

2. Ending Procreationism

One of the most serious enduring obstacles to a sexual ethic which is humane, just, and protects both human and non-human creation is procreationism. Procreationism is the assumption that sex is naturally oriented toward creation of human life. This assumption remains central to most Western cultural understandings of sexual activity. Most Christians assume that procreationism is a Roman Catholic problem. Because artificial contraception has been accepted by one Protestant denomination after another over the decades, since the Anglicans at the Lambeth Conference of 1930 permitted the use of contraceptives in abnormal cases, it is generally assumed that procreationism has been overcome in Protestantism. But procreationism is a much broader and deeper phenomenon than a ban on the use of artificial contraceptives, and it is embedded in Western history and culture in ways of which we are scarcely conscious. There are at least three major areas in which procreationism is apparent in our society.

The first is the common understanding that coitus is *the* sexual act, with all other sexual practices understood as either perversions to be avoided, or foreplay designed to prepare for the "real" sex act. The limitation of "real sex" to penile-vaginal intercourse has no other explanation than the assumption that "real sex" is procreative: penile-vaginal intercourse is the only procreative sexual act. In our society this understanding of penile-vaginal intercourse as the "real thing" is so pervasive as to be taken for granted. Some sex manuals, much of the electronic media, and even many medical institutions and personnel treat penile-vaginal intercourse as the "main event" and describe all else as "foreplay." Many therefore take for granted that when penile-vaginal sex is not possible/advisable, sex is ruled out altogether. Immediately after childbirth or abdominal surgery, during heavy menstrual flow, in the absence of contraceptive protection, during drug therapy which reduces erection, and in many other situations as well, much of our society understands that abstinence is required. The fact that many sexual activities are possible which do not require vaginal penetration by an erect penis is ignored. The general assumption is that such activities are not and cannot be ultimately satisfying in themselves, because they are designed only as preludes to the real thing.

The second problem with procreationism is that it denigrates sexual relationships in which coitus is not possible. From a procreationist perspective, lesbians do not have real or legitimate sex, but "only" foreplay, because real/legitimate sex requires an impregnating penis. Furthermore, this attitude is the foundation of two common pieces of misinformation about gays and lesbians: that the primary gay sexual activity is anal intercourse, and that lesbian sex centers on the use of dildos. In fact, anal intercourse is a distant third after fellatio and mutual masturbation in terms of regular sexual practice among gay men.¹ Dildos are even rarer among lesbians; their use is a distinct minority practice.²

This understanding of penile-vaginal intercourse as the only real sex is also a source of a great deal of unnecessary sexual deprivation among the handicapped³ and the elderly⁴ Persons incapable of coitus—or thought to be incapable of coitus—such as the very elderly, wheelchair patients, amputees, paraplegics, and those left impotent by disease or injury, are often viewed as asexual and treated as such. Among the elderly, some persons give up on sex as not appropriate after female menopause. As erection becomes less full/reliable and traditional positions for intercourse become too demanding for stiff joints and weak

¹ Alan Bell and Martin Weinberg, *Homosexualities: A Study of Diversity Among Men and Women* (New York: Simon and Schuster, 1978), 328-330. Since the impact of AIDS, anal intercourse is even less common.

² In Hunt's 1974 survey, only 2% of lesbians had ever used a dildo. Morton Hunt, *Sexual Behavior in the 1970s* (Chicago: Playboy Press, 1974), 318-319.

³ S. Daniels, "Critical Issues in Sexuality and Disability," in D. Bullard and S. Knight, eds., *Sexuality and Physical Disability: Personal Perspectives* (St. Louis, MO: Mosby, 1981).

⁴ S. Lieblum and R. T. Seagraves, "Sex Therapy with Aging Adults," in S. Lieblum and R. Rosen, eds., *Principles and Practice of Sex Therapy* (New York: Guilford, 1989).

muscles, many of the elderly are subtly and not so subtly coerced into unnecessarily giving up sex altogether rather than adapting sexual practice to those activities still possible and pleasurable. This is true for the physically handicapped of any age. The failure to instruct the handicapped in ways to give and receive sexual pleasure not only deprives them, but has contributed to a great deal of unnecessary stress and suffering within their relationships and would-be relationships.

The third area in which procreationism exhibits itself in our society concerns attitudes towards contraception. Especially among the unmarried, procreationism too easily supports an understanding of children as the "cost" of sex.⁵ This understanding encourages sexual activity without contraception as more moral than sex with contraception, even when conception is neither desired nor advisable, and thus encourages irresponsible parenthood. Some unwilling parents, caught in such a situation, feel that the resulting children owe parents for the inconvenience of their rearing.

If coitus is to be a couple's preferred method of making love, it should be so because it conveys greater mutual pleasure and satisfaction, and/or because the couple is consciously trying to conceive. But it should not be assumed that because coitus can be reproductive, it is therefore the most pleasurable, natural, or appropriate act, as procreationism has implied.

None of this sexual deprivation, discrimination, or contraceptive risk is necessary or justifiable. We have a growing body of research that demonstrates that penile-vaginal intercourse, is not the only avenue to sexual satisfaction, and may not even be the most effective avenue to sexual satisfaction, especially in women. Women report that masturbation produces stronger orgasms than penile-vaginal intercourse,⁶ and lesbian women report higher rates of orgasm than heterosexual women.⁷ Furthermore, between 56% and 70% of women cannot reach orgasm from penile-vaginal intercourse alone.⁸ They require direct clitoral stimulation either in cunnilingus or through manual manipulation in order to reach orgasm.

Some men report that their most frequent sexual fantasy is not of penile-vaginal intercourse, but of fellatio.⁹ Research shows that fellatio is the most common fantasy of male college students, *even during penile-vaginal intercourse*.¹⁰ Among men, the most frequently purchased sexual service in massage parlors (and from many streetwalkers) is fellatio,¹¹ though coitus is more common with call girls and prostitutes in brothels.

Many different sexual activities have the capacity both to arouse and satisfy sexual desire, and to provide shared pleasure and the intimacy and bonding which can accompany such shared sexual pleasure. For most persons, the major disincentive to engaging in alternative sexual activities is negative attitudes strongly

⁵ E. Jones, J. Forrest, N. Goldman, S. Henshaw, R. Lincoln, J. Rosoff, C. Westoff, and D. Wulf, "Teenage Pregnancy in Developed Countries: Determinants and Policy Implications," *Family Planning Perspectives* 17 (1985): 53-63.

⁶ William Masters and Virginia Johnson, *Human Sexual Response* (Boston: Little, Brown, 1966), 66; Shere Hite, *The Hite Report: A Nationwide Study of Female Sexuality* (New York: Dell, 1976), 190.

