SCIENCE

Vol. 76 F'riday	, AUGU	ST 26, 1932	No. 1968
Birth Selection versus Birth Control: Professor Henry Fairfield Osborn	к 173	The Underground Water Lev the Drought of 1930: KARL	
Science Service Conference, II: Remarks by Dr. Francis G. Benedict; Dr. Paul R. Heyl; Dr. A. E. Kennelly; Dr. Charles R. Stockard; Dr. Joel H. Hildebrand; Dr. T. Wayland Vaughan; Dr. F. P. Keppel; Dr. Richard M. Field; Captain J. F. Hellweg; Dr. Knight Dunlap; Dr. William H. Howell		Scientific Apparatus and Labo A New Technique for the Pa-A-Free Casein: Myra T. Por trol for Vacuum Apparatus:	reparation of Vitamin TTER. Automatic Con-
		Special Articles: Production of Dominant Let X-radiation of Sperm in	Habrobracon: M. F.
Obituary: John Walter Gregory: Professor Bailey Willis William Hittell Sherzer: Professor Frederick B Gorton. Recent Deaths	.	STANCATI. A Note on Electr Physiological Gradient: Hui SMITH Science News	IUNTER DIACK and C. E.
Scientific Events: International Scientific Centers in Paris; Secon International Polar Year; The Department o Physics at the University of California; The Yor Meeting of the British Association	$egin{array}{c} f \ k \end{array}$	SCIENCE: A Weekly Journ ment of Science, edited by J. I lished every Friday by	
Scientific Notes and News		THE SCIENCE PRESS	
Discussion: Observations with the Rife Microscope of Filterpassing Forms of Microorganisms: Dr. Edward C. Rosenow. On the Taxonomic Position of Echinorhynchus sagittifer Linton: Dr. Edwin Linton. Dermatitis Produced by Phacelia (Hydrophyllaceae): Professor Phillip A. Munz.		New York City: Grand	
		Lancaster, Pa. Annual Subscription, \$6.00	Garrison, N. Y
	f N I-	SCIENCE is the official organization for the Advancement of Scieng membership in the Associathe office of the permanent secondaries that the office of the permanent secondaries are institution Building, Washington	ience. Information regard tion may be secured from retary, in the Smithsonian

BIRTH SELECTION versus BIRTH CONTROL

By Professor HENRY FAIRFIELD OSBORN

HONORARY VICE PRESIDENT, THIRD INTERNATIONAL CONGRESS OF EUGENICS

This International Congress is singularly opportune. It is not merely an academic problem we are met to discuss, or a problem of the future. It is not a theory but a condition which confronts us. It is a problem of the immediate present, and, like all sociological problems, the more fascinating because of its very complications. Man does not rise to his best endeavor in face of small problems; it is in the genius of modern humanity to meet and attempt to solve the most difficult. Eugenics is not a human invention by Francis Galton or any of his predecessors or successors. It is a long-known and universal natural law, namely, the survival of the fittest and the elimination of the unfittest.

It has always required a cataclysm to force a

¹ Address at the opening session of the Third International Congress of Eugenics, New York, August 22, 1932. Passages from this address were printed in the August Forum and are used here with the permission of the editor.

natural law upon the attention of man. Cataclysmic plagues of malaria, of typhus, of yellow fever, of tuberculosis, of cancer, forced upon human genius the imminent crisis of discovery, of palliation, of prevention, of cure. So in this world cataclysm of overpopulation, of over-multiplication of the unfit and unintelligent, of the reign of terror of the criminal, of the tragedy of unemployment, eugenics ceases to be the cult of the few pioneers like Galton and Leonard Darwin; it is forced upon our attention. Once more man is humbled because he is suffering from prolonged ignorance or actual defiance of and transgression of the most central and fundamental of all natural laws.

Prisons, reformatories, asylums, great public financial offerings, great national and local appropriations, great tides of human kindness and generosity, are merely palliatives and temporary expedients. They may for a time gloss over the cataclysm; they can not

permanently cure it or avoid its recurrence. The only permanent remedy is the improvement and uplift of the character of the human race through prolonged and intelligent and humane birth selection aided by humane birth control. This is the burden of my address; it is the keynote of our third congress.

