our failure to conserve) non-renewable resources will make these resources forever inaccessible to future generations who might have used them. Some of the issues of resource depletion are identical to paradigmatic problems of justice and fair allocation of resources, and contemporary theories of justice can be usefully applied to resolve them. It is worth noting that present actions may not only deprive future generations of benefits they might have enjoyed, they may also afflict future generations with problems and disadvantages. For example, if we employ nuclear reactors to generate electricity, then distant future generations will certainly inherit a world that contains hazardous nuclear waste. It is clear that present actions can sometimes determine or at least importantly influence future advantage or disadvantage, suffering or well-being. To most people, this consideration alone suffices to support a strong *prima facie* obligation not to do what will be seriously disadvantageous to future persons.

Skepticism about intergenerational justice is difficult to accept when one considers concrete cases and problems. Our present actions may determine the circumstances of life for future generations, and our choices can deeply influence their lives for better or worse. But if our actions make them worse off, does it make sense to say that we have *harmed* them, or that our actions were *unjust*? Can future

persons be the *victims* of present choices? In some circumstances it seems natural to say that present actions *can* harm people who do not yet exist, and it does not seem at all odd to think of them as the victims of present choices. Joel Feinberg (1986: 154) gives a colorful and persuasive example:

A Wicked Misanthrope desires to blow up a schoolhouse in order to kill or mutilate the pupils. He conceals a bomb in a closet in the kindergarten room and sets a timing device to go off in six years. It goes off on schedule, killing or mutilating dozens of five year old children. It was the evil action of the wicked criminal six years earlier before they were even conceived, that harmed them. It set in train a causal sequence that led directly to the harm.

Of course, we could describe Feinberg's example such that the life of this Wicked Misanthrope would not overlap the lives of those who are harmed by his malicious and unjust action: perhaps planting the time bomb is his last act before death, and he passes away with evil pleasure at the thought of the damage he has caused to the as-yet unconceived victims of his crime. It would be more far-fetched, though not impossible, to make "planting the bomb" an identity-determining choice, so that those who are killed in the blast would not have existed but for the prior actions of Feinberg's Misanthrope. But setting a time bomb of this sort would be a horrible thing to do – obviously people have an obligation not to do things like this. And it seems quite implausible to say that those who suffer in the blast are not "victims" of the Misanthrope's prior action. Any theory that logically implied otherwise would be very strange indeed. Future persons may not be in a position to *press* their claims against presently existing persons, but this does not immediately imply that they have no rights. If a person has a right, then it follows that others have correlative obligations, but it does not follow that the right-holder has the power to force others to respect those obligations. So, from the fact that future persons cannot press claims, it does not immediately follow that they have no rights or that "obligations of justice" do not apply between members of distant generations.

Some people believe that our current actions and policies may constitute the moral equivalent of an intergenerational time bomb. It has sometimes been argued that our reliance on nuclear energy imposes unacceptable risk on future generations, since we cannot guarantee that spent nuclear waste will be safely stored until its radioactivity has declined to safe levels. Similarly, it has been argued that unsustainable exploitation of natural resources, gratuitous damage to the earth's environmental ecosystems, and human-caused decrease in global biodiversity are likely to be much worse for people who will live in the distant (or even the *not so* distant) future, and that these actions are therefore unjust. We have good reason to conclude that the Wicked Misanthrope in Feinberg's example has harmed the children who are injured by his bomb, and that he violated clear moral obligations when he set it. Perhaps the same reasons should lead us to conclude that our own similar actions will be harmful to the members of future generations, and that these activities constitute violations of our obligations to those future persons whose misery will result. If there are such obligations to the members of distant future generations, we should be able to situate those obligations in a theory of

intergenerational justice that will help us to understand their content and weight. A theory of intergenerational justice would be a somewhat general background theory that would explain the justification, nature, and content of our obligations (if any) to future generations. Ideally, one might hope that such a theory would be helpful for policy-makers who hope to articulate social policies that will respond appropriately to the rights and interests of present and future persons.

This brief chapter cannot hope to offer a full theory of intergenerational justice, but will examine several different theories of justice in terms of the resources they offer for such a theory. After considering libertarian and liberal theories, and discussing the problem of intergenerational saving, it will examine several conceptions of "sustainability," and will offer a conception that may be a plausible minimal requirement or first principle of intergenerational justice.