⁷ A. Kinsey, W. Pomeroy, C. Martin, and P. Gebhard, *Sexual Behavior in the Human Female* (Philadelphia: Saunders, 1953), 163-164, 391.

⁸ Helen Singer Kaplan, *The New Sex Therapy: Active Treatment of Sexual Dysfunction* (New York: Brunner/Mazel, 1974), 397; Carol Tavris and Susan Sadd, *The Redbook Report on Female Sexuality* (New York: Delacorte Press, 1975), 74-80; C. Ellison, "A Critique of the Clitoral Model of Female Sexuality," paper presented to the American Psychological Association, Montreal, September 4, 1980.

⁹ For example, in an interview of David Wells, major Canadian pornography publisher, in the documentary "Not a Love Story," Wells presents as well-known market research the conclusion that "what all men want most—the greatest male turn-on—is to have a naked woman kneeling at his feet, performing fellatio." While the universalism of this statement is certainly suspicious, to the extent that a great deal of erotic fantasy seems rooted in adolescent desires, it is probably true that many men never completely outgrow adolescent forms of sexual desires.

¹⁰ David Sue, "Erotic Fantasies of College Students During Coitus," *Journal of Sex Research* 15 (1974): 299-305.

¹¹ C. D. Bryant and C. E. Palmer, "Massage Parlors and 'Hand Whores': Some Sociological Observations," *Journal of Sex Research* 11 (1975): 227-241; E. G. Armstrong, "Massage Parlors and Their Customers," *Archives of Sexual Behavior* 7 (1978): 117-125.

influenced by prevailing cultural procreationism. In an age when a majority of persons needs to seek protection not only from unwanted pregnancy but also from sexually transmitted diseases, "outercourse" (nonpenetrating sexual activities) and other non-coital sexual activities should be promoted.

Another major indication of the continued presence of procreationism in Christian teaching is located in the sexual ethic taught even by those churches which accept artificial contraception—that is, the continued ban on nonmarital sex. Procreationism is the only support for this traditional ban. Traditional Christian sexual ethics, based in both scriptural stories and law on the one hand, and natural law interpretations on the other, predicated that sex was made for the purpose of procreation, and therefore sex belonged in marriage, where the marital union could provide for the needs of children conceived. All sex outside marriage was forbidden as irresponsible in that it either neglected the needs of children or ignored the will of God who both made sex produce children and desired the welfare of those children.

Given both effective contraception and acceptance of other ends for sex than procreation, traditional reasons for limiting sex to marriage are no longer compelling. Theoretically, then, we would have to find other reasons to prohibit sex between unmarried persons, whether that sexual activity was homosexual or heterosexual, solitary sex, as in masturbation, or noncoital sex for the married or unmarried. The continuation by the churches of traditional bans on all nonmarital sex without the construction of new arguments indicates a not-so-covert procreationism.

Separating Sex and Procreation

We need to shift from the traditional inseparability of sex and procreation, which the Roman Catholic Church and a very few others continue to officially teach,¹² to the development of a new sexual ethic distinct from a reproductive ethic. This is not to say that sex and reproduction should be completely severed. Human sexual activity, and not technological intervention, should be the primary method of human reproduction for a number of reasons, as we shall see. But the general direction in which humanity needs to move is toward more pleasurable, spiritually fulfilling, frequent sex, coupled with a reduction in world population. I am not going to fully develop a new reproductive ethic here, but only sketch some preliminary suggestions for a reproductive ethic compatible with the reconstructed sexual ethic on which I will concentrate.

Toward a New Reproductive Ethic

There are tremendous dangers in this area of reproductive ethics. To raise the topic of population stabilization—much less reduction—in a global context is to evoke immediate and forceful critical response. Much of that response arises from the developing world and from subordinated races and classes in the developed world. In the nations of the developing world the history of developed nations'—especially the United States'—involvement in the population issue is well known and resented. That involvement can be divided into three stages according to the dominant motivations invoked in the developed nations: cold war, developmentalism, and environmentalism.¹³ It was originally during the 1950s and 1960s that the U.S. began committing funds to poor nations to control fertility, with the object of controlling poverty, lest conditions of increasing poverty further destabilize those nations and make them susceptible to communist propaganda. Since the primary purpose of the population control measures (preventing population explosion, consequent poverty, and communist influence) was external to the individuals in the poor nations, it is not surprising that their dignity, aspirations, and customs were not central to the development of the population programs. The goals of developed nations (thwarting the spread of Communism, which was understood to flourish in poverty) matched well with the goals of many

¹² The official Roman Catholic position is that the physically unitive aspect and the reproductive aspect of sexual activity cannot be intentionally separated—which rules out both artificial contraception and in vitro fertilization (Paul VI, *Humanae Vitae*, #12, *Actae Apostolicae Sedis* 60 (1968): 488-489).

¹³ I heard Frances Kissling, director of Catholics for a Free Choice, present this three-stage schema at the "North/South Dialogue: Reflections on Religion, Ethics, and .Reproduction" in Mexico City, December 1992.

poor governments (lowering birth rates so as to contain social expenditures). These goals were often most efficiently ensured by massive campaigns for inexpensive, permanent means of contraception such as sterilization, often using coercion at the local level, rather than by methods which could be controlled by individuals themselves in response to their specific circumstances.

In the second phase of the developed world's export of population control measures from the late 1960s through the end of the 1970s developmentalism was the rationale given for population control in the poorer nations. Here the eradication rather than the control of poverty was the goal. The process of First World development was thought to be understood, and it was assumed that poorer nations were moving along the same continuum of economic development that the richer nations had moved along, but were only delayed. The perceived need was to move the poorer nations more rapidly along the continuum by attempting to create the conditions which had produced economic progress in the richer nations. The history of the Industrial Revolution showed that both expanding industry through investment and a falling birth rate had been central to the growth of prosperity. So U.S. developmental policy, called developmentalism, focused on huge commercial loans to poor countries for the purpose of industrializing, and on programs to lower the high birth rates characteristic of agricultural nations.¹⁴

While developmentalism seemed to be more aimed at benefitting the poorer nations themselves, containing Communism continued to be an important motive for U.S. involvement. From the late 1960s until the late 1980s the cold war, while in a new stage, was not over, and the U.S. was still concerned about creating sufficient prosperity in the developing world so as to shield against communist inroads. In addition, developmentalism gave the U.S. economic interests in these nations as well, since U.S. banks, and to a lesser extent the U.S. government itself, were heavily invested in the success of developmentalist policy. Especially in the case of poor nations in Latin America and the Caribbean, the U.S. also hoped that home-grown opportunities and prosperity would over time cut down on immigration pressures on the U.S., and especially on illegal immigration. The consequent failure to focus on the needs and aspirations of the local populations allowed and even encouraged abuse in contraceptive provision, including coercion and lack of informed consent.¹⁵ Many governments of poor nations deliberately used U.S.-funded population control programs to force sterilizations on large portions of the population, regardless of the age or parental status of individuals.¹⁶ In other nations the provision of follow-up medical care for sterilizations and for invasive contraceptives, such as IUDs, was practically nonexistent; in some programs basic sanitary and hygienic protections were absent. Even more common was the use of emergency food distribution, employment, or other life necessities to coerce persons into the programs.

