

DOING WELL BY OUR CHILDREN

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This essay has been prepared for the 2006 Plenary of the Pontifical Academy of Social Sciences, April 28-May 2. In the first part of the paper (Sections 1-2) I follow the instructions that I received from our President, that I should offer an economist's perspective on reproductive behaviour. In the second part of the paper (Sections 3-4) I raise several ethical puzzles, to none of which do I have a satisfactory answer. I offer them nonetheless so as to elicit reflection on a deep set of problems.

Doing well by our children presupposes that we *have* children. Vanishing youth is a serious problem in what is today called the North. The total fertility rate (TFR) in rich countries (with a population just under 1 billion and enjoying an average income of 30,000 international dollars) is 1.8.¹ In view of the fact that the TFR at which population stabilizes in the long run is about 2.1, birth rates in rich countries are low. One cannot but infer that children are increasingly viewed by couples as being economically too expensive relative to the other good things of life.

Adults in poor countries, in contrast, would appear to deliberate differently and act differently. The TFR in poor countries (with a population of about 2.3 billion and with a per capita income of 2,100 international dollars) is 3.7. In sub-Saharan Africa, where average income is about 1,200 international dollars, the TFR is currently 4.8. Vanishing youth is not a phenomenon of the South.

In Sections 1-2 of this paper I shall use the language of us economists to discuss why 'vanishing youth' is a problem in the North and why it is unknown in the South. In Sections 3-4 I shall risk going beyond the sphere of us economists to raise certain fundamental questions regarding the ideals and goals of reproductive behaviour.

¹ The total fertility rate is the number of live births a woman would expect to have if she were to live through her childbearing years and to bear children at each age in accordance with the prevailing age-specific fertility rates.

1. CHILDREN AS ENDS AND MEANS

Children are both ends and means. The mix of the two motivations for having children depends on cultural mores, societal institutions, and the personal circumstances of parents. One motive for procreation, common to humankind, relates to children as ends in themselves. We are genetically endowed to want and to value them. It has also been said that children are the clearest avenue open to 'self-transcendence'. Viewing children as ends ranges from the desire to have offspring because they are playful and enjoyable, to a desire to obey the dictates of tradition and religion. One such injunction emanates from the cult of the ancestor, which, taking religion to be the act of reproducing the lineage, requires women to bear many children.² The latter motivation has been emphasized by Caldwell and Caldwell (1990) to explain why sub-Saharan Africa has proved to be resistant to fertility reduction.

The problem with the explanation is that, although it does well to account for high fertility rates in sub-Saharan Africa, it doesn't adequately explain why the rates have not responded as much or as fast as might have been expected, to declines in infant mortality. The cult of the ancestor may prescribe reproduction of the lineage, but it doesn't stipulate an invariant fertility rate. Since even in sub-Saharan Africa fertility rates have been below the maximum possible, they should be expected to respond to declines in infant mortality. (Between 1965 and 1987 the infant mortality rate in a number of the poorest countries in sub-Saharan Africa declined from about 200 per 1,000 live births to something like 150 per 1,000 live births). This is a matter I return to below, where I offer one possible explanation for the resistance that the semi-arid regions of sub-Saharan Africa have shown to fertility reduction.

² Writing about West Africa, Fortes (1978: 125-6) says '...a person does not feel he has fulfilled his destiny until he or she not only becomes a parent but has grandchildren...(Parenthood) is also a fulfillment of fundamental kinship, religious and political obligations, and represents a commitment by parents to transmit the cultural heritage of the community...Ancestry, as juridically rather than biologically defined, is the primary criterion...for the allocation of economic, political, and religious status'. Cochrane and Farid (1989) remark that both the urban and rural, the educated and uneducated in sub-Saharan Africa have more, and want more, children than their counterparts do in other regions. Thus, even the younger women there expressed a desire for an average of 2.6 more children than women in the Middle East, 2.8 more than women in North Africa, and 3.6 to 3.7 more than women in Latin America and Asia.