I by no means profess to be an expert eugenist. I think, I write, I speak, rather as a trained and experienced observer of animal and of human evolution, and I bring to bear upon this problem my own original researches and observations on the intelligence and behavior of man. In lucid intervals between other more immediately pressing researches, I have been directly or indirectly studying human evolution, individual, racial and creative, since the year 1880.

Within the present year, however, my thoughts have been forced to take an entirely new trend, namely, the bearing upon human evolution and human progress of the present wholly unanticipated conditions of human life and environment subsequent to the world war. I am deeply impressed with the practical unity of all world problems—sociological, economic, educational and religious. My world tour began in the Polynesian and Melanesian islands, where certain isolated communities are to be found still untouched or unmarred by civilization, with all primitive human activities still in force among the once superb and self-sufficient races of the South Sea and Cannibal Islands, such as Fiji, New Caledonia, New Guinea.

The pristine isolation which enabled every country to pursue its own evolution independently of all other countries, in Japan before Perry's advent, in Korea before Japan's conquest—an isolation still sharply exemplified in the greater part of China—is all a condition of the past now submerged or even banished by commercial invasion, by military conquest, by the far more potent forces of modern inventions which unify once remote and isolated countries and bring them, whether they will or no, within the barbaric or civilizing influences of the entire modern world.

In Java I first perceived the disturbing influence of the introduction of machinery and mass production on the old uncivilized economic order. While checked by introduced diseases in the South Sea Islands, the Javanese population is mounting with alarming rapidity, having jumped from 12,000,000 to 40,000,000 in an incredibly short space of time, a naturally fertile race being protected from disease and multiplying under their original mating customs. But even in these countries, relatively immune from the dangers of civilization, we begin to observe the initial effects of world interaction.

The outstanding generalizations of my world tour are what may be summed up as the "six overs"; these

"six overs" are, in the genetic order of cause and effect:

Over-destruction of natural resources, now actually world-wide;

Over-mechanization, in the substitution of the machine for animal and human labor, rapidly becoming worldwide;

Over-construction of warehouses, ships, railroads, wharves and other means of transport, replacing primitive transportation;

Over-production both of the food and of the mechanical wants of mankind, chiefly during the post-war speculative period;

Over-confidence in future demand and supply, resulting in the too rapid extension of natural resources both in food and in mechanical equipment;

Over-population beyond the land areas, or the capacity of the natural and scientific resources of the world, with consequent permanent unemployment of the least fitted.

Added to these "six overs" in many but not in all countries, there have been over-speculation and a consequent over-capitalization that have placed on individuals and communities and intolerable burden of debt which at the present outlook there are few means to repay. Every port I visited revealed over-population, over-production and unemployment—whether in the South Seas or in the great cities of Europe and America. Everywhere ports were full of empty vessels. Everywhere the number of employees in all grades was being cut down, and everywhere the world's staples, even rice, stood about in quantities far exceeding the world's demand.

Certainly the fears of the great physicist Sir William Crookes, a contemporary of Francis Galton, have not been realized that a time would be reached when the feeding of the rapidly increasing population of the world would be a problem of the first economic importance for which he suggested such a remedy as harnessing Niagara Falls in order to secure an adequate amount of nitrogen for the reinvigoration of depleted soils. On the contrary, modern agricultural science and invention have more than met these apparently insuperable dangers besetting certain overpopulated countries, such as Java, with a superabundant rice supply even for its teeming 40,000,000—rice being produced so cheaply that it is not commercially profitable to sell it-just as wheat is being produced in America so cheaply that we have an over-supply of wheat for our 112,000,000 people. Java's overpopulation, therefore, can still be fed. But the taking up of every acre of land, even to the mountain tops, has not solved the overcrowding problem of Java, as evidenced by her endeavor to export her surplus of people to other less populated islands.