Developmentalism has been largely discredited for a number of reasons. First and foremost, it did not fulfill its purposes. What growth occurred was distributed to the already privileged classes, and in many nations the poor majorities actually became more impoverished during the periods of greatest, economic growth.¹⁷ But developmentalism not only failed to alleviate individual poverty for the majority of citizens in the developing world—it also failed to alleviate *national* poverty in the nations of what was called the Third World. Due to external debt, most developing nations are in far worse situations today than they were at the

¹⁴ For a review of the critique of developmentalism, see Ronald H. Chilcote, "A Critical Synthesis of the Dependency Literature," *Latin American Perspectives* 1 (1974): 4-29.

¹⁵ The bulk of Betsy Hartman's *Reproductive Rights and Wrongs: The Global Politics of Population Control and Reproductive Choice* (New York: Harper and Row, 1987) is devoted to detailing these abuses. In Indonesia, for example, Hartman describes how the local level of male hierarchy (village headmen) is utilized by government officials to pressure villagers into compliance with population control programs. In return the headmen are rewarded with personal honors and gifts, as well as with rewards for the village, such as access to agricultural credit (pp. 74-83).

¹⁶ Susan Power Bratton, *Six Billion and More: Human Population Regulation and Christian Ethics* (Louisville, KY: Westminster, 1992), 25, 182; also see Hartman's treatment of the use of the military to force sterilizations in Bangladesh in 1983, and of the sterilization requirement for receiving emergency food after the 1984 floods in the same country (Hartman, *Reproductive Rights and Wrongs*, 214-217).

¹⁷ For example, Phillip Berryman quotes two regional groups of Brazilian Catholic bishops which issued statements in May 1973 using government statistics to point out the redistribution of wealth upward in Brazil over the preceding years of developmentalism. Phillip Berryman, *Liberation Theology* (New York: Pantheon, 1987), 123.

beginning of the developmentalist period, despite the fact that many of them did significantly reduce their birth rates.¹⁸ A basic failure of developmentalist policy was that it ignored the population base and its connection to agriculture, especially the need to make smallholder agriculture more productive as a precondition for industrialization. For these and a number of other reasons, including corruption, graft, and diversion of loan funds to other governmental uses such as military hardware, the huge loans that poor countries floated to finance industrialization did not have the desired effect.¹⁹ Because the loans did not produce economic growth, nations were not able to pay them off. Today terrifically high external debt burdens are the number one economic drag on poor nations—the legacy of developmentalism.²⁰

The newest First World rationale for birth limitation programs in the developing world is environmental concern.²¹ The environment is now cited as a basic reason for birth limitation programs not only in some population journals,²² but even in medical literature.²³ From the point of view of many peoples of the developing world, First World interests in birth control in the poor world have been self-serving,²⁴ and this latest cause for First World interest is no exception. The First World position gets argued like this to developing nations like Brazil: "The earth has reached the level of population that it can afford. We in the developed world have just about reached a replacement-only birth rate, but yours is much higher. As your population expands, you progressively destroy the Amazon jungle, which provides a major part of the earth's oxygen and contains a significant proportion of all the plant and animal species on the face of the earth."²⁵ Every new factory or electric plant you build spews more carbon dioxide, sulfur, and other polluting chemicals into an atmosphere that has already reached its limit. You do not have the right to

¹⁸ For example, Mexico was a leading example of developmentalism at work for well over a decade, with annual growth rates of GNP of 7-10%. Yet in August 1982, Mexico was the first of the developing nations to declare its inability to make debt payments. Brazil, which led the world in GNP growth for over a decade, suspended payment of its debt in January 1983. This was only the beginning of the debt explosion—for the suspension of interest payments led to the rapid rise in the amount of principal due, as overdue interest was added to principal. Penny Lernoux, *In Banks We Trust* (New York: Doubleday, 1984): 226-227.

¹⁹ Lernoux, *In Banks We Trust*, 229.

²⁰ After more than a decade of recognition that the debt burdens of many poor nations were impossible to pay off, even if the mass of the population were plunged into the most abject poverty possible for decades into the future, First World nations began during the early 1990s a nation-by-nation process of debt renegotiation. Options exercised by the lender nations included a combination of debt forgiveness, swap for debt, and more lenient scheduling of debt repayment designed to free up governments of developing countries. The Craxi proposal, named for Benito Craxi, whom U.N. Secretary Peres de Cuellar had appointed in December 1989 his personal debt representative, presented the U.N. General Assembly with a strengthened and updated version of the U.S. Brady Initiative. That Brady Initiative had already reduced the commercial debt of some severely indebted middle-income countries by 1991, according to the World Bank's report on debt, *World Debt Tables: 1990-1991*, released in February 1991. The nation-by-nation process of renegotiating (forgiving/swapping/extending terms on) external public debt under this Craxi/Brady plan began in 1991, but the results are as yet unclear. "Future of the Global Economy: Challenges of the 90's" and "Debt: An Issue of Responsibility," in *U.N. Chronicle* (September 1990): 41-46, 53; "Development Strategy for the 1990's Aims to Reverse Economic and Social Decline," *U.N. Chronicle* (March 1991): 85-86.

²¹ Alexandra Toufexis, "Too Many Mouths: The Problem—Swarms of People Are Running Out of Food, Space," *Time* (January 7, 1989): 48-50.

²² M. Potts, "The Challenge of the 1990's," *IPPF Medical Bulletin* 25 (1991): 1-4.

²³ E. Diczfalussy, "Contraceptive Prevalence, Reproductive Health, and International Morality," *American Journal of Obstetrics and Gynecology* 166 (1992): 1037-1043.

²⁴ See, for example, Dom Moraes' *A Matter of People* (New York: Praeger, 1974), which surveys a number of individuals of various professions in the developing nations regarding population control programs funded by developed nations.

