The rate of increase of the world population has accelerated remarkably over the last century. It took the world population millions of years to reach the first billion, then 123 years to get to the second, 33 years to the third, 14 years to the fourth, and 13 years to the fifth billion, with an estimate of the United Nations that the sixth billion will materialize in only 11 years.\footnote{Note by the Secretary-General of the United Nations to the Preparatory Committee for the International Conference on Population and Development, 3d Sess 30, A/CONF.171/PC/5 (United Nations 1994).}

The size of the total population of the entire world when Thomas Robert Malthus wrote his famous \textit{Essay on Population}\footnote{Thomas Robert Malthus, \textit{An Essay on the Principle of Population}, in Anthony Flew, ed, \textit{An Essay on the Principle of Population and a Summary View of the Principle of Population} 59, 109-19 (Penguin 1985).} nearly two hundred years ago (announcing that the world was overpopulated already) was rather smaller than the population \textit{increase} during the last decade alone. Even though Malthus's fears and
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Dire predictions of doom and disaster have not been vindicated—the world has many times more people today, who are many times more opulent than in Malthus's time—it would be foolish to dismiss the concern about the potential for excessive growth of population given the increases that have already occurred and the continued rapid increase that is now occurring.

Concern about overpopulation has led to a variety of reactions, including the pursuit of coercive population control measures in some parts of the developing world (most notably in China, but also elsewhere, including partially in India), and a willingness in many quarters in the West to give favorable consideration to such measures for the so-called “third world.” In this Essay, I will address the implications and acceptability of using coercion to deal with what is sometimes called “the world population problem.”

I should explain, before I proceed further, that in this Essay I do not intend to discuss the moral issues underlying the debate on the acceptability of abortion. The proposals that are encountered in response to the fear of overpopulation do not relate directly to the question of whether a pregnant woman does or does not have permission to have an abortion, but rather to the question of whether control measures forcibly preventing births can be imposed on potential parents. It is, I think, reasonable to contend that if the potential parents, or more specifically the potential mother, were not free to choose abortion (perhaps because of the acceptance of the life claims of the fetus), then the state could hardly be free to force her to have an abortion. The more interesting case is one in which the potential mother is free to have an abortion (perhaps because the fetus is not seen as a person already, or because the matter of deciding whether it is or not is left to the mother herself), and the question is then posed as to whether the state can plausibly force her to have an abortion even when she does not want one. There is, thus, an asymmetry in this respect between the permissibility and the enforceability of abortion: the endorsement of the latter would tend to entail the acceptance of the former, but not the other way around. While I shall not, in this Essay, consider the specific issue of abortion at all—only the general question of coercive birth control—any denial of the acceptability or enforceability of abortion can only add force to the general case against coercion to be presented in this Essay.

Coercive birth control need not, however, involve abortion at all, and can take many different forms, including legislation
about how many children a family is permitted to have (China's "one-child policy," for instance), or a requirement that the mother or the father undergo sterilization at some age or after a certain number of children. The issues to be examined here are specific to the practices and proposals that have actually arisen in the particular context of the population problem, and the consideration of reproductive rights in this Essay is strictly delineated by that context.

A substantial part of this Essay deals with the empirical regularities of the population problem and coercive family planning, because I would argue that these factual matters are central to the acceptability of coercion in reducing fertility rates. In that context, I shall briefly discuss a normative approach, which I have tried to develop elsewhere, that makes these empirical issues quite crucial to judging the force of rights and entitlements in general.3

RIGHTS AND CONSEQUENCES

The rhetoric of rights is omnipresent in contemporary political debates. There is, however, often an ambiguity in these debates about the sense in which "rights" are invoked, in particular whether the reference is to institutionally sanctioned rights that have juridical force, or whether the allusion is to the prescriptive force of normative rights that can precede legal empowerment. The distinction between the two senses is not entirely clear cut, but there is a reasonably clear issue as to whether rights can have intrinsic importance or just instrumental relevance.

That rights can have intrinsic—and possibly prelegal—value has been denied by many political philosophers, especially utilitarians. Jeremy Bentham in particular is on record describing the idea of natural rights as "nonsense," and the concept of "natural and imprescriptible rights" as "nonsense upon stilts,"4 which I take to mean highly mounted nonsense that is made arbitrarily prominent by artificial elevation. Bentham saw rights entirely in instrumental terms and considered their institutional role in


facilitating the pursuit of objectives (including the promotion of aggregate utility). If reproductive rights were to be seen in Benthamite terms, then whether or not coercion is acceptable in this field would turn entirely on its consequences, in particular its utility consequences, and no indigenous importance would attach to the fulfillment or violation of the putative rights themselves.

In contrast, libertarians view these rights as having force of their own, even if their exercise does not promote good consequences. For example, in a theory developed by Robert Nozick in his *Anarchy, State, and Utopia*, a whole class of rights would have complete priority over consequential evaluation. Insofar as reproductive rights are included in this list, they acquire normative priority irrespective of their consequences.

The contrast between the two classes of approach typified respectively by utilitarianism and libertarianism has been much discussed in political philosophy. Ronald Dworkin in particular has used this dichotomy as part of his influential, threefold classification of the foundations of political theories as "goal-based," "right-based," and "duty-based" (adding the third as a further category). The dichotomy between goal-based and right-based systems is sometimes seen as one between: (1) a "consequentialist" system, such as utilitarianism, where the value of any action, regulation, or institution depends ultimately on its utility consequences (and the political status of rights is entirely derivative and instrumental), and (2) a "non-consequentialist" system, like libertarianism of the kind specified by Nozick (where rights have irresistible political force no matter what consequences they have).

I have argued, elsewhere, against the necessity of opting for one or the other approach in this dichotomy, and I have presented arguments for a consequential system that incorporates the fulfillment of rights among other "goals." This system shares with utilitarianism a consequentialist approach (but differs from it in not confining attention to utility consequences only), and it shares with a libertarian system the attachment of intrinsic importance to rights (but differs from it in not giving them complete priority irrespective of other consequences). Such a "goal-

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7 See sources listed in note 3.
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rights system" has many attractive properties as well as versatility and reach.  

