

JOHN HARVEY KELLOGG (1852-1943)

**WORKS BY OTHERS, CA. 1832-CA. 1940
(PRINTED)**

RACE BETTERMENT/EUGENICS

The Old White Americans

By

ALEŠ HRDLIČKA

THE OLD WHITE AMERICANS

BY ALEŠ HRDLIČKA

INTRODUCTION

FROM early in the seventeenth century the Temperate Zone of North America has been receiving successive contingents of the white race who have settled on the available land and multiplied and spread, thus forming the American nation. These newcomers were derived from Europeans of various physical types, ranging from the prevalently tall, blond, blue-eyed dolichocephalic Northmen to the mostly dark-haired, brown-eyed, medium tall, and brachycephalic Celts; and according to all indications they were, as a lot, physically, and especially mentally, above the average of their parent groups, for both the pioneers, whose ideals were religious and political liberty, and who would brave the dangers of the long sea journey with the hard conditions of life in the New World, as well as those commonly classed as adventurers, can well be assumed to have been on the whole men with a surplus of mental power and physical energy.

The men, and the women who accompanied them and who were probably of similar good material, encountered in large measure new environments and lived a new life. They reared their families under these changed influences, and the children accommodated themselves completely to the new conditions—they became Americans. Then followed intermarriage, both within and without the various contingents that reached this land, and the original heterogeneity slowly gave place to a blend which constituted the body of the rising nation.

How successful this new conglomerate proved to be, morally, intellectually, in defense and otherwise, are matters of history. It is certain that there was no loss of the original endowments; and also that there resulted in the course of time a considerable approach to unification of all those characteristics of mentality and behavior which are most readily subject to adaptation. It may be safely said that so far as outward manifestations are concerned, the descendants of the Old Americans constitute today a fairly easily separable strain of white people, which is no longer English, Dutch, French, or Irish, but *American*.

In view of these interesting facts anthropology for a long time has been confronted with the question, Have there also taken place in the descendants of the Old Americans physical changes which produced, or tend to produce, a separate sub-type of the white people?

We know that changed environment and consequent changed habits of life react more or less strongly upon the body, and that the latter tends to accommodate itself efficiently, harmoniously, and permanently to all enduring influences that affect the individual. Has the American strain been subject long enough to the new influences to establish such an accommodation? And if so, has this accommodation been sufficiently substantial to result in perceptible modifications of the physical type of the people? If such physical changes have taken place or are taking place, are they uniformly in the direction of improvement, or is there

also some degeneration? Possibly even in some important respects the type has already passed its zenith, as would seem to be indicated by the lowering birth-rate among its latest representatives, a rate now hardly sufficient in many districts to keep up the numbers of the Old Americans. And how will the type, if it exists, be affected by the growing mixture with whites of recent immigration? Would it be well to try to keep it pure—have the Old Americans marry only among Old Americans—or is new blood desirable?

It is well known that such nationalities as the French, English, German, and others possess, notwithstanding their mixed and relatively recent origin, distinctive physiognomy and other physical features by which in a large majority of cases it is possible to segregate both men and women who belong to them, and the claim has often been made that much the same is true in relation to the Americans. Writers and illustrators have made frequent efforts to define this hypothetical American type, and have even arrived at certain crystalized conceptions, such as "Uncle Sam", the "American girl", and the "American young man", though inconsistently leaving out the remaining periods of life. The Southerner in particular, and the Yankee, as well as the Westerner, are believed each to have distinctive characteristics by which in the majority of cases they can readily be identified; yet at the same time these "types" are supposed to differ from each other so that any one of wider experience can readily distinguish them. Writers who attempt to define the American physical type do so generally without entering into embarrassing particulars; and the artist either follows certain famous or admired individual types or creates abstract conceptions of what he would have as Americans. Suggestions have even been advanced by some, who might have been expected to know better, that the American type is approaching that of the American Indian, the idea being presumably that the American environment produced the Indian and that it would in due time shape other peoples here to the same mold. Finally, certain scientific reports on the physical changes of Jewish and Italian children in this country appeared to show that the type of the immigrant changed with remarkable rapidity.¹ Were this true, the formation of a new, more homogeneous American type ought to be a question of but a few generations, and the type should be already well advanced toward maturity among the descendants of the oldest American families. Unfortunately, however, although under good direction, the examinations on which these results were based were made by college students and not by trained anthropologists; the grandparents and parents of the supposedly changing children were not examined, nor were the children themselves studied at different periods of development; and no data have been given on the important and often significant variations in the children of individual families; so that it is not certain whether the differences the Jewish and Italian children seemed to show from the general type of their nationality or group were not perhaps fortuitous, or hereditary, and thus of pre-American origin.

The above uncertainties can properly be met in but one way, and that by anthropological observations on normal living representatives of the oldest American families, carried on under favorable circumstances and with the

¹ F. Boas, *Changes in Bodily Form of Descendants of Immigrants*, Report of the U. S. Immigration Commission, Washington, 1911, Columbia University Press, 1912; discussion in *American Anthropologist*, 1911, no. 3, p. 394; 1912, no. 3, p. 530; 1913, no. 2, p. 163.

greatest possible care and precision. Such a test the writer decided to apply, so far as it might be in his power; and with this view arrangements were made, in the fall of 1912, in the anthropological laboratory of the United States National Museum, for a series of investigations which should extend to at least 300 healthy adult descendants from old American families. Since that time, save for interruptions due to other demands on the writer's time, the work has been progressing slowly. The number of subjects stated, 150 men and 150 women, is regarded by the writer as the smallest number which in a fairly uniform group would cover the more important individual variations in the group and thus give a reasonably clear notion of the type. To make certain that only those would be included in the series whose families have long been subject to the effects of the American environment, it was decided to examine only those who on both sides were American for at least three generations; in other words, those whose parents and all grandparents were born in this country. As to locality, Washington was recognized as the most suitable for the study, for among those settled here as well as among visitors there are Americans from all parts of the country. The measurements and tests, finally, were to be sufficiently thorough to show clearly the physical type of those examined, but involve only a minimum of inconvenience to the subject and a minimum of exposure of the body. To avoid including those not fully developed and the decrepit, the age limits were set at from 24 to 60 years; otherwise there was no selection.

It was anticipated from the outset that the study would be prolonged, but the scarcity of duly qualified subjects, which soon became apparent, was unexpected. Time and again willing friends who thought they had numerous acquaintances that could well qualify for the tests came disappointed; the majority of those approached had perhaps a long line of pure American ancestry on one side, but on the other there was a foreign-born grandmother or grandfather, or perhaps the birth-place of one of these was uncertain, hence the subject could not be included. When the supply of those who could be reached personally or through friends was exhausted, an appeal was made to the local branches of patriotic societies, and their aid was secured, yet even these sources did not prove sufficient.

As a total result of the efforts made there have been examined to date 140 men and 135 women, including representatives of some of the very oldest and best American families. The conditions of the examination have been ideal: a well-lighted laboratory, the best of instruments tested by standards, no haste, and every subject dealt with with all due care by the writer himself; the possibilities of error, therefore, it is safe to say, have been reduced to the minimum, and the data obtained may claim more than ordinary confidence. They are presented here in preliminary form, yet even thus they are of considerable interest.

The present report will deal, for the sake of easier presentation of the results, with the first 100 men and 100 women who were measured. The data will be given in brief form only, detailed discussion being reserved until the work shall have been completed. The results will doubtless be modified somewhat by the additional number of subjects to be examined, yet on the whole the changes can not be expected to be very material and the data as here presented may already be regarded as fairly definite.

The most striking result of the examinations is the great range of variation among the Old Americans in nearly all the important measurements. The range of variation is such that in some of the most significant determinations it equals not only the variation of any one group, but the combined variation of all the groups that enter into the composition of the Americans. Yet it will be seen that there are also interesting and important exceptions in this respect: these relate particularly to the measurements of the face, hands, and feet.

Besides the individual variations, certain marked differences will be seen to appear in both the physical and the physiological status between the two sexes. On the whole, it may be said that the male representatives of the Old Americans are excellent specimens of humanity, and there are also physically splendid individual women; but a certain proportion of the latter sex shows a physical development, especially in the upper part of the body, which leaves more or less to be desired. It seems, however, that this is largely a result of long-lasting defects in the proper rearing of female children from the physical standpoint rather than a matter of heredity, and that conditions in this respect are much improved in the present generation of young women.

We may now proceed with the individual determinations. Comparisons with other nationalities or races must, of course, in this preliminary account be reduced to the minimum.

STATURE

The stature of both American men and women is high, higher than the average of any European nation, except the Scotch (Beddoe's series). The difference between males and females amounts to 12.5 cm., or 7.2 per cent, which is near the general average of the white race. The individual variation is, however, enormous, amounting to 16.4 per cent of the average in the males, and to nearly 16 per cent in the females, among only 100 individuals, it must be remembered, of each sex.

STATURE

Average: Males 173.8 cm.; Females 161.3 cm.
 Minimum " 158.5 cm.; " 149. cm.
 Maximum " 189.5 cm.; " 177.3 cm.

TABLE OF FREQUENCIES

	below 150	150.1 155	155.1 160	160.1 165	165.1 170	170.1 175	175.1 180	180.1 185	185.1 190
Males: Per cent....	.....	.....	1	3	19	35	33	8	1
Females: Per cent..	1	15	25	34	16	8	1	.....	.....

WEIGHT

The average weight of the male Americans reaches 154 pounds, or very nearly 70 kilograms, while that of the females is 130 pounds, or 59 kilograms. Taking into consideration the tall stature, these weights are about equal to those among Europeans (of Quetelet). The difference between males and females is 15.6 per cent; among larger series of Europeans it ranges about 17 per cent, which indicates a slightly greater tendency to stoutness (among those above 30

years) among the American women than among their European sisters. If we look over the details of distribution of the weights, we see that 70 per cent of the males weigh between 131 and 170 pounds, and that nearly 70 per cent of the women weigh between 100 and 140 pounds. Less than 10 per cent of the men, but at least 17 per cent of the women, are decidedly under weight; the proportion of stout individuals is nearly the same in the two sexes.

WEIGHT

Average: Males 154 lbs. (70 kg); Females 130 lbs. (59 kg).
 Minimum " 119 " " 89 "
 Maximum " 223 " " 206 "

TABLE OF FREQUENCIES

Males	lbs.	119	121	131	141	151	161	171	181	191	201	211	221
		120	130	140	150	160	170	180	190	200	210	220	230
	No. and per cent of cases	2	9	22	16	20	13	7	3	2	3	2	1

Females	lbs.	89	91	101	111	121	131	141	151	161	171	181	191	201
		90	100	110	120	130	140	150	160	170	180	190	200	210
	No. and per cent of cases	2	4	15	24	13	15	6	10	5	2	1	..	3

HEIGHT OF TRUNK, NECK, AND HEAD
 ("The Sitting Height")

In the Old World whites the average sitting height ranges from 51.5 to 54 per cent of the stature in the males, and slightly higher, owing to relatively shorter legs, in the females;¹ in the Americans the averages in both sexes are above the mean of this variation, showing that the body above the ischia is relatively high. This point is of special interest inasmuch as it shows that the tall stature of the Americans is not due to any disproportionate elongation of the lower limbs. The relative shortness of legs in the females is shown especially well in the table of distribution of the measurements; the sitting height amounts to 55.1 per cent or above of the stature in only six males, but in 31 females.