²⁵ Ten percent of all plant species are found in the Amazon. Half the 4.5 million plant and animal species on the earth occur only in rain forests of which the Amazon is the largest. James Lockman, "Reflections on the Exploitation of the Amazon," in Carol S. Robb and Carl J. Casebolt, eds., *Covenant for a New Creation: Ethics, Religion, and Public Policy* (Maryknoll, NY: Orbis, 1991): 167-169.

endanger the survival of the entire planet by irresponsibly expanding your present levels of pollution in order to accommodate either a larger population or a higher standard of living."

But from the Brazilian point of view, the same argument sounds like this: "We of the First World have already completed the cycle of industrialization which made us rich, but in so doing we have produced tremendous environmental ills. We have wiped out the majority of our forests, wetlands, jungles and rain forests, as well as many species of plants and animals. We have endangered the oceans and the very atmosphere, which now are so fragile that they cannot stand more abuse. Present levels of pollution cannot be exceeded without danger to the whole planet. We of the First World produce 80% of that pollution, and despite the fact that we only have 20% of the world's population, and you 80%, you will just have to make do with your present rate of producing 20% of the earth's pollution.²⁶ Your process of industrialization will be much slower and more expensive than ours; the planet cannot afford for you to achieve prosperity at the cost of the planet, as we did. Your jungles and wetlands, rain forests, plant and animal diversity are essential for the well-being of the earth as we know it, and for all human life. Your poor billions in poverty will just have to stay poor longer. It's a shame that you can't be as comfortable as we, but then we got ours before the piper had to be paid."

To put it bluntly, the insistence that ecological responsibility demands population reduction (not to mention slower and more costly industrialization) from the developing nations is interpreted as an attempt of the earth's North to invoke the common good in what is really an attempt to preserve its privileges and options at the expense of the basic survival needs of the South.

Given this history, to even raise the topic of population control in many parts of the world is to be associated with this record of abuse and insensitivity. There is great fear that economic and power realities are such in many developing nations that any legitimation of population control measures will inevitably lead to the kind of massive and systematic abuses of contraception, sterilization, and abortion, described by Hartman,²⁷ as perpetrated by governments in poor nations who accept help from the population establishment (USAID, First World foundations, and the centers they fund) as a condition for securing other necessary or desired funding or favor from First World nations.²⁸ Many women's groups in both poor nations and rich nations insist that we must continue to proclaim and defend the primary right of individuals within their own communities to control fertility. Any erosion of that primary right—any legitimation of education, persuasion, or incentives (even excluding coercion)—endangers human dignity. Susan Power Bratton's discussion of positive and negative incentives which have been used/proposed for population limitation in poor nations points out that while many positive as well as negative incentives promote injustice, in that the burdens of differential resource allotment often fall on the innocent, negative incentives to limit population have the added problem of contravening basic human dignity and rights, such as privacy and individual integrity.²⁹

²⁶ Bratton, *Six Billion and More*, 21.

²⁷ See Hartman, *Population Rights and Wrongs*, in note 15.

²⁸ At the 1974 United Nations-sponsored International Conference on Population in Bucharest, the United States' anti-natalist position was strongly attacked by representatives of many poor nations on the grounds that economic development would bring about fertility decline by itself. They insisted that, instead of urging population control measures, the U.S. should be pursuing capital and technology transfers to the poor nations (Jane Menken, ed., *World Population and U.S. Policy. The Choices Ahead* [New York: W. W. Norton and Co., 1986], 8). The Reagan administration, in its opposition to abortion, came to restrict the distribution of any U.S. funds to any organization or institution which provided, recommended, or offered information about abortion. This restriction, continued by the Bush administration, crippled many population control programs in developing nations, far beyond the reach of abortion provision, in that it refused funding to any agency or program that provided, advised, or educated about abortion directly or indirectly. With the 1993 end of that restriction by the Clinton administration, it will now be necessary to monitor population programs for such abuses much more strictly.

²⁹ Bratton, *Six Billion and More*, 176-181.

Population Control: Necessary Despite the Dangers

Nevertheless, and without either minimizing or ignoring the very real dangers which exist in reducing overpopulation, we must insist, with Bratton and many others,³⁰ that overpopulation is a real and serious problem about which something must be done. The earth is overpopulated because present levels of population cannot be sustained alongside any process toward just distribution of the resources of the earth. The North is right that the common good demands that injury to the environment be reduced rather than increased, but is wrong that the burden of that reduction should be allowed to exacerbate present unjust patterns of distribution. The South is right to insist on more just distribution, but it cannot legitimately ignore the need to protect the environment on which we all depend. These are the two criteria—justice and sustainability—which must be kept side by side.

When we consider these two criteria, we see that not only must rates of population expansion decrease, but in many parts of the world population levels—absolute numbers—must decrease. Consider the U.S. We have tremendous problems now in our country with levels of air, water, and land pollution. The ongoing pace of development leads us to cut down more forests, fill in more wetlands, develop cities in deserts, build apartment complexes and power plants on prime farmland, plow up grasslands, and bring up ground water to irrigate arid plains. Together these activities are causing a terrible loss of land and water: falling water tables, soil erosion, and loss of topsoil.³¹ But there is more. The industrial and energy production which sustains our lifestyle causes destruction of forests and lakes due to acid rains; devastating oil spills in oceans and bays; holes in the ozone layer, which protects plant, animal, and human life from destructive solar rays; the rise in carbon dioxide levels in the atmosphere (greenhouse effect); toxic chemical pollution of land and water throughout the nation; and the rapid increase of nuclear waste for which we have not yet found safe disposal.³²

The fall of communist regimes in eastern Europe has revealed to the world a much worse ecological situation than had been suspected. Devastation from acid rain, from intensive industrialization totally devoid of pollution controls, extends not only to forests and lakes but to the human populations as well. When the air and water are so toxic that in some places rain eats through car paint in a year and melts the features off new sandstone monuments in a decade, it is not difficult to understand why there are above-normal rates of emphysema, birth defects, and lung, skin, and other cancers in the human population in heavy industrial centers. Moreover, it has been made clear in the process of reunifying Germany that for a number of reasons reunification will not rectify some major problems. The former West has more than enough industrial capacity to supply the former East. Though the government is subsidizing many projects and groups in the East, and many corporations have bought Eastern facilities, Germany does not need to recreate its efficient and more or less environmentally responsible production facilities in the East.³³ The government has closed toxic waste dumps in the East, but has not addressed their clean-up.³⁴ Companies which have bought the outdated plants in the East have often preferred to close them rather than invest in new production processes and undertake the delicate work of monitoring and reclaiming the environment from its devastated shape. But for a united Germany to accept ongoing high rates of unemployment in the East violates the ethical requirement that governments secure some approximation of equal distribution of

³⁰ Beginning with ecologist Paul Ehrlich's *The Population Bomb* (New York: Ballantine, 1968).