I shall not repeat here the arguments in favor of such a goal-rights approach. But in making comparison with utilitarianism, it is hard to believe that it can be adequate to explain our support for rights of various kinds (including those of privacy, autonomy, and liberty) exclusively in terms of their utility consequences. The rights of minorities often have to be preserved against the intrusion of a majority's persecution and the grand gains in utility that the majority may obtain from such persecution. As John Stuart Mill—a great utilitarian himself—noted, there is sometimes "no parity" between utility generated from different activities, such as "the feeling of a person for his own opinion, and the feeling of another who is offended at his holding it." That lack of parity would apply, in the present context, to the importance that a family attaches to the decision about how many children to have compared with the importance that others, including the potentates running the government, may place on what that family should do. In general, the case for seeing intrinsic importance in autonomy and liberty is not easy to escape, and this can easily conflict with no-nonsense maximization of the utility consequences (taking no note of the process of generation of utilities).

It is thus implausible to confine consequential analysis only to utilities, and in particular to exclude the fulfillment and violation of rights related to liberties and autonomies. But it is also not particularly credible to make these rights completely immune—as the libertarian formulation does—to the consequences they have, no matter how terrible they might be. Thus, despite the importance of reproductive rights, if their exercise were to generate disasters such as massive misery and hunger, then we would have to question whether they deserve full protection. In general, the consequences of having and exercising a right must

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8 See generally Amartya Sen, On Ethics and Economics (Blackwell 1987).
10 I have argued elsewhere that this conflict is so pervasive that even a minimal acknowledgement of the priority of liberty can conflict with the most minimal utility-based social principle, namely Pareto optimality. On this, see Amartya Sen, The Impossibility of a Paretian Liberal, 78 J Pol Econ 152 (1970), republished in Amartya Sen, Choice, Welfare and Measurement 285 (Blackwell 1982). See also Amartya Sen, Collective Choice and Social Welfare (North-Holland 1979); Amartya Sen, Liberty and Social Choice, 80 J Phil 5 (1983); Amartya Sen, Minimal Liberty, 59 Economica 139 (1992).
ultimately have some bearing on the overall acceptability of that right.

Broadening our attention from reproductive rights to libertarian rights in general, it can be shown that even gigantic famines actually can take place in an economy that fulfills all the libertarian rights and entitlements specified in the Nozick system.\textsuperscript{11} It is, thus, particularly appropriate that Nozick himself considers making exceptions to consequence-independence in cases where the exercise of certain rights would lead to “catastrophic moral horror[s].”\textsuperscript{12} As a result of this qualification, consequences are made to matter after all. This is indeed a sensible concession that Nozick considers making, but it is contemplated as a somewhat ad hoc provision in his system. In fact, once consequences are brought into the story, not only is the purity of a consequence-independent system lost, but also it becomes relevant, in general, to consider the relative importance of different types of consequences (including the fulfillment and violation of rights and the occurrence of welfare and misery).

The priority that is attached to liberty in John Rawls’s deeply influential theory of “justice as fairness” is substantially less extreme and extensive than it is in Nozick’s system.\textsuperscript{13} The rights that are given priority in this theory have far less coverage than those in the libertarian proposals—and in particular, they do not include property rights in general. But these circumscribed rights—primarily those concerning personal liberty—also have complete precedence, in the Rawlsian theory, over other social concerns, including the fulfillment of economic needs.

The case for Rawls’s form of priority (even though applied to a rather limited class of rights) can also be, I would argue, disputed by demonstrating the force of other considerations, including those related to economic needs. A form of this argument has been forcefully presented by Herbert Hart in particular.\textsuperscript{14} In

\textsuperscript{11} On this, see Amartya Sen, \textit{Poverty and Famines: An Essay on Entitlement and Deprivation} (Oxford 1981) (linking starvation to unequal entitlements, with actual case studies of four famines).

\textsuperscript{12} See Nozick, \textit{Anarchy, State, and Utopia} at 29-30 n * (cited in note 5). See also Nozick’s discussion of “Locke’s proviso,” id at 174-82, and his reexamination of the coverage of rights in his later book, Robert Nozick, \textit{The Examined Life: Philosophical Meditations} 286-96 (Simon & Schuster 1989).


choosing between the violation of personal liberty, on the one hand, and economic penury and starvation, on the other (if that were the choice), we could have reason enough to opt for the former. Rawls himself has indicated that this type of conflict is a serious concern and calls for some reexamination of the usual interpretation of the priority of liberty.\textsuperscript{15}

In contrast with these "lexical" theories, which generate internal tensions, a goal-rights system can accommodate diverse concerns within one integrated and sensitive framework.\textsuperscript{16} Its integrated inclusiveness allows us to attach importance simultaneously (1) to the fulfillment and realization of rights (including reproductive freedom), and also (2) to other consequences of these rights (including welfare consequences). In fact, plural frameworks of this type are often implicitly invoked (even if not always systematically used) in practical debates that pay attention both to the claim of rights and to the relevance of consequences, including welfare consequences.\textsuperscript{17} Indeed, many advocates of coercive family planning see merit in the personal right to decide freely how many children to have; their support for coercion in one form or another has rested on the presumption that, in the absence of such coercion, the consequences of reproductive freedom would be quite disastrous for economic and social viability, and for the sustainability of the quality of life to which people have reason to attach importance. In order to address the advoca-