With this prologue let us for the moment concentrate on several of the outstanding social conditions

of the day and hour, namely, overpopulation and unemployment. Is overpopulation a reality? Is unemployment a temporary or a permanent condition? Is birth control the best means of checking overpopulation, or is birth selection aided by birth control the better means? We shall consider overpopulation from the double standpoint of birth selection and of birth control. Even the lives sacrificed in the world war, apart from the ethical and intellectual problems of human advancement, are entirely negligible compared with the natural increase of mankind when no longer checked by disease, by infant mortality and by internecine wars. The International Statistical Institute estimates that the world added 125,550,000 to its total population in the years 1920–1928.

DISTINCTION BETWEEN BIRTH CONTROL AND BIRTH SELECTION

First, let us clearly distinguish between birth selection and birth control.

Birth selection is the cardinal principle of the whole eugenic movement as first propounded by the great biologist Francis Galton and defined in 1884 as follows: "Eugenics is the study of agencies under social control which may improve or impair the racial qualities of future generations either physically or mentally." Birth selection is directly in the order of the Darwin-Spencer law of the survival of the fittest. Birth selection is known as "positive" eugenics, of which eugenically administered birth control should be only a subsidiary "negative" principle. As conceived by Galton it is an ameliorative, curative and positive force in the advancement of mankind and the uplifting of society as a whole by improving human quality as distinguished from quantity. It aids and encourages the survival and multiplication of the fittest; indirectly, it would check and discourage the multiplication of the unfittest. As to the latter, in the United States alone it is widely recognized that there are millions of people who are acting as dragnets or sheetanchors on the progress of the ship of state. Some radicals propose that they should all be sterilized so as to inhibit the multiplication of their kind. This would be the negative or birth control method of birth selection.

Birth control, primarily designed to prevent the overpopulation of the unfittest or dysgenic, may prove to be a two-edged sword eliminating alike the fittest and the unfittest. Whatever its benefits in limiting the unfittest, birth control is always in danger still more of limiting the fittest and thus becoming positively dysgenic or against the interests of the race as a whole in which it is practiced. I have in mind the French, among whom birth control has been practiced in the upper classes for centuries, with dis-

astrous racial results. My doubts about the present propaganda and purpose of the birth control movement are that they are so largely negative and death-dealing rather than positive and birth-encouraging. Only by some wise and selective means of limiting the number of births can the world find a solution for its disturbed economics. I return from a tour around the world more impressed than ever with the principle of "not more but better and finer representatives of every race." I hold that true for America as well as for foreign stocks.

For the time at least, I am very doubtful about birth control. In fact, on eugenic as well as on evolutionary lines I am strongly opposed to many directions which the birth control movement is taking, chiefly because I believe them to be fundamentally unnatural and hence destined sooner or later to fail of their original more or less benevolent purposes.

Finally, it must be clearly understood that we eugenists are chiefly concerned with birth selection measures which go to improve the general physical, moral and intellectual qualities of mankind, while measures which are designed to serve personal, individual ends and more or less temporary social demands are outside our province. Positive eugenics strives to improve racial quality on the one hand by increasing breeding and offspring among the eugenic element, and on the other negative eugenics by diminishing breeding and offspring among the dysgenic element. The eugenic element of the population includes that portion which is able to exert the greater amount of physical and mental energy, by so doing the better to pull its own weight in the social group, and through a superior moral, temperamental and intellectual endowment to make the greater contribution to the understanding of human life conditions, to cultural proggress and to general racial improvement. It would be a mistake, however, to regard this element as confined to a narrow class of intellectual superiority, fully granting this class to be highly essential. Many diverse abilities and aptitudes are required for the consistent and balanced development of humanity. In short, the eugenic element of the population may be defined as that portion of existent humanity which is competent to produce the best resultant evolution of the species.

IS THE WORLD OVERPOPULATED?