SITTING HEIGHT

Per cent of Stature:

Average: Males 53.1; Females 54.3
 Minimum " 50.2 " 50.7
 Maximum " 57.4 " 57.2

TABLE OF FREQUENCIES

	50.1	51.1	52.1	53.1	54.1	55.1	56.1	57.1
	51	52	53	54	55	56	57	58
Males: Per cent . . .	4	17	28	31	14	5	.....	1
Females: Per cent . .	1	5	11	25	27	22	8	1

¹ Compare V. Giuffrida-Ruggeri, Documenti sull' indice schelico; Volume giubil, i. o. d. Giuseppe Sergi, *Rivista di Antropologia*, xx, Rome, 1916.

THE CHEST

The dimensions and relative proportions of the chest in the males are about medium for whites; in many of the females, however, the chest is relatively narrow. Thus, while only in one of the 100 males the breadth of the chest was below 26 cm., there were 41 per cent of the females that showed smaller dimensions; and the narrowness was only too often accompanied by poor development of the breasts and the shoulders.

CHEST: BREADTH¹

MALES 100: FEMALES 65

Average: Males 29.9 cm.; Females 26.5 cm.
 Minimum " 25.4 " " 22.2 "
 Maximum " 35.5 " " 30.9 "

TABLE OF FREQUENCIES

Cm.	Up to 23.9	24- 24.9	25- 25.9	26- 26.9	27- 27.9	28- 28.9	29- 29.9	30- 30.9	31- 31.9	32 32.9	33 and above
Males: Per cent.....			1	3	7	19	29	13	12	12	4
Females: Per cent.....	9.1	13.8	18.5	21.5	15.4	7.7	7.7	6.1	.....	.....	.....

CHEST: DEPTH¹

MALES 100: FEMALES 65

Average: Males 21.8 cm.; Females 20.5 cm.
 Minimum " 16.3 cm.; " 16.9 cm.
 Maximum " 29.4 cm.; " 26.3 cm.

TABLE OF FREQUENCIES

Cm.	Up to 17.9	18- 18.9	19- 19.9	20- 20.9	21- 21.9	22- 22.9	23- 23.9	24- 24.9	25- 25.9	26- 26.9	27-and above
Males: Per cent	.....	7	10	14	28	19	7	6	1	3	4
Females: Per cent	6.1	20	24.6	10.8	20	4.6	4.6	3.1	3.1	1.5	.....

CHEST: INDEX $\left(\frac{\text{Depth} \times 100}{\text{Breadth}}\right)$

Average Males (100) 72.8 Females (65) 77.-
 Minimum " 55.8 " 61.9
 Maximum " 85.5 " 91.5

¹ Mean between inspiration and expiration, at the level of the upper border of the fourth cartilage.

TABLE OF FREQUENCIES

Index	55.1	60.1	65.1	70.1	75.1	80.1	85.1	90.1
	60	65	70	75	80	85	90	95
Males: Per cent.....	2	6	25	38	15	13	1	.....
Females: Per cent.....	.....	1.5	9.2	24.6	36.9	20.-	4.6	3.1

THE HEAD

The head among the Old Americans is in many cases remarkable for its good development. This is particularly noticeable in the males, as will be seen from the following tables, especially from that showing the cephalic module, or mean diameter of the head. It will be interesting to note in this connection that among twelve groups of male immigrants from Europe measured within the last two years at Ellis Island under the writer's direction, and comprising together more than 500 individuals, not one group equals in this respect the Americans, the closest approach being noted in the Irish, English, Poles, and North Italians.

The type of head, however, differs among the Americans very widely. (See table on cephalic index.) Twelve per cent of the males and four per cent of the females only are dolichocephalic; approximately 60 per cent of males and 50 per cent of females are mesocephalic, while 24 per cent of the males and 43 per cent of the females are brachycephalic, 12 per cent of each sex being decidedly so. There is surely in this important respect no perceptible approximation as yet to any definite type, unless it be the mesocephalic or intermediary.

An especially interesting condition in view of the ancestry of the Old Americans, which was in the main Anglo-Saxon or Nordic, is the scarcity of dolichocephaly, with a relative frequency of the broader-headed forms. The causes of this are difficult to analyze, owing to the complexity of the family mixtures and to various unknown factors, yet it seems doubtful if the original and probably moderate influx of Celtic and other brachycephaly into the Old American stock could alone account for the scarcity of relatively narrow and the frequency of relatively broad heads in this stock at the present time. In other words, we are confronted here with a problem as to whether a gradual change toward relatively broad heads has not become manifest in this stock, owing to the American environment; and the writer is inclined to accept provisionally such a conclusion.

The height of the American head may be referred to as good, but not excessive.

HEAD: LENGTH MAXIMUM

Average:	Males	19.7 cm.;	Females	18.65 cm.
Minimum	"	18.2 "	"	17.3 "
Maximum	"	21.6 "	"	20.1 "

TABLE OF FREQUENCIES

Cm.	17.3	17.7	18.1	18.5	18.9	19.3	19.7	20.1	20.5	20.9	21.3
	17.6	18	18.4	18.8	19.2	19.6	20	20.4	20.8	21.2	21.6
Males:											
Per cent.....	.....	.....	1	7	20	21	25	15	9	.....	2
Females:											
Per cent.....	3	12	22	24	28	7	3	1	.....	.....	.....

HEAD: BREADTH MAXIMUM

Average: Males 15.4 cm.; Females 14.8 cm.
 Minimum " 14.4 " " 13.7 "
 Maximum " 16.4 " " 16.1 "

TABLE OF FREQUENCIES

Cm.	13.7 14	14.1 14.25	14.3 14.5	14.6 14.75	14.8 15	15.1 15.25	15.3 15.5	15.6 15.75	15.8 16	16.1 16.25	16.3 16.5
Males: Per cent.....			3	6	12	20	17	18	17	3	4
Females: Per cent.....	5	7	17	13	30	15	6	5	1	1	.....

CEPHALIC INDEX

Average: Males 78.3; Females 79.5
 Minimum " 70.3 " 72.6
 Maximum " 87.2 " 86.1

TABLE OF FREQUENCIES

Index	70.3- 72.5	72.6- 75	75.1- 77.5	77.6- 80	80.1- 82.5	82.6- 85	85.1- 87.5
Males: Per cent.	3	9	34	30	12	9	3
Females: Per cent.		4	21	32	31	10	2

HEAD: HEIGHT ¹

Average: Males 13.8 cm.; Females 13.25 cm.
 Minimum " 12.5 " " 11.9 "
 Maximum " 15.0 " " 14.3 "

TABLE OF FREQUENCIES

Cm.	11.9	12.- 12.3	12.4 12.7	12.8 13.1	13.2 13.5	13.6 13.9	14.- 14.3	14.4 14.7	14.8 15
Males: per cent.....			1	4	21	36	23	13	2
Females: Per cent.....	2	1	14	28	27	19	9	.....	.....

$$\text{CEPHALIC MODULE } \left(\frac{L. + B. + H.}{3} \right)$$

Average: Males 16.30 cm.; Females 15.60 cm.
 Minimum " 15.37 " " 14.80 "
 Maximum " 17.57 " " 16.65 "

¹ Biauricular line (floor of auditory meatus to bregma, with Hrdlička's compass, Collin).

TABLE OF FREQUENCIES

Cm.	14.75 15	15.01 15.25	15.26 15.5	15.51 15.75	15.76 16	16.01 16.25	16.26 16.5	16.51 16.75	16.76 17	17.01 17.25	17.26 17.5	17.51 17.75
Males: Per cent	.....	.....	4	6	12	19	41	8	9	.....	.....	1
Females: Per cent	7	15	24	21	22	7	1	3	.....	.....	.....	.....

CEPHALIC MODULE VS. STATURE (*Stature=1000*)

Average: Males 93.9; Females 96.6
 Minimum " 86.2 " 86.-
 Maximum " 102.8 " 105.3

TABLE OF FREQUENCIES

	86.0- 88	88.1- 90	90.1- 92	92.1- 94	94.1- 96	96.1- 98	98.1- 100	100.1- 102	102.1- 104	104.1- 105.3
Males: Per cent.....	4	7	17	23	28	12	5	3	1	.....
Females: Per cent.....	2	1	8	16	18	17	19	12	5	2

THE FACE

The face among the descendants of the Old Americans is characterized principally by the subdued dimensions of the malar bones and the absence of protrusion of the angles of the lower jaw. On the average, and considered as a whole, it is rather high, and in the younger persons oval in outline, with the base nearly as full, owing to soft parts, as the upper part, and the two sides nearly parallel. In the females it frequently gives the impression of narrowness.

The actual measurements show that the height from chin to nasion averages in fact slightly less than in many European whites, where it ranges about 11.8 to 12.7 cm. in the males and 10.6 to 11.6 cm. in the females. The relative lowness of this part of the face, especially in the females, is connected with a reduced development of the jaws.

On the other hand, the total facial height, or that from chin to hair-line, stands almost at the top of the European averages, which range from 17.7 to 18.6 cm. in the males and from 16.7 to 17.5 cm. in females (Martin), owing to the good development of the forehead in both sexes. Another interesting fact is that the average height of the forehead in the females (6.4 cm.) very nearly equals that of the males (6.6 cm. in 88 individuals).

The facial breadth (diameter bizygomatic maximum) ranges in various European groups from 13.6 to 14.2 cm. in the average among males, and from 12.7 to 13.4 cm. among the females; the Americans, with the averages of 13.9 and 13.2 cm. respectively, occupy about a medium position in comparison with Europeans. Considering, however, the tall stature and large head of the Americans, the face must be said to be relatively narrow, at least in a large proportion of the individuals.

The morphologic index of the face is mesoprosopic; the physiognomic index is low, owing to the conditions just referred to.

The minimum frontal diameter averages 10.6 cm. in the males and 10.2 cm. in the females, which are very fair dimensions. A tendency toward broad foreheads in the males will be particularly noticeable in the table of distribution of the measurement.

FACIAL INDEX: MORPHOLOGIC

$$\left(\frac{\text{Menton-nasion height} \times 100}{\text{Facial breadth}} \right)$$

Average: Males 86.3; Females 85.2
 Minimum " 73.3 " 76.8
 Maximum " 98.5 " 96.-

TABLE OF FREQUENCIES

Index	below 74	74.- 77.9	78.- 81.9	82.- 85.9	86.- 89.9	90.- 93.9	94.- 97.9	98 and above
Males: Per cent.	1	4	13	31	31	12	7	1
Females: Per cent. ....	.....	5	18	32	32	12	.....	1

FACE: MENTON-NASION HEIGHT

Average: Males 12.- cm.; Females 11.1 cm.
 Minimum " 10.4 " " 10.- "
 Maximum " 13.4 " " 12.3 "

TABLE OF FREQUENCIES

Cm.	10.- 10.3	10.4- 10.7	10.8- 11.1	11.2- 11.5	11.6- 11.9	12.- 12.3	12.4- 12.7	12.8- 13.1	13.2- 13.4
Males: Per cent. ....	.....	4	10	9	28	20	15	12	2
Females: Per cent.	10	14	31	25	12	8	.....	.....	.....