\begin{footnotesize}
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\item[\textsuperscript{15}]Rawls, \textit{Political Liberalism} 289-371 (cited in note 13).
\item[\textsuperscript{16}]Rawls, \textit{Political Liberalism} 297 (cited in note 13) ("The priority of liberty . . . is not required under all conditions.").
\item[\textsuperscript{17}]It should, however, be clarified that the inclusion of fulfillment and realization of rights \textit{within} a broadly consequentialist framework does not, in itself, respond to principal "deontological" concerns, in particular the case for agent-relative ethical judgments, as presented, for example, by Bernard Williams, \textit{A critique of utilitarianism}, in J.J.C. Smart and Bernard Williams, eds, \textit{Utilitarianism: for and against} 75, 118-29 (Cambridge 1973); Thomas Nagel, \textit{Mortal Questions} 202-13 (Cambridge 1979); Derek Parfit, \textit{Reasons and Persons} 118-27 (Clarendon 1984); Martha C. Nussbaum, \textit{The Fragility of Goodness} 112-21 (Cambridge 1986). The possibility of accommodating agent-relative values turns on the position-relativity of consequential evaluation, as I discuss in Sen, \textit{Rights and Agency} 187 (cited in note 3), and Sen, 82 J Phil 169 (cited in note 3). I shall not go further into this issue in this Essay, though there is a connection here with the ethics of reproductive freedom.
\item[\textsuperscript{17}]Many political observers who are, in general, forceful in their defense of democratic rights of electorates (including majority rule) were ready to accept the overturning of voting results in Algeria on the grounds of likely consequences for the well-being and rights of others under an intolerant, fundamentalist government that would have come to office. The point at issue here is not whether that judgment was correct, but that such judgments are made, combining the valuation of rights as well as other consequences. Many other examples of such "compound" arguments in public debates can be easily given.
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cates of coercion on their own terms then, we must examine the
evidence for these factual presumptions, and see what light is
thrown on this issue by empirical analyses of the social and eco-
nomic factors that influence fertility rates and by critical scrutiny
of the consequences of population growth.

PANIC-BASED REASONING

Governmental interference and forceful population planning
have often been advocated by persons seized by panic at the sight
of—or the thought of—very large numbers of people and over-
come by the reflection that further population growth of any
rapidity cannot but end in disaster. Some have seen the present
process of population growth as a kind of a "bomb": the term
"population bomb" has achieved much currency and use. It is
important to understand the psychology behind this outlook and
the emergency mentality it generates to appreciate why many
people—with much scientific achievement and great general sym-
pathy—nevertheless hastily advocate drastic policies for reducing
fertility rates. A panic can be so strong that there is no patience
to examine the basis of that panic, given what appears to the
alarmed as an obvious calamity in the making.

To consider one influential example, in his widely read book
The Population Bomb, the well known and highly respected
scientist Paul Ehrlich gives eloquent expression to his under-
standing of this "bomb." The book contains many fine pieces of
alarmist writing, which scare the reader by communicating the
writer's genuine panic. Consider, for example, this description of
a taxi ride taken by the author in Delhi:

I have understood the population explosion intellectually for
a long time. I came to understand it emotionally one stink-
ing hot night in Delhi a couple of years ago. . . . The streets
seemed alive with people. People eating, people washing,
people sleeping. People visiting, arguing, and scream-
ing. . . . People, people, people, people. As we moved slowly
through the mob, hand horn squawking, the dust, noise,
heat, and cooking fires gave the scene a hellish aspect.
Would we ever get to our hotel?19

19 Id at 15.
The reader would no doubt be relieved to hear that Professor Ehrlich did make it to the hotel all right. But Ehrlich's pessimism about getting to his hotel is followed by an even deeper pessimism about the future of the world:

The battle to feed all of humanity is over. In the 1970s [he was writing in 1968] the world will undergo famines—hundreds of millions of people are going to starve to death in spite of any crash programs embarked upon now. At this late date nothing can prevent a substantial increase in the world death rate.²⁰

Professor Ehrlich's dire predictions have not come true—in the 1970s or later. Since Ehrlich published this book, the world death rate has not increased, but has fallen by, on average, nearly a third for poorer countries.²¹ Famines have indeed continued to occur in the world, but not quite where Ehrlich expected them. For example, in India, production of food per head is nearly 50 percent higher now than when Ehrlich was writing. Famines have plagued parts of sub-Saharan Africa, regions that have much lower density of population than India or the rest of Asia, but that are battered by political instability, military dictatorships, and public disorder, which have immobilized economic and social development.²² Fear of the "population bomb" sends many people into a state of red alert, and scary writings—some much more extreme than Professor Ehrlich's—continue to flourish, despite the persistent lack of fit between prediction and actuality.²³

Fearing imminent calamities, advocates of this line of thinking call for immediate drastic steps to reduce the world birth rate. These steps often rely upon compulsion. For example, China's success in reducing its fertility rate sharply through

²⁰ Id at xi.
²¹ Between 1970 and 1993, the average annual death rate fell (1) for "low-income countries," from fourteen to ten per thousand; (2) for "lower-middle-income countries," from twelve to eight per thousand; (3) for "upper-middle-income countries," from ten to seven per thousand; and (4) for "high-income countries," from ten to nine per thousand. World Bank, World Development Report 1995: Workers in an Integrating World 212-13 table 26 (Oxford 1995).
coercive procedures such as the "one-child policy" receives respectful and admiring attention in this context. Between 1979, when the "one-child policy" was introduced, and 1991, a mere dozen years later, the fertility rate in China dropped dramatically from 2.8 to 2.0; the current figure is below the fertility rate in the United States. Some see a real lesson here for all developing countries. I shall presently examine whether this reading is correct.

While many advocates of compulsory birth control are not particularly squeamish about recommending coercion in full and frank terms, this advocacy is usually more covert, often accompanied by the assertion that "coercion" is an ambiguous concept. This diagnosis of ambiguity is not mistaken, but that of course is true of many of the most important ethical concepts. The real issue here lies in our ability to distinguish between (1) a big dose of governmental bullying to make people do what they are extremely unwilling to do, and (2) leaving matters to the responsible reflection of the people themselves, helped by the process of economic and social development. The borderline cases do involve ambiguities (for example, the governmental provision of incentives may be hard to distinguish from compulsion), but that does not invalidate the distinction itself. The issue of coercion inevitably involves grey areas, but there are also plenty of black and white quarters to permit reasonably clear contrasts.

