

# Population Control and the Anti-eugenic Ideology

By NATHANIEL WEYL

One of the more encouraging developments of recent years has been the speed with which both the educated citizenry of the free world and the technological and managerial élite of the Soviet world have become aware of the serious threats to the biosphere posed by unchecked global population growth and concomitant ecological deterioration. The Western nations, Japan, and the Soviet Union have embarked on multibillion dollar programs to reverse the poisoning of air and water. Short of war, few causes have ever generated such a swift, co-ordinated, and titanic effort. Among the college-bred in the United States and other Western countries, the causes of ecological sanity, conservation and population control have captured the imagination of millions, deflecting some of the idealism of youth from sterile and subversive causes towards issues central to man's species survival.

The population problem has both quantitative and qualitative dimensions. The first is the adjustment of human numbers to available resources. The second is the moving balance between genetically determined intelligence and stupidity.

There are at least four reasons why it is essential that population control programs be directed toward the upgrading of the human gene pool in respect to intelligence.

First, man's material and social environment is becoming increasingly complex and difficult to control. As this occurs, the need for intelligence and wisdom increases, that for mere physical strength and manual dexterity diminishes.

Second, in the advanced countries, which hopefully mirror the future of the underdeveloped ones, the rate of change in science, technology and human institutions is accelerating. Only highly intelligent people can adapt to these changes and guide them in beneficent directions. The mentally inept often react with a sort of psychic paralysis, denying the present in the interests of an imaginary retreat to some bygone age of putative stability — a reaction which Alvin Toffler appropriately calls "future shock."

Third, both the technological instruments of species destruction and their availability will predictably continue to increase. This makes a general improvement in species intelligence of the utmost urgency. Nations and species poorly endowed genetically

with brain tend to thrust emotionally unstable leaders into positions of power.<sup>1</sup> In the age of gunpowder, this caused calamities; in the age of nuclear weapons, it can cause catastrophe.

Finally, over 99 per cent of mutations are deleterious. In the past, through premature death, failure to find a mate or inability to raise children to reproductive ages, natural selection winnowed out those unfortunates who bore heavy loads of undesirable mutations. In the more advanced countries, these harsh processes no longer cull the unfit. Since the load of deleterious mutations is cumulative, it follows that qualitative population control programs are necessary merely to offset these incremental insults to the human gene pool.

### CONFLICT, TRIAGE AND DEMOGRAPHIC EXPLOSION

It is self-evident that the demographic explosion is making a major contribution to ecological chaos. The already vast zones of endemic hunger are being enlarged by unrestrained population growth. International aid from the developed nations imposes visible strains on the economies of the donors and causes shortages which are sometimes deeply resented.

An example is the export of about 25 per cent of the American wheat crop to the Soviet Union in 1972 to avert near-famine conditions there. Shifts from feed grains to wheat sent U.S. beef prices skyrocketing and caused widespread consumer resentment. This example would have been trivial had the Soviet food crisis been caused primarily by unusually bad weather. However, this was not the case. Under the Czars, Russia was one of the world's greatest wheat exporters. Currently, she must meet food deficits with massive imports even in good harvest years. Given the appalling inefficiencies of collectivized agriculture, Russian population growth is placing increasing strain on limited arable land resources. With such other former grain exporters as Argentina out of the picture, the burden of meeting Russian and other food deficits falls upon the United States, Canada and Australia.

An unanswered question is whether the citizens of the grain-surplus democracies will long consent to reducing their own nutritional levels in order to relieve hunger and famine abroad. Where foreign countries fail to take realistic steps to curb population explosions, it is reasonable to expect that the American public will object strenuously to grain exports which adversely affect domestic meat consumption.

<sup>1</sup> This process is perhaps most visible in the contemporary Arab and Negro African world where irresponsibility is often matched by hysterical chauvinism. The triumph of Hitler in Germany and, to a lesser degree, of Mussolini in Italy reveals, however, that a highly intelligent citizenry does not necessarily guarantee against selection of leaders without morals, moderation or wisdom.

If world population continues to increase at its present headlong pace, the grim forecast of the Packard brothers will probably soon become reality. In other words, the rich nations will face a *triage* situation. As public health officials do in certain disaster situations, they will probably write off certain endemic famine areas as hopeless; ignore the pleas of a second group which is merely concerned with deterioration in the quality of its diet, and give limited food aid only to a third group, lying between the first two. Presumably, such aid will be channeled to serve national political objectives and will be hedged with political conditions. This should at least re-establish some of the preponderant political power which the West wielded before the Second World War and which it frittered away when it jettisoned its empires.

Thus the prospect is that famine and chronic hunger, which already afflict over half of mankind, will both spread to new nations and become more general within nations already affected. In short, Malthusian checks will become operative on a vaster scale. One reason for this is that governments, which are perfectly capable of coping with ephemeral and inconsequential issues, often lack the intelligence and dedication to recognize impending major calamities and to take sensible steps to avert them.

Already scarce inanimate resources are being squandered at rates which jeopardize the future of unborn generations. Teeming human populations in their quest for food drive marine and terrestrial species (for example, the salmon, the cod, the whale, the leopard, the tiger and the African elephant) to the very verge of ecological extinction. Keeping mankind alive and providing about one-tenth of the species with luxuries undreamed of by previous generations has entailed poisoning the air and water of the biosphere and starting processes of ecological degradation, some of which may prove irreversible.

Throughout most of Asia from the Pakistan border to the Pacific, governments have espoused the cause of population control. As education in this area spreads and as the goads of poverty and hunger stir even dull minds to realistic thought, population experts hope that acceptance of the target of zero population (ZPG) will become general.