FACE: MENTON-CRINION HEIGHT¹

MALES 72² FEMALES 100

Average: Males 18.4 cm.; Females 17.5 cm.
 Minimum " 17.- " " 15.6 "
 Maximum " 20.7 " " 19.3 "

TABLE OF FREQUENCIES

Cm.	15.6- 16	16.1- 16.5	16.6- 17	17.1- 17.5	17.6- 18	18.1- 18.5	18.6- 19	19.1- 19.5	19.6- 20	20.1- 20.7
Males: Per cent. ....	.....	.....	1	10	25	26	12	8	14	4
Females: Per cent.	4	9	13	21	27	19	5	2	.....	.....

¹ Hair-line.

² In 28 some hair over the forehead has been lost.

FACIAL BREADTH

(Diameter bizygomatic maximum)

Average: Males 13.9 cm.; Females 13.- cm.
 Minimum " 13.- " " 12.- "
 Maximum " 15.- " " 14.6 "

TABLE OF FREQUENCIES

Cm.	12.-	12.4	12.8	13.2	13.6	14.4	14.4	14.8
	12.3	12.7	13.1	13.5	13.9	14.3	14.7	15
Males: Per cent.			8	15	31	31	12	3
Females: Per cent.	7	22	33	25	11	1	1	.....

FACIAL INDEX: PHYSIOGNOMIC

$$\left(\frac{\text{Facial breadth} \times 100}{\text{Menton-crinion height}} \right)$$

MALES 72: FEMALES 100

Average: Males 75.4; Females 73.4
 Minimum " 67.6 " 67.2
 Maximum " 85.5 " 85.9

TABLE OF FREQUENCIES

Index	67.2	70.01	72.51	75.01	77.51	80.01	82.51	Above
	70	72.5	75	77.5	80	82.5	85	85
Males: Per cent.	3	20	9	20	15	3	2	.....
Females: Per cent.	10	27	23	23	10	5	1	1

DIAMETER FRONTAL MINIMUM

Average: Males 10.6 cm.; Females 10.2 cm.
 Minimum " 9.6 " " 9.2 "
 Maximum " 11.6 " " 11.2 "

TABLE OF FREQUENCIES

Cm.	9.2	9.6	10.0	10.4	10.8	11.2	11.6
	9.5	9.9	10.3	10.7	11.1	11.5	.....
Males: Per cent.		5	8	44	34	7	2
Females: Per cent.	9	19	37	24	10	1	.....

Lower Part of the Face.—The diameter between the most prominent parts of the angles of the lower jaw (bigonial) gives in the Americans the averages of 10.7 cm. in the males and 9.9 cm. in the females, which are very moderate dimensions and below the average in most groups of European whites.

DIAMETER BIGONIAL

Average: Males 10.7 cm.; Females 9.9 cm.
 Minimum " 9.2 " " 8.5 "
 Maximum " 12.- " " 11.3 "

TABLE OF FREQUENCIES

Cm.	8.5	8.8	9.2	9.6	10.-	10.4	10.8	11.2	11.6	12.0
	8.7	9.1	9.5	9.9	10.3	10.7	11.1	11.5	11.9	.....
Males: Per cent.....	.....	.....	1	8	21	20	26	16	6	2
Females: Per cent.....	1	3	17	35	28	13	2	1	.....	.....

THE NOSE

The nose of the Old Americans is prevalently long and of medium breadth. It is longer than that in any immigrants coming to this country who have so far been measured,¹ with the exception of the English, in whom the proportions, as to both length and breadth, are practically identical with those of Americans.

The average nasal index in both sexes is moderately leptorhinic, being as usual slightly lower (relatively narrower nose) in the females than in the males. In both sexes the index is almost the same as in modern French.²

NOSE: HEIGHT

Average: Males 5.37 cm.; Females 4.94 cm.
 Minimum " 4.5 " " 4.2 "
 Maximum " 6.3 " " 5.7 "

TABLE OF FREQUENCIES

Cm.	4.2-	4.4-	4.6-	4.8-	5.-	5.2-	5.4-	5.6-	5.8-	6.-	6.2
	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3
Males: Per cent.....	.....	2	1	4	10	27	32	12	8	3	1
Females: Per cent.....	3	7	16	23	26	20	3	2	.....	.....	.....

NOSE: BREADTH

Average: Males 3.6 cm.; Females 3.3 cm.
 Minimum " 3.0 " " 2.8 "
 Maximum " 4.2 " " 3.8 "

TABLE OF FREQUENCIES

Cm.	2.8-	3.-	3.2-	3.4-	3.6-	3.8-	4.-	4.2
	2.95	3.15	3.35	3.55	3.75	3.95	4.15	.....
Males: Per cent.....	.....	2	16	25	31	19	5	2
Females: Per cent.....	8	22	34	24	10	2	.....	.....

¹ Comprising Armenians, Croatians, English, Greeks, Russian Jews, Irish, South Italians, North Italians, Magyars, Poles, Roumanians, and Russians.

² Collignon's data, La nomenclature quinaire de l'indice nasal du vivant; *Revue d'Anthropologie*, 1887, p. 16.

$$\text{NASAL INDEX } \left(\frac{B \times 100}{L} \right)$$

<i>Average:</i>	Males 67.1;	Females 66.6
Minimum	" 56.9	" 54.5
Maximum	" 84.4	" 78.8

TABLE OF FREQUENCIES

Index	below 55	55.1 60	60.1 65	65.1 70	70.1 75	75.1 80	above 80
Males: Per cent.		7	30	39	18	2	4
Females: Per cent.	2	13	23	35	19	8	1

MOUTH

The mouth shows medium breadth in both sexes of the Americans, and its averages equal exactly those obtained on the French by Testut.¹ Curiously enough, as already mentioned, the nasal index in the Americans is also almost identical with that in the French.

MOUTH: BREADTH

<i>Average:</i>	Males 5.3 cm.;	Females 4.7 cm.
Minimum	" 4.5 "	" 3.9 "
Maximum	" 6.3 "	" 5.9 "

TABLE OF FREQUENCIES

Cm.	below 4.0	4.- 4.3	4.4- 4.7	4.8- 5.1	5.2- 5.5	5.6- 5.9	6.- 6.3
Males: Per cent.			3	25	45	21	6
Females: Per cent.	1	5	26	42	20	6	.....

EARS

The ears of the Old Americans are long. Among the series of immigrants before mentioned it is again only the English whose ear is quite as long as that of the Americans; in all the other groups the ear is from 2 to 5 mm. shorter.

In breadth the ear differs much less than in length in the various groups of whites. In the twelve groups of recent male immigrants to this country it averages from 3.6 to 3.7 cm.; in the males among the Americans it is 3.7cm.

Owing to its considerable relative length, the ear of the Old American gives a rather low breadth-length index.

LEFT EAR: HEIGHT

<i>Average:</i>	Males 6.7 cm.;	Females 6.1 cm.
Minimum	" 5.8 "	" 5.4 "
Maximum	" 8.1 "	" 7.1 "

¹ Data in Martin, Lehrbuch d. Anthropologie, p. 444.

TABLE OF FREQUENCIES

Cm.	up to 5.5	5.6- 5.9	6.- 6.3	6.4- 6.7	6.8- 7.1	7.2 7.5	7.6- 7.9	8.- 8.1
Males: Per cent		2	21	34	29	11	2	1
Females: Per cent	5	31	38	18	8	.....	.....	.....

LEFT EAR: BREADTH

Average: Males 3.75 cm.; Females 3.45 cm.
Minimum " 3.05 " " 2.9 "
Maximum " 4.4 " " 4.2 "

TABLE OF FREQUENCIES

* Cm.	2.9- 3.0	3.05- 3.2	3.25- 3.4	3.45- 3.6	3.65- 3.8	3.85- 4.0	4.05- 4.2	4.25 4.4
Males: Per cent		2	7	28	38	14	8	3
Females: Per cent	3	11	40	27	18	1	.....	.....

LEFT EAR: INDEX $\left(\frac{\text{Breadth} \times 100}{\text{Length}}\right)$

Average: Males 56.3; Females 56.5
Minimum " 44.9 " 47.7
Maximum " 63.8 " 66.7

TABLE OF FREQUENCIES

Cm.	below 50	50.05 52.5	52.55 55.	55.05 57.5	57.55 60.0	60.05 62.5	62.55 65.0	above 65.0
Males: Per cent	2	8	23	31	22	11	3	.....
Females: Per cent	2	11	21	26	29	6	4	1

HANDS

The length of the left hand ranges among the white male immigrants from 18.5 cm. among the Russian Jews to 19.1 cm. among the English and 19.3 in the Irish males; in the American males it is 19.2 cm. The female hand is, of course, considerably smaller.

The breadth of the left hand, measured across the middle of the palm (as indicated in the table relating to this measurement), ranges in the male immigrants from 9 cm. in the Russian Jews to 9.4 cm. in the English, Irish, and three other groups; in the male Americans it is 9.15 cm., indicating in a slight degree relative narrowness, and this is even more marked in the female sex, as will be seen from the breadth-length indices. This relative narrowness of the hand in the Americans as compared with the immigrants is doubtless due to the fact that in the immigrants, owing to their occupations, which are mostly those of workingmen and farmers, the hand is more muscular and hence relatively broader.

LEFT HAND: LENGTH¹

Average: Males 19.2 cm.; Females 17.4 cm.
 Minimum " 17.5 " " 15.2 "
 Maximum " 21.- " " 19.7 "

TABLE OF FREQUENCIES

Cm.	15.2	16.1	16.6	17.1	17.6	18.1	18.6	19.1	19.6	20.1	20.6
	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0
Males: Per cent	.....	.....	.....	2	5	14	20	27	19	5	8
Females: Per cent	2	11	22	28	22	10	2	1	2	.....	.....

¹ From center of line connecting most proximal points on thenar and hypothenar eminences to end of medius, in extension.

LEFT HAND: BREADTH¹

Average: Males 9.15 cm.; Females 7.9 cm.
 Minimum " 8.3 " " 6.9 "
 Maximum " 10.3 " " 8.6 "

TABLE OF FREQUENCIES

Cm.	up to	7.1	7.5	7.9	8.3	8.7	9.1	9.5	9.9	10.3
	7.0	7.4	7.8	8.2	8.6	9.0	9.4	9.8	10.2	.....
Males: Per cent	.....	.....	.....	.....	9	34	30	22	4	1
Females: Per cent	2	6	32	48	12	.....	.....	.....	.....	.....

¹ From intersection of the straight line forming externally the boundary of the index finger and the palm, with the thumb—to a point on the opposite boundary of the palm, midway between the line indicating the root of the little finger and that limiting proximately the hypothenar eminence.

LEFT HAND: INDEX $\left(\frac{\text{Breadth} \times 100}{\text{Length}}\right)$

Average: Males 47.6 Females 45.5
 Minimum " 44.6 " 40.6
 Maximum " 52.2 " 50.-

TABLE OF FREQUENCIES

Index:	40.0	41.1	42.1	43.1	44.1	45.1	46.1	47.1	48.1	49.1	50.1	51.1
	41.0	42.0	43.0	44.0	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.2
Males: Per cent	.....	.....	.....	.....	7	7	23	23	19	16	2	3
Females: Per cent	1	3	7	8	21	23	18	11	6	2	.....	.....

FEET

The maximum length of the left foot in the American males averages 26.2 cm., which is almost identical with that obtained in the English immigrants (26.15 cm.) and several other groups of newcomers. The female foot is very perceptibly shorter (by 2.9 cm., or approximately 1 1-5 inch.)