CONSEQUENCES OF POPULATION EXPANSION

I turn now to the need for an empirically informed understanding of the nature of the population problem. There are at least four distinct questions here. First, how critical is the population pressure at this time, and what evidence is there that a drastic reduction in the rate of population growth is needed right now, irrespective of human costs? Second, can we expect population growth to slow down and ultimately stop reasonably soon, even in the absence of coercive birth control? Third, how effective would coercive birth control be, and what would be its other consequences? Fourth, what else—other than coercion—can help to reduce the birth rate, and how quickly would it work?

25 For example, Garrett Hardin argues that "the word 'coercion' is not completely transparent" and that there is an "ambiguity" here. Garrett Hardin, Living Within Limits: Ecology, Economics, and Population Taboos 274 (Oxford 1993).
The prospect of overpopulation and its attendant dangers have received a good deal of scholarly attention for a very long time. Although Malthus is typically credited with having provided the pioneering analysis of the possibility for excessive population growth, it had actually been aired previously by Condorcet, the French mathematician and great "enlightenment" thinker, who argued that the continued increase in population might lead to a "continual diminution of happiness." Condorcet presented the core of the scenario that underlies the "Malthusian" analysis of the population problem, warning that "the increase of the number of men surpassing their means of subsistence" could result in "either a continual diminution of happiness and population, a movement truly retrograde, or, at least, a kind of oscillation between good and evil." Malthus loved this analysis of Condorcet, was inspired by it, and quoted it with great approval in his famous "Essay" on population published in 1798. However, the two held fundamentally different views of reproductive behavior. Condorcet anticipated a voluntary reduction in fertility rates and predicted the emergence of new norms of smaller family size based on "the progress of reason." He anticipated a time when people "will know that, if they have a duty towards those who are not yet born, that duty is not to give them existence but to give them happiness." Condorcet believed that this type of reasoning, buttressed by the expansion of education, especially female education (of which Condorcet was one of the earliest and most vocal advocates), would lead people to reduced fertility rates and smaller families, which people would choose voluntarily, "rather than foolishly [choose] to encumber the world with useless and wretched beings." Having identified the problem, Condorcet noted its likely solution.

27 Id.
28 Id.
30 See, for example, his Sur l'Instruction Publique (1791-92), in VII Oeuvres de Condorcet 169 (Didot 1847-49).
31 Condorcet, Sketch at 189 (cited in note 28).
Malthus thought all this most unlikely. In general, he saw little chance of solving social problems through reasoned decisions by the families involved. As far as the effects of population growth are concerned, Malthus was convinced that the world's population would inevitably outrun its food supply, and, in this context, took the limits of food production to be relatively inflexible. And, most relevantly for the topic of this Essay, Malthus was particularly skeptical of voluntary family planning. While he did refer to "moral restraint" as an alternative way of reducing the pressure of population—an alternative, that is, to misery and elevated mortality—he saw little real prospect that such restraint would work voluntarily.

Over the years, Malthus's views varied somewhat on what can be taken to be inevitable, and he was clearly less certain of his earlier prognosis as the years progressed. There is a tendency in modern Malthus scholarship to emphasize the "shift" in his position, and there is indeed ground for distinguishing between the early Malthus and the late Malthus. But his basic distrust of the ability of reason, as opposed to the force of economic compulsion, to make people choose smaller families remained largely unmodified. Indeed, in one of his latest works, published in 1830, four years prior to his death, Malthus insisted that "there is no reason whatever to suppose that anything besides the difficulty of procuring in adequate plenty the necessaries of life should either indispose this greater number of persons to marry early, or disable them from rearing in health the largest families."

It was because of this disbelief in the voluntary route to population reduction that Malthus identified the need for a forced reduction in population growth rates, which he thought would come from the compulsion of nature. The fall in living standards resulting from population growth would not only increase mortality rates dramatically (what Malthus called "positive checks"), but would also force people, through economic penury, to have smaller families. The basic link in this argument is Malthus's conviction—and this is the important point—that the population growth rate cannot be effectively reduced by "anything beside the

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difficulty of procuring in adequate plenty the necessaries of life. Malthus's opposition to the Poor Laws and support for the indigent related to his belief in this causal connection between poverty and low population growth.

The history of the world since the Malthus-Condorcet debate has not given much comfort to Malthus's point of view. Fertility rates have come down sharply with social and economic development. This has happened in Europe and North America, and is currently happening over much of Asia, and to some extent in Latin America. The fertility rates remain the highest and relatively stationary in the least privileged countries—particularly in sub-Saharan Africa—that are not yet experiencing much economic or social development, and that have continued to remain poor as well as backward in terms of basic education, health care, and life expectancy.

The general fall in fertility rates can be explained in rather different ways. The most obvious explanation may lie in the negative association between development and fertility, often summarized by the ungainly slogan: "Development is the best contraceptive." While there is some truth in this rather undifferentiated thought, it fails to distinguish between different components of development, which the West has experienced together, including rise in income per head (economic growth, for short), and expansion of education, greater economic independence of women, reduction of mortality rates, and increased availability of family planning opportunities (all parts of what may be called social development). A causal analysis has to be more discriminating.

Gary Becker has offered an important and influential model of fertility determination. Becker has presented his theory as an "extension" of Malthus's analysis, with which it shares many features, including the tradition of seeing the family as one deci-

34 Malthus, Summary View at 243 (cited in note 33) (emphasis added). Skepticism about the family's ability to make sensible decisions led Malthus and his followers to oppose the public relief of poverty, including the English Poor Laws. On this see William St. Clair, The Godwins and the Shelleys: The biography of a family 455-60 (Norton 1989), and the references cited there.


sion-making unit with no divisions within it. However, Becker has, in fact, negated Malthus's conclusion that prosperity raises population growth, rather than reducing it. In Becker's analysis, the effects of economic development on investment to improve the "quality" of children (such as investment in education) plays an important part in reducing fertility. In contrast with Becker's approach, the social theories of fertility decline tend to focus on the reduction in fertility rates that seem to result from changing preferences caused by social development, such as the expansion of education in general and female education in particular. This is, of course, one of the connections that Condorcet emphasized. However, we have to distinguish between changes in the number of children desired by a family that may occur despite unchanged preferences because of the influence of changing costs and benefits, on the one hand, and shifts in such preferences as a result of social change, such as the modification of acceptable communal norms or greater weighting of the interests of women in the aggregate objectives of the family, on the other.