This view may be more optimistic than realistic. Many Asian countries lack the means to reach vast backward peasantries whose minds are steeped in superstition and ignorance of even the rudiments of science. Where people of limited intelligence or education or both have finally been persuaded of the desirability of limiting family size, they have often proved incapable of efficiently utilizing the contraceptive devices placed at their disposal. (A possible contributory factor is that governments of overpopulated countries, while able to afford arms races and wars of aggression,

find it necessary to skimp on their public health budgets so that the contraceptive devices placed in the hands of their citizens are often both the cheapest and the worst.)

## WORLD POPULATION PERSPECTIVES

The long-range prospects are that scientific progress will increasingly move towards the perfection of cheap, sure, fool-proof contraceptive devices which even backward peoples will be able to use without risk of failure. Simultaneously, the spread of a homogeneous, universal culture through such mass media as television should continue to infect all peoples with the goals and life-styles which are the consensus values of the West. This probably applies to population control, which is accepted in the United States, most of Europe, Japan and, to an increasing extent, in Soviet Russia and the People's Republic of China.

If all this is true, the *eventual* prospect is for general and effective birth control. Since the goal of a two-child family seems to be more or less tacitly accepted by a majority in the rich and successful, spatial extension of the two-child goal appears predictable.

Within this general framework, there will probably be national and racial differences in desired family size. This is on the assumption that the procreative and philoprogenitive drives are largely genetically determined and hence vary, not only from one individual to another, but from one population group to the next.

If past experience serves as a guide, the movement toward general family limitation and toward essentially a ZPG plateau will be slow and faltering. Moreover, the preponderance of young people in the underdeveloped world will give additional impetus to population growth.<sup>2</sup> Even if every human being on the earth instantly stopped reproduction after two children, the momentum of massive demographic expansion would continue for decades to come.

In broad terms, the world population picture can be viewed in either of two ways. The processes at work may be seen as inherently disruptive. According to this model, population growth in the advanced, rich, urbanized countries is based almost entirely on momentum, the trend being toward zero growth, if not actual decline. In the backward, poor and preponderantly peasant

<sup>2</sup> In populations which are continuously and rapidly growing, there is almost invariably a disproportionate number of the young and an even more disproportionate number of the very young. The younger the age-group, as a general rule, the more the percentage by which it exceeds the size it would have if the population were stabilized at ZPG. As long as this condition prevails, each cohort, as it reaches reproductive age, is larger than its predecessor.

countries, by contrast, both population growth and rate of population growth are increasing. This suggests polarization of the world, as visualized by such Chinese Communist theoreticians as Lin Pao, and also the reversion to Malthusian, famine-bound condition for the great majority of mankind.

The alternate view is also in accord with the available evidence. According to this, the United States, Europe, the white British Dominions, the Soviet Union and Japan have reached, or are approaching, the momentum-growth condition already mentioned. Effective population limitation will probably spread next to the People's Republic of China since the Communist authorities have recently revealed a realistic awareness of their demographic problem and since they have developed more effective controls over the personal lives of their subjects than any other peasant country has ever known. India, which is making a major effort to solve her population problem, might be the next great area to move towards stabilization. Advanced and urbanized nations in the Arab and Catholic worlds, such as Lebanon, Uruguay and Argentina, may also move towards decreased natality rates. The most recalcitrant areas are the Muslim world (where custom and mores, if not religion, repudiate birth control), Latin American countries (where Catholic attitudes toward contraception and abortion predominate) and Negro Africa.

#### THE SPATIAL BALANCE OF BRAIN

If this prospect is realistic, we face an enormous continuing expansion of world population during the next decades and a decline in the world birth rate thereafter. The ratio between the problem-solvers and the problem-makers, to use Elmer Pendell's happy phrase, will continue to shift unfavourably. Natality and population growth will be most exuberant in black Africa, the Arab world and Latin America. The first region has never made any consequential contribution to civilization; the second once made great contributions, but has been culturally, scientifically and intellectually sterile for centuries; the third region has made few contributions of real importance.

Northwest Europe and its areas of overseas settlement face the lowest rate of population increase of any of the world regions. Yet it is Western Europe which has been the great cauldron of innovation and invention, as well as of science and culture, over the centuries. As S. Colum Gilfillan<sup>3</sup> recently put it:

<sup>3</sup> S. Colum Gilfillan, "Environmental and Population Problems Reconsidered," *Technological Forecasting and Social Change*, 3, 1973, p. 405. Also Clarence Streit, *Freedom Against Itself*, pp. 239-273, and S. Colum Gilfillan, *Supplement to the Sociology of Invention*, San Francisco Press, San Francisco 1972, chapter 4B.

We might also compare the output of the world's nations through Clarence Streit's carefully compiled list of 1012 major inventions, discoveries and innovations between 1750 and 1953. It indicates that 93 per cent have been made by the small fraction of the world's population who lived in the European countries north and west of Switzerland and Austria, including these, and in the United States, Canada, Australia and New Zealand; the remaining great mass of mankind produced 7 per cent. My own study of all the inventions patented abroad in 1925 (out of the inventor's homeland, a better lot) indicates that the countries of the superior group named above, with 17 per cent of the world's population, were taking about 95 per cent of those patents. The Swiss, who stood at the top in per capita inventing, were something like 15,000 times as inventive as the native population of India.

Poverty will, for the most part, be closely correlated with fertility, the most salient exception being areas such as the Near Eastern oil-rich nations and sheikdoms, which will continue to draw multibillion dollar royalties from petroleum resources their inhabitants were too obtuse to discover and too dull and lazy to develop.