Libertarianism and Intergenerational Justice

Contemporary literature in political philosophy is dominated by two different kinds of theories of justice: *liberal* theories, and *libertarian* theories. It would not be appropriate to identify these as two general theories of justice: each is a family of different conceptions of justice loosely united by some common features. So, for example, while John Rawls is often taken to offer a paradigmatic liberal conception of justice, many avowed liberals have substantial disagreements with the Rawlsian view. The same can be said for libertarian conceptions of justice. In what follows, I will describe general features that distinguish liberal and libertarian conceptions of justice and the first steps one might take in extending these conceptions intergenerationally.

Libertarians hold that political institutions should protect property rights and enforce people's purely negative rights. "Negative rights" include only claims against unprovoked interference, while "positive rights" would include substantive claims to goods, or perhaps to others' assistance in times of need. Libertarians hold that public institutions should enforce negative rights and rectify the injustice that results when negative rights are violated, but that such institutions exceed their rightful authority when they undertake projects designed to promote welfare or advance the public good. According to libertarians, it may be a good thing to improve welfare, insure that people's needs are satisfied, and to protect those who are poor and vulnerable; but these projects are not required by libertarian justice, and libertarians generally hold that it would be unjust to tax those who are better off in order to benefit those who are worse off.

Most libertarian theorists hold that future generations are not directly protected by norms of justice (Nozick, 1974; Gauthier, 1986). That is, most libertarians are *skeptics* about intergenerational justice. Future persons cannot have present property rights, and these theorists argue that it would be unjustified to curtail the liberty of current property-owners merely to promote the welfare of future generations. However, many libertarians acknowledge duties of charity which imply a weighty *imperfect* obligation to respond to the needs of others. Such libertarians might recommend that we have imperfect (therefore unenforceable) obligations to

avoid leaving future generations destitute or deprived. Further, some libertarians have argued that free libertarian markets will in fact promote the interests of future people. And some, like David Gauthier (1986), have even argued that free markets will provide optimally well for the interests of future generations. Gauthier argues that the problem of intergenerational justice simply will not arise, since we can know a priori that well-functioning markets will adequately accommodate the interests of future generations.

How might markets provide benefits for future generations? There are several different theories about how this might take place. First of all, where resources become scarce, markets create an incentive for research and innovation, since those who discover economic substitutes for scarce resources can expect a brisk market for such products. For example, as copper resources dwindle, we might expect increased investment in alternative conductors and in fiber-optic technologies that functionally replace previous use of copper. And markets also provide some incentives to preserve and protect scarce resources, since their value may increase with their scarcity. Defenders of the market often cite reasons like these in defense of the claim that markets will adequately meet future needs. They conclude that there is no good reason for members of the present generation to make sacrifices for the benefit of future generations. Future generations are not specifically protected by norms of libertarian justice, but libertarians comfort us by urging that members of future generations will be well taken care of in any case (Gauthier, 1986; Simon, 1996).

It is indeed possible to describe circumstances in which ownership and free markets are likely to protect resources for the future (Schmidtz, 1994). But there are good reasons for skepticism about the broader empirical claim that libertarian markets will adequately accommodate the needs and interests of future generations in the real world, and even better reasons to doubt that we could know a priori that markets will do this. For it is also possible to describe circumstances in which rational economic agents will deplete and destroy resources, and in which it is economically rational for earlier generations to do what would leave later generations much worse off (Wolf, 1996). We need to look closely at our own economic situation to determine whether or not real-world markets are likely to protect the interests of future generations. The available empirical data are not promising in this regard: while freer markets have brought economic prosperity to some, the number of people who live below the poverty level has steadily increased over time, and there is no good reason to doubt that this unfortunate trend will continue in the foreseeable future. If one thinks that we may have positive obligations to avoid leaving the members of future generations without resources to meet their basic needs (at least when we could do so without excessive cost to ourselves), then one may remain unsatisfied with libertarian accounts of intergenerational justice.