One line of analysis, forcefully presented at the United Nations International Conference on Population and Development in Cairo in 1994, highlights the importance of the empowerment of women to the development of the decision-making processes of families and the genesis of communal norms. The Conference resolution simultaneously emphasized the importance of women's reproductive rights and the effectiveness of women's empowerment in reducing fertility rates. That empowerment is taken to be positively associated with women's education, job opportunities, and relative economic independence.

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39 The newspaper headlines at the time of the Cairo meeting tended to concentrate on the battles around the issue of abortion as a method of birth control. Abortion was strongly opposed by the representatives of the Vatican and some fundamentalist Muslim governments. A compromise was eventually reached, to which all formally agreed, that neither condemned abortion nor accepted it as "a means of family planning." This was an agreement on slogans rather than on policies, however; the wording of official resolutions
As far as historical data are concerned, given the tendency for these different variables to move together, it is not easy to separate out the effects of economic growth from those of social changes (given what statisticians call “multicolinearity”). I shall pursue this distinction further presently, with the use of cross-section rather than intertemporal comparisons. What is, however, abundantly clear is that some things “besides the difficulty of procuring in adequate plenty the necessaries of life” have made people choose radically smaller families. There is no reason to presume that developing countries with high fertility rates cannot follow other countries which have already reduced their fertility rates through the combined process of economic and social development (a claim that does not depend on which component of that development plays exactly what part). I shall return to this issue later while examining the effectiveness of coercive measures.

POPULATION, FOOD, ENVIRONMENT, AND DISASTERS

There is, therefore, reason for optimism about the future prospects of fertility reduction even without any coercion. But how critical is the situation already? Do we have time to spare? The advocates of intervention and coercion tend to assume that the prospects are not merely worrying, but also disastrous, so they feel that something drastic is called for right now, without waiting for the benign processes of social and economic development to do the trick. Since the social penalty of leaving family planning to the family’s own decisions is taken to be extremely high (through hunger or misery), the “badness” of overriding the family’s autonomy is taken to be outweighed by the greater “goodness” of preventing such a looming calamity.

Emerging from Cairo is less important than the kinds of issues the conference managed to bring to the front. There was also something quite remarkable about the enthusiasm and force with which these issues were presented and debated by the participants, including representatives of women’s groups in addition to official governmental representatives and more traditional nongovernmental organizations (NGOs, as they are typically called). The terms of the debate were pushed forcefully in a particular direction by the Cairo meeting, which was (as Nathan Keyfitz, the distinguished demographer, described it) “a genuine ‘happening’, not a mere bureaucratic routine.” “Because it came,” Keyfitz argues, “at the same time as many other smaller incidents in the awakening of women the time was ripe for it; it fitted into the historic moment.” Nathan Keyfitz, What Happened in Cairo? A View from the Internet, 20 Can J Soc 81, 83-90 (1995).

Malthus, Summary View of the Principle of Population at 243 (cited in note 33).

A case for state intervention in fertility decisions is sometimes derived from a diagnosis of “externalities”: a family’s decision to have one more child could affect the inter-
This is exactly where the strong revival of Malthusian pessimism in recent years plays a crucial role. Even the fear that food supply is about to fall behind the growth of world population has been persistently aired, despite the continual increase in the amount of food per capita in the world as a whole and in the major underdeveloped regions. For example, world food output per head increased by 4 percent or more for the world as a whole in the period between the average of 1979-81 and the average of 1990-92, and it went up by 36 percent in China. Even in India (with its "[p]eople, people, people, people"42) food production moved up by 22 per cent per head.43 It is also worth noting that the persistent increase in world food production per head has occurred despite a sharp decrease in the relative price of food in the international market—approximately 40 percent—over the last few decades, and its concomitant reduction of the economic incentive to produce more food.44

Many different neo-Malthusian concerns have been expressed in the literature, relating to food supply, environmental deterioration, and residential overcrowding, among others, and I...
have tried to assess these concerns elsewhere. While many of the alleged threats involve wild exaggeration (this is especially the case with respect to the fear of food supply running out), some of the concerns are by no means dismissible, particularly worries regarding long-term strains on the global environment, and on some local environments even in the short run.

In order to resist the case for coercion, it is not necessary to dispute these worries and apprehensions, or to dismiss the difficulties that are appropriately anticipated. Instead, we must assess the severity of the problems and how best to deal with them. Given the intrinsic importance of rights, including reproductive freedom, the problems would have to be very severe (and rather unmanageable otherwise) in order to justify coercive intervention in private life and in reproductive decisions. None of the carefully presented scenarios indicates that things are disastrous right now, or that they will become disastrous very soon. Long-term fears do, of course, remain, as do some contemporary problems of the local environment, but none of the diagnoses suggests the usefulness of emergency measures of the kind that advocates of coercion recommend.

The gravity of the long-run population situation depends on how much of a slowdown we can expect in population growth without any coercion. Furthermore, the short-run problems—less intense as they are—can be tackled by less drastic means than the brutality of coercion. The alternative, then, is to seek a less breathless remedy that pays attention to issues of long-run sustainability as well as the exact process through which the reduction in population growth takes place. We have reason to value the autonomy of families and individuals (and the freedom of decision making), as well as the well-being and quality of life in the outcomes.

WOMEN'S AGENCY: A FOUNDATIONAL LINKAGE

One of the most important facts about fertility and family size is that the lives that are most battered by over-frequent

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46 On the local aspect and the importance of ecological balance, see Dasgupta, An Inquiry into Well-Being and Destitution at 269-96 (cited in note 36).
childbirth are those of the women who bear the children. This is especially so in the poorer and less developed economies in the world. It is not only the case that as many as half a million women die every year from entirely preventable maternity-related causes, but also hundreds of millions of women have to lead lives of much drudgery and little freedom because of incessant childbearing and rearing.\textsuperscript{48}

The significance of this aspect of the problem requires us to look beyond the family as the decision-making unit, and to focus on the specific role that women (particularly, young women) play—or are allowed to play—in the making of reproductive decisions. There can be a clash of interests here between male and female members of the family, particularly given their typically asymmetric roles in child care, and the outcomes of family decisions may therefore not be independent of who governs those decisions.\textsuperscript{49} The balance of power within the family is thus an important issue, especially in regard to the decision-making power of young women whose well-being is most directly involved in these decisions.