If the most exuberant reproduction can be anticipated among peoples who have thus far shown little ability to make positive contributions to civilization, this should not necessarily lead to that inundation and destruction of the West by Asian and African multitudes which racist writers like Lothrop Stoddard feared half a century ago. On the contrary, the relative power of the Western nations may well increase as the gap between their productivity and that of the underdeveloped world widens. The technologically advanced, demographically stable world, moreover, is being enlarged by the recruitment of emergent modern powers such as Japan, the Soviet Union and, perhaps in the future, Communist China.

#### CITY AND COUNTRYSIDE

Within all nations, there is the generally dysgenic tendency of the brightest people to move from the countryside to the cities and for urban birth rates to fall relatively to rural ones. There are several reasons for this. In poor, under-educated and backward countries, city folk are those who learn newfangled techniques, of which contraception and abortion are, in the present context, the most important. The breaking of traditional cultural and familial ties, the shattered grip of neighborly coercion once the peasant has left the village and been swallowed by the anomie of the metropolis, all this makes urbanized people willing to try new and revolutionary techniques which they would not have known about

and not dared experiment with in their rural communities. In the developed countries, similar forces operate. If the country people practice birth control, they will generally not be as well informed or as intelligent as the city people; hence they are more likely to use ineffectual devices or to use effective ones improperly.

It is also possible that the expansion of the breeding population, or deme, which occurs with urbanization may reduce fertility. A study by Jack B. Bresler casts new light on this intriguing subject. Bresler studied 708 pregnant women in Providence, Rhode Island, all of whom had exclusively Caucasian grandparents. He correlated the percentage of fetal loss with the number of countries of birth of the grandparents of husbands and wives. The rate of miscarriage increased by 2.5 per cent to 3 per cent for each additional country of birth in the grandparental generation.<sup>4</sup> Fetal loss also increased with the distance in miles between the birthplaces of the parents. Moreover, an earlier Bresler study showed that the greater the number of birth countries of the grandparents, the smaller was completed family size.<sup>5</sup> Dr Bresler suggested that the apparent decline in fertility with increased heterogeneity of ancestry was due to "greater mixing of gene pools and concomitant imbalance between loci."

These results are not substantiated, however, by 1960 U.S. Census data on the fertility of interracial marriages. Black wives, 15 to 49 years old, married to native-born white husbands, had an average of 0.710 children under five years old. Native-born white wives married to black husbands had an average of 0.712. This is compared with a corresponding fertility of 0.660 for homogeneous native-born white marriages and of 0.871 for homogeneous Negro marriages.<sup>6</sup> While they were considerably less fertile than Negro marriages, the mixed unions showed significantly higher fertility than native-born white marriages.

However, if Bresler's findings are physiologically valid, the conclusion follows that urbanization expands the breeding population, that this introduces the probability of greater ancestral heterogeneity, and that the latter is in turn associated with increasing fetal loss and decreasing fertility.

<sup>4</sup> Jack B. Bresler, "Outcrossings in Caucasians and Fetal Loss," *Social Biology*, 17 1970, pp. 17-25. Republished in *Genetics and Society* (edited by Jack B. Bresler) Addison-Wesley Publishing Company, Reading, Mass., 1973, pp. 200-213.

<sup>5</sup> Jack B. Bresler, "The relationship between the fertility patterns of the F1 generation and the number of countries of birth represented in the P1 generation," *American Journal of Physical Anthropology*, 20: pp. 509-513.

<sup>6</sup> U.S. Department of Commerce, Bureau of the Census, *United States Census of Population 1960: Women by Children under 5 Years Old*, Table 26, p. 49.

## CASSANDRA WARNINGS OF DYSGENIC FERTILITY

The inverse correlation between fertility and intelligence has alarmed Western thinkers for over a century.

“Thus,” wrote Charles Darwin in *The Descent of Man* (1871),<sup>7</sup> “the weak members of civilized societies propagate their kind. No one who has attended to the breeding of domestic animals will doubt that this must be highly injurious to the race of man. It is surprising how soon a want of care, or care wrongly directed, leads to the degeneration of a domestic race; but, excepting in the case of man himself, hardly anyone is so ignorant as to allow his worst animals to breed.”

Half a century before Darwin expressed these thoughts, Thomas Jefferson approached the emotionally charged issue of eugenics from the opposite, or positive, standpoint. In a letter to his old friend, revolutionary comrade in arms and political rival, John Adams, he wrote that “there is a natural aristocracy among men,” based on “talent and virtue,” and that this natural aristocracy is “the most precious gift of nature, for the instruction, the trusts, and the government of society.” He added that the natural *aristoi* were under moral obligation to outbreed what he called “the common rubbish” and suggested that this might best be achieved by their having harems. He recognised, however, that the democratic spirit might rise in arms against polygamous privileges for the morally and mentally superior élite.<sup>8</sup>

The development of increasingly effective birth control techniques gave new impetus to the inverse correlation between I.Q. and fertility. The intelligent, the educated and the well-informed were the first to learn about new contraceptive or abortive techniques, the first to avail themselves of them, and the first to apply them systematically, effectively and intelligently.

As early as 1934, the distinguished historian, Charles Beard, perceived the dire implications of the trend towards sterility among the intelligent.

<sup>7</sup> Charles Darwin, *The Descent of Man*, 1871, p. 501.

<sup>8</sup> Thomas Jefferson to John Adams, October 28, 1813. Jefferson probably practiced his eugenic theories clandestinely with his quadroon slave, Sally Hemings, by whom he may have fathered five children. Hagiographic biographers of the Monticello genius angrily deny the story, probably because it does violence to their prejudices and preconceptions. The conclusive evidence, to my mind, is that during Sally Hemings' reproductive years, she and Jefferson were in different localities about half the time, whereas nine months before each of her five confinements, they were always in the same place. The probability of this occurring by chance is  $(1/2)^5$  or 1 out of 32.