Two high authorities in the anthropological world differ widely on the question whether or not the world is overpopulated. From my recent voyage around the world and observations in many lands I have reached the opinion that overpopulation and underemployment may be regarded as twin sisters. From this point of view I find that even the United States is

overpopulated at the present time. Dr. Louis I. Dublin, third vice-president of the Metropolitan Life Insurance Company and an experienced statistician, takes a different view as regards the United States when he says: "As to the United States, I can not see that from any standpoint whatever we can regard our own country as being over-populated. Our exports exceed our imports and we are quite able to feed and house our present population and many more that may be born or come in from abroad in later years." Dr. Dublin does not agree with me as to either the pressing danger or the best preventives of overpopulation. He writes (June 6, 1932):

I have not been greatly impressed with the warnings of certain writers that the world is suffering from overpopulation. When East's "Mankind at the Crossroads" appeared and made such a stir, I wrote a review in which I took issue with his views. Wiggam and quite a number of the men associated with the eugenic movement have aired much the same views as East and their almost uniform suggestion has been to spread birth control knowledge throughout the world and, in this way, avert the calamity of over-population and worldwide misery, which was otherwise inevitable.

Apart from a few countries such as China and India, possibly Japan, there is no evidence of overpopulation, certainly not of serious overpopulation at the present time, because never before in the history of the world has there been so much food available and so much of other necessities of life. The reason that many people now are ill-fed and otherwise destitute is not that there are too many people, but that our systems of distribution and of consumption have broken down. Or to put it another way, it would not help the present economic or social situation one bit if by some hocus pocus the population could be uniformly reduced 50 per cent. I make this point because it is implied in the whole theory of overpopulation. Those who have such views forget that people are producers as well as consumers. The crux of the problem is not the absolute number of people but rather the relation of the numbers of the people to the necessities available to them through our existing channels of commerce.

China and India are, as I have said, overpopulated. My test is the low standard of life in those two countries. The people are immeasurably worse off than are the people of Europe or of America. Yet, it is of great interest to find that unemployment is not a problem in those two countries. The masses are employed but their industry is so unorganized, their channels of transport and distribution are so primitive, that there is a very meager existence possible for the people.

It is in a country like ours or in industrial Europe that we suffer from unemployment. But here again, I am not at all sure that such unemployment is closely related to overpopulation. We in the United States are certainly not overpopulated by any test that I know. England and Germany would be overpopulated if they depended on themselves for their food supply. But those

two countries have launched on another program. They are highly industrialized and exchange their surplus products for food. Ordinarily, they have got along very well. The present crisis in which they and we and the rest of the world are plunged is not the result of overpopulation. It is rather the result of disorganization and of a number of causes, some of which you have very clearly specified in your category of "overs."

I do not agree with Dublin as to the population in the United States, for I think the present unemployment figures represent a condition likely to be in part permanent. A recent unemployment estimate, revised by Dr. Dublin on July 30, is as follows:

Germany	5,500,000
France	1,000,000
United States	10,000,000
England	4,000,000
Total	20,500,000

While some highly competent people are unemployed, the mass of unemployment is among the less competent, because in every activity it is the less competent who are first selected for suspension while the few highly competent people are retained because they are still indispensable. In nature these less-fitted individuals would gradually disappear, but in civilization we are keeping them in the community in the hopes that in brighter days they may all find employment. This is only another instance of humane civilization going directly against the order of nature and encouraging the survival of the unfittest.

RECENT WORLD POPULATION FIGURES

1927	Dutch East Indies, total	51,882,842
	Dutch Java	41,719,524
1921	British Possessions:	
	Asia (1921)	364,646,807
	Africa (1921, 1928, 1925)	46,948,380
	America (1921)	11,149,110
	Australia (1921, 1926)	7,886,217
	Europe (1931)	46,216,099
	·	476,846,613
	American Philippine Islands	12,082,366
1928	Europe	478,114,000
	North and South America	238,332,000
	Africa	140,269,000
	Asia	1,070,483,000
	China474,000,000	
	Japan 69,336,000	
	Korea 21,058,000	*
	Oceania	9,369,000

RIGHTS AND WRONGS OF BIRTH CONTROL

In civilized countries the birth control people are on strong theoretic but not practical grounds as regards the mechanical prevention of overpopulation, but in half-civilized or uncivilized countries their principles have already been anticipated by more or less barbaric, cruel or inhuman measures, such as the control customs of the Australians, or the killing of female children by the Chinese.