The routes to the empowerment of women that have received the most attention in the context of fertility decisions involve increasing female literacy and schooling of women. These routes to empowerment receive attention not only because of their intuitive plausibility (Condorcet pointed to this link two hundred years ago), but more specifically because of extensive statistical evidence linking women's education (including literacy) and the lowering of fertility across different countries.\textsuperscript{50} Other factors in

\textsuperscript{48} See Gita Sen and Carmen Barroso, After Cairo: Challenges to Women's Organizations, in Noeleen Heyzer, ed, A Commitment to the World's Women: Perspectives on Development for Beijing and Beyond 249 (UNIFEM 1995). Sen and Barroso also note that an "estimated 100 million married women want to avoid a pregnancy and have no access to contraceptives." Id at 250. Moreover, this number would be much larger if we were to include those who have not yet been given the opportunity to take an informed and independent view of family planning.

\textsuperscript{49} Sometimes the primary tension may be between women of different age groups and status. Alaka Basu, for example, notes that in the Indian subcontinent, mothers-in-law often are much more keen on having a large number of grandchildren than the daughters-in-law who bear these children. Basu has argued that, in South Asia, the important comparison is often "not between the decision making powers of women versus the husband or male patriarch, but between the younger wife versus the older woman, usually the mother-in-law." Alaka Basu, Female Schooling, Autonomy and Fertility Change: What Do These Words Mean In South Asia?, in Roger Jeffery and Alaka Basu, eds, Girls' Schooling, Women's Autonomy and Fertility Change in South Asia (Sage forthcoming 1996). She argues that "the real pity is often not that men wield so much domestic power," but that "during the prime reproductive years that female power is at its lowest." Id.

\textsuperscript{50} See, for example, Richard A. Easterlin, ed, Population and Economic Change in
empowerment include the involvement of women in so-called "gainful" activities outside the home, opportunities for women to earn an independent income, the property rights of women, and the general standing of women in the social culture.

These connections have been observed not only in intercountry comparisons, but also in comparisons within a large country such as between the different districts of India. The most recent—and the most extensive—study of this connection is provided by an important statistical contribution by Mamta Murthi, Anne-Catherine Guio and Jean Drèze, dealing with data from India's Census. Among the variables included in their analysis, the only ones that have a statistically significant effect on fertility are (1) female literacy and (2) female labor-force participation. This analysis suggests that economic growth in itself may be far from "the best contraceptive," but social development, especially women's education and employment, can be very effective indeed. For example, many of the richest Indian districts in Punjab and Haryana have very much higher fertility rates than the southern districts, which have much lower per capita income but much higher female literacy rates and better female employment opportunities. Indeed, in the comparison between more than 250 districts of India, the level of real income per capita is shown to have almost no impact on fertility rates, while increases in women's education and economic independence decrease them significantly.


Mamta Murthi, Anne-Catherine Guio, and Jean Drèze, Mortality, Fertility, and Gender Bias in India: A District Level Analysis, 21 Population & Dev Rev 745 (1995). The data are from the 1981 census. This is the last year for which adequately detailed data are available. The study included data from 296 districts in the fourteen major states for which data were available; the state of Assam was not included in the census of 1981 because of political turmoil. The fourteen states that were included account for 94 percent of the total population of India.

The powerful evidence in favor of these statistical relations has to be distinguished from the social and cultural accounting of these influences, including the common account—not implausible in itself—that both education and outside earning increase a woman's decisional autonomy. There are, in fact, many different ways in which school education may enhance a young woman's decisional power within the family: through its
WHAT DOES COERCION ACHIEVE?

How do these influences compare with what can be achieved through coercive policies of the kind tried in China? Policies such as the "one-child family" have been tried in large parts of China since the reforms of 1979. Also, the government often refuses to offer housing and related benefits to families with too many children—thus penalizing the children as well as the dissident adults. China's total fertility rate (roughly a measure of the average number of children born per woman) is now 2.0, much below India's 3.7 and the weighted average of 5.5 for low-income countries other than China and India.53

It is not hard to see why the Chinese example appeals to many who are panic stricken at the thought of the "population bomb" and want a rapid solution. In considering the acceptability of this route, though, it is important to note that the achievement of fertility reduction in China has been at some cost, including the violation of rights with some intrinsic importance. It is also worth noting that sometimes the enforcement of family-size restriction has been severely punitive. For example, the following was recently reported in The New York Times:

The villagers of Tongmuchong did not need any convincing on that day when Mrs. Liao, the family-planning official, threatened to blow up their houses.

Last year, in the neighboring village of Xiaoxi, a man named Huang Fuqu, along with his wife and three children, was ordered out of his house. To the horror of all those who watched, the house was then blasted into rubble.

On a nearby wall, the government dynamiters painted a warning: "Those who do not obey the family planning police will be those who lose their fortunes."  

Not surprisingly, human rights groups and women's organizations in particular have been especially concerned with the loss of freedom involved in this process.

Second, aside from the fundamental issue of reproductive and other freedoms, there are other consequences to consider in evaluating compulsory birth control. The social consequences of such compulsion, including the ways in which an unwilling population tends to react when it is coerced, can often be quite terrible. For example, the demands of a "one-child family" in a country with a strong preference for male children can lead to the fatal neglect—or even infanticide—of female children. This, it appears, is exactly what has happened on a fairly large scale in China.

Third, any forced change in reproductive behavior may not be particularly stable. As a spokesman for the State Family Planning Commission in China recently told some journalists earlier this year, "at present, low birth rates are not steady in China... This is because the birth concept of the broad masses has not changed fundamentally."