“The most intelligent individuals, on the average, breed least,” he wrote,<sup>9</sup> “and do not breed enough to keep their numbers constant. Unless new incentives are discovered to induce them to breed, they will soon not be sufficiently numerous to supply the intelligence needed for maintaining a highly technical and elaborate system—meanwhile, we must expect that each generation will be congenitally stupider than its predecessor. This is a grave prospect.”

“I am unhappy that the pool of human germ plasm, which determines the nature of the human race, is deteriorating,” Nobel Laureate Linus Pauling wrote in 1959.<sup>10</sup> Four years later, Sir Julian Huxley observed<sup>11</sup> that “the general quality of the world’s population is not very high, is beginning to deteriorate, and should and could be improved.”

In the passages just quoted, Pauling and Huxley were primarily concerned with the accumulation of mutations detrimental to human species survival. Hermann J. Muller, the 1946 Nobel Laureate in Medicine and Physiology, considered the negative selective effect of birth control even more ominous.

“Is it not true today, when birth control is available,” Muller asked,<sup>12</sup> “that those persons are likely to have the largest retinue of children, whether legitimate or otherwise, who are most lacking in perspective, or are dominated by superstitious taboos, or are unduly egotistical, or heedless to others’ needs, or shiftless and bungling in techniques? These considerations raise the possibility that a much faster acting and more serious cause of a genetic deterioration than the accumulation of detrimental mutations occurring in the wake of relaxed selection, is an actual reversal of selection in regard to those psychological traits that are of the highest social importance.”

In an important 1963 article, Carl Jay Bajema published evidence that intelligence is positively correlated with fertility, although to a slight extent, in a U.S. white population. Fertility shortfalls among the highly intelligent, Bajema found, were somewhat more than offset by the sterility of the mentally deficient,

<sup>9</sup> Charles Beard, *Whither Mankind*, Longman’s, Green and Company, London, 1934, p. 80. Quoted by Robert Klark Graham, *The Future of Man*, Christopher Publishing House, North Quincy, 1970, p. 93.

<sup>10</sup> Linus Pauling, “Molecular Disease,” *American Journal of Orthopsychiatry*, Vol. XXIX, No. 4, 1959, p. 684.

<sup>11</sup> “The Future of Man—Evolutionary Aspects” in *Man and His Future* (edited by G. Wolstenholme), Little, Brown and Company, Boston, 1963, p. 17.

<sup>12</sup> Hermann J. Muller, “Should We Weaken or Strengthen Our Genetic Heritage?,” *Daedalus*, Summer 1961, p. 446.

caused by genetical incapacity, inability to find mates, institutionalization and other factors.<sup>13</sup>

However, Arthur R. Jensen pointed out in a pathbreaking article in the *Harvard Educational Review* that the Bajema data derive from a sample which is not representative of the American population. It is composed almost entirely of native-born Whites, reflects pre-Second World War natality trends primarily because of its age composition and is preponderantly Protestant, urbanized and well educated.

The correlation between Negro fertility and educational level is strongly negative. Jensen<sup>14</sup> cited 1960 Census data to show that Negro women 35 to 44, married to unskilled laborers, averaged 4.7 children (as against 3.8 for similarly situated non-Negro women), whereas Negro wives of professionals averaged only 1.9 children (as against 2.4 for similarly circumstanced whites.)

If birth control has thus far tended to decrease the fertility of the most intelligent and best educated elements in the population, it does not necessarily follow that this will continue to be the case in future. We may in fact be witnessing a cultural lag phenomenon. As contraceptive knowledge becomes more general among the poor, the undereducated and the non-white components of the American population, its incremental impact will presumably be greatest among precisely those groups.

Data on the spread of contraceptive practices suggests that they will soon be in general use among all classes, races and religious denominations in America. An expansion of birth control education and the development of more effective, cheap and convenient contraceptives will predictably reduce the rate of contraceptive failure. The implication is that unwanted pregnancies will soon become exceptional in the United States. If so, actual family size and desired family size will tend to coincide. Surveys of the number of children wanted in different classes and educational categories will then provide the best clue to demographic projection.

#### ACTUAL VS. WANTED PREGNANCIES

In 1965, the Office of Population Research at Princeton University sponsored a National Fertility Study, based on interviews with a stratified sample of 5600 American married women. Directed by Professor Norman B. Ryder of Princeton and the distinguished population expert, Dr Charles F. Westoff, this study is the most

<sup>13</sup> Carl Jay Bajema, "Estimation of the Direction and Intensity of Natural Selection in Relation to Human Intelligence," *Eugenics Quarterly*, Vol. 10, No. 4, 1963, pp. 175-187.

<sup>14</sup> Arthur R. Jensen, "How Much Can We Boost I.Q. and Scholastic Achievement?," *Harvard Educational Review*, Vol. 39, No. 1, Winter 1969, pp. 93-95.

comprehensive survey of the reproductive and contraceptive habits of American women ever attempted.<sup>15</sup>

From a eugenic standpoint, the most important aspect of the National Fertility Study is the relationship between desired and actual number of children by race, class and educational level.

Perhaps the most astonishing conclusion concerning ethnic differences in fertility patterns is that Negro women want on average only 2.6 children, as against 2.7 children for white women. Since the expected number of children was 4.0 for Blacks and only 3.3 for Whites, it follows that the greater Negro fertility was entirely due to the fact that they produced an average of 1.4 unwanted children, as against 0.6 unwanted white children.