A Liberal Theory of Intergenerational Justice

There are many varieties of non-libertarian liberal theories of justice, and it has sometimes been argued that the term "liberal" is too broad a category to be

meaningful. As I will use the term here, “liberal” theories of justice should be understood to include all theories that have the following properties: (1) like libertarians, liberals take the right to individual liberty seriously, and place a high priority on preventing public institutions from interfering in people’s lives; (2) unlike libertarians, liberals also hold that it is sometimes legitimate for public institutions to undertake positive projects (public roads and schools, for example), and to protect at least a minimal set of positive rights (like the right to education, or to a basic minimum of welfare support). Different liberal theorists offer different kinds of theoretical support for the claim that public institutions should enforce positive rights and pursue some public goods. Some support these claims on roughly utilitarian grounds, while others argue that just institutions are those we would choose as the object of an ideal contract. According to *contractarian* theories, the concept of justice is essentially associated with a companion concept of free and rational agreement: one simple contractarian conception of justice holds that all and only those social arrangements are just that either are or could be the object of a free and rational agreement on the part of all who participate in or are affected by them. Because actual unanimity is usually unachievable, many contractarians argue that just institutions are those that *could be* the object of a free and rational agreement. To use such a theory to examine whether actual institutions are “just,” we would not ask whether those who participate have actually consented to them, but would instead ask whether they could, *hypothetically* consent. For this reason, such theories are often called *hypothetical contractarian conceptions of justice*.

Rawlsian hypothetical contractarianism

John Rawls’s *Theory of Justice* (1971) is an attempt to preserve the core of contractarianism while avoiding difficulties that plague alternative contractarian theories. He argues that the principles of justice are those principles that reasonable persons would accept as fair terms of cooperation among citizens regarded as free and equal persons, and as normal and fully cooperating members of society over a complete life, from one generation to the next. To help understand what such principles would look like, Rawls suggests that we compare the terms of intergenerational social cooperation to the terms of an ideally fair contract that could not be rejected by any reasonable participants. To understand the notion of an “ideally fair contract,” Rawls suggests that we consider what contractual terms we would be willing to agree upon if we were put into a situation in which we were forced to consider the contract from the perspective of the interests of each member of society. Accordingly, he suggests that we consider the principles we would choose from an “original position” from behind a “veil of ignorance” that blinds us from any knowledge of ourselves that would make it possible for us to tailor the agreement arbitrarily to favor ourselves. Rawls argues that parties to such an original position would choose two principles to govern the basic institutions of society: the first principle, which Rawls calls the Equal Liberty Principle, guarantees that each person is to have an equal right to the most extensive total system of basic liberties compatible with a similar system for all. The second principle is in two parts. It stipulates that social and economic inequalities are to be arranged so that they are

both: (1) attached to offices and positions open to all under conditions of fair equality of opportunity, and (2) such inequalities are tolerable only when they work to the greatest benefit of the least advantaged members of society.

Intergenerational choice behind the veil

But what does justice require in the intergenerational case? Rawls is much less specific in what he says about intergenerational justice, and what he does say is confusing. Rawls's veil of ignorance does extend to generational membership, so in considering the original position choice, we should imagine what we would choose if we did not know in which generation, or at what stage of social and economic development, we might live. This insures that the choice will not be partial in favor of earlier generations over later ones or vice versa. In the first edition of *A Theory of Justice* (1971), Rawls wrote:

The parties do not know to which generation they belong or, what comes to the same thing, the stage of civilization of their society. They have no way of telling whether it is poor or relatively wealthy, largely agricultural or already industrialized, and so on. The veil of ignorance is complete in these respects. Thus the persons in the original position are to ask themselves how much they would be willing to save at each stage on the assumption that all other generations are to save at the same rates. That is, they are to consider their willingness to save at any given phase of civilization with the understanding that the rates they propose are to regulate the whole span of accumulation. In effect, then, they must choose a just savings principle that assigns an appropriate rate of accumulation to each level of advance. (Rawls, 1971: 287)

According to Rawls, principles will be intergenerationally fair only if they take into account the interests of people who will live at different times and different stages of human or economic development. But how would rational choosers make such a choice? In his early work, Rawls was not very helpful in giving an account of the motive to choose principles of intergenerational distribution. He stipulated that parties to the original position should understand themselves to be choosing as "heads of households" or as "fathers looking out for the interests of their sons." Concern for later generations was thus a function of the altruistic concern that members of earlier generations were supposed to have for members of later generations. These moves were rightly criticized for sexism and arbitrariness (Barry, 1978; Okin, 1989), and because they leave behind the essential notion that the principles of justice are those that rational and mutually disinterested agents would choose from behind the veil of ignorance.