Fourth, it is not by any means clear how much additional reduction in the fertility rate in China has actually been achieved through these coercive methods. It is reasonable to accept that many of China's longstanding social and economic programs have also been valuable in reducing fertility, including those that have expanded education (for women as well as men), made health care more generally available, provided more job opportunities for women, and—more recently—stimulated rapid economic expansion. These factors would themselves have tended to reduce the fertility rate, and it is not clear how much extra lowering of

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64 Patrick E. Tyler, Birth Control in China: Coercion and Evasion, NY Times 1, 8 (June 25, 1995).
66 For evidence in this direction, and references to the empirical literature on this subject, see Jean Drèze and Amartya Sen, India: Economic Development and Social Opportunity ch 4, § 4.8 at 77 (Oxford 1995).
fertility rates China has achieved through compulsion. In fact, even in the absence of compulsion, we would expect the Chinese fertility rate to be much lower than the Indian average, given China's significantly greater improvements in education, health care, female job opportunities, and other ingredients of social development.

One way to differentiate the influence of these social variables from that of coercion is to take advantage of India's heterogeneity, and look specifically at those Indian states which have experienced higher advancements in social development—closer to China's social achievements, without sharing China's coercive practices. In particular, the state of Kerala provides an interesting comparison with China. Both Kerala and China enjoy high levels of basic education, female schooling, health care, longevity, and so on, although Kerala's rates in most of these fields slightly exceed China's. Kerala also has some other favorable features for women's empowerment and agency, including a greater recognition, by legal tradition, of women's property rights for a substantial and influential part of the community.

Kerala's birth rate of eighteen per thousand is actually lower than China's nineteen per thousand, and this has been achieved without any compulsion by the state. Kerala's fertility rate fell to 1.8 by 1991, compared with China's 2.0 for 1992. This is in line with what we could expect through progress in factors that help voluntary reduction in birth rates.

It is also worth noting that since Kerala's low fertility rate has been achieved voluntarily, there is no sign of the adverse ef-

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58 Kerala is not, of course, a country, but a state within one. However, with its population of twenty-nine million, it would have been one of the larger countries in the world—rather larger than Canada—had it been a country of its own. So its experience is not quite negligible.


fects that were noted in the case of China, such as heightened female infant mortality and widespread abortion of female fetuses. Kerala's infant mortality rate per thousand (sixteen for girls, seventeen for boys) is much lower than China’s (thirty-three for girls and twenty-eight for boys), even though both regions had similar infant mortality rates before China initiated the one-child policy in 1979.61 There is also no tendency towards sex-selective abortion of female fetuses in Kerala as there is in China.

It is also necessary to examine the claim in support of compulsory birth control programs that the speed with which fertility rates can be cut down through coercive means is very much higher than through voluntary reductions. But this piece of generalization is not supported by Kerala’s experience either. Its birth rate has fallen from forty-four per thousand in the 1950s to eighteen per thousand in 1991—a decline no slower than that in China.62

It could, however, be argued that looking at this forty-year period does not do justice to the effectiveness of the “one-child family” and other coercive policies that were introduced only in 1979, and that we ought really to compare what has happened in China between 1979 and the present day. So let us do just that. In 1979, when the one-child policy was introduced in China, Kerala had a higher fertility rate, 3.0, than China’s 2.8. By 1991, its fertility rate of 1.8 became as much below China’s 2.0 as it had been above it in 1979.63 Despite the added “advantage” of the one-child policy and other coercive measures, China’s fertility rate seems to have fallen much more slowly than Kerala’s.

Another Indian state, Tamil Nadu, has had no slower a fall of fertility rate, from 3.5 in 1979 to 2.2 in 1991. Tamil Nadu has had an active, but cooperative, family planning program, and it could use for this purpose a comparatively good position in terms of social achievements within India: one of the highest literacy rates among the major Indian states, high female participation in gainful employment, and relatively low infant mortality. Coercion of the type employed in China has not been used either in Tamil Nadu or in Kerala, and both have achieved much faster declines in fertility than China has achieved since it introduced the “one-child policy” and the related measures.

61 See Drèze and Sen, India: Economic Development and Social Opportunity at 81 (cited in note 56), for sources of data and further analysis.
63 Id at 70 table 2.
Contrasts between the different Indian states offer further insights on this subject. While Kerala and Tamil Nadu have radically reduced fertility rates, other states in the so-called “northern heartland” (such as Uttar Pradesh, Bihar, Madhya Pradesh, and Rajasthan) that have much lower levels of education generally, female education in particular, and general health care, have high fertility rates—between 4.4 and 5.1. These states have high rates despite a persistent tendency to use heavy-handed methods of family planning, including some coercion (in contrast with the more voluntary and collaborative approach used in Kerala and Tamil Nadu). Thus regional contrasts within India strongly argue for voluntarism (based inter alia on the active and educated participation of women) as opposed to coercion.

**THE TEMPTATIONS OF COERCION**

While India has been much more cautious than China in considering the option of coercive birth control, there is much evidence that the possibility of coercive policies greatly attracts many activists in India. In the mid-1970s, the government of India, under Indira Gandhi’s leadership, tried a good deal of compulsion in this field using the legal opportunities that she opened up through her declaration of “emergency” and the collateral suspension of some of the standard protections of civil and personal rights. That policy had to be abandoned with Indira Gandhi’s electoral defeat, but even now the northern states, as previously mentioned, have various coercive regulations and conventions that force family planning measures, particularly in the irreversible form of sterilization, often of women.64

64 Id at 71. Declines in fertility rates can be observed to some extent in these northern states as well, though they are significantly slower than in the southern states. Monica Das Gupta and P.N. Mari Bhat, in their paper *Intensified Gender Bias in India: a consequence of fertility decline* (Working Paper 95.03, Center for Population and Development Studies, Harvard 1995) (on file with U Chi L Rev), recently drew attention to another aspect of the fertility rate reduction problem: the tendency for it to accentuate the gender bias in sex selection, in terms of sex-specific abortion as well as child mortality through neglect (both phenomena are much observed in China). In India, these trends seem to be much more pronounced in the northern states than in the south, and it is indeed plausible to argue that fertility reduction through coercive means makes this accentuation of gender bias more likely (as was discussed in contrasting the situation in China vis-a-vis that in Kerala).