³¹ John B. Cobb and Herman E. Daly, *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future* (New York: Simon and Schuster, 1987), 252-256.

³² Cobb and Daly, *For the Common Good*, 1-2.

³³ Christoph E. Buechtemann and Juergen Schupp, "Repercussions of Reunification: Patterns and Trends in the Socio-economic Transformation of East Germany," *Industrial Relations Journal* 73 (Summer 1992): 7, 90ff; Alistair Home, "No Three Cheers," *National Review* 44 (February 17, 1992): 3, 76-77; Peter Lee, "The Dream Becomes a Nightmare," *Euromoney* (February 1992): 44-48; William S. Ellis, Gerd Ludwig, and Steve McCurry, "The Morning After: Germany Reunited," *National Geographic* 180 (September 1991): 3, 2ff.

³⁴ Andrea Cezeaux, "East Meets West to Look for Toxic Waste Sites," *Science* 251, no. 4994 (February 8, 1991): 67-73; "East Germany Closes Toxic Waste Dumps," *European Chemical News* 54, no. 1408 (February 5, 1990): 28.

resources for its citizens, and risks political instability as the cost of popular discontent. The fact that Germany neither needs Eastern production nor can easily afford to redress the ecological damage already done in the East allows a situation in which extreme poverty, bolstered by the Eastern populations' psychological need for productive work, may well produce decisions to use parts of the East as a low-risk production site for dangerous industries, and/or as a toxic dumping ground. We see this pattern in poor areas of the globe—where the need for income is so acute that poor nations—and poor neighborhoods in rich nations—agree to become dumping grounds for toxic wastes of various sorts.³⁵

But it is not only in eastern Europe that we have combinations of ecological and population problems. Try to drive the German autobahns on weekday afternoons, or during vacation periods in the summer. It can routinely take two hours to move 50 kilometers around Frankfurt, and that is without accidents. The volume of traffic waiting on the entrance ramps can be so great as to bring autobahn traffic to virtual standstills. This in the nation with perhaps the best-developed highway system in the world, and one of the best (perhaps second only to France) passenger rail systems in the world. It is important to understand that the frightening anti-immigrant sentiment breaking into violence all over Germany, and also in other western European nations, over the last few years is due not only to the pressures of diversity in historically homogeneous populations, but also to perceptions of overcrowding. Though the size of the West German citizenry has actually been decreasing slightly from a 1981 high of 61 million, and is expected to stabilize at 52 million sometime within the next decade, the expansion of drivers on the road, autobahn truck traffic, and the appropriation of farm and unimproved land for development continues apace, as in the U.S.

The West German constitution promulgated after World War II understood citizenship in very traditional terms—as more or less limited to Germans—even though it was extremely liberal in offering asylum to virtually all groups, and generously supported asylum seekers. But not only are the Turkish immigrant worker population and the African and Romanian Gypsy immigrants not, for the most part, eligible for eventual citizenship, but growing anti-immigrant sentiment has revived violent sentiment against Jews, and increased support for ending the constitutional right of return of Germans and those of German descent from other nations, such as the former Soviet Union. Most of the anti-immigrant violence has been aimed at those who are understood as racially different.³⁶ But racism is not the sole, and perhaps not the principal, cause of anti-immigrant sentiment. Contemporary waves of immigrants from other nations to Germany take place in a no-growth economy, not in the high-growth period of economic rebuilding after World War II. There are simply lower profits and fewer jobs to go around. In addition to economic pressure, there is also simple space pressure. To live in Germany is to understand the historic pressures on the largest group of European people, who are confined to a space significantly smaller than France or Spain. Germans do not have any of the American sense of wide-open, unpopulated spaces left in their country. This is certainly not to excuse either historic German expansion attempts, such as Hitler's demand for *lebensraum* in the East, or current violence against foreigners in Germany. It is only to suggest that population pressures do influence conditions for social justice and cooperation.

Another perspective on the problem is provided by a look at an area of social life in the U.S. which is commonly agreed to exhibit unjust distribution of resources: health care. The richest nation on earth spends billions of dollars on expensive organ transplants every year, while in its capital, Washington, D.C., the infant mortality rate is in a class with some of the poorest nations of the world. At its most basic level, the U.S. problem with health care has been that it eats up larger and larger shares of the national wealth every year, despite the terribly unjust pattern of distribution. The pervading sense of hopefulness mixed with suspicion concerning the Clinton-proposed health care system arises from an often unarticulated

³⁵ On poor nations as dumping grounds: Joel Millman, "Exporting Hazardous Waste," *Technology Review* 92 (April 1989): 3, 6ff; Debora McKenzie and Roger Milne, "If You Can't Treat It, Ship It," *New Scientist* 122, no. 1658 (April 1, 1989): 24-25; "Angola: An Offer Luanda Just Can't Refuse?" *Africa Report* 34 (March-April 1989): 2, 5. On poor neighborhoods as dumping grounds: Gary Boulard, "Combating Environmental Racism," *The Christian Science Monitor*, March 17, 1993, p. 8, col. 7; Eugene I. Meyer, "Environmental Racism: Why Is It Always Dumped in Our Backyard?" *Audubon* 94 (January-February 1992): 1, 30-32.

³⁶ As of this writing the latest major incident is the May 29, 1993, deaths of 5 Turkish children and the injury to three other members of the same family in a racially motivated attempt to burn them out of their home in Solingen, Germany (in western, not eastern Germany).

understanding that while justice demands more equity between the health care given the rich and the poor, the rich cannot be, and perhaps should not be, forced to surrender significant access to organ transplants, experimental drugs and surgeries, plastic/cosmetic surgery or other expensive therapies that escalate costs. The only way to move toward equity seems to entail providing for the poor the entire spectrum of health care provided for the rich—at eventually ruinous expense to all the other aspects of the national budget, including environment.³⁷

If we have not been able to find a just and sustainable solution which is acceptable to all parties within the U.S. health care system, then the possibilities for a global solution to the need for just and sustainable lifestyles seem infinitesimally small. How can we imagine providing equitable distribution of *all* resources over the global population? Providing resources at the rate the world's rich consume them would violate sustainability, even if it were possible in the short term. But getting the rich to agree to any standard significantly below what they now receive seems equally doubtful.