In more recent work, Rawls has revised his account of the choice of principles for intergenerational justice and saving. While he still regards the appropriate principle of saving as the one that would be chosen from the original position, he has recently argued that parties to the choice should understand themselves to be choosing that principle they would want *earlier* generations to have adopted:

[P]arties [to the Original Position Choice] can be required to agree to a savings principle subject to the further condition that they must want all previous generations to have

followed it. Thus the correct principle is that which the members of any generation (and so all generations) would adopt as the one their generation is to follow and as the principle they would want preceding generations to have followed (and later generations to follow), no matter how far back (or forward) in time. (Rawls, 1993: 274)

This change is an improvement since, appropriately interpreted, it can avoid some of the problems that plagued the original account. Most importantly, it recovers concern for future generations as a function of rational choice from behind a veil of ignorance in the original position. But what intergenerational principles would rational agents choose from behind the veil of ignorance? Rawls claims that the question of intergenerational justice falls under the problem of just saving. Many liberal theorists have followed Rawls in identifying the central question of intergenerational justice as the question of *just saving*: what and how much should present generations save for the benefit of future generations? A theory of just saving would provide a principled answer to this question, and it is to this problem that we now turn.

Intergenerational Justice and Saving

The general problem of intergenerational saving

Exactly what, and how much are we obliged to “save” for the benefit of future generations? When the next generation arrives on the scene, they will have certain resources at their disposal, while other resources will have been irrevocably consumed. If at present we consume much and save little, then future generations may inherit a world unable to meet their needs. But if we save too much, we may needlessly impoverish ourselves for the benefit of our wealthy descendants. The question of *just saving* may be put as follows: at what point (if any) would the rate of saving by earlier generations be so low that it would constitute a violation of obligations to future generations?

It is worth settling a terminological issue right from the start: by “save,” we need not mean consciously setting aside goods or funds for later use by future persons, and “saving” in the relevant sense might not involve anything like using less oil or coal (for example) so that later generations will have it. In the sense relevant here, “saving” applies to whatever resources come to be at the disposal of future persons, whether we consciously set them aside or not. We might “save” in this sense simply because we are unable to consume resources quickly enough to use them all up, and not because we have any concern for the welfare of future persons. And it is sometimes pointed out that conserving oil or coal for the benefit of future generations might be a way of saving less, not more for future generations, since the opportunity costs of conservation may fall on the future as well as the present. It is disputable whether or not adequate “saving” will require policies of conservation and preservation.

It is also worth while to notice that “saving,” in the sense that the term is given here, can be analyzed independently of the institutions used to accomplish it. It might turn out, as some have argued, that free markets will adequately “save,” in this sense, for future generations, and that the best way to save for the future would be to protect property rights and economic liberties. Or it might turn out

that markets will do this badly or unreliably. If so, then we may find it appropriate to put in place alternative institutions aimed at increasing the rate at which resources are conserved for the benefit of future generations.

Is there an obligation to save for future generations? Consider what it would mean to say that there is no such obligation. It would follow that we would wrong no one were we to “use up” the earth’s resources and leave future generations with nothing at all. Even if saving were costless to us, even if our failure to save was the result of needless destruction of resources needed by future generations, we would, on this view, violate no obligations if we were to destroy the resources of the earth and leave future generations no legacy at all. Some people honestly hold this view, but we may hope that they are few. Those who are inclined to reject this view face the problem of identifying some non-zero rate of saving, and arguing that this rate meets minimal obligations to future generations. We can set up the problem of saving without any theory about our obligations to future persons, but the choice of a substantive rate of saving will depend on the nature and strength of our obligations to the future.