The maximum breadth of the foot was found to range from 9.7 cm. in the male Irish, 9.9 cm. in the Russian Jews, and 10.1 cm. in the English, to 10.6 cm. in the Poles—in the American males it is only 9.5 cm. Like the hand, therefore, but in a higher degree, the average American foot is relatively narrow. This narrowness, which is well expressed in the breadth-length index, may again be wholly due to the differences of occupation in the two classes of subjects; but in this case we can not be quite as confident of this conclusion as we were in that of the hands.

LEFT FOOT: LENGTH MAXIMUM

Average: Males 26.2 cm.; Females 23.3 cm.
 Minimum " 23.7 " " 20.8 "
 Maximum " 29.2 " " 25.7 "

TABLE OF FREQUENCIES

Cm.	20.8	21.1	22.1	23.1	24.1	25.1	26.1	27.1	28.1	29.1
	21	22	23	24	25	26	27	28	29	30
Males: Per cent. ....	.....	.....	.....	2	14	31	36	11	5	1
Females: Per cent.	1	8	33	36	17	5	.....	.....	.....	.....

LEFT FOOT: BREADTH MAXIMUM

Average: Males 9.5 cm.; Females 8.4 cm.
 Minimum " 8.2 " " 7.3 "
 Maximum " 10.8 " " 9.8 "

TABLE OF FREQUENCIES

Cm.	7.3	7.7	8.1	8.5	8.9	9.3	9.7	10.1	10.5
	7.6	8.0	8.4	8.8	9.2	9.6	10.0	10.4	10.8
Males: Per cent. ....	.....	.....	2	13	17	29	19	12	8
Females: Per cent.	3	23	33	28	8	2	3	.....	.....

LEFT FOOT: INDEX $\left(\frac{\text{Breadth} \times 100}{\text{Length}}\right)$

Average: Males 36.5; Females 36.-
 Minimum " 31.4 " 32.6
 Maximum " 41.1 " 40.5

TABLE OF FREQUENCIES

Index:	31.1	32.1	33.1	34.1	35.1	36.1	37.1	38.1	39.1	40.-
	32.0	33.0	34.0	35.0	36.0	37.0	38.0	39.0	40.0	41.1
Males: Per cent.	1	2	4	11	19	28	22	11	10	4
Females: Per cent. ....	.....	6	8	15	24	18	14	8	7	.....

LEFT LEG

The circumference of the left leg in the American males, averaging 36.2 cm., occupies about a medium position when compared with that of the white immigrants of the same sex, in whom the dimension ranges in the average from 34.3 cm. in the Southern Italians to 37.3 cm. in the Poles and Russians.

CIRCUMFERENCE: LEFT LEG

MALES

Average: 36.16 cm. (1st 50: 36.16; 2d 50: 36.17)

Minimum 30.2 "

Maximum 45.0 "

TABLE OF FREQUENCIES

Cm.	30.1- 32	32.1- 34	34.1- 36	36.1- 38	38.1- 40	40.1- 42	42.1- 44	44.1 45
No. of cases and per cent. . . .	6	14	32	27	12	6	2	1

COLOR OF HAIR AND EYES¹

Hair.—While there is no sharp line separating hair of different colors, it is nevertheless possible, for purposes of examination and description, to divide hair color into four classes, which, with practice and due care, can be fairly well separated. These are: (1) the blonds, (2) the browns, (3) the blacks, and (4) the reds. The blonds range from almost an albino white to different shades of flaxen and yellowish. They merge on one hand with the light-browns, which form an intermediary class between true blonds and true browns, and on the other with the golden, which connects the yellow-blonds with the golden-reds. The true browns comprise what is ordinarily designated as the medium and dark shades of hair, without distinct tinge of red. The blacks comprise the very dark or nearly black hair and the true black; while the reds range from golden-red to brick-red on one hand and to very dark-red on the other.

So much for explanation of the terms used. We may now proceed to the results obtained on the first 100 of each sex of the Old Americans. One of the most interesting results is that there were among these first 200 individuals no pronounced blonds. Considering the ancestry of the Old Americans, which was derived chiefly from the Northern Europeans among whom blondness is more or less prevalent, this result can be explained only by the assumption that the environmental differences in the New World tend in general to darken the hair in the course of a few generations. The exact data are shown below. We see 12 per cent among the males and 16 per cent among the females of "light-browns", about half of which number would perhaps ordinarily be classed among "blonds". More than three-fourths of the males and over two-thirds of the females show medium dark or dark hair ("medium and dark brown"). A perfect black was not found, and even the nearly blacks are infrequent. Of the "reds" there were different shades, all with a more or less golden luster. No case be-

¹See "The Eye and Hair Color in Children of the Old Americans", by Beatrice L. Stevenson, following this article.

longing to this category was found among the males, which is probably accidental; but there were 10 per cent of reds among the females.

In brief, it can therefore be said that the Old American adults show very prevalently hair that is medium dark to dark; that in about one in seven the hair is light-brown, and in some of these instances can be classed as medium blond; that there is an absence or great scarcity of the blacks; and that about one in ten of the women have hair of some shade of red with more or less of a golden reflex.

HAIR		
	<i>Males</i>	<i>Females</i>
Light-brown.....	12 per cent	16 per cent.
Medium-brown to dark-brown.....	77 "	68 "
Very dark to black.....	11 "	6 "
Golden-reds and reds.....	—	10 "

In infants and young children of the Old American families, blonds and light-browns are much more common. By inquiring of the adults as to the color of their hair in childhood, the answer was almost invariably that it had been lighter, in some cases very much so, but had darkened gradually with advancing age.

The mustache in men is frequently somewhat reddish, rusty, or grizzly, even though the hair on the head seems completely free of red.

Color of the Eyes.—The conjunctiva in adult Americans only seldom retains any bluish tinge, and pronounced grades of such a tinge is uncommon even in the children.

The colors of the iris are divisible into (1) the grays, (2) the greenish, (3) the blues, and (4) the browns. Besides these pure shades there are eyes of intermediary colors, and others with a mixture of colors in which both the originals are recognizable or represented, such as the blue-brown or greenish-brown. The gray-blues and greenish-blues were classified according to the predominant shade. The results of the examination of the 200 adult Old Americans gave the following:

EYES		
	<i>Males</i>	<i>Females</i>
Gray.....	2 per cent.	4 per cent.
Greenish.....	7 "	10 "
Blues (light, medium, deep).....	54 "	50 "
Brown (light, medium, dark).....	37 "	36 "

The above figures show that nearly two-thirds of the eyes of adult Old Americans are of a relatively light shade, while a little more than one-third are brown; and that there is but little sexual difference in these respects. The full value of these results will of course not appear until we are able to extend the observations considerably and to furnish suitable comparisons.

PHYSIOLOGICAL OBSERVATIONS

Pulse.—In subjects who subjectively or objectively showed no signs of any derangement of health, the pulse averaged in males 70.6 per minute, in females

75.2 per minute, with the subject quiet and in sitting position. The range of individual variation is in each sex about 30 beats.

Respiration.—The average rate of respiration per minute found in the male Americans was 17.2, in the females 18.5, with considerable individual variation in both sexes—males 11-22, females 10-24. As in the case of the pulse, the observations were taken with the subject sitting and in repose.

Temperature.—Under the same conditions, i. e. with the subject seated and at rest, the temperature under the tongue gave in the males the average of 98.5°, in the females 98.7°; with the variations of from 96.7° to 99.4° in the males, and from 97.9° to 99.4° in the females. The sub-average temperatures were recorded mostly in subjects who came for examination before meals; while the maxima occurred soon after the midday meal, or may have been due to transient derangements of the system which were not noticed by the subject or determined by the examiner. The absolutely normal limits are probably 97.5° to 99° in the males, and 98° to 99.2° in the females.

*Muscular Force.*¹—In the male Americans the average pressure of the right hand amounted to 41.4 kg. (24-40), of the left, 37.5 kg. (19-50), which is slightly more than in the twelve groups of white immigrant males, measured for comparison, on the right side and about the same on the left. Notwithstanding the lighter occupations of the Americans who were examined, as a class therefore they compare favorably in this respect with the hard-working and heavier-muscle Europeans.

The matter is, however, different when it comes to the more important strength of the muscles of the arms and shoulders. The traction force averaged in the immigrant males from 21.9 kg. in the Armenians and 23.2 in the Russian Jews, to 25.8 kg. in the Irish, English, Poles, and Russians; in the male Americans it was only 21.3 kg.

The American females made in these tests a poor showing: they averaged only a trace more than one-half the strength of the males in pressure of either hand (right hand 22 kg., left, 19 kg.), and less than one-half in traction (9.25 kg.).

In these determinations, more than in any others, are shown the effects of the widely different habits of life and physical training to which the two sexes of the Americans have been subjected; and the results present a strong indication for closer attention to the body development of the female adolescent in this country, or at least so in the Old American families. It seems, however, as suggested at the beginning of this preliminary report, that this need has already received some recognition, particularly in our colleges for women; but it is general and demands wide and expert attention.

CONCLUSIONS

The study of the actual representatives of the oldest American families has proved throughout one of absorbing interest. The results, however, may prove quite sober and disappointing to those inclined to expect sensational revelations. Nevertheless, they will be valuable both to science and in application. They show quite clearly that no definite, already formed, strictly American type or

¹ Mathieu's or Collin's dynamometer.

sub-type of the whites as yet exists; and as intermarriages of the Old Americans with more recent elements in this country are rapidly becoming more numerous there seems no chance for the formation of something like a separate American type of population, at least within many centuries.

The examinations have shown in many instances a remarkable persistence of heredity characters and their strong individuality, as we may express it, with slow, irregular, unwilling yielding to a complete and permanent fusion with other characters of the same class.

Yet there are indications that some progress has been made toward such a fusion, and that if the Old American families could be kept in full vitality and free from intermixture with newer elements for several more centuries, there would eventually come into existence in this country a real separate sub-type of white people, which would possess numerous if not great distinctive characteristics from the European whites and would be strictly American.

UNITED STATES NATIONAL MUSEUM
WASHINGTON, D. C.

VOLUME XXVI

NUMBER 3

EUGENICAL NEWS

SEPTEMBER, 1941



Published Quarterly

THE AMERICAN EUGENICS SOCIETY, INC.

EUGENICAL NEWS

EDITORIAL COMMITTEE

ROBERT C. COOK, ROBERT LITTELL, FREDERICK OSBORN,
ALBERT E. WIGGAM, AND RUDOLF C. BERTHEAU, *EX-OFFICIO*.

OFFICERS AND BOARD OF DIRECTORS OF THE AMERICAN EUGENICS SOCIETY, INC.

MAURICE A. BIGELOW, *President*, Chairman of the National Education Committee of the American Social Hygiene Association, New York, N. Y.

MRS. SHEPARD KRECH, *Vice President*, President, Maternity Center Association, New York, N. Y.

FREDERICK OSBORN, *Treasurer*, Population Association of America.

CHAUNCEY BELKNAP, Lawyer, New York, N. Y.

GUY IRVING BURCH, Washington, D. C.

ROBERT C. COOK, American Genetic Association, Washington, D. C.

WATSON DAVIS, Director, Science Service, Washington, D. C.