Children don't merely contribute to parental 'utility', they are also *merit* goods. Merit goods protect and promote human interests, they don't merely serve our preferences. Merit goods are therefore worth more than what would be revealed from the choices people make. Human rights constitute a class of merit goods. Rights don't go against preferences, of course; what they do is to reinforce some preferences (e.g., the preference not to be coerced) against the claims of other, less urgent or vital preferences and interests. Religious injunctions concerning reproduction can be interpreted to mean that children are merit goods.

But children are not only an end; they can also be a means to economic betterment. In the extreme, they can be a means to survival. Children offer two such means. First, in agriculture-based rural economies, children are valuable in household production. Among poor households in poor countries, possessing as they do few labour saving devices (electricity, tap water), children are a source of labour for daily chores. Children mind their siblings, graze cattle, collect firewood and potable water. They begin work from as early an age as six. Evidence of this is extensive, although such evidence is, of course, no proof that parents have children in order to obtain additional labour. It could be that couples have large numbers of offspring by mistake and put them to work only because they can't afford to do otherwise. Or it could be that large families are desired as an end in itself, and putting children to work at an early age is the only avenue open for financing that end. These conjectures are hard to substantiate directly. The former is in any case difficult to believe (that large families are a calculation error on the part of parents), since it suggests an inability to learn on the part of parents in a world where they are known to learn in other spheres of activity, such as cultivation. But because the latter is not at variance with any evidence I know, I explore it later.

Second, children provide old-age security for their parents, a most valuable return in poor countries, where capital markets are underdeveloped. This leads to a preference for male offspring if males inherit the bulk of their parents' property (a social norm that isn't worth violating by households on their own) and are expected to look after them in their old age. There is evidence that, broadly speaking, the intergenerational transfer of resources is from children to their parents in societies experiencing high fertility and high mortality rates (read poor countries), but that it is from parents to their children when fertility and mortality rates are low (read rich countries). To put the matter in the language of economists, children in poor countries are at once 'consumption', 'merit', and 'capital' goods, whereas, in rich countries they are only 'consumption' and 'merit' goods.

2. REPRODUCTIVE EXTERNALITIES

Although children substitute for capital assets in poor households in poor regions, child bearing and child rearing are everywhere a paradigm of non-market activities. As with many non-market activities, human reproduction involve *externalities*. By an externality I mean the effects that decisions have on people who have not been party to the decisions. In some case the effects are beneficial (they are known as *positive* externalities); in other cases they are detrimental (*negative* externalities). In the absence of collective action, households underinvest in activities conferring positive externalities and overinvest in activities inflicting negative externalities.

What causes private and social costs and benefits of reproduction to differ? One likely source of the distinction has to do with the finiteness of space. Increased population size implies greater crowding, and households acting on their own would not be expected to take account of crowding externalities when making their own decision. The human epidemiological environment becomes more and more precarious as population densities rise. Crowded centres of population provide a fertile ground for the spread of pathogens; and there are always new strains in the making. Conversely, the spread of infections, such as HIV, would be expected to affect demographic behaviour, although in ways that are not yet obvious.

Large-scale migrations of populations occasioned by crop failure, war, or other disturbances are an obvious form of externality. But by their very nature they are not of the persistent variety. Of those that are persistent, at least four come to mind. Let us study them.

2.1. *Cost-Sharing among Adults*

Fertility behaviour is influenced by the structure of property rights, for instance, rules of inheritance. In his influential analysis of fertility differences between preindustrial seventeenth – and eighteenth-century Northwest Europe, on the one hand, and Asiatic preindustrial societies, on the other, Hajnal (1982) distinguished between ‘nuclear’ and ‘joint’ household systems. He observed that in Northwest Europe marriage normally meant establishing a new household, which implied that the couple had to have, by saving or transfer, sufficient resources to establish and equip the new residence. This requirement in turn led to late ages at marriages. It also meant that parents bore the cost of rearing their children. Indeed, fertility rates in England were a low 4 in 1650-1710, long before modern family planning techniques became available and long before women became

widely literate (Coale, 1969; Wrigley and Schofield, 1981). Hajnal contrasted this with the Asiatic pattern of household formation, which he saw as joint units consisting of more than one couple and their children.