Choosing a saving rate

In considering the choice of a saving rate, it is helpful to begin by dividing saving rates into three classes. (1) In the first class, there are saving rates that are “unsustainable” in that they tend toward zero saving in the long run. The “zero” saving rate falls in this class, but there are many other ways to save unsustainably. If we consistently use resources at a rate faster than they are renewed or replaced with substitutes, then we make it certain that future generations will eventually be left with nothing at all. (2) The second class of saving rates are those that involve positive accumulation in that they leave later generations better off than earlier ones. If resources grow over time, or if they can be replaced by better economic substitutes, then it may be possible to increase the size or the value of the total resource set left for future generations. (3) The third category is unlike the other two in that it is unique: while there are many unsustainable rates of saving, and there may be a variety of different rates that will allow positive accumulation (depending on the rate at which resources grow or are replaced), there is only one rate of saving that is simply “sustainable.” We achieve sustainability when we use resources at exactly the same rate at which we either replace them, or develop economic substitutes for them. It is not difficult to see why so many people have regarded “sustainability” as a promising candidate for a principle of just intergenerational saving (Dasgupta, 1974; Barry, 1989). On this principle, earlier generations have an obligation to avoid using resources faster than the rate at which they are replaced or substituted.

Just Saving behind the Veil of Ignorance

Rawlsian saving

What intergenerational saving principles would such parties choose? It is plausible to think that they would avoid choosing an unsustainable rate of saving, since

unsustainable saving and consumption would be worse for members of later generations. If, as Rawls suggests, we should select that saving rate that we would like the previous generations to have adopted, then it might seem natural to conclude that "sustainability" would be a lower bound on the range of saving rates that could rationally be chosen from the original position. Rawls himself specifies a two-stage process in which saving will take place when society is relatively poor but will decline as saving by earlier generations improves the situation of later generations. According to Rawls, saving "may stop once just (or decent) basic institutions have been established. [And] at this point real saving (that is, net additions to real capital) may fall to zero; and existing stock only needs to be maintained, or replaced, and nonrenewable resources carefully husbanded for future use as appropriate" (Rawls, 1999: 107). Thus parties to the original position will choose a principle of intergenerational justice that requires savings at stages when there is too little wealth to secure just basic institutions, but simply maintains existing resources once justice is secure.

Problems with Rawls

One might read Rawls as requiring that earlier generations should save until they reach the relevant minimum level of social wealth – the level necessary for the maintenance of just institutions – and that saving after that point must simply be *sustainable*. But this view faces objections that Rawls fails to consider: importantly, this account of intergenerational saving does not take into account changes in population size. When population size increases over time, earlier generations may continue to save at rates far greater than the sustainable rate, but may never reach the minimum level at which just institutions can be maintained. And once just institutions are in place, increasing population size may mean that mere sustainability would leave later generations unable to meet needs or secure basic justice. In addressing these questions, it will be valuable to consider alternative conceptions of "sustainability," to see whether there is a conception that could fill the relevant role in a theory of intergenerational justice.

Sustainability: Alternative Conceptions

Many accounts of intergenerational justice stipulate that just institutions must be intergenerationally sustainable. What does it mean to say that institutions are "sustainable," or that society is saving resources at a sustainable rate? Surprisingly, there are many different interpretations of this seemingly simple idea. This section will review a series of alternative conceptions of sustainability, and will evaluate them for their suitability as candidates for a principle of just intergenerational saving.

Sustainable endowments

Perhaps the most common conception of sustainability is that of *sustainable endowment*. On this conception, our institutions are sustainable, if and only if we pass on

to the next generation a resource endowment that is equivalent to the one we inherited from the previous generation. But stated in this way, sustainable endowment is ambiguous and may be impossible to satisfy. By *equivalent endowment*, one might mean to require that the same resources must be available to subsequent generations, and in the same quantities we currently possess. Under this interpretation, sustainable endowment will not be satisfied if we leave for future generations a set of depleted oil reserves, but compensate by leaving technological breakthroughs that provide a renewable and non-polluting alternative to oil and gas. It has sometimes been argued that the transitional use of non-renewable resources will be necessary for long-term environmental protection and for the long-term satisfaction of human needs. If so, it would seem strange to adopt a conception of sustainability that would prohibit us from taking the necessary steps to move toward reliance on energy sources that would serve human needs without inflicting such severe environmental damage.

Sustainable productive opportunities

Considerations like these have led some to articulate a different sustainability standard, which might be called *sustainable productive opportunities*. On this conception, advocated by Brian Barry among others, we should strive to leave for future generations productive opportunities that are comparable to those we ourselves inherited from previous generations (Barry, 1989). "Productive opportunities" are stable when it is possible for future generations to produce the same quantities of consumer goods and other types of goods for the benefit of their members. So, on this conception of sustainability, depletion of non-renewable resources will be sustainable as long as we "offset" the cost to future generations with technological advance, so that future generations will not have fewer opportunities than we have enjoyed.