65 Aside from the imperative need to reject coercive methods, it is also important to promote the quality and diversity of noncoercive means of family planning. As things stand, family planning in India is overwhelmingly dominated by female sterilization, even
Even when coercion is not part of an official policy, the government's firm insistence on "meeting the family-planning targets" frequently leads administrators and health care personnel at different levels to resort to all kinds of pressure tactics that come close to compulsion. Examples of such tactics, used sporadically in particular regions, include vague but chilling verbal threats, conditioning eligibility for antipoverty programs on sterilization, depriving mothers of more than two children of maternity benefits, reserving certain kinds of health care services to persons who have been sterilized, and forbidding persons who have more than two children from running for office in elections for local governments (the panchayats).

This last measure, recently introduced in the northern states of Rajasthan and Haryana, has been widely praised in some circles, even though the denial of the opportunity to run for office is a serious violation of a basic democratic right. Moreover, there is presently a considerable possibility that the proposed measure will be adopted throughout India and extended to other forms of political participation beyond local (panchayat) elections. Indeed, currently proposed legislation in the Indian parliament bars from holding national or state office anyone who has more than two children. While many critics have pointed out the deep unfairness of this proposed regulation (including its effect of debarring large numbers of leaders of less privileged sections of the Indian community and operating particularly against rural leaders who typically have larger families), it is still pending as of the fall of 1995.

It is sometimes argued that in a poor country it would be a mistake to worry too much about the unacceptability of coercion—a luxury that only the rich countries can "afford"—and that poor people are not really bothered by coercion. It is not at all clear on what evidence this argument is based. The people who suffer most from these coercive measures—those who are brutally forced to do things they do not want to do—are often among

in the southern states. To illustrate, while nearly 40 percent of currently married women aged thirteen to forty-nine in south India are sterilized, only 14 percent of those women have ever used a nonterminal, modern contraception method. Even the knowledge of modern methods of family planning other than sterilization is extraordinarily limited in India. For instance, only half of rural married women aged thirteen to forty-nine seem to know what a condom or an IUD is. See Drèze and Sen, *India: Economic Development and Social Opportunity* at 171 n 58 (cited in note 56).

See references cited in id. See also Sen and Barroso, *After Cairo* at 253-54 (cited in note 48).
the poorest and least privileged in the society. The regulations and the way they are operated are also particularly punitive with respect to women's exercise of reproductive freedom. For example, even such barbarous practices as sterilization camps have been used in several rural regions in northern India in order to meet "sterilization targets."\(^{67}\)

Indeed, the acceptability of coercion to a poor population cannot be tested except through democratic confrontation, precisely the opportunity that authoritarian governments withhold from their citizens. Such a testing has not occurred in China, but did occur in India during "the emergency period" in the 1970s when Mrs. Gandhi's government tried compulsory birth control. The policy of coercion in general—including that relating to reproductive freedom—was overwhelmingly defeated in the general elections that ended the emergency period. The poverty-stricken electorate of India showed no less interest in voting against coercive violation of political, civil, and reproductive rights than it has in protesting against economic and social inequality.

The poor also demonstrate their opposition to coercion by voting with their feet. As Indian family-planning specialists have noted, voluntary birth-control programs in India received a severe setback from that brief program of compulsory sterilization, since people became deeply suspicious of the entire family-planning movement and stayed away from family-planning centers. Aside from having little immediate impact on fertility rates, the coercive measures of the emergency period were, in fact, followed by a long period of stagnation in the birth rate, which did not end until around 1985.\(^{68}\)

**JUSTICE AND RESPONSIBILITY**

To conclude, the possibility of coercive solutions of one kind or another clearly does attract many political leaders in the third world (including in China and in parts of India), and there is also some evident temptation in the West to recommend this alleged "solution" for use in distant and poorer lands, or at least to applaud its use there. This is frequently a panic-induced reaction to the misconceived idea of a "population bomb" about to explode, and it can be thoroughly counterproductive.


\(^{68}\) See the demographic and sociological literature cited in id.
At the substantive level, the "solution" to the population problem that seems to deserve the most attention involves a close connection between public policies that enhance social development and gender equity (particularly education, health care, and job opportunities for women), and individual responsibility of the family (through the decisional power of potential parents, particularly mothers). The effectiveness of this route lies in the close link between the well-being and agency of young women. As a result, the solution to the population problem calls for more responsibility and freedom, not less.

To return briefly to the theory of justice, I have tried to use in this Essay a general normative approach that values personal liberty and basic autonomy, including the exercise of reproductive rights. Reproductive freedom is seen as valuable, but not uniquely so. More generally, the realization of such rights must compete with other consequences for our attention.

This general picture applies to developing countries as well, despite their poverty. Although it is frequently assumed that impoverished persons do not, in fact, value freedom in general and reproductive freedom in particular, the evidence in existence is certainly to the contrary. Impoverished people do, of course, value—and have reason to value—other things as well, including well-being and economic security, but that does not make them indifferent to their political, civil, or reproductive rights.

Given the basic importance of reproductive freedom, its denial in favor of coercive restrictions can be justified—if at all—only by suitably strong positive consequences, involving for example well-being and economic security. If such strong positive consequences exist, they certainly have not been easy to identify. Furthermore, it is not clear that coercion works faster than what can be achieved through voluntary social change and development. Coercive family planning can also have seriously unfavorable consequences in addition to the violation of reproductive freedom, such as an adverse impact on infant mortality, and especially female infant mortality in countries with entrenched antifemale biases. Nothing here justifies transgressing basic reproductive rights for the sake of achieving other positive consequences.

While reproductive rights were not given any lexical priority in the line of argument presented in this Essay, it turns out that the case for them is not, in general, overwhelmed by any contrary argument. It is a qualified and contingent victory for reproductive freedom. In the discordant world of justice, there is, I believe, no other kind of victory.