If the sample is representative, if the responses were truthful and if the desired number of children remains substantially constant, then the implication is that development and general availability of sure and foolproof contraceptive devices will reduce Negro birth rates to slightly below the white level. Since Negro I.Q. averages one standard deviation, or about 16 points, below white I.Q., the elimination of unwanted births will significantly diminish the inverse relationship between fertility and intelligence in the United States.

The number of children white married women wanted was not significantly correlated with either educational level or family income. White female high school dropouts wanted an average of 2.8 children, the same number that white female college graduates wanted<sup>16</sup>.

Desired number of children on the basis of family income ranged between 2.6 for those making \$10,000 to \$15,000 to 2.9 for two groups earning less than \$5,000. The relationship between income and desired fertility was neither consistent nor indicative of a steeply sloped line of regression. Finally, no significant association was found between number of children wanted and past or present farm residence.

Turning to expected number of children, strong inverse correlations were revealed between fertility and both education and income. White women high school dropouts expected 4.1 children on average against 2.3 children expected by white female college graduates. White families earning less than \$3,000 expected 3.9

<sup>15</sup> The 1970 follow-up survey is more comprehensive, but its main findings have not as yet been made public.

<sup>16</sup> To be sure, white women with only an elementary education had significantly higher fertility targets (3.2 children), but this group comprises only about 12 per cent of American women aged 15 to 44. Moreover, since a greater proportion of American women enter high school and college every year, the lowest educational group is overweighted with older women and thus reflects older and higher natality objectives.

children; white families earning over \$15,000 expected 3.0 children.

The data suggest that the negative correlations found between white fertility and both education and income are almost wholly caused by unwanted pregnancies due to improper or incompetent use of contraceptive devices. Effective family planning, according to this data, would then almost entirely obliterate these inverse relationships.

The situation among Blacks was different. Almost all groups of black women wanted fewer children than their white counterparts. Negro college graduates wanted only 1.9 children (as against 2.8 children for white college graduates). Negro high school dropouts wanted 2.6 children, as compared with 2.8 for their white counterparts. In terms of income, the poorest Blacks wanted 3.1 children, the richest only 2.0 children.

The data show a fairly strong inverse correlation between Negro fertility targets on the one hand, and education and income, on the other. Nevertheless, the main dysgenic force is unwanted pregnancies. Some 52 per cent of the most recent pregnancies among Blacks were unwanted, as against 30 per cent in the case of the white sample. The gap between expected and wanted births was greatest among those Negroes with least education and income. Accordingly, more effective family planning should again operate to sharply reduce the degree of dysgenic fertility.

The survey showed high contraceptive failure rates among Blacks. Only 49 per cent of Negro women under 45 (as against 57 per cent of white women) used contraceptives. Fewer Negroes used the Pill; more relied on condoms; six times as many Blacks as Whites depended on the rhythm method. The higher rate of contraceptive failure among Negroes was not associated with greater frequency of sexual intercourse. In fact, the black couples in the survey engaged in coitus only 6.3 times a month on average as against 6.8 times monthly for the white couples.

By 1970, these differences had largely disappeared. The percentage of white couples who had resorted to sterilization for contraceptive purposes increased from 11.7 per cent in 1965 to 15.8 per cent in 1970. The corresponding sterilization percentages for black couples were 14.9 per cent and 20.4 per cent. The percentage of Negro women using the Pill rose from 21.7 per cent to 37.4 per cent, or three points higher than the corresponding 1970 percentage of white married women on the Pill. Population expert Westoff<sup>17</sup> concluded:

This high level of protection is being experienced by both Blacks and Whites and fairly uniformly by couples of widely

<sup>17</sup> Charles F. Westoff, "The Modernization of U.S. Contraceptive Practice," *Family Planning Perspectives*, Vol. 4, No. 3, July 1972, p. 12.

varying educational levels. Since educational attainment is a measure of socioeconomic status which is closely related to income, the data for 1970 would seem to indicate that low-income couples have almost caught up to the level of contraceptive protection experienced by higher income couples. This is probably in substantial part due to the efforts of public and private family planning programs.

Marked differences were found between Catholics and non-Catholics. A 1957 U.S. Census sample survey found that Catholic women aged 40-49 averaged 2.6 children as compared with 2.4 children for Protestant and 1.8 children for Jewish women. (More recent data are not available because the sample survey incurred the protests of minority pressure organizations and had to be discontinued.) The 1965 National Fertility Survey disclosed that Catholics expected 3.9 children, Protestants 3.0 and Jews 2.9. The gap between Protestants and Jews seemed to be narrowing.

The higher fertility of Catholic women was due more to differences in family objectives than to differences in rates of contraceptive failure. Moreover, among Catholic women, fertility was positively associated with education, though in an irregular fashion. Catholic high school dropouts wanted an average of 3.0 children; high school graduates wanted 3.1; college incompletes wanted 3.0; while college graduates wanted 4.0.

If these targets remain substantially as they were reported in 1965, Catholics will constitute a continuously increasing proportion of the American college bred and hence of the American intellectual and leadership élite. Moreover, continued displacement of non-Catholics by Catholics at the college level would eventually change the negative association between fertility and education into a positive one.