But, like *sustainable endowment*, this conception of intergenerational sustainability has some obvious problems. First, some goods may be "non-tradeable": there may be nothing we can provide for future generations to compensate them for the destruction of the Mississippi delta, or the benefits of a breathable atmosphere. Similarly, there may be nothing we can do that would adequately compensate for the loss of biodiversity due to present human activities. More importantly, the notion that we should leave future generations undiminished opportunities fails to accommodate the fact that later generations may be much more numerous than earlier ones. As human population increases, present production rates may soon be inadequate to meet the needs of a growing population. Where population is growing, stable productive opportunities may leave all members of later generations worse off than their predecessors. Surely it will seem strange to regard such steady decline as "sustainable" in any normative sense.

Sustainable welfare: two conceptions

One might draw a moral from the objections raised concerning the previous conceptions of sustainability: perhaps we should focus on human well-being instead of

focus on resources or opportunities. Accordingly, we might consider a *stable welfare* conception of sustainability attractive. Such a criterion would recognize institutions as "sustainable" when they provide future generations with undiminished welfare as compared with present generations. Something like this conception has been advocated by Robert Solow (1974, 1991), who argues that we should aim to maintain sufficient wealth so that future generations will have the opportunity to achieve the same welfare levels as present generations. There are at least two common interpretations of the stable welfare conception: one recommends that we maintain the current level of *total* welfare; another recommends that we maintain stable *average* welfare.

SUSTAINABLE TOTAL WELFARE

The *total* view is widely assumed by economists and sometimes defended (Ng, 1989; Broome, 1992). According to this view, intergenerational saving is sustainable when it provides the same total welfare to later generations as to earlier ones. To find the welfare total, one would aggregate the welfare of everyone who exists at any given time (or in any given generation) and compare that to the total welfare enjoyed by everyone who exists at another time or generation. Advocates of the total view recognize, of course, that we cannot do this directly. But they would urge that we often have justified beliefs about which actions will tend to increase or decrease total utility. If so, then the total standard can be used even without detailed information about every person's welfare.

The total view has been widely discussed, and is susceptible to many objections. First, the total view will sometimes recommend increasing the rate of population growth as a means to offset the relative misery of some. If people are miserable and deprived, we may respond to their plight with aid, support, and opportunities. But we might respond by increasing the number of happy people through adopting policies that promote fertility. The total view is indifferent between these two alternatives, and some people regard this as a decisive objection to that view. But, second, total welfare may remain stable or increase even when all members of later generations are worse off than those in earlier generations: this would be so, for example, if population were increasing. In particular, sustainable total welfare is consistent with steadily declining average welfare, so it is possible to maintain stable total welfare levels over time even if each member of each subsequent generation is much worse off than each member of any preceding generation (Parfit, 1982). Again, some will regard this as a decisive objection to the total welfare conception of intergenerational sustainability.

SUSTAINABLE AVERAGE WELFARE

Those who reject the total view might be tempted to focus on maintaining stable *average welfare* instead. To find the average welfare, one would first aggregate the (additive) welfare levels of all members of a population, then divide by the number of individuals in the population. The average view will not recommend increasing population, and (unlike the total view) would favor promoting smaller, better-off future populations rather than larger, worse-off ones. Many people find the implica-

tions of the average view appealing. But reflection should make it clear that this conception is also extremely difficult to accept. In particular, average welfare can remain stable even if more and more people in each succeeding generation are destitute and starving. This could be the case, for example, where the wealth and consumption of a minority increases over time while the remaining majority languishes in poverty and want. Such increasing poverty and inequality do in fact reflect the actual state of the world, but few people regard this as a good thing. For these reasons, we should not pursue stable average welfare in our efforts to make our institutions sustainable.