Birth control has become a national and in a measure an international movement. The country which has birth control in its most radical form is Russia, where it is said to be connected with a great deal of sexual promiscuity. There the State is coming to the aid of young women with whom contraceptive methods have miscarried. Birth control has been welcomed by radicalism in several countries, especially in England, as an opening means whereby the two sexes will be placed on the same level of sexual freedom. One eminent American eugenist who attended the birth control congress in London last year, although a medical man accustomed to looking such matters in the face, was so shocked by what he heard and saw that he retired on the second day, and has since written a very able paper against birth control as now practiced. While not materially affecting the more ignorant and less desirable classes, he found birth control diminishing births among superior individuals and families. Let us therefore consider birth control as one of the more or less radical departures from fundamental principles of our present social structure not only in the religious but in the ethical and moral fields. More or less sincere advocates of contraception claim that it is one of the greatest social discoveries ever made by man, an ideal method of controlling overpopulation, a promising agency of social regeneration, and that it goes further than any previous social measure in the emancipation of womankind.2

Directly bearing upon the purposes of the present Eugenics Congress is the claim that contraception is wholly eugenic. A considerable section of the public has thereby been persuaded that contraception and eugenics are identical and that in general birth control has a eugenic endorsement. The fact that the subject of birth control was not admitted to the two previous International Congresses on the ground that it had not yet met the full tests of scientific inquiry is sufficient answer to the most extravagant of these claims. The fact that birth control is being indirectly considered in the present International Eugenics Congress embodies the admission that eugenists must now take their part in more or less worldwide inquiry and inductive testing of claims which thus far have been largely theoretical or hypothetical.

² This paragraph, and parts of the succeeding discussion, are quoted or expanded from a paper by Dr. C. G. Campbell, "'Birth Control' and Its Implications," published in altered form as "'The Bio-Social Implications of Contraception," Proceedings of the 2nd International Congress for Sex Research, 1930.

As regards the limiting of population in the overcrowded communities of Europe the birth control propagandists advocate contraception on the one hand as indirectly eugenic by the reduction of offspring among the undesirable element. According to Dr. Louis I. Dublin, this need not apply to the United States. As quoted by Campbell, Dublin "has lately made a most thorough and painstaking estimate of population trends in the United States, and, not allowing for the further success of contraceptionists, he reaches the conclusion that the birth rate and the death rate will become equal in the United States in about thirty years, after which the population will not increase. This should quiet the fears of the neo-Malthusians, and at the same time it negates the contention that the general practice of contraception is mandatory on account of the danger of over-population." Campbell is disposed to "credit Dr. Dublin's forecast, partly because the largest life insurance company in the world depends upon him to calculate its vital statistics, and even more because his calculations have proven correct in other instances." Campbell further observes, "the population problem, in the United States at least, can be seen to be far more one of quality than of quantity. And if we seek to improve racial quality by the restriction of births, especially if such restriction seemed urgent, it should be evident that sterilization is a far more effective and dependable means of accomplishing this purpose than contraception. Hence contraception needs to find justification for itself other than on its eugenic value."

To promote the practice of contraception the birthcontrol propagandists claim to be benefactors of womankind whose great object is to relieve women of unnecessary suffering and unnecessary burdens. The attempt to relieve womankind of what may be termed the prehistoric and historic burden of the female of the species naturally enlists the sympathy both of the individualists of our time, who are ready to support any measure to give women greater freedom of profession and of action, and of the sentimentalists, who do not realize that women's share in the hard struggle for the existence of the race is a very essential element in the advance of womankind. The relief of the struggle for existence pressure from any animal or plant organism is an extremely dangerous experiment, for it may be said without exaggeration that the struggle for existence is the sine qua non of every great human or animal quality. Campbell recalls the fact that "the continuance of the race and the quality of the race rests primarily with women. In short, women are more essential to racial survival than men. If, for example, half the female population were exterminated—or

chose to be unproductive—the possibilities of reproduction would perforce be diminished one half; if, on the other hand, half the males were exterminated there need be no such diminution, the ovum being the indispensable factor. It is not difficult to see that the social organism rests upon this biological condition; both racial instincts and social mores decree that the protection and preservation of women is precedent to that of men, manifestly because women are racially the more precious. We might recall that ageless example in the Iliad of Hector's parting from Andromache, when he consciously went forth to his death in the forlorn hope of saving her and her children. . . . In any woman who possesses valuable traits which she has inherited and which she can pass on to offspring, the disposition to evade this obligation is a manifest racial delinquency. In order that those who are racially-minded might more often be saved from what they would later regret as a major error in their lives, it is highly desirable that all intelligent individuals, particularly women, should understand these and other simple biological facts as early as the period of adolescence."