HENRY P. FAIRCHILD, Professor of Sociology, New York University, New York, N. Y.

JOSEPH K. FOLSOM, Professor of Sociology, Vassar College, Poughkeepsie, N. Y.

WILLYSTINE GOODSSELL, Associate Professor of Education, Teachers College, Columbia University, New York, N. Y.

BELL GURNEE, Washington, D. C.

FRANK H. HANKINS, Professor of Sociology, Smith College, Northampton, Massachusetts.

ELLSWORTH HUNTINGTON, Research Associate in Geography, Yale University, New Haven, Connecticut.

ROBERT LITTELL, Associate Editor, *Reader's Digest*, New York, N. Y.

FRANK LORIMER, Professor of Population Studies, American University, Washington, D. C.

MRS. LOUIS DE B. MOORE, New York City.

HENRY F. PERKINS, Professor of Zoology, University of Vermont, Burlington, Vermont.

PAUL POPENOE, Secretary and General Director, The Institute of Family Relations, Los Angeles, California.

WILLIAM F. SNOW, General Director, The American Social Hygiene Association, New York, New York.

WARREN S. THOMPSON, Director, Scripps Foundation for Population Research, Miami University, Oxford, Ohio.

MRS. FRANK A. VANDERLIP, President of Board of Trustees, New York Infirmity for Women and Children, New York, N. Y.

ALBERT E. WIGGAM, Author and Publicist, New York, N. Y.

Address

RUDOLF C. BERTHEAU, *Secretary*
RKO Building, Rockefeller Center
New York, N. Y.

EUGENICAL NEWS, the official organ of the American Eugenics Society, published quarterly at 3110 Elm Ave., Baltimore, Md., by the American Eugenics Society, Inc., RKO Building, New York City.

Entered as second class matter at the Post Office at Baltimore, Md., under the Act of March 3, 1879.

Subscription three dollars per year, postage free in the United States and Island possessions; also in Canada, Mexico, Cuba, and Canal Zone. In all other countries add ten cents for postage.

Earlier issues of EUGENICAL NEWS can be obtained by addressing the Society.

EUGENICAL NEWS

NOTES AND MEMORANDA

It's General Osborn Now!

DURING the 1930's the American Eugenics Society went through a revolution in the development of a program of Eugenics in a democracy. Many people contributed to this reappraisal and reorientation of eugenic philosophy and practice. A leader in these new developments, and an untiring worker in guiding the Society through troubled times has been our Treasurer, Mr. Frederick Osborn. For many months Mr. Osborn has been taking an active part in defense work in Washington as Chairman of committees devoted to coordinating and expediting various phases of the Selective Service Act. In August President Roosevelt announced the appointment of Mr. Osborn as a temporary Brigadier General in charge of the Morale division of the Army. Succeeding Brigadier General Ulio, retired, Mr. Osborn is to have charge of the program of maintaining the spirit of our new Army. Editorial comment in the magazines and newspapers concede that this job is one of the key positions in Washington at this time and a very tough assignment. All of his friends in the eugenic movement wish our Treasurer all success in this new

position, which will make such heavy demands on his time that his active participation in the work of the Society will have to be suspended during the period of the present emergency.

One job which must be done to maintain the long-term morale of America (and the morale of our Army is never going to be better than the morale of the people as a whole) is concerned with eugenics. That this thought is not foreign to his own mind is indicated in a letter from Mr. Osborn to President Bigelow of the Society: "Your fine work with the American Eugenics Society is more important now than ever. . . . In the long run it is far more important than anything we can do in Washington." Long-term morale depends on the quality of a people. This is a eugenic problem as well as one of education, because a feeling of continuity must underlie any morale based on more hopeful emotions than fear and desperation. And such continuing morale the democracies must have to win the war and the peace. That fact eugenics must not forget in the maze of alarms and emergencies which face us today.

**New England Conference on Tomorrow's Children**

THE second New England Conference on Tomorrow's Children, held at the Harvard Summer School, July 16, 17 and 18, 1941, was designed, like the first Conference held a year earlier, as an adult education conference for a regional audience. Neither of the Conferences were considered to be conferences for experts, although many persons professionally concerned with the problems under consideration have been in attendance.

In general, the Conference program and the speakers appealed to persons interested in the following fields of work: religion, education, social service, health, and social and economic planning, insofar as these relate to child, family and population development.

Some light may be thrown on the thinking which lay behind this year's Conference program on the theme, "The Family in a World at War," by quoting from a letter sent to the Advisory Board

and Cooperating Organizations along with a tentative Conference program, early in the planning phase. This letter first stated, "The present (tentative) program has been planned with a view to inviting, at least as first choices, a wholly new group of speakers this year, in order to draw more broadly from the possible available talents."

The letter goes on to say, "In planning this program, we have sought to keep in mind the five following points as significant to the success and value of an adult education conference of this kind:

1. Comprehensive and rounded coverage of the whole area indicated by Conference theme.
2. Unity of program presentation to develop and clarify final directives on basis of broadest possible area of agreement.
3. Specific coverage of significant new problems and subjects of special timeliness.
4. Balanced presentation of differing viewpoints, especially where significant disagreement exists.

5. Opportunity for discussion by participating individuals and groups with regard to their fields of special interest.

"It must be kept in mind that the New England Conference is not an organization with an established platform, defined policies, membership base, or elected officers. Meeting under the auspices of Harvard University, it cannot, even if it were desired to do so, ask its audience to decide upon or subscribe to specific policies or programs, in such a way as to commit or appear to commit the University to a particular viewpoint or program. If the Conference fulfills any worthwhile educational function, it will be because members of the audience return to their respective fields of work with a somewhat enlarged, somewhat enriched, and somewhat unified comprehension of the problems bearing on child, family and population development, and some of the possibilities and directions for needed social effort."



THE MICHIGAN HUMAN HEREDITY CLINIC

A DEPARTMENT of Human Heredity was organized at the University of Michigan by the Board of Regents in March, 1941. This department is a unit of the Laboratory of Vertebrate Genetics, but is closely associated with the Medical School. An Hereditary Clinic affiliated with the University Hospital will be opened in the near future. This clinic will also have close cooperation with the other departments and clinics on the campus. It will thus serve to bring together the studies in human heredity that in the past have been conducted independently by various individual members of the University staff.

The staff of the Heredity Clinic includes: Dr. C. Nash Herndon, who has previously been associated with Dr. William Allan in the Department of Medical Genetics in the Bowman Gray School of Medicine; Dr. Charles W. Cotterman, who was trained under Dr. Laurence H. Snyder at Ohio State University; Dr.

Byron O. Hughes, a physical anthropologist in the University of Michigan School of Education; and Dr. Lee R. Dice, Director of the Laboratory of Vertebrate Genetics. Provision has been made for a secretary and other assistants.

Family records being secured by Dr. George R. Moore and Dr. Hughes in the Orthodontics Clinic are being deposited in the files of the Heredity Clinic. These records supply evidence of the inheritance of certain dental and jaw abnormalities. Other special human characters to be investigated by the Heredity Clinic will probably include anemias, convulsive states, deafness, racial traits, and longevity.

A large wooden frame building has been assigned by the University Hospital for the work in human heredity and this is now in the process of being equipped. Funds for the support of the investigations are being supplied by the Board of Governors of the Horace H. Rackham School of Graduate Studies.

THE ROLE OF PSYCHOLOGY IN EUGENICS

GLADYS C. SCHWESINGER

Consulting Psychologist, American Eugenics Society

THE word "eugenics" has a dual meaning, depending on whether we consider the subject as science or practice. The original Galtonian definition is concerned with the study of all the agencies under social control which may improve or impair the inborn qualities of the future generations of man, either physically or mentally. Or, in other words, the study of factors in heredity and environment which may affect human development, as well as those which may affect differential reproduction of varied genetic types. The laws or principles contributed by the social and biological sciences, selectively organized, are the basis of eugenic wisdom.

Eugenics, as an applied science, or movement, or program, is concerned with utilizing these laws and principles, directed toward the goal of the eugenics ideal, namely the improvement of human quality. In its applied aspects, eugenics can be compared with medicine. In both disciplines, students are trained in an organized circle of knowledge pertinent to a particular field of service. This special wisdom is then applied with what art, skill, and technical proficiency the practitioners can muster to produce desired results in the way of better health and development.

Eugenics, like medicine, stresses the preventive functions of its work, the positive even more than the negative steps to be taken to insure human well-being and health and soundness of mind and body, particularly for future generations. Needless to say, both disciplines draw largely from the same scientific areas for information and knowledge; and also for principles and practices in personal application and public education.

The sciences which contribute most extensively to the fund of eugenic wisdom are psychology, biology, sociology, anthropology, economics, and the new science of demography, — the

study of population trends. From social demography, eugenics derives its understanding of the social consequences of changing trends in birth rates, death rates, and rates of natural increase within the country, including the differential fertility of groups, classes or sections within a national population. Eugenics crystalizes the findings of sociology and anthropology with respect to the influences of culture and custom on human behavior and personality and on human reproduction. From economics, eugenics learns of hazards and inducements to parenthood governed by maternal needs. From biology, it learns of the laws of inheritance and transmission of traits — particularly physical traits — and those factors concerned with maintaining bodily health and well-being which affect the quality of man. From psychology, eugenics derives insight and understanding of the qualitative aspects of population, especially those psychological characteristics of intelligence and personality which, far more than the physical, will determine the ultimate trend of the race. From psychology, also, eugenics has assembled and organized contributions to a better understanding of the hereditary-environmental influences governing the appearance and development of intelligence and personality. Particularly is eugenics concerned with individual differences in populations; also with group differences when their basic factors can be traced out by scientific study.

Two Kinds of Eugenics

Thus derived and thus oriented, applied eugenics can be considered to fall in two categories: clinical eugenics and social eugenics. The former would approach the eugenic problems of the individual person or couple or family line; the latter, the eugenic problems of a group or nation. In both individ-

ual or group application, the eugenic goal of human improvement will guide activity. In both areas, techniques for enlightening the client or the public will be drawn from acceptable principles and practices already found useful and sound in such other professional fields as: individual counseling in a medical or psychological clinic or private practice; in teaching, writing, social and community service, public health, education, and publicity in general.

To the psychologist who is familiar with the origin of psychological clinics for the adjustment of problem individuals, it is not surprising that the eugenics movement also began its work with an emphasis on negative aspects. The continued reappearance within family lines and society in general of inferior or inadequate individuals who were a problem to themselves, to their families and to the state, first turned public attention to alleviative measures.

It was within the powers of almost any observer to convince himself that certain physical defects, such as club foot, absence of fingers or limbs, or blindness, deafness and other abnormalities, were transmitted from one generation to another through the germ plasm. From this it was not a far jump to deduce that such physiological conditions as are to be found in disease or mal-functioning of organs could also be passed on genetically. Stomach ulcers, the tendency to have cancer or diabetes or tuberculosis, were also seen to follow family lines. Similarly it was noted that individuals of one family stock presented more than a random chance showing of such psychological defects as mental deficiency and mental disease. Elaborate genealogies were drawn up to present evidence of the transmission of these defects from ancestors to descendants, and the not unexpected conclusion was drawn that these conditions, too, were inherited.