Intergenerational Justice and Sustainability

The need for an alternative conception

The previous section considered alternative conceptions of “sustainability,” and arguments against each of them. These arguments were brief, but perhaps they are sufficient to show that we need an alternative conception of sustainability before we can use that concept in a theory of intergenerational justice and saving. A normative conception of “sustainability” cannot simply focus on welfare or resources or opportunities – it must also appropriately accommodate likely changes in population size, and the effects of resource depletion on people’s ability to meet their needs. It may be quite difficult to know how future “welfare” should figure in deliberation about intergenerational saving. Social scientists usually associate welfare with consumption or preference satisfaction, but we cannot easily know what future generations will want to consume, nor can we know what they will prefer. But it would be misleading to overemphasize our present ignorance about what future persons will want. We can more reliably, if fallibly, predict that their basic needs will be similar to our own. It is surely implausible to suggest that we should frame social policy around the possibility that future generations will be so different from ourselves that they will not have similar basic needs. Several alternative conceptions of sustainability fall prey to issues surrounding changes in population size. As shown above, it is possible to maintain stable endowments, productive opportunities, and welfare even where later generations are progressively worse and worse off with respect to the value identified.

These considerations militate in favor of an alternative conception of sustainability which (1) takes need provision (rather than welfare, opportunities, or resources) as a plausible value to be sustained, and which (2) is formulated as a negative principle rather than a positive one. Focusing on what future generations are likely to need may allow us to bypass our uncertainty about what they will want. And formulating a sustainability condition in negative terms makes it possible to accommodate population change. Gro Harlem Brundtland’s famous definition of “sustainable development” incorporates both of these features: she stipulates that sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their needs” (Brundtland et al., 1987: 43). In the spirit of the Brundtland proposal, we might define “sustainability” as follows:

Institutions are *humanly sustainable* if and only if their operation does not leave future generations worse equipped to meet their needs than members of the present generation are to meet their own needs.

A principle requiring that present institutions must be *humanly sustainable* would require that present institutions should not reduce the ability of future generations to meet their needs. There are two different ways to reduce the extent of future unmet needs. One is to see to it that the members of future generations will have the ability to satisfy their needs. Another way is to reduce fertility so that future generations will be smaller, and so that fewer needy people will come into existence. There is empirical evidence that these two aims are causally connected: fertility declines when people's needs are secure.

Human sustainability and intergenerational justice

Is there any reason to regard human sustainability as a requirement – perhaps a minimal requirement – of intergenerational justice? There are several ways in which such a claim might be supported. First, we may note that future generations are vulnerable to our choices, and that it is typically regarded as “unjust” when some people needlessly deprive others of the ability to meet basic needs. The requirement of human sustainability is violated only if we leave future generations worse off than we are ourselves with respect to the satisfaction of needs, so violation of the requirement of human sustainability would make later generations worse off in order to benefit previous better-off generations.

But there is an odd feature of such an argument: it treats “generations” as if they were individual persons. While earlier *generations* may be better (or worse) off than later ones, there may be *members* of these same earlier generations who are much worse off than an average member of the later generation. If the appeal of human sustainability derives from the high priority this principle assigns to the satisfaction of needs, then it is plausible to think that present unmet needs are at least as important, from the moral point of view, as future unmet needs. For these reasons, we might regard it as permissible to address present needs *first* when we face a tragic choice between the needs of present and future generations. This minimal priority for the present is plausible for other reasons as well: we know more about the needs of members of the present generation than about the needs of distant future generations.

A second argument in support of the claim that “human sustainability” is a minimal requirement of intergenerational justice draws on the ideal contractarian tradition in political philosophy: it is arguable that parties to a Rawlsian original position choice that included generation blindness would choose human sustainability as a minimal requirement of intergenerational justice. For alternative principles would increase the risk that parties to the choice would be unable to meet basic needs. Rawls argues that parties to the original position choice will be unwilling to consider principles that raise this downside risk.

Conclusion

This discussion cannot claim to have offered a solution to the problems associated with the development of a theory of intergenerational justice. While I would suggest the principle of human sustainability as a plausible first principle of intergenerational justice, one may have several reservations about it. First, even if we wish to save in such a way that future generations will not be left unable to meet their needs, we may have no clear idea how to accomplish this. We may not know which policies will best protect future needs. Second, meeting needs is indeed a minimal requirement; perhaps, by definition, it is the most minimal requirement one could impose. It may be that we should do much more for future generations than merely to do what we can to see that they will not be unable to meet their needs. A full theory of intergenerational justice would offer a more complete account of our obligations to future generations.

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