#### U.S. CENSUS DATA ON FERTILITY

In recent years, the American birth rate has been falling consistently and rather drastically. Moreover, the total number of births expected by married women has also been declining. American wives aged 18 to 24 expected an average of 2.3 births, including children already born to them, in 1972. Since women who marry young have more children than those who marry late or never, there is a presumption that the average fertility of all American women in this age cohort will be lower. Census statisticians estimate that the shortfall may be about 0.2 children per woman, which would place the U.S. birth rate for those women

who will provide the greater part of American births in the next few years at or near replacement level fertility.<sup>18</sup>

The 1972 study shows that the number of children expected by Negro wives is more than the number expected by white wives, but that the gap is narrowing significantly. Thus, Negro wives who were 30 to 34 years old in 1972 expected 32 per cent more children than white wives of the same age bracket; Negro wives aged 25 to 29 expected 17 per cent more children than their white counterparts, while Negro wives aged 18 to 24 expected only 7 per cent more children than white wives in the same age category. It is worth noting that "expected number of children" is not the same as "desired number of children." The first category allows for contraceptive failures, both those that have already occurred and those which can reasonably be anticipated in the future.

TABLE 1

*Total births expected per 1000 non-institutionalized wives 18 to 39 years old by age and race in 1972*

<i>Age group</i>	<i>White wives</i>	<i>Negro wives</i>	<i>Negro index (White=100)</i>
18-24	2243	2398	107
25-29	2420	2830	117
30-34	2842	3749	132
35-39	3155	3986	126

The indications are that both the Negro and the white birth rates are approaching replacement level fertility, that is to say, the fertility level required for the population eventually to reach zero growth on the basis of projected death rates and no immigration or emigration. Should the decline in natality continue, the U.S. population will nevertheless continue to grow because of the abnormally high concentration of people in the most fertile age-brackets, but, once this effect wears off, population will decline.

Analysis of total expected births by educational level shows that the traditional inverse correlation between fertility and schooling continues to exist. However, the gap between total expected number of births by the well-educated and the badly-educated has been reduced by more than half. This is shown clearly in Table 2.

<sup>18</sup> Bureau of the Census, U.S. Department of Commerce, *Current Population Reports, Population Characteristics, Birth Expectations and Fertility: June 1972*, Series P-20, No. 240, September 1972. The reason to assume that the shortfall in natality will be about 0.2 children is that wives who were 18 to 24 years old in 1960 reported an average expectation of 3.1 children, but it now appears that they will bear only 2.9 children on average.

TABLE 2

*Total births expected per 1000 non-institutionalized wives aged 18 to 39, by educational level in 1972*

<i>Age group</i>	<i>Not high school graduates</i>	<i>High school graduates</i>	<i>One or more years of college</i>
18-24	2460	2208	2175
25-29	2964	2407	2195
30-34	3630	2771	2469
35-39	3669	3130	2812

*Index figures: College group=100*

18-24	113	102	100
25-29	135	110	100
30-34	147	112	100
35-39	131	111	100

For the oldest group of wives studied, those born in 1933 to 1939, those with less than a completed high-school education expected to be from 31 per cent to 47 per cent more fertile than those with some college education. For the wives born in 1933 to 1937, the least educated had 31 per cent greater expected fertility than the best educated. But for those born between 1948 and 1954, the least educated expected to be only 13 per cent more prolific than the best educated. Comparing those with some college and those with high-school diplomas only, the fertility differential in favor of the latter was about 10 per cent in the earlier periods and only 2 per cent for the youngest group of wives.

Thus, Bureau of the Census data are generally in conformity with the National Fertility Study findings. The indications are that contraceptive techniques will continuously improve and that the use of contraception will continue to spread among all sectors of the population. As this occurs, actual family size will tend to coincide with desired family size, that is to say, unwanted births will become the exception. Assuming that desired family size will continue to be approximately the same for Negroes and Whites and assuming that the inverse association between desired number of children and both income and education will continue to diminish, we can anticipate that the preponderant impact of birth control will be on Negroes, people with below-average incomes and people with below-average education.

If they continue to operate, these trends should bring about zero population growth in the United States as soon as the abnormally heavy concentration of population in the maximum-fertility age groups disappears. They can be expected, if they continue, to eliminate entirely the inverse correlations between fertility, on the one hand, and education and income, on the other, which have caused such deep concern to geneticists, anthropologists and social scientists concerned with man's future.

However, these developments will not compensate for the genetic deterioration in respect to inherited intelligence which has already occurred during the many generations in which the less intelligent sectors of the population outbred the more intelligent ones. Nor will they compensate for the continuous deterioration caused by mutations, over 99 per cent of which are believed to be detrimental to human health, intelligence or wellbeing.

The significance of these American trends is that they are likely to be replicated in other advanced countries and hopefully to spread in time to the more backward and undeveloped lands. If this cultural diffusion should prove rapid, the havoc caused by excessive reproduction in the latter areas will be minimized, but still massive and, in many areas, calamitous. If, as seems probable, the diffusion will be painfully slow, the prospect is that the productivity and wealth of the technologically advanced infertile nations will continue to increase, whereas that of the technologically backward and prolific peoples will actually decline. This suggests a polarization of mankind and a trend towards greater and greater concentration of wealth in relation, not to class, but to nationality.

A situation peculiar to the United States, but one which may have its analogies elsewhere, is the difference between black and white fertility patterns. That American Negroes desired fewer children than American Whites in 1965 has already been pointed out. We have also shown that desired number of children is only slightly and erratically associated with economic class in the white population, whereas there is a sharp negative association between the two variables in the black population. After pointing out that "the poverty rate for families with five or six children is  $3\frac{1}{2}$  times that for families with one or two children," Jensen<sup>19</sup> commented: "That these figures have some relationship to intellectual ability is seen in the fact that three out of four Negroes failing the Armed Forces Qualification Test come from families of four or more children." The most ominous implication of this accentuated inverse relationship between class and fertility (and presumptively also between intelligence and fertility) in the American Negro population is a widening I.Q. gap between the two races. It would be interesting to know whether similar trends operate among such minority groups as the Pakistanis, Indians, Maltese and West Indians in Great Britain and the Algerians in France.