Parental costs of procreation are also lower when the cost of rearing the child is shared among the kinship. In sub-Saharan Africa fosterage within the kinship is a commonplace: children are not raised solely by their parents; the responsibility is more diffuse within the kinship group (Bledsoe, 1990; Caldwell and Caldwell, 1990). Fosterage in the African context is not adoption. It is not intended to, nor does it in fact, break ties between parents and children. The institution affords a form of mutual insurance protection in semi-arid regions. It is possible that, because opportunities for saving are few in the low-productivity agricultural regions of sub-Saharan Africa, fosterage also enables households to smoothen their consumption across time. In parts of West Africa upto half the children have been found to be living with kin at any given time. Nephews and nieces have the same rights of accommodation and support as do biological offspring. There is a sense in which children are seen as a common responsibility. However, the arrangement creates a free-rider problem if the parents' share of the benefits from having children exceeds their share of the costs. From the point of view of parents, taken as a collective, too many children would be produced in these circumstances.

In sub-Saharan Africa, communal land tenure within the lineage social structure has in the past offered further inducement for men to procreate. Moreover, conjugal bonds are frequently weak, so fathers often do not bear the costs of siring children. Anthropologists have observed that the unit of African society is a woman and her children, rather than parents and their children. Frequently there is no common budget for the man and woman. Descent in sub-Saharan Africa is for the most part patrilineal and residence is patrilocal (an exception are the Akan people of Ghana). Patrilineality, weak conjugal bonds, communal land tenure, and a strong kinship support system of children, taken together, have been a broad characteristic of the region (Caldwell and Caldwell, 1990). They are a source of reproductive externalities that stimulate fertility. Admittedly, patrilineality and patrilocality are features of the northern parts of the Indian sub-continent also, but conjugal bonds are substantially greater there. Moreover, because agricultural land is not communally held in India, large family size leads to fragmentation of landholdings. In contrast, large families in sub-Saharan Africa are (or, at least were, until recently) rewarded by a greater share of land belonging to the lineage or clan.

2.2. *Free-Riding on Others' Children*

Cost sharing can take an interesting form in any economy where the State supports people in their old age at least in part by taxing those who are in the labour force. The need on the part of a couple to have children as financial security in old age is not present in that economy, and it means that a couple who have no children are maintained in their old age by other people's children. We have here a free-rider problem of the opposite sign to the one we have just studied: *adults have an incentive to be anti-natalist.*

2.3. *Conformity*

That children are seen as an end in themselves provides another mechanism by which reasoned fertility decisions at the level of every household can lead to an unsatisfactory outcome from the perspectives of all households. The mechanism arises from the possibility that traditional practice is perpetuated by conformity. Procreation in closely-knit communities is not only a private matter, it is influenced by the cultural milieu. Formally speaking, behaviour is conformist if, other things being equal, every household's most desired family size is the greater, the larger is the average family size in the community (Dasgupta, 1993). Whatever the basis of conformism, there would be practices encouraging high fertility rates that no household would unilaterally desire to break. Such practice could well have had a rationale in the past, when mortality rates were high, rural population densities were low, the threat of extermination from outside attack was large, and mobility was restricted. But practices can survive even when their original purposes have disappeared. Thus, as long as all others follow the practice and aim at large family size, no household on its own may wish to deviate from the practice; however, if all other households were to restrict their fertility rates, each would desire to restrict its fertility rate as well. In short, conformism can be a reason for the existence of more than one possible reproductive outcome. It can even be that a community gets stuck at one mode of behaviour even though another mode of behaviour would be better for all.