The degree to which the manifestation of inherited tendencies might be dependent upon environmental factors was not at first recognized. With the

coming of scientific research studies in this field — carried out largely by psychologists — the differential role of these two variables, heredity and environment, was better understood. The eugenics associations were among the first to utilize and to sponsor studies in a further clarification of this controversial question. Today, eugenics is actively engaged in promoting research in other areas of direct concern to, or even basic to, its field of activity, for only on scientific evidence will eugenics erect its own edifice and program.²

In the beginning, however, eugenics had to proceed on the material which was currently available. It was thought — and the eugenists themselves were among those promulgating the idea — that many forms of social inadequacy which reappeared through successive human generations were necessarily passed on as innate biological characters *via* the germ cells. Among the deficiencies and defects noted for their reappearance through successive human generations were criminality and delinquency, chronic pauperism and dependency, alcoholism, drug addiction, sex perversion and moral violations. At that time, eugenics programs centered negatively around the reproductive deletion from the body public of those manifesting such defective or low-grade potentials. Much was said about birth control and sterilization of the "unfit"; so much indeed that the two terms "sterilization" and "eugenics" became in the public mind almost synonymous.

But eugenics is more than an argument for eradicating the unfit; it is also a force for promoting the greater reproductivity of good biological stocks. People who were in doubt as to which type they, individually, might represent (as could easily happen when both good and bad characters emerged within the one family line) felt a great need for enlightened counsel in the science of human genetics. This was the kind of service which originated and for many years was fostered at the Eugenics Record Office, a part of the Carnegie Institute of Washington, at

Cold Spring Harbor, N. Y. The work done there in assembling needed data from the clients who applied for guidance with respect to problems of their own marriage and reproductivity was an excellent beginning of what might later be called a eugenics clinic. That it was not so called may be due to the fact that it was directed by a biologist rather than a psychologist.

Clinical Eugenics

Clearly, the basis for a good working practice in clinical eugenics has already been set up. The motive for visiting such a clinic will generally be to ascertain probable consequences of a proposed marriage; or, in psychological terminology, to seek an adequate adjustment for an individual, or couple, or family, with respect to problems of reproductivity for the family lines concerned. Preferably, this eugenic guidance should be sought before unions are consummated; or, if a birth has already taken place, of a sort to suggest abnormality in a family line not previously suspected of genetic weakness, then eugenic guidance should be drawn upon before other conceptions occur. In this day of rather efficient contraception, unwanted births — at least to those parents who are of average or better intelligence — are no longer to be regarded as a visitation from providence, to be borne with resignation and grace. The problem today is rather one of deciding whether or not a contemplated pregnancy will carry with it a hazard or a promise of fulfillment in the birth of superior offspring.

The procedures or techniques of a eugenics clinic will include:

1. A genetic investigation of the clients and their families.
2. A medical examination of the clients, covering both partners to the proposed union.
3. A psychological examination of both.
4. Developmental records, case histories, and an analysis of the adjustment of the clients to life.
5. An analysis of the findings; presentation of the evidence to the clients, with discussion, evaluation, and the best possible prediction as to what can be expected in the progeny of the proposed union.

6. Record-keeping and research.

Since the propagation of a new life will normally be a function of two family lines, a eugenical analysis will be directed at its best to a genealogical study of the relatives of both partners to the impending union. The genetic investigation of the families will be conducted by specially trained eugenic social workers, whose business it will be to gather material on all the relatives, ascendants, descendants, if any, and collaterals for two or more generations preceding the propositus, with special study of his siblings and previous offspring, if any. It is best for couples to present themselves as a unit, but it may well happen that only one member of the proposed partnership is intellectually or emotionally concerned about his genetic potentials, and that the other does not appear for study or advice at the clinic. In all cases, the missing partner should be urged to come, not only to participate in the discussion of the data gathered but also to contribute information as to his own line. Genetic strength in one branch of the union may be enough to outweigh genetic weakness in the other, in which combination, the probable prediction for offspring would be different than if limited to one partner alone.

Data accruing from the medical and psychological examinations and the rather thorough case histories of both partners are a necessary adjunct to good clinical eugenics. The degree and nature of the material to be selected for discussion will depend in part on the mental capacity of the clients to grasp it and its implications for the progeny. The kind of counsel to be given clients will also be determined in large part by the many variables which enter into the analysis. Each couple or case unit will be highly individualized as to recommendations. For instance, in those cases which show no serious degree of maladjustment in their personal case histories, but who may show serious genetic weakness — perhaps on both sides — the recommendation may be marriage, but without offspring. Or to

partners, one or both of whom are suffering from some form of secondary mental defect, a similar recommendation may be made. In the first case, the proposal is offered to protect the offspring from hereditary defect or injury; in the second, to protect the offspring from the definite environmental injury which can come to a genetically normal child who is reared by feeble-minded parents, too poorly equipped mentally to give him the kind of parental guidance every child ought to have. In both cases, marriage without offspring can bring satisfaction and happiness to the couple, without risking the welfare of children.

To take another example of the type of problem which may appear in a eugenics clinic, consider the case of partners whose genetic, developmental, medical and psychological examinations are excellent. To partners of this caliber, the eugenic counselor can well point out the desirability of reproducing a large family, at least six children to insure that the two excellent lines will be more than replaced in future.

With partners, for whom both the genetic and psychological evidence is poor or doubtful, marriage with contraceptive help, may be indicated. In cases of very poor genetic and psychological quality, marriage with sterilization may be suggested, provided a degree of marital adjustability can be assured for the sake of compatibility. When developmental and psychological data are good, but the genetic prospects are doubtful or poor, then marriage, but with a limited number of children — for example, two — may be the suggestion, less than the replacement quota of about three per couple.

In addition to the reproductive problems for which the clients seek advice, these examples will strongly suggest the kind of human marital adjustment problems which appear in almost any adult psychological clinic. Clinical eugenics accepts gladly these contributions from clinical psychology.

In the eugenics clinic, the counselor will not seek to dominate the decision

for the couple or the individual seeking help. He will present the evidence, discuss its significance, indicate the mathematical probabilities of deficiencies or defects in the offspring, point out a course, and leave the decision to the client and his family. Eugenic service of this sort is advisory, voluntary, and at no time is the advised course to be compulsory. Only this kind of eugenics can be tolerated in a democracy.

Throughout the eugenics movement in America, the emphasis is upon the rights of the forthcoming generation; the rights of children to opportunities for normal development everywhere; the right to be born to parents who will care for them properly and wisely; the right to be born free of hereditary defect or abnormality. Any psychologist will recognize in this set of principles a close kinship to the practices of a good psychological or educational clinic.

As in all good clinics, also, case records should be systematically compiled and filed. The forms should be framed with regard to research needs later, for in the eugenic clinical area, as in most others, much more reliable insight is required if service is to improve with the years. It devolves upon the eugenics workers to assemble materials, accruing from their contacts with clients, in such a way that these will aid in building up further understanding of the genetic factors underlying human psychological and physical traits. Preferably, also, a system of follow-up cases should be included, in reference to the subsequent adjustment of the clients within marriage, and particularly should details be gathered and filed about their offspring and in turn of the later adjustment of these children. Only by such complete returns can science advance in this so complex and highly important area of clinical service.

Social Eugenics

Whereas clinical eugenics centers chiefly around the reproductive adjustment of the individual family, social eugenics is concerned with awakening in the whole public a point of view and

in bringing enlightenment to a nation about the very problems which confront the workers in the clinic. A fundamental principle of social eugenics is that inadequate adults should realize the desirability of not having too many offspring; and that adequate adults should more whole-heartedly accept their responsibility and their privilege in contributing generously to a better population. A rational social eugenics aims at lowering the reproductivity of individuals who are below the average in important traits of health intelligence, and personal adaptability. Even more important, it seeks to maintain in those who are above average in these traits, a replacement rate sufficient to insure that their progeny will progressively increase with each subsequent generation. In so far as ignorance, poverty, and general inability to use contraceptives are responsible for the greater fertility of the sub-average couples, social eugenics is interested in a wider and more effective dissemination of family-limitation methods, and to this end, encourages the establishment and services of birth-control clinics throughout the country. These are needed in sparsely settled and culturally deprived rural areas as well as in submarginal city slums, where poverty *per se* has already led to their existence.

In so far as economic handicaps (arising out of the complexities and inequalities of income and expenditures) may prevent adequate and superior parents from having larger families than they are now having, social eugenics is promoting the idea that public compensations should be set up which would tend to offset these handicaps. In the last analysis, although it is the parents who actually bear the children, it is the public, the state, and the larger world which profit from their coming into life. The obligation of the community to share the expenses, sacrifices and inconveniences which attach to the bearing and rearing of children is a just one, which it can be taught to accept.

It is important for a nation to understand the trend of its population, both

as to numbers and as to quality. Thus social eugenics must be concerned with disseminating information about the differential fecundity of the various sections of the population. The balance between birth rates and death rates in different groups within the whole, the factors that make for survival or decline in different regional, racial, and socio-economic groups, are basic in the growth or decline of nations. The vast importance of these factors must be understood by the people of a democracy.

As a part of this quantitative aspect of population study, social eugenics seeks to find out why different types of people regulate the size of their families in the way they do. It is especially concerned to analyze the objections of superior or above-average parents who too rigidly limit the number of their children. Social eugenics seeks to make large families a popular cultural concept among those who are above average in their capacity to respond to environmental opportunities, just as it has sought to make the concept of a smaller family acceptable to those whose responsiveness to environment is limited.

As a part of the qualitative study of population, social eugenics seeks to understand all the environmental factors, physical and social, which affect child development. To this end, the excellent studies in child psychology have been heavily drawn upon. Social eugenics will endorse or promote the work of agencies which teach mankind how to make a better adjustment to the world it is to live in. For example, social eugenics has allied itself with the work of the visiting nurse, the recreation associations, the day nurseries, social service and social welfare centers, the forces of education and the church.

Chiefly, however, social eugenics wishes to assemble and use the laws of inheritance of traits, particularly of mental inheritance, to bring about a better selection of family stocks, based on hereditary selection. Scientific knowledge of mental inheritance is largely the contribution of research psychology. Social eugenics seeks to apply the

known laws of human heredity by identifying carriers of proficiency as well as of deficiency. To that end, it recognizes fully the interlocking role of environment with heredity. Only by equating the environment can the individual differences (or group differences) due to heredity be made to stand out. When the inequalities of environment have been evened up to a greater extent than they are at present, it is recognized that certain families, whose development was previously thwarted, will have a better opportunity to express their innate capacities. In an equated and superior environment, those family lines whose retardation was once due to environmental restriction will respond to changed conditions and thereby be recognized as carriers of good genetic capacity.

But already, in spite of present environmental inequalities and handicaps, many individuals have demonstrated their capacity to adjust reasonably and well to life. Social eugenics takes the position that such persons can now be designated as having good genetic capacity on the principle that a trait needs but to manifest itself to prove that it exists. Such persons whose reactions are of positive social significance should be encouraged to have enough children more than to replace themselves. Families, on the other hand, who have not yet been able to rise above the average even when given assistance, should be able in a generation or two to demonstrate their better potentials where innate superiorities are actually latent, thus differentiating themselves from others which, even with the better environmental help, are still not able to rise even to average performance. Thus, in time, when environments are no longer so unjustifiedly diverse as at present, the still sub-average stocks will be recognized as carriers of generally inferior genetic capacity. It is to be hoped that they will more conscientiously refrain from replacing themselves in future generations—provided, of course, that they accept the eugenic philosophy promulgated today.