It is important to understand that the overpopulation argument is significantly different now than it was in the 1960s and 1970s. Then the basic question was what was the largest population which could be fed. Whenever alarms went up about increasing hunger due to overpopulation, the answer from many was always that the earth did produce and could continue produce enough to eat, that *distribution* was the problem.³⁸ Most of those who discouraged population control measures based on the adequacy of the earth's resources emphasized the promise of technology. Julian Simon, author of *The Ultimate Resource*, which understood increased population as a good, wrote: "So the major constraint upon the human capacity to enjoy unlimited minerals, energy, and other raw materials at acceptable prices is knowledge. And the source of knowledge is the human mind. Ultimately, then, the key constraint is human imagination acting together with educated skills. This is why an increase of human beings, along with causing an additional consumption of resources, constitutes a crucial addition to the stock of natural resources."³⁹ And Jerrie DeHoogh and his colleagues in the Netherlands reported from their research that "there are many technological methods by which food production in the world can be increased. On the basis of a detailed inventory of soil characteristics, rainfall, temperature, and sunshine . . . it is calculated that—depending upon natural restrictions to the growth of agricultural crops—the earth is capable of producing 25 times the present amount of food. A great deal of agriculturally suitable land is not yet used; but above all production per hectare could be considerably increased. According to these data, there ought to be sufficient food both now and in the future; the world food supply is thus not primarily threatened by the finiteness of the earth."⁴⁰

But it is not enough to look to technology to ensure sufficient food for the future. Over the long haul it is not enough simply to eat. Families who have been in refugee camps, for example, are clear that having enough to eat is a necessary condition for life to be human, but it is not at all a sufficient condition for human life. Nor are food, clothing, and shelter enough. Human life demands that we live in a community, and that we all have work—human activity which contributes to our own personhood and through which we contribute to our community and our world. Human dignity demands that our communities approximate justice in the distribution of resources and activities. We cannot feed, house, clothe, and provide basic health care and work to the six billion persons who will soon inhabit this world without devastating the planet to the point that it cannot recover as a human habitat. John Cobb and Herman Daly remind us that

³⁷ See Daniel Callahan, *Setting Limits: Medical Goals in An Aging Society* (New York: Simon and Schuster, 1987), who argues this, but goes on to demand that the aged, as both a powerful political bloc and the most privileged recipients of health care, must be persuaded to accept limitations on their access to health care in order to control costs and spread the benefits more equitably. Callahan sees this as a difficult task, and his book is the first step in beginning the social dialogue required in order to reach any sort of consensus.

³⁸ This was for many years the defense used by the Catholic church to demographic criticisms of church opposition to artificial birth control. See John XXIII, *Mater et Magistra*, #193 and 198-199, and Paul VI, *Humanae Vitae*, #23, in Joseph Gremillion, ed., *The Gospel of Peace and Justice: Catholic Social Teaching Since Pope John* (Maryknoll, NY: Orbis, 1976).

³⁹ Julian Simon, *The Ultimate Resource* (Princeton, NJ: Princeton University Press, 1981), 221-22.

⁴⁰ Jerrie DeHoogh et al., "Food for a Growing World Population," *Technological Forecasting and Social Change* 10 (1977): 1, 31.

"in the past 36 years (1950—1986) population has doubled (from 2.5 billion to 5.0 billion). Over the same period gross world product and fossil fuel consumption have each roughly quadrupled."⁴¹ One major reason that we cannot care for six billion people without this fundamental injury to the earth is that, as we have come to understand, the production of food, clothing, shelter, health care, and work requires energy, and our methods of energy production are, for the most part, toxic.⁴² Most of our energy comes from fossil fuels—from burning wood, coal, oil, and natural gas. Most of these are non-renewable, like coal, oil, and natural gas, and therefore reliance on them violates a commitment to sustainability. But all fossil fuels, including wood or animal dung, produce dangers to the air quality, especially in the volume necessary for the global population.

Nuclear power has the terrible problem of waste disposal—that is, the absence of any safe method of waste disposal—as well as the potential for catastrophic accidents, as Chernobyl symbolizes. Nuclear accidents must be put within the proper context for comparison, however. If construction of nuclear plants were as safe as the best of the current plans for nuclear plants, the death and injury ratio from accidents would compare well with the continuous damages from pollution by coal-fired plants, for example. However, the fact is that many plants are plagued by problems rooted in inadequate plans, poor construction, and many other pitfalls. The Chernobyl disaster was an example of plans which were unsafe to begin with. Unless there is some solution to the waste disposal problem in nuclear plants, we need not even debate the comparative safety of conventional and nuclear energy plants.

Other sources of energy, such as hydroelectric power, wind power, and solar power, offer promise for the future, but have not as yet been developed to the point that they could provide the massive amounts of energy required to support the earth's soon-to-be six billion human inhabitants. In fact, many analysts think it impossible for them to ever provide the amounts of energy necessary to sustain the numbers of persons at the level of energy consumption now characteristic of densely populated areas of the First World. Even if they can do so in the future, the fact that their development has not been made cost-effective over the last few decades means that their availability for the global task is not near.

Some persons would say: "Well, if these methods of energy production can in the future produce enough for all of us without reducing the world's population, then there is no real reason to reduce the population." This is irresponsible thinking. We have no real sign of political will in the nations of the earth to develop sustainable, non-toxic energy production methods. The nations of the Middle East, supported by other oil-producing nations of the world, supported by the automotive industry and all the suppliers of the automotive industry (tires, batteries, highways, etc.), and supported by the coal and natural gas industries and all the nations in which those industries are powerful, have a strong self-interest in continuing the exploitation of fossil fuels.⁴³ In the U.S. we have not even been able to raise the gas price enough to make it pay to drill our own oil rather than import. The political will to make gas cost enough that there is incentive to develop non-fossil fuel energy alternatives is totally absent, as the spring 1993 opposition in Congress to President Clinton's proposed energy tax has made clear.⁴⁴

For this reason we must make what progress we can simultaneously on all fronts. The process of building political will for changes in energy policy is no less slow and gradual than that of building support for

⁴¹ Cobb and Daly, *For the Common Good*, 2.

⁴² Werner Fornos, *Gaining People, Losing Ground* (Washington, DC: Population Institute, 1987).

⁴³ There are a number of sources documenting these groups' lack of interest in promoting alternative energy sources, as well as a similar lack of interest from groups in the nuclear energy field. Among them: John M. Blair, *The Control of Oil* (New York: Pantheon, 1976); John Gever, Robert Kaufmann, David Skole, and Charles Vorosmarty, *Beyond Oil* (Cambridge, MA: Ballinger, 1987); Richard Munson, *The Energy Switch: Alternatives to Nuclear Power* (Cambridge: Union of Concerned Scientists, 1987).