This doesn't mean that the community in question would be stuck with high fertility rates forever. External events could lead households to 'coordinate' at a low fertility outcome even if they had earlier 'coordinated' at a

high fertility outcome. The external events could, for example, take the form of public exhortations aimed at altering household expectations about one another's behaviour (e.g., reproductive health programmes run by women). This is a case where the community 'tips' from one mode of behaviour to another, even though there has been no underlying change in household attitudes to trigger the change in behaviour.

Cleland and Wilson (1987: 9) have argued that the only plausible way to explain the recent onset of fertility transitions among countries at widely different levels of economic development was an ideational change, '... a psychological shift from, *inter alia*, fatalism to a sense of control of destiny, from passivity to the pursuit of achievement, from a religious, tradition-bound, and parochial view of the world to a more secular, rational, and cosmopolitan one'. The authors may be right that societies have undergone ideational changes, but they are wrong in thinking that ideational change must be invoked to explain recent fertility transitions. The tipping behaviour I have just discussed is not a response to ideational changes. This said, I know of no evidence that is able to discriminate between the two types of explanation.

In addition to being a response to external events, the tipping phenomenon can occur because of changes in the peer group on whose behaviour households base their own behaviour. Inevitably, there are those who experiment, take risks, and refrain from joining the crowd. They subsequently influence others. They are the tradition-breakers, often leading the way. It has been observed that educated women are among the first to make the move toward smaller families. Members of the middle classes can also be the trigger, becoming role models for others.

A possibly even stronger pathway is the influence that newspapers, radio, television, and now the internet exert in transmitting information about other lifestyles (Freedman, 1995; Bongaarts and Watkins, 1996). The analytical point here is that the media may be a vehicle through which conformism increasingly becomes based on the behaviour of a wider population than the local community: the peer group widens. Such pathways can give rise to demographic transitions, in that fertility rates display little to no trend over extended periods, only to cascade downward over a relatively short interval of time.

Theoretically speaking, *conformism can be a reason for pro-natalist attitudes that prevail in the poor regions of the world, but it can equally be a reason for the anti-natalist attitude in contemporary rich countries.*

2.4. *Household Labour Needs and the Local Commons*

The poorest countries are in great part agriculture-based subsistence economies. Much labour is needed even for simple tasks. Moreover, many households lack access to the sources of domestic energy available to households in advanced industrial countries. Nor do they have water on tap. In semi-arid and arid regions water supply is often not even close at hand, nor is fuel-wood nearby when the forests recede. This means that the relative prices of alternative sources of energy and water faced by rural households in poor countries are quite different from those faced by households elsewhere. In addition to cultivating crops, caring for livestock, cooking food and producing simple marketable products, household members may have to spend several hours a day fetching water and collecting fodder and wood. These complementary activities have to be undertaken on a daily basis if households are to survive. Labour productivity is low because both capital and environmental resources are scarce. From an early age, children in poor households in the poorest countries mind their siblings and domestic animals, fetch water, and collect fuel-wood, dung (in the Indian sub-continent), and fodder. Mostly, they do not go to school. Not only are educational facilities in the typical rural school woefully inadequate, but parents need their children's labour. Children between 10 and 15 years have been routinely observed to work at least as many hours as adult males.

The need for many hands can in principle lead to a destructive situation when parents do not have to pay the full price of rearing their children, but share such costs with their community. In recent years, social norms that once regulated local resources have changed. Since time immemorial, rural assets such as village ponds and water holes, threshing grounds, grazing fields, swidden fallows, and local forests and woodlands have been owned communally. As a proportion of total assets, the presence of such assets ranges widely across ecological zones. In India the local commons are most prominent in arid regions, mountain regions, and unirrigated areas; they are least prominent in humid regions and river valleys. There is a rationale for this, based on the human desire to reduce risks. Community ownership and control enabled households in semi-arid regions to pool their risks. An almost immediate empirical corollary is that income inequalities are less where common-property resources are more prominent. Aggregate income is a different matter though, and the arid and mountain regions and unirrigated areas are the poorest. As would be expected, dependence on com-

non-property resources even within dry regions declines with increasing wealth across households.