By unimpeachable statistics it has been found that two-children families are quite inadequate, threechildren families fall short, and that an average of four-children families is essential to secure the perpetuation of a desirable family strain. Contraceptionists, who are apparently devoting their chief propaganda to the restriction of births, are more or less unsympathetic to proposals on behalf of "positive eugenics" which would tend to increase breeding in the desirable racial element. As to this crucial point we do not discover that the birth-control advocates have ever proclaimed four-children families among the desirable population as an article of their creed. It is to be noted at once that contraception does not promise to increase the proportionate breeding in the racially desirable element of humanity, namely, to the four-children family standard.

On the contrary, certain proponents of birth-control are now compelled to admit that contraception has gone to diminish such breeding. In other words, birth control, as distinguished from birth selection—the dynamic plank in Galton's eugenic platform—must thus far be classed among the neutral if not among the adverse influences of racial betterment. As observed by Campbell, "The investigations of Dr. Himes into the results of contraceptive instruction in England wholly confirms this inference. The dysgenic element can be led to water but it cannot be counted upon to drink. Hence as between eugenic and dysgenic results, the present unfavorable balance against contraception has small prospect of being changed into a favorable balance by the universal

access to contraceptive information. In other words, contraception promises, in the future as in the past, to prevent more eugenic births than dysgenic births."

ETHICAL ASPECTS OF SCIENTIFIC MODERNISM

As regards the ethical aspects of these problems, the contrast between the moral standards of Thomas Henry Huxley as seen in his "Aphorisms and Reflections" up to the year 1895, and the satirical forecast in the year 1932 of the future "Brave New World" by his distinguished grandson, Aldous Huxley, gives us a vivid realization of the moral revolution of the past forty years. Such extreme modernism is more than a revolution. It is complete extermination of one great historic and prehistoric family code based upon hundreds of thousands of years of human experience. The new code is essentially nihilistic as far as all old codes are concerned, whether pagan or Christian.

In young Huxley's satire extreme modernism enters the final phase of its logical consequences, from which he recoils while he satirizes. The "Brave New World" opens with the chemico-mechanical reproduction of children, the obsolete ideals of courtship, family and the home being eliminated as well as all the romances and traditions adherent thereto:

"I shall begin at the beginning," said the D. H. C. and the more zealous students recorded his intention in their notebooks: Begin at the beginning. "These," he waved his hand, "are the incubators." And opening an insulated door he showed them racks upon racks of numbered test-tubes. "The week's supply of ova. Kept," he explained, "at blood heat; whereas the male gametes," and here he opened another door, "They have to be kept at thirty-five instead of thirty-seven. Full blood heat sterilizes." Rams wrapped in thermogene beget no lambs. . . . He pointed. On a very slowly moving band a rack-full of test-tubes was entering a large metal box, another rack-full was emerging. Machinery faintly purred. It took eight minutes for the tubes to go through, he told them. Eight minutes of hard x-rays being about as much as an egg can stand. A few died; of the rest, the least susceptible divided into two; most put out four buds; some eight; all were returned to the incubators, where the buds began to develop; then, after two days, were suddenly chilled, chilled and checked. . . . Fertilize and bokanovskify-in other words, multiply by seventy-two-and you get an average of nearly eleven thousand brothers and sisters in a hundred and fifty batches of identical twins, all within two years of the same age. . . . "Only just eighteen months old. Over twelve thousand seven hundred children already, either decanted or in embryo. And still going strong. We'll beat them yet."

3 "Aphorisms and Reflections" from the works of T. H. Huxley, selected by Henrietta A. Huxley, London, 1908.

The Controller shrugged his shoulders. "Because it's old; that's the chief reason. We haven't any use for old things here.

"Even when they're beautiful?"