⁴⁴ In my local *Cincinnati Enquirer* over the last two weeks, there has been a steady stream of articles about the reservations in first the House and then the Senate regarding the budget bill in general, and most specifically about the energy tax: "House vote a vote of confidence: Reluctant Democrats expected to come through on energy tax," *Cincinnati Enquirer*, May 23, 1993, p. A1; "Arms Twist, tempers boil over the tax bill," *Cincinnati Enquirer*, May 27, 1993, p. A1; "Clinton's budget squeaks through," *Cincinnati Enquirer*, May 28, 1993, p. A1; Carl M. Cannon and Karen Hosler, "Hinting at Compromise: Clinton may give a bit on energy tax," *Cincinnati Enquirer*, May 29, 1993, p. A1; Steven Greenhouse, "Industries May Avoid BTU taxes," *Cincinnati Enquirer*, May 30, 1993, A1.

further slowing population growth, with all the cultural change which that entails. We cannot afford to insist on one or the other. We in the developed world must begin to build the political will to 1) cut consumption of fossil fuels (and all resources), 2) eliminate waste in energy (and all resource) production and delivery, and 3) develop energy alternatives, while we simultaneously 4) teach new cultural approaches to reproduction which support birth reduction in all sectors of our populations. The same agenda cannot be justly suggested to the developing world. While they, too, should concern themselves with elimination of waste in energy production and delivery, and with new cultural approaches to birth reduction toward a stable, sustainable population, they should not be expected to reduce already very low per capita energy use rates, nor should they be expected to heavily invest in developing energy alternatives, though they have the responsibility to use what local energy alternatives are known and available.

A New Reproductive Ethic

The need to move toward reducing the world's population not only requires that we better distinguish sex and reproduction in our thinking, but that we rethink reproduction altogether—what it means, how valuable it is, and what criteria make it responsible and human. Insistence on distinguishing sex and reproduction does not entail a shift to technologically controlled, non-sexual reproduction of humans. Such a shift would further undermine individual human agency in reproduction, which is already an acute cause of alienation for women throughout the world. Such a shift would further empower the elites who control the technology at the expense of the individual women and men who need it. Human reproduction should continue to rely primarily on sexual intercourse—intercourse which should take place within voluntary relationships grounded in mutual sexual pleasure.

Beneficial separation of sex and reproduction calls for a shift in consciousness rather than a technological shift. It requires reversing the prevailing understanding that sex is normally procreatively open unless special circumstances require contraception, to one in which sex is seen as normally contraceptive, so that only very special and consciously selected circumstances justify procreative openness.

In developing criteria for determining when procreative openness is justified, we need to balance a number of physical, cultural, demographic, and personal factors. In some cultures population has historically been somewhat controlled through cultural customs regarding when couples marry. In some rural areas a man did not marry until he had land, which often meant among the lower classes that he could not marry until he inherited land at his father's death, by which time he might be middle-aged.⁴⁵ In other cultures, especially in parts of Asia, the age at which women married was raised until the late 1920s or early 1930s, thus significantly shortening the childbearing years.⁴⁶

A just reproductive ethic will not utilize criteria which penalize the poor, or put undue stress on one gender or class. On the other hand, there is no justification for dismissing culture altogether in a reproductive ethic, as it is crucial to individual understandings of identity and worth. Thus in cultures in which women are valued exclusively as mothers, one needs to be very careful not to so limit childbearing as to undermine both the social status and self-esteem of women. In the same way, impregnation as a sign of virility in men can also be very important in societies in which male pride and achievement are severely limited by poverty and class.

One general guideline is to be cautious. Changes cannot be introduced too quickly. For example, a just reproductive ethic will attempt to maximize the health of women by ensuring that women are not expected to bear children either at too early or too late an age, or too close together. But the shift from a specific culture's present insistence that girls marry at menarche should be gradual. It would be wrong to impose, for example, for reasons of population control, a ban on marriage for women before age 25, especially in a culture in which women are valued only as mothers, for we know that the risk of infertility increases with age. No one segment of the population should bear the entire burden of the shift in the reproductive ethic.

⁴⁵ Bratton, *Six Billion and More*, 74.

⁴⁶ Bratton both recounts incidence of late marriage in earlier epochs and gives the modern example of Sri Lanka.. In that nation development efforts have created a situation in which the average age of female marriage is 25, infant mortality is severely decreased, literacy greatly increased, and almost as many girls as boys are educated—all relatively rare in poor nations. Bratton, *Six Billion and More*, 35.

This has been a basic problem with population control abuses in many nations. Women (and occasionally men) who have been sterilized without real consent—and sometimes without even their knowledge—have become demoralized, unmarriageable, or are divorced by spouses who want children, in economies largely devoid of real possibilities for women to be self-supporting.

The Goal: One Person, One Child

We need a reproductive ethic that aims at individuals deciding to replace themselves only. If reproductive pairs voluntarily limit themselves to two children or less (one apiece) then those pairs with one child and all the childless adults would together contribute to reducing the global population. This general aim would need to be adjusted where necessary to provide for demographic balance. Places with very high current birth rates (e.g., Kenya, whose birth rate is 4.2, compared to 1.9 in the U.S.) would need to approach such a standard gradually, lest rapid reductions cause a situation in which a much smaller productive population inherits the care of a non-productive elderly population many times its size. Many parts of the world are struggling with what may become devastating demographic imbalance due to the ravages of AIDS; demographic analysis is badly needed already in parts of Africa hardest hit. Unfortunately, those societies most in need of such information have inadequate resources for treating AIDS victims, for gathering information about the demographic results of the disease, and for planning to deal with those results.⁴⁷

In moving toward a just and sustainable reproductive ethic of replacement, a great deal of supportive cultural and economic transformation becomes necessary. For example, in many cultures to have only one or two children is still, despite greatly reduced infant mortality rates, extremely risky. For in cultures where sons represent the only old-age assistance available, it could be suicidal for a poor couple to have only one son, or only daughters. One son, even if he lives to adulthood, might not have the resources necessary to feed two extra mouths; daughters may not have enough control over family resources to take on support of parents. The statistics on infant mortality and childhood death are so terrible for some nations that even birthing two sons is no real assurance of having one survive to care for aged parents.⁴⁸ While a long-term goal might be a system of governmental old-age assistance, population control programs in the short term must concentrate on provision of sufficient food and medical care to ensure that first and second children survive childhood.