#### THE NEED FOR IMPROVED HUMAN INTELLIGENCE

Advocates of zero population growth have sometimes failed to recognize that control of human fertility has a qualitative as

<sup>19</sup> Arthur R. Jensen, *op. cit.*, p. 95.



well as a quantitative dimension. Because the world is already overpopulated, it is inferred that everyone has a duty to practise reproductive restraint. Under the influence of egalitarian ideology, some ZPG advocates urge that birth control be imposed equally on all human beings regardless of differences in their genetic potential. They sometimes go even further and urge that the richer nations, and particularly their most opulent and successful citizens, have a greater moral obligation than mankind as a whole to limit their numbers. Since they are richer, it is argued, these privileged people consume far more natural resources per capita than the world average and hence inflict more ecological damage to the biosphere.

In the United States, the zero population growth movement has found most supporters among college students, teachers and other professionals. Of 341 ZPG groups listed in a June 1972 volume, 73 could be identified by title as college and university chapters and at least 12 as high school chapters.<sup>20</sup> Starting as primarily a California university movement, ZPG at first advanced the slogan "Stop at Two." This has been at least partially replaced by the more drastic commandment, "Have One, Adopt One."

Indifference to the possible effects of their recommendations on the human gene pool in terms of intelligence is characteristic of some ZPG advocates. Thus, Jim Bouton recommends that parents be denied Federal income tax exemptions for their natural children and that they be taxed one-tenth their income for each third and subsequent child. However, they would be given a tax deduction of \$2,000 per annum for every adopted child and \$4,000 per annum if the adopted child is non-white.<sup>21</sup>

These and similar financial proposals are designed less to restrain reproduction than to increase the fertility of the poorest elements in the American population and decrease that of the middle class. Brought up in wealthy homes, the adopted children for whom bonuses are to be paid would presumably cause as much pollution as the unborn natural children whom they replace. On average, however, they would presumably contribute less to the science, technology and social organization needed to bring pollution under human control. The reasons for asserting this are the strong positive correlation between economic class and I.Q. and between income and I.Q. plus the fact that intelligence differences are mainly genetic in origin.

In the U.S., the average I.Q. difference between Whites and Blacks is about one standard deviation, or 16 points; that

<sup>20</sup> Paul J. Gillette, *The Vasectomy Information Manual*, Outerbridge and Lazard, New York, 1972, pp. 180-199.

<sup>21</sup> Foreword to Paul J. Gillette, *op. cit.*, p. 21.

between professionals and unskilled laborers is nearer two standard deviations. Thus, the proposed reproductive shift from middle-class whites to lower-class black children would cause a substantial decline in the number of highly gifted children born.<sup>22</sup>

Paul R. and Anne H. Ehrlich, two gifted young Stanford University anthropologists, urge that parents be denied tax exemptions for their third and subsequent children and that adoption be subsidised.<sup>23</sup> These proposals would have similar effects to those advocated by Bouton. The impact on total U.S. population growth would be minimal since the classes penalized already have low and declining reproduction rates. What the measures would accomplish is partial sterilization of the American middle class, including under that rubric skilled and semi-skilled workers. The very rich would not be influenced by the proposed changes in the tax law. The poor would not be dissuaded from rampant and exuberant reproduction. Under the Ehrlichs' proposal, they would get a \$4000 tax exemption for their first and second children which would automatically place them in the category of non-taxpayers. Hence, the threat that they would be denied further exemptions for additional children would hold no terrors.

The Ehrlichs also outline such proposals as compulsory abortion for all unmarried mothers and the sterilization of entire populations by chemical treatment of water, air and basic food-stuffs. They show little visible concern with these encroachments on what are generally considered fundamental human freedoms. Nor are they noticeably disturbed at educational penalties for large families which would further widen the opportunity gap between rich and poor in the United States.

Perhaps the most rapidly growing form of contraception in the United States at present is sterilization through tubal ligation for women and vasectomy for men. Writing in October 1972, population experts Harriet B. Presser and Larry L. Bumpass<sup>24</sup> observed: "More than one in six U.S. couples who intend no more children have already had contraceptive sterilizations, and an additional 47 per cent of wives say they or their husbands are considering the operation."

There is some ambiguity about the impact of sterilization by economic class and educational level. Both among Whites and

<sup>22</sup> Sir Julian Huxley estimated that a decline of  $1\frac{1}{2}$  points in average I.Q. will reduce the number of highly gifted people—I.Q. of 160 or better—by one-third. "Eugenics in Evolutionary Perspective," *Perspectives in Biology and Medicine*, Vol. VI, No. 2, Winter 1963, pp. 165-166.

<sup>23</sup> Paul R. Ehrlich and Anne H. Ehrlich, *Population, Resources, Environment*, Freeman, San Francisco, 1970, pp. 252-257.

<sup>24</sup> Harriet B. Presser and Larry L. Bumpass, "The Acceptability of Contraceptive Sterilization among U.S. Couples: 1970," *Family Planning Perspectives*, Vol. 4, No. 4, October 1972, p. 25.

Blacks, there is a marked inverse correlation between resort to tubal ligation and educational level. For both races combined, the least educated group resorted to ligation more than three times as frequently as the college graduates.