"Particularly when they're beautiful. Beauty's attractive, and we don't want people to be attracted by old things. We want them to like the new ones."...

"The world's stable now. People are happy; they get what they want, and they never want what they can't get. They're well off; they're safe; they're never ill; they're not afraid of death; they're blissfully ignorant of passion and old age; they're plagued with no mothers or fathers; they've got no wives, or children, or lovers to feel strongly about; they're so conditioned that they practically can't help behaving as they ought to behave. And if anything should go wrong, there's soma."...

"Our Ford himself did a great deal to shift the emphasis from truth and beauty to comfort and happiness. Mass production demanded the shift. Universal happiness keeps the wheels steadily turning; truth and beauty can't."

The elder Huxley, as I know from delightful personal acquaintance of the winter 1897–1880, was, with Charles Kingsley, one of the finest exponents of religious realism versus religious hypocrisy and sentimentalism. He admired virtue just as much as he despised cant. Of all my long and noble list of scientific acquaintances I can think of no one who would have so shuddered and revolted against the chemicomechanical concept of future society as pictured in such unsparing, bold colors by his grandson. To the elder Huxley as to Goethe and far back in time to Cicero, nature was the supreme court of appeal; as in the following epitome of Huxley's natural code:

The life, the fortune, and the happiness of every one of us, and, more or less, of those who are connected with us, do depend upon our knowing something of the rules of a game infinitely more difficult and complicated than chess. It is a game which has been played for untold ages, every man and woman of us being one of the two players in a game of his or her own. The chessboard is the world, the pieces are the phenomena of the universe, the rules of the game are what we call the laws of Nature. The player on the other side is hidden from We know that his play is always fair, just and patient. But also we know, to our cost, that he never overlooks a mistake, or makes the smallest allowance for ignorance. To the man who plays well, the highest stakes are paid, with that sort of overflowing generosity with which the strong shows delight in strength. And one who plays ill is checkmated-without haste, but without remorse.

I owe to Thomas Huxley the two outstanding principles of my own naturalistic philosophy; first, that nothing which is true can be harmful to the body, to the mind or to the soul; second, that whatever is natural in the wondrous and beautiful order of nature can not be fraught with danger. On the contrary,

whatever is unnatural may not be essentially immoral but may be fraught with hidden dangers. Herein lies my general purpose and standpoint with regard to the main subject of this article. Birth-selection is natural; it is in the order of nature. Birth control is not natural and while undoubtedly beneficial and benevolent in its original purpose, it is fraught with danger to society at large and threatens rather than insures the upward ascent and evolution of the human race.

Such ascent, it seems to me, is the greatest responsibility with which we biologists and eugenists are charged to-day. I returned from my world tour more impressed than ever with the Galtonian principle of "not more but better and finer representatives of every race."

To begin at home, "not more but better Americans," raises the question, What is an American? recently debated in the New York Times (January 17, 1932) with a number of my distinguished compatriots. The substance of my contention in this symposium was that the "Simon-pure" American is not hyphenated. He has all the strong and all the weak points of the ancestral Nordic as well as of the more recent Alpine and Mediterranean stocks. He is possessed of certain qualities which make him far inferior to men of other races, an inferiority which he should freely admit and, as far as possible, rectify by education. He is now suffering severely from birth limitation which is seriously threatening the best strains of old American stock. He therefore needs to thoroughly understand the principles of birth selection rather than the principles of birth control. For him the Third Congress of Eugenics has a peculiar significance, but since the Congress is international it should carry an equally clear and distinctive message to each of the nations represented as well as to each of the primary races of mankind. The slogan "not more but better Americans" should have its counterpart in every country in the world in which the rising spirit of nationalism and of an entirely natural and reasonable pride should be accompanied by the consciousness that quality rather than quantity is the essential element of progress in every country and in every race.

With such principles in mind, and with the picture before me, of the world suffering acutely from dysgenic reproduction, from the multiplication of the incompetent, and from the alarming increase in the power of the criminal class, I can not refrain from expressing my deep conviction that, of all remedial and restorative agencies, the well-understood and well-applied principles of birth selection advocated by Galton, with birth control as a subsidiary principle, stand in the very front rank of progressive civilization.