Allied to supportive changes in old-age assistance is cultural change in terms of sex roles. Increased economic opportunities for women improve women's ability to contribute to care of parents, and to care for children in the event of paternal death or abandonment. Broadening the basis of female worth from its present narrow base in motherhood in many cultures requires first of all reducing women's dependence upon both husbands and later children, especially sons, and providing alternative means for women to contribute to both families and society. Men's dependence upon impregnation as proof of manhood can be similarly decreased through creation of other avenues of achievement.

It is sometimes argued that stressing voluntariness in population control and convincing persons to have fewer children by improving survival rates of children and modifying sex roles entails an extended period of high rates of population increase. That is, some argue that until the new roles are in place and the population clearly recognizes that more children are surviving, they will continue to have many children, but more of those children will be surviving. This seems to be the risk. Regardless of the risk, most of the organizations at the base, certainly most women's organizations in poor nations, insist on emphasizing

⁴⁷ Jill Armstrong and Eduard Bos, "The Demographic, Economic, and Social Impact of AIDS," in Jonathon Mann et al., eds., *AIDS in the World: A Global Report* (Cambridge, MA: Harvard University Press, 1992), 202-204.

⁴⁸ Ethiopian social planner Maaza Bekele asserts that "It . . . seems unrealistic to expect that poverty-stricken, hard-working African mothers—many close to death before the age of 35—can be expected to limit the number of their children when only one out of three or four survive {These women} cannot run the risk that their major creative contribution to humanity (given that the rest of their life is pure drudgery) will be denied them. In each woman is the grain of hope that life for her offspring will be better than hers." The Hunger Project, *Ending Hunger. An Idea Whose Time Has Come* (New York: Praeger, 1985), 86.

voluntariness. But extended periods of high population increases are not necessary. A well-organized local program can demonstrate on a village-by-village, neighborhood-by-neighborhood basis drastically lowered infant mortality rates within five years. Programs in Bangladesh, Colombia, and other nations have been able to reach over 80% of a local population, offering three services: 1) universal inoculations for children, 2) a daily powdered milk or other protein supplement program for protein-deficient children and pregnant and nursing mothers, and 3) parent training and supervision in rehydration methods. Such programs normally more than halve the death rate of children under five within five years. In many communities such demonstrations are sufficient to convince many, though not, of course, all of the couples.

Changes should be not only as gradual as possible, but as voluntary as possible. "Voluntary" is a very slippery word. In general it makes little sense to say that a social change is voluntary or involuntary. In most of our decisions we are both free and coerced. That is, there are aspects of our situation which press us in one direction or another, at the same time that we have the freedom to ultimately resist those pressures. Resistance can be easy or costly, depending upon the strength of the pressure exerted on us. For example, economic pressures (the need for children to provide for one's old age) and social pressure (greater social status and power for mothers of sons) can reinforce each other in favor of a third or fourth child. Yet these pressures are sometimes outweighed in a family by desire for a government job for which sterilization after two children is a prerequisite. Is this a free decision? Yes and no.

The entire concept of voluntariness really only lends itself to comparison: a social change can be more or less voluntary, but never completely voluntary or involuntary. The common line that we often draw between persuasion and coercion is really not too clear. Is a Mexican man who is taunted at the local bar for not being a real man because his wife was seen emerging from the local clinic with contraceptives being persuaded or coerced into refusing to use contraception? Similarly, is a local government in Indonesia engaged in persuasion or coercion when it offers free school books only to the first child of a family? Usually the answer depends upon circumstances: how many times the other men at the bar have taunted him, what other acceptable proofs of manhood he has provided, or whether the economic circumstances allow the family to send subsequent children to school with or without books. Whether we desire to do the encouraged action for its own sake is usually only one of the aspects relevant to our final decision; social pressures, individual circumstances, and anticipated consequences contribute the remainder of the aspects relevant to this decision.

Attempting to ensure that change is as voluntary as possible entails more than one process. First of all it entails seeing that a society's reproductive policy emerges from as democratic and representative a process as possible. All groups in the society should be heard and their perspectives included, so far as possible. Differences should never be settled solely or repeatedly at the expense of any one group. But maximizing voluntariness also means that at an individual level the disincentives used should never cut off choice altogether. It is wrong to enforce a one-child policy by legally forcing abortion of second pregnancies. Nor should enforcement of reproductive policy punish the innocent—such as the loss of housing altogether for families who exceed the ideal number of children. Disincentives which require sacrifice from families who decide to exceed the recommended number of children are acceptable, so long as the sacrifices required: 1) do not include the sacrifice of basic rights or the fulfillment of basic human needs; 2) principally fall on those who made the decision to exceed the norm; and 3) do not encourage parental or social rejection of the "excess" children.⁴⁹

⁴⁹ In China, for instance, the recent opening to adoption of Chinese infants by Westerners has demonstrated how the one-child policy combined with the social preference for sons over daughters has produced hundreds of thousands of abandoned girl babies, and stories of rural infanticide. Some have suggested that the fact that all the abandoned adoptable children are girls may account for the new willingness of the Chinese government to allow non-Chinese to adopt Chinese babies. It is not known to what extent this willingness of Chinese couples to abandon girls in attempts to try again for a son will affect the balance of the sexes in China, and census figures on sex ratios since 1990 are not available. However, in India, where a similar preference for sons over daughters is implemented apart from official population control policy under the impetus of poverty and the availability of sonagrams and selective abortion, the 1991 census revealed a shortage of over 22 million girls over the expected number, and a sex ratio of only 929 women for every 1000 men. (William Stief, "India's Endangered Women," *The Progressive*, 56:8 (August 1992): 43; Rhona Mahoney, "On the Trail of the World's 'Missing Women,'" *Ms.*, 2:5 (March-April 1992): 12;

Incentives and disincentives must be specific to particular societies, and even to specific classes within the society. In general, no one incentive or disincentive will be both just and effective across all social groups. Tax incentives in developed nations are a useful way of persuading middle- and working-class parents about family size and other aspects of family life. Tax incentives are less effective for the poor and the rich, for the poor are not affected in that they either don't pay taxes or don't have enough income to protect, and the rich are insulated by their wealth from the pinch of higher taxes. Population policy will need to be very nuanced, and be integrated into many different areas of social regulation in order to spread the incentive and the burden fairly.

Bhupesh Mangla, "India: Missing Women," *The Lancet*, 131:1780 (September 14, 1991): 10; Bruce Porter, "China's Market in Orphan Girls," *The New York Times Magazine*, April 11, 1993.) 1984 floods in the same country. (Hartman, *Reproductive Rights and Wrongs*, 214-217.)