A number of studies have shown that many communities have traditionally protected their local commons from overexploitation by relying on social norms, by imposing fines for deviant behaviour, and by other means. But social norms are endangered also by civil strife and by the usurpation of resources by landowners or the state. Moreover, resource-allocation rules practiced at the local level have frequently been overturned by central fiat. A number of states in the Sahel imposed rules that in effect destroyed community management practices in the forests. Villages ceased to have authority to enforce sanctions against those who violated locally instituted rules of use. State authority turned the local commons into free-access resources. As social norms degrade, whatever the cause, parents pass some of the costs of children on to the community by overexploiting the commons. This is another instance of a demographic free-rider problem.

The perception of an increase in the net benefits of having children induces households to have too many. It is also true that when households are further impoverished owing to the erosion of the commons, the net cost of children increases. In a study in Nepal it has, for example, been found that increasing environmental scarcity lowered the demand for children, implying that the households in question perceived resource scarcity as raising the cost of children. Apparently, increasing firewood and water scarcity in the villages in the sample did not have a strong enough effect on the relative productivity of child labour to induce higher demand for children, given the effects that work in the opposite direction. Environmental scarcity there acted as a check on population growth.

However, theoretical considerations suggest that, in certain circumstances, increased resource scarcity induces further population growth: as the community's natural resources are depleted, households find themselves needing more 'hands'. No doubt additional hands could be obtained if the adults worked even harder, but in many cultures it would not do for the men to gather fuel-wood and fetch water for household use. No doubt, too, additional hands could be obtained if children at school were withdrawn and put to work. But, as we have seen, mostly the children do not go to school anyway. In short, when all other sources of additional labour become too costly, more children are produced, thus further damaging the local resource base and, in turn, providing the household with an incentive to enlarge yet more. This does not necessarily mean that the fertility rate

will increase. If the infant mortality rate were to decline, there would be no need for more births in order for a household to acquire more hands. However, along this pathway poverty, household size, and environmental degradation could reinforce one another in an escalating spiral. By the time some countervailing set of factors diminished the benefits of having further children and, thereby, stopped the spiral, many lives could have suffered by a worsening of poverty. Over time, the spiral would be expected to have political effects, as manifested by battles for scarce resources, for example, among competing ethnic groups. The latter connection deserves greater investigation than it has elicited so far.

To be sure, families with greater access to resources would be in a position to limit their size and propel themselves into still higher income levels. Admittedly, too, people from the poorest of backgrounds have been known to improve their circumstances. Nevertheless, there are forces at work that pull households away from one another in terms of their living standards. Such forces enable extreme poverty to persist despite growth in the well-being for the rest of society.

3. POPULATION ETHICS

Are there ethical problems in reproductive decisions other than externalities? It could be argued that there are no further problems because parents care about their children, and considerate parents take into account the future welfare of the children they choose to have when deciding on how many children to have and how much to save for them. If they are thoughtful parents, they know in addition that the welfare of the children they will have will depend upon the welfare of the children they in turn will have; that the welfare of the children they in turn will have will depend upon the welfare of the children *they* in turn will have; and so on. There is a recursion along a family line.

But the recursion is built on the desires of those who are alive and on a forecast of the desires of people who will be born. To accept this as the sole basis for population ethics is to accept the view that all ethical thought ought to be based solely on actual desires. There is a voluminous philosophical literature on why that view should be rejected. In the remainder of this essay I shall try show you the kinds of problem that arise when we, as adults, try to weigh our children's welfare with the desirability of having further children.

3.1. *Present and Future People vs. Potential People*

Economists and philosophers distinguish *present* and *future* people from *potential* people. Present people are alive now. Future people aren't alive now, but will be alive in the future. In contrast, potential people are people who will be alive *only if* someone chooses to create them. Demographers refer to present people when informing us, say, that a country's population has passed the one billion mark. They include future people in their reckoning when issuing a forecast that the world's population will be 9.5 billion in 2050, meaning that people can be expected to reproduce in a manner that will lead to 9.5 billion people in 2050. Demographers are, of course, unable to offer us the identities of future people, but they don't need to: future people will be here and will have needs when they are here.