If the social philosophy which is taking shape in our society today becomes a working principle for bringing the more abundant life to all, such differences as will be found among a people will progressively cease to be dependent not upon unevenness in the environment but will increasingly depend upon differences in hereditary quality. Thus in the future, when the environment for all citizens has been lifted to a high level, the role of heredity will be more significant than the role of environment in making people different. Under such conditions heredity will play a larger part in explaining differences than at present, because today the origins of differences are still obscured by complexities of both environment and heredity. Thus the eugenicist sees his active interest in unraveling the interlocking effects of these two variables enormously advanced by social measures to equalize the nurture factor.

The evening up of environmental inequalities has been advocated as an expression of social justice, but it is also an excellent research technique for isolating genetic variables. When good lines are identified, eugenics will always encourage the fullest measure of reproductivity for these lines. The eugenic movement will then be much better equipped than it has been in the past to supply materials and guidance for the work of the eugenics clinic. As that time approaches, we can expect a more active promotion and fostering of clinical eugenics. Today the stress is on public enlightenment and paving the way.

Literature Cited

1. LORIMER, FRANK, and FREDERICK OSBORN. *Dynamics of Population*. Macmillan, New York: 1934.
2. OSBORN, FREDERICK. *Preface to Eugenics*. Harper, New York: 1940.
3. SCHIEFFELIN, B. and G. C. SCHWESINGER. *Mental Tests and Heredity*. Galton, New York: 1929.
4. SCHWESINGER, G. C. *Heredity and Environment*. Macmillan, New York: 1933.
5. WHIPPLE, G. M. (Ed.): *Nature and Nurture*. Pt. I. Their Influence Upon Intelligence. Pt. II. Their Influence Upon Achievement. 39th Yearbook, Nat. Soc. Study Education. Bloomington, Illinois. 1940.

EUGENICAL IMPLICATIONS OF RECENT STUDIES IN THE FIELD OF MENTAL DEFICIENCY

EDWARD J. HUMPHREYS*

Director of Research, Letchworth Village, Thiells, New York

IT is heartening to discern within the present-day darkness of social ignorance and failure, the dim but growing awareness that human subnormality is a major problem of social welfare. Despite this awareness, progress in the social control of human subnormality has been hindered by wide diversities in concept and practice, by lack of agreement as to the essential features of deficiency, and by an absence within this field of a satisfactory basis for coordinating the work of the medical and social sciences. However, there are scientific and social forces which tend to unify the work in the field of human subnormality. Especially promising is the interest of present-day genetics and eugenics — fields of research and practice, which, like the study of subnormality itself, have implications for the biological, medical and social sciences, implications which cannot be restricted to any one single discipline. A review of recent studies showing the contributions which already have been made to the problem of human subnormality may indicate ways in which genetics and eugenics can provide the basis for coordinating the medical and social approaches to this problem.

Studies in Clinical, Experimental and Social Genetics

Current studies of genetics and eugenics which are of special significance for the field of human deficiency may be roughly grouped under three headings—“clinical” genetics, “experimental” genetics, “social” genetics.

Clinical or medical genetics in relation to mental deficiency includes studies of *specific organic deficiencies*, of *familial deficiencies*, and of *genetic deficiencies in relation to mental illness*.

A. Clinical or Medical Genetics

1. *Specific organic deficiencies.* — These may be always or only occasionally associated with mental deficiency. Genetic deficiencies found occasionally associated with or existing independently of mental deficiency are, however, equally manifestations of a basic organic defect and might thus be also included in the general field of human deficiency. The most extensive review and study of inherited biochemical deficiencies found associated with mental deficiency has been made by Jervis¹ who lists among these deficiencies phenylpyruvic oligophrenia, which is an inborn failure of the body (determined by an autosomal recessive gene^{3,4}) to oxidize phenylpyruvic acid²; amaurotic idiocy (Tay-Sach's Disease), which is caused by a genetically determined inability of the body to oxidize the lipid sphingomyelin; certain inherited degenerative basal ganglion lesions; albinism — which is biochemically related to phenylpyruvic oligophrenia; glycogenosis — a genetically determined inability properly to metabolize carbohydrates; and, tubero-sclerosis, in which a genetic factor is probably operative. Jervis has stated that “In the majority of cases, both mental defect and metabolic error are correlated expressions of the same abnormal process, the nature of which is a matter of future investigation.”

Additional hereditary organic deficiencies associated with mental deficiency are represented by: hemiplegia, naevus and mental defect described by Brushfield and Wyatt⁵; bilateral anophthalmos and mental deficiency by Kallman, Barrera and Metzger²³; microphthalmia and mental deficiency (Fraser-Roberts¹²). Most specific organic deficiencies with

*The author wishes to express his deep appreciation to Dr. Elaine F. Kinder, Research Psychologist, Letchworth Village, and to Dr. Thomas L. McCulloch, Research Psychologist, Letchworth Village, for their assistance in the preparation of this paper.

hereditary background have been described largely in the low and middle grade defective groups.

In investigating organic deficiencies with hereditary background, it is especially important to study the correlations between familial incidence and parental consanguinity, parents' ages and order of birth of children, and the clinical findings. Penrose³⁷ discusses the utilization of such data to contribute to the identification of rare mendelian recessive and rare mendelian dominant characters. He indicates that partially dominant genes which can cause mental or physical abnormality in parents are sometimes cumulative in their effects on children. Eugenically speaking, these dominants and recessives are vitally important, because it is likely that many more of them occur within the human race than are now known. Some strains may eventually prove to be responsive to biochemical therapy. Furthermore it may even become possible and advisable for families with such strains to prevent the production of offspring.

Many diseases known to medicine have a definite hereditary background. Keeler²⁵ has listed eighty-two of these diseases. Sachs⁴⁴, Davidenkov⁶, Murphy³⁴, and others, have contributed descriptions of genetic deficiencies especially in relation to the fields of general medicine, neurology and mental deficiency. In all instances, however, we may think of genetic deficiencies as being responsible for establishing the organic basis for a large percentage of the mental or behavioral deficiencies of the human organism.

2. *Familial deficiencies.* — In this group belong those inherited deficiencies which are found manifested in family groups and in which no pathognomonic constitutional features have been determined. The prominent clinical features of the familial group are seen in general physical, mental and social inadequacies of the group as-a-whole. Specific organic deficiencies which may appear within the group may be a manifestation of the generalized deficiency of the organism, or of such specific strains of defect as

may appear within any human group. The problem of familial deficiencies is of great social significance since such deficiencies represent a large proportion of the defectives produced by the high grade, borderline and subcultural groups. It has been customary in the field of mental deficiency to classify deficiencies on the basis of etiology into primary and secondary. Primary deficiencies are those for which the etiology is genetic or of unknown origin; secondary deficiencies include all cases *known* to have resulted from toxic or traumatic conditions occurring *after* fertilization. Familial types of deficiencies constitute the greater portion of the primary group and are distinguished from the secondary types by the fact that the latter are not due exclusively to heredity but arise from some injury of the living organism.

Tredgold⁴⁹, summarizing the findings of several authorities as to the frequency of primary defectives, has indicated that estimates of incidence of primary deficiency run on the average, from 70% to 90%. Meyerson et al³³ have reported that heredity plays an important role in this group. Wildenskov⁵¹ has stated that the hereditary taint of mental deficiency is demonstrated considerably more often in the mild cases than in the severe (98% against 74%). Penrose³⁸ has observed that hereditary factors operated in 91% of his cases and that in 71% environmental factors were present. These figures indicate the overlap of hereditary and environmental factors. Penrose³⁹ has shown that disease conditions associated with hereditary mental defect have been most clearly demonstrated in idiots and imbeciles and that much less is known about hereditary factors in higher grades. In all grades of defect, however, heredity plays a part, but the degree of dominance of the hereditary factors may be different in various grades. He also expresses the opinion that defects in idiots and imbeciles are often recessively determined or are due to fresh mutation, and are less obviously hereditary than is the case with simpletons (higher grades), who like normal persons, owe their mental grade to the

interaction of dominant additive factors.

3. *Factors of Deficiency Related to Mental Illness.* — Recent studies of the genetics of mental illnesses extend the field of human deficiency well into the problems of mental illness. Duncan, Penrose and Turnbull^{9,10}, have called attention to the frequency of mental subnormality in the manic-depressive illnesses, the similarity of symptoms, the course and prognosis of these disorders in normal and subnormal groups, and the mood instability shown by many defectives, all suggesting a close association between the two conditions. They state that in certain cases, a manic-depressive psychosis may be "a manifestation of mental defect," and add: "We cannot frame our definition of the subnormal mind entirely within the limits of intellectual capacity, nor even within the impairment of such capacity as an essential feature. The defect in the manic may represent an impairment in the generating mechanisms of emotion, even in the terms of over-production of emotion and lack of governing factors. At least in the manic-depressive the defect lies primarily in the instability of mood." Slater⁴⁷ has questioned this relationship but nevertheless posits a specific dominant factor in the manic-depressive states. Rosanoff⁴³ has indicated that the bulk of manic-depressive cases have an hereditary basis.

Much evidence that schizophrenia is frequently associated with hereditary factors is shown by Kallman²⁴ who states that "the probable incidence of schizophrenia among the offspring of schizophrenics is nineteen times greater than in the general population. Even the grandchildren, nephews and nieces are, in their turn, about five times as likely as the normal average person to become schizoid." Although Kallman²⁴ states that "Neither psychopathy nor congenital feeble-mindedness have direct hereditary relations to the heredity-circle of schizophrenia, but spring from entirely different sources," the fact of basic underlying genic deficiency is again mentioned in relation to different types of mental deviations. James¹⁷ supports Tredgold's contention that "primary

mental deficiency, primary psychosis and dementia" are closely related and are "merely different manifestations of one and the same condition, namely, peculiarity of the germ material." James thinks this relationship is especially true in reference to primary mental deficiency and dementia praecox. Pollock, Malzberg and Fuller⁴¹ also agree that hereditary factors play a definite role in the causation of both manic-depressive and schizophrenic behavior. The problems of psychopathological behavior in their relation to genetic causation lead to a consideration of Meyer's³² psycho-biological concept of the organism functioning as a unit. This concept has contributed to studies of organic inferiority and of organ imbalance made by the students of constitutional medicine³⁶. These and Lewis' morphological studies of dementia praecox patients²⁹, amply illustrate the importance of approaching the living organism as a functioning whole which is definitely influenced by pre-determinant factors.

Since studies indicate a relationship of genetic deficiencies with mental illness, the importance of the genetic aspect of psychiatry becomes greater as the incidence of mental illness increases. The high incidence of these conditions is given by Landis and Page²⁶, who state that in New York "One person out of every twenty will at some time in his life become a patient in a mental hospital, while in all probability one out of ten will be incapacitated, though not sent to a state hospital, by mental disease, some time during his life." However, Dayton⁷ observed in Massachusetts that recent statistics indicate only a slight increase in mental disorders — so slight as to allay "all apprehension."