In the case of vasectomy, the situation is reversed. Among nonsterile white wives who wished no more children, 8 per cent of those with least education had vasectomized husbands. Of college graduates, 10 per cent had vasectomized husbands. Among Negroes, vasectomy is infrequent, the range for nonsterile couples wishing no more children being from 1 per cent for the least educated to 4 per cent in the case of college graduates. The greater prevalence of sterilization among Blacks than Whites is due to the much higher ligation rates among the former. Black ligation frequency correlates inversely with education.

Propaganda in favor of vasectomy by such enthusiasts as Jim Bouton and Dr Paul J. Gillete has apparently had significant impact among the college bred. Doctors who perform this operation have informed the writer that they are dismayed at the proportion of professional men who apply. In a local group of Mensa, the high-I.Q. society, two members out of less than 50 have, to the writer's knowledge, had vasectomies and a third required her lover to do so.

Vasectomy is generally irreversible in the sense that the man will no longer be able to impregnate women successfully. Recent articles in American medical journals by H. J. Roberts, M.D., among others, have presented evidence that vasectomy damages the male immunity system and is significantly correlated with a variety of pathological conditions.

The proposition that the richest and most successful strata in the developed nations should bear the brunt of demographic restriction because they cause most ecological damage seems untenable. The reasoning is at fault because it fails to consider the fact that there are two sides to the equation. The control and minimization of ecological damage is almost exclusively the work of men with the intelligence and education to discover new scientific and technological solutions. Thus, it is argued that the average American consumes 44 times as much in terms of resources as the average Asian Indian. Yet it would be also well to recall that, according to Gilfillan, he is several thousand times as prolific in inventions.

The problem-solvers are concentrated in the upper and middle classes of the developed nations. They are usually rich because open societies tend to reward intelligence. They are members of the developed societies by birth or adoption because they alone can offer the academic, scientific, organizational and financial pre-conditions for scientific achievement.

Thus, the brilliant Indian or Chinese physicist, concerned with pollution control, will often migrate to Europe-U.S. which offers him superior creative opportunity. If successful, he becomes part of that ecologically spendthrift Western creative élite that some of the ZPG enthusiasts seem so intent upon sterilizing.

Current propaganda among the professional classes of the rich nations for zero population growth will, if successful, diminish the innate mental resources of mankind. These are both in short supply and essential to the rational solution of ecological problems. The effort to curb further the fertility of the creative element is socially harmful.

From an evolutionary standpoint, the soundest, non-religious foundation for ethics would seem to be the species survival and development of *Homo sapiens*. Since the crucial evolutionary process which gave man dominance over other fauna was the development of his intelligence, the genetic improvement of human brain must become a moral imperative. In the past human genetic advance has involved superior differential reproduction and/or survival by the more intelligent individuals of the species. Today, the wasteful and cruel processes of natural selection can be replaced by population planning. This implies that controls or persuasion be applied to adjust aggregate human numbers to available resources. It also implies that the brighter strains be given reproductive advantage.

Ecologists and conservationists are, I believe, on sound ground when they voice dismay at the spread of pollution, point to world overpopulation as one of its prime causes, and add that Euramerican man is destroying the world's heritage of non-renewable resources at a reckless and unjustifiable rate. The solution to this problem, however, would seem to be the direct control of man-made ecological damage, of wasteful misuse of scarce resources and of conspicuous consumption through the state's power to tax, to legislate and to enjoin.

I am not utopian enough to imagine that the politicians who govern our egalitarian society will support demographic policies designed to stimulate reproduction by the most intelligent, the most creative and the most gifted. But it should be possible to convince intelligent people that their duty to society is not to condemn their lines to biological extinction, but rather to produce as many children as they can support.

# Professor Henry E. Garrett:

## 1894-1973

Dr Henry E. Garrett, whose career in the field of psychology as teacher, author, lecturer and government consultant spanned more than 50 years, died on the 26th of June after a short illness at Martha Jefferson Hospital in Charlottesville, Virginia.

Born in Virginia in 1894, he graduated from the University of Richmond in 1915 with a B.A. degree. Dr Garrett completed his graduate studies at Columbia University, receiving his M.A. in 1921 and his Ph.D. in 1923. He was appointed Psychology Instructor at Columbia in 1923. For the next 30 years he served as a member of the Columbia faculty. During his long tenure, Dr Garrett was Executive Head of the Department of Psychology for 15 years. He served as Assistant Professor from 1926 to 1935, when he became Associate Professor. In 1942 Dr Garrett was appointed Professor and Chairman of Columbia's Psychology Department. He retired in 1956 as Professor Emeritus and became Visiting Professor of Psychology at the University of Virginia School of Education.

Throughout his long career Dr Garrett wrote eight books and numerous articles dealing with methods, experiments and problems in the field of psychology and psychometrics. His first book, *Statistics in Psychology and Education* (1926), is now in its fifth edition and is still used as a college textbook. Another book that brought Dr Garrett widespread academic recognition was his *Great Experiments in Psychology*, a historical survey of differential and experimental psychology. In addition to his books, he wrote more than 50 articles and monographs. Dr Garrett was also General Editor of the *American Psychological Series* and a member of the Editorial Board of *Psychometrika*.

From 1937 to 1943 he was a member of the Division of Psychology and Anthropology of the National Research Council and, in 1940, vice-chairman. He also served as Consultant to the Secretary of War from 1940 to 1944. Dr Garrett's reputation as one of the country's leading authorities in the field of psychology and psychometrics made him the choice of the American Psychological Association for its President in 1946. He served as President of the Eastern Psychological Association in 1944 and President of the Psychometric Society in 1943. For his work in systematizing intelligence testing, Dr Garrett was awarded a D.Sc. by the University of Richmond in 1954.

In the post-Second World War period Dr Garrett became concerned with the problems of race and race relations in the