Living people have feelings, aspirations, needs, claims, projects, and a sense of justice. And they have rights. Future people will have feelings, aspirations, needs, claims, projects, and a sense of justice, once they are here. As they will have claim rights once they are here (most especially, perhaps, on those who were responsible for their births), those claims have to be accommodated now; otherwise future people would be in danger of inheriting a barren Earth. When the economist-mathematician-philosopher Frank Ramsey insisted that discounting future utilities is '... ethically indefensible and arises merely from the weakness of the imagination' (Ramsey, 1928), he was assuming that future numbers are given, that they are not subject to choice. Ramsey's conceptual world contained only present and future people. In contrast, a theory that seeks to accommodate the fact that parents everywhere exercise some choice over the number of children to have, must presume that future numbers of people, at least upto a point, are a matter of choice. That is why such theories have to consider potential people; thereby potential lives.

Potential people are not present or future people, any more than clay by the banks of a river is pottery. It is hard to know what it even means to say that potential people have rights or claims. Notice that when we revere the memory of deceased persons, it is to persons, now deceased, that we show reverence. When we debate at what stage in the development of a foetus we ought to regard it as a person, we recognize that there is something akin to a discontinuity in the process of each person's creation. The debate no doubt shows the notion to be fuzzy, but this doesn't mean the notion is spurious, nor that it depends upon mere convention. Many regard it as sacrosanct that the moment of conception is that discontinuity. Others regard

the point to be later. Social choice, backed by formal legislation, dictates how in fact we resolve the issue of at what point of development a person is created. This only means that we think there is something to resolve; it doesn't mean that the resolution is right. But in thinking that there is a discontinuity, we admit room for the idea that a person's life has sanctity.

3.2. *Two Examples*

Consider the following problem (taken from Parfit, 1982). A woman suffers from a medical condition. There is a large chance that, if she were to conceive now, the child would suffer from a disability, but would otherwise enjoy a good life. However, a minor medical treatment would cure the woman within a month. Once cured, any child she bears will be free of the disability and enjoy a life of high quality. The woman is somewhat impatient to conceive. Ought she to wait a month, or would it be reasonable to conceive now?

One can argue that it is reasonable she conceives now. After all, or so the argument could go, the woman's feelings matter and the child she conceives now can't complain later that she was unfair to him, that she should have waited and undertaken the medical treatment, that he would then have had a better life. The reason he would not have grounds for complaint is that, had she waited, the child she would have conceived wouldn't have been him. Nor, or so the argument may continue, can some unconceived child complain that the woman prevented him from being born by being hasty.

Nonetheless, there is a strong intuition that the woman should wait. And the intuition is built not only on the thought that good lives are an intrinsic good, but also that better lives are intrinsically even better. I invoke this intuition presently.

Consider now another problem. A couple have a newly-born daughter (their only child to date), whose lifetime well-being is firmly expected to be nil unless additional resources are diverted to her needs (e.g., additional health-care and education in her early years). Option A_1 is to make available such resources as will raise her level of lifetime well-being to U^* (>0). Option A_2 is for the couple to create an additional child, with the understanding that sufficient resources will be diverted to this new child to enable him to enjoy lifetime well-being equal to U^* . However, under A_2 the little girl's lifetime well-being will be nil. Assume that in all other respects A_1 and A_2 have the same consequences. What should the couple do?

If, as the Utilitarian philosopher Henry Sidgwick would have it (Sidgwick, 1907), pleasure or agreeable consciousness is the sole good, and if the fact that something good would be the result of one's action is the basic reason for doing anything (the ground of binding reasons), the couple in question should be indifferent between A_1 and A_2 .³ But there are a number of additional considerations the parents can legitimately bring to bear in choosing between A_1 and A_2 : Would they *like* to have another child? Is a single child congruent with their notion of a family? What is the source of the additional resources under the two options? What is their motivation for having children? What about the claims their daughter may have on them? What about her rights as an individual? And so on.