These studies on the genetic factors in mental illness suggest that in some instances, mental illness may represent an expression either of primary or secondary mental deficiency. Mental deficiency, viewed from this interpretation, may be considered to constitute more than a type of intellectual deficiency, and may be more accurately termed "human deficiency." Any arrest in the processes of human de-

velopment, whether resulting from organic or from social factors, may, in this sense, be described as a "developmental deficiency." Defective heredity, therefore, which is one form of human deficiency, furnishes a biological basis for more intimately relating the field of mental deficiency to many aspects of the medical and social sciences. The eugenical significance of such interrelationships is obvious.

B. Experimental Genetics

Another approach to the problem of genetics in relation to human deficiency is made through experimental procedures within the disciplines of physiology and psychology. In clinical or medical genetics, genic alterations exist as a result of the action of natural forces. In experimental genetics, genic alterations may be produced by a deliberate interference in genic relationships. This approach offers controlled conditions under which artificial dysgenesis, or normal or novel genetic reactions may be studied. The nature of experimental genetics is determined by the techniques involved, the material used, and by the training of the investigators.

1. *Physiological Approaches.*—Techniques in this subdivision of experimental genetics involve the deliberate use of chemicals and x-rays and have been employed largely by biologists. From such work with the genetics of plant and animal life, much impetus has been given to investigators to extend genetical research into problems of the development of human beings. The need for correlated research between experimental genetics of this sort and medical genetics is especially emphasized when we call to mind the problem of so-called "bisexuality" or of "sex-intergrades" — a concept which bases on Goldschmidt's studies of sex-balance genes in moth hybrids. The works of Goldschmidt and Bridges (comment by Allen¹), and of Lebedeff²⁸ on the genetics of certain invertebrates, the clinical work of Farrel¹¹ on human hermaphrodites, give color to Lang's theory²⁷ that homosexuality may be primarily a special case of intersexuality having a genetic basis. Such challenging

leads are indicative of the importance of correlating basic genetic research with the clinical study of human psycho-sexual development.

2. *Psychological Approaches—With Infra-Human Subjects.* — Most of this work has been done by psychologists who have introduced unique techniques.

James¹⁸ has already indicated that certain mammals — e.g., dogs, may apparently inherit different organizations of their central nervous systems; that is, there may exist an intra-species variation in morphological and psycho-physiological reactivity to stimuli — "Extreme aggressivity and shyness in social situations is correlated with excitability and inhibitibility as inherited constitutional factors." Both Heron¹⁴ and Tryon⁵⁰, studying rats, have reported certain differences in the maze-learning ability of these mammals attributable to genetic factors. McDougall's "Fourth Report on a Lamarckian Experiment"³¹ indicates the possibility of genetic improvement in strains of rats undergoing identical environmental experiences in successive generations.

b. *With Human Subjects.* — In spite of the importance of experimental genetics in physiological and animal-study approaches to the investigation of human development, the organism of man differs in many respects from the infra-humans. Many of man's particular types of reactions and needs must therefore be studied directly. This type of experimental genetics is also employed largely by the psychologists who use techniques not applicable to the research studies previously described. Such techniques include the use of standardized *psychological tests* on humans, and the use of specific *situational human experiences*.

The use of test-techniques in the study of genic factors of human development may be illustrated by the Rorschach test which bids fair to contribute greatly as a psychiatric-psychological tool in the study of psychical difference in individuals and in races. M. Bleuler³ found remarkably similar responses to various Rorschach items from fraternal sibs and twins which had been reared apart.

These results together with other studies on identical twins, give strong indication that fairly specific mental traits, as well as physical ones, may be inherited. The Rorschach test has also been used by M. and R. Bleuler⁴, and Hallowell et al¹³ to study race differences. Doll's Social Maturity Scale⁸ represents what may be the beginning of an important technique in the study of the inheritance of social competence. Other examples of the use of test-techniques in relation to factors of heredity have been reported in *Mental Tests and Heredity* by Schieffelin and Schwesinger⁴⁵, and extension of this work may be found reported in Schwesinger's study⁴⁶ of the genesis of psychological characteristics.

The use of special situational experiences in order to study genetical implications of human behavior may be illustrated in studies by T. L. McCulloch³⁰ which undertake to link the results of certain work in primate biology with certain characteristics which are being investigated in the feebleminded. Attention has been focused upon those characteristics of human organization which presumably have been inherited from earlier stages of primate existence and which continue to influence present-day human behavior. Important forms of adaptation in defectives have been found which compare strictly with those of infra-human primates in similar situations; compared with the great apes, certain patterns of adaptation of the lowest grade defectives are more primitive, while those of the middle grades are superior. Future work is directed towards characterizing the different types of adaptive behavior exhibited in standardized experimental situations by the variety of clinical subjects found at an institution, to the end that the patterns of adaptation may be analyzed in reference both to genetic implications and to social adjustments.

The studies cited in the preceding pages in no wise exhaust the important work that is being done. They are, however, representative of current investigations. These studies indicate the contributions of clinical and experimental

genetics. The latter, especially, affords opportunity to explore patterns of mammalian behavior which may throw light upon human behavior and upon human deficiencies. In addition, direct observations of patterns of human behavior which may have a genetic basis promise much for the eugenics of the future.

C. Social Genetics

Studies in the genetics of society as-a-whole may not yet be organized as fully as are the fields of clinical or experimental genetics. One may think the use of the term "social genetics" as somewhat premature but a glance at certain steps now being taken in the study of population developments in our nation will give some warrant for the use of such a term. In fact, clinical and experimental genetics in themselves would be largely of academic interest were it not for their relationship to human factors in the phenomena of social organization. A defective Robinson Crusoe on a desert-isle could hardly represent the social challenge of the defective in the crowded isle of Manhattan. May we not say, then, that eugenics may be thought of as the field of "social genetics" wherein masses of human beings serve as subjects, wherein population studies furnish the data on behavior, wherein experiments in social control provide testing experience for eugenical control, and wherein the total field envisions the eugenics of the future in the terms of an international responsibility.

Spengler⁴⁸ and others have indicated that today's demographic selection is sociologically and apparently biologically dysgenic. The Population Index⁴² is filled with numerous references to problems of human development in the terms of group activities.

It is encouraging to read of the attempts of various states to handle the problem of the defective in the terms of social genetics and governmental responsibility. Wilhite's report⁵² represents one such attempt. Within our own State of New York, efforts are being made to develop a three-fold program in the interests of the subnormal groups which constitute so extensive a social and eco-

conomic problem. The program⁵¹ includes the establishment of: a multiple-unit research unit wherein all medical and social sciences may work side by side over common problems; a joint state and university educational service — which will not only study defectives but will investigate problems of social organization among staff members, students, professional workers and the public-at-large; and, an experimental program of social control along the lines of preliminary studies now being made to determine what New York State might do to establish more effective control over its mentally defective and subcultural groups.

Comment

During the earlier days of social effort to provide care for mental deviants, these deviants were roughly divided into the categories of the feebleminded and the insane. Treatment procedures then, as of today, required the establishment of different types of institutions. However, scientific study of mental deviants has indicated closer interrelationships in the terms of inherited deficiencies. In special reference to mental deficiency, various investigators¹⁶ use the term "mental deficiency" in relation, not only to cognitive deficiencies, but also to deficiencies of conation, affect-emotion, temperament, character and behavior. The enormous range in human deficiencies may be represented socially by: the "definitely ('true') feebleminded"—that is, the "low and middle grade defective" or the "idiots and imbeciles"; the "intermediate", "high grade", "border-line", "dull normal" or "subcultural groups"; the "psychopathic states" including the "moral defective"; "psychopathological states of deficiency" as found in the mentally ill; and deficiencies of special sense, or in mental association factors as found in every-day life. In the sense of developmental deficiency, wherein physical, intellectual, emotional and social deficiencies may be included, mental deficiency truly becomes a social problem of unmeasured magnitude. It may be said that all categories represent either temporary or permanent arrests in the

growth of the total individual including both the organic and the psychological factors. The "true" mental defectives represent one general group of the developmentally arrested — that is — those who have failed to grow mentally or physically "from birth or an early age", and whose arrest is largely permanent.

No one person or single group can assume the responsibility for the treatment or elimination of the subnormal. As indicated by the 1940 Philadelphia Conference on the Registration and Social Control of the Mentally Defective and Subcultural⁵⁰, the interests of many of the medical and social sciences are jointly involved. The fields represented in the *American Journal of Mental Deficiency*² include genetics, biochemistry, physiology, physical anthropology, neurology, psychology, psychiatry, education and other social disciplines. The problems of human deficiency require that the field of eugenics become an integrating force among the scientific, the social, and the legal aspects of subnormality in reference to the general population.

The problem of human growth and development extends throughout all of human society and the study of clinical, experimental and social genetics affords opportunities for studying the deficiencies which may appear on a hereditary basis, in many different forms. "Mental deficiency" therefore means infinitely more than intellectual inferiority and the specific deficiencies in drive, emotion, character, personality and behavior of organisms within their various societies constitute by far the most serious aspect of problems in the field of human deficiency.

As Osborn³⁵ has stated in his excellent *Preface to Eugenics* — "The eugenics ideal recognizes that each human being is by his heredity unique. This uniqueness, which pervades every cell in his body, justifies respect for the individual. We cannot tell the heights to which any man may rise, until he meets the particular opportunity appropriate to his unique possibilities." Osborn clearly indicates that eugenics has become a problem of human government.

We may finally observe that life, which is an incessant striving toward levels of higher social integration is thus a challenge to eugenic ideals — from which we must not falter lest we, too, as individuals or as a group in a democratic society, become temporarily or permanently defective.

Literature Cited

1. ALLEN, E., [Ed.]. *Sex and Internal Secretions*. Williams and Wilkins Co., Baltimore, p. 56. 1932.
2. *American Journal of Mental Deficiency*. Letchworth Village, Thiells, New York.
3. BLEULER, M. *Character and Personality* 1:286-300. 1932.
4. BLEULER, M., and R. BLEULER. *Character and Personality* 4:97-114. 1935-36.
5. BRUSHFIELD AND WYATT. *Brit. J. Child. Dis.* 24:98-106. 1927.
6. DAVIDENKOV, S. *J. Hered.* 31:55-60. 1940.
7. DAYTON, N. A. *New Facts on Mental Disorders*. p. 437. Charles C. Thomas, Baltimore. 1940.
8. DOLL, EDGAR A. *J. Hered.* 28:5, 153. 1937.
9. DUNCAN, PENROSE, and TURNBULL. *J. Neur. and Psychopath.* 16:225. 1936.
10. DUNCAN, A. G. *J. Ment. Sci.* 82:635. 1936.
11. FARREL, J. M. *J. A.M.A.* 22:104:1968. 1935.
12. FRASER-ROBERTS, J. A. *Brit. Med. J.* 2:1213. 1937.
13. HALLOWELL, A. J. *Rorschach Research Exchange* 5:1. 1941.
14. HERON, W. T. *J. Comp. Psychol.* 19:77-89. 1935.
15. HUMPHREYS, E. J. *Proc. Am. Assoc. Ment. Def.* 44:189-197. 1938-39.
16. ————— *Psychiat. Quart.* Apr., 1940.
17. JAMES, S. *J. Ment. Sci.* 85:1194-1211. 1939.
18. JAMES, W. T. *J. Gen. Psychol.* 49:437-449. 1936.
19. JERVIS, G. A. *Proc. Am. Assoc. Ment. Def.* 42:101-115. 1937.
20. ————— *Arch. Neur. and Psychiat.* 38:944-963. 1937.
21. ————— *J. Ment