I now consider two reasons why A_1 would be viewed as the right option, other things being equal.

(i) *Obligation to One's Children*

A_1 would be the right option because the couple have an *obligation* toward their daughter, an obligation they don't have toward a potential child. They have an obligation toward their daughter because they were responsible for bringing her into the world. People do not have an obligation to become parents, but they acquire one toward their children if they choose to become parents. Moreover, parents have an obligation toward their offspring that no others have. By the same token, children have a claim on their parents no one else has.

This particular type of obligation, and the responsibility that goes with it, would seem to be acknowledged widely among known cultures. The obligation the couple have toward their daughter also has a wider implication, which is that parents ought to attach a greater weight to the well-being of the children they already have than to the potential well-being of an additional child (one they could choose *not* to have). In the case of the couple, the special claim provides an argument for choosing A_1 over A_2 . The reason does not of course in general settle the matter: Their daughter is their only child; this may be the last opportunity to have another child; one child may not conform to the couple's conception of a

³ I am assuming implicitly at this point that well-being is a measure of agreeable consciousness.

family; and so forth. Such considerations should matter, but not in the case we are hypothesising, because in order to have a sharp problem to analyse, they have been assumed away.

(ii) *Claim Rights of Actual and Future Persons*

Another, not unrelated reason A_1 would be the correct choice has to do with the *claim rights* of the new-born girl. She is a person; it is *her* well-being that is under consideration. She has a right to demand that she be acknowledged; she has a right to be heard. Future people will have such claim rights, of course; a right that has to be respected by present people when latter take decisions. It is potential people who cannot be said to have a corresponding right.

Consider someone who has a miserable life. Her well-being is negative. Her life nevertheless has value. If nothing else, it is *her* life. More generally, the judgment, 'Better if you had not existed than suffer such pain' is different from the judgment, 'Better if a life that would suffer such pain were not created'. Such asymmetry implies that the little girl's claims would lead A_1 to beat A_2 .

This isn't to argue that good lives do not have intrinsic value, it is only to say that actual lives (that is, present and future lives) have a weight that potential lives do not. To say that A_1 is the better alternative is not to say that, other things being equal, having a new child under A_2 isn't a good thing. Good lives are part of the intrinsic good; but, other things being equal, an improvement in the quality of life of the couple's daughter, from zero to U^* , is better still.

One may put the matter more generally:

There are two reasons for benefiting a present or future person. One is that her well-being is *good in itself*. (This was the strong intuition that was referred to in the case of the woman with a medical problem.) The other reason is that it is *good for her*. (I am including in the former indirect effects, such as the well-being others may enjoy from the well-being of a given person.) However, there is only one reason for creating a person, which is that her life would be good in itself. (I am including in this the indirect effects of her conception, such as that the couple would like a child and that their desires count.)

To give an analogy, consider a different sort of problem: choice over product quality. Imagine a commodity possessing a single characteristic, G; and another that possesses an additional characteristic, H. We imagine that

both G and H are desirable characteristics, but that the two commodities are identical in terms of characteristic G. Clearly, we would value both commodities. Presumably though, we would value the latter commodity more, because it possesses an additional, desirable, characteristic, H. If, on the other hand, the first commodity were superior in terms of characteristic G, we would face a trade-off problem. And so forth.

Now return to the problem facing the couple. Suppose they were to subscribe to any ethical theory that (a) regards good lives to be part of the intrinsic good and (b) insists that only present and future people have claims, rights, and interests. The couple could reasonably impute a positive weight to creating lives, even while awarding a lower weight to potential well-being than to the well-being of their little daughter. But such a move would give the couple a reason for choosing A_1 .

4. RATIONAL ENDS

Population ethics has for long been an underdeveloped branch of moral philosophy and welfare economics. That it has remained backward has much to do, I believe, with the insistence on the part of philosophers writing on the subject to ignore the ethical relevance of parental desires, and the related question of what in our own lives gives meaning to us. That my neighbour is not as close to me as are my daughters and son is a genetic fact, but that is not quite the point here. Closer to the mark is the fact that my children provide me with a means of self-transcendence, the widest avenue open to me of living *through* time. Mortality threatens to render the achievements of our life transitory, and this threat is removed by procreation. The ability to leave descendants enables us to invest in projects that will not cease to have value once we are gone, projects that justify life rather than merely serve it. These projects include not only the creation of ideas and artefacts; more pervasively, they include the formation of personal values. Thus the questions, 'what kind of person ought I try to be? what should I value?' do not presume the questioner to own a specific set of talents, abilities, and resources (anyone can, and should, ask such questions); they presume only that they play a role in any reasoned answer.

Procreation is a means of making one's values durable. We imbue our children with values we cherish not merely because we think it is good for them, but also because we desire to see our values survive. It seems to me that our descendants do something supremely important for us here: they

add a certain value to our lives which our mortality would otherwise deprive them of. Alexander Herzen's remark, that human development is a kind of chronological unfairness, since those who live later profit from the labour of their predecessors without paying the same price, and Kant's view, that it is disconcerting that earlier generations should carry their burdens only for the sake of the later ones, and that only the last should have the good fortune to dwell in the completed building, or in other words, that we can do something for posterity but it can do nothing for us (Rawls, 1972: 291), are a reflection of an extreme form of alienation: alienation from one's own life.

This viewpoint, of seeing ourselves as part of a delegation of generations, has roots reaching far back, in many cultures. We act upon this perspective most often with no explicit verbalization to accompany it. We assume parenthood quite naturally; we do not make a big intellectual meal of it. It is the sort of thing we take responsibility for in the normal course of events. Of course, special circumstances may deflect us; we may have more urgent projects and purposes. Here, the fact of a general assumption of parenthood is of importance. An artist may regard his work as far more important than parenting, but he is helped in this by the fact that there will be a next generation to bestow durability to the value of his work. The springs that motivate the general run of humankind to assume parenthood are deep and abiding. The genetic basis of the matter merely explains the existence of this motivation; it does not justify it. Justification has to be sought elsewhere, and any reasonable answer must come allied to the viewpoint that every generation is a trustee of the wide range of capital stocks (be it cultural or moral, manufactured or natural) it has inherited from the past. Looking backward, it acknowledges an implicit contract with the previous generation, of receiving the capital in return for its transmission, modified suitably in the light of changing circumstances and increasing knowledge. Looking forward, it offers an implicit contract to the next generation, of bequeathing its stocks of capital that they in turn may be modified suitably by it and then passed on to the following generation. The idea of intergenerational exchange is embedded in the perspective of eternity. But the intellectual source of such exchange is a far cry from the conception that balked Herzen in his effort to locate mutually beneficial terms of trade.

Recent attempts by social thinkers in Western industrial countries at creating an environmental ethic draw their strength from something like this conception (Schell, 1982). But it does not provide enough of an appa-

ratus to do so. Finally, there is no avoiding the question, 'what should I value?' if we are to see ourselves living through time, rather than in time. It is a mistake to try to justify the protection of the giant redwoods, or the seemingly so trivial a species as the hawksbill turtles, or, more widely, the preservation of ecological diversity, solely on instrumental grounds, on grounds that we know they are useful to us, or may prove useful to our descendants. Such arguments have a role, but they are not sufficient. Nor can the argument rely on the welfare of the members of such species (it does not account for the special role that species preservation plays in the argument), or on the 'rights' of animals. A full justification must base itself as well on how *we* see ourselves, on what kind of people we ought to try to be, on what our rational desires are. In examining our values, and thus our lives, we need to ask if the destruction of an entire species-habitat for some immediate gratification is something we can live with comfortably. The mistake is to see procreation and ecological preservation as matters of personal and political morality. It is at least as much a matter of personal and political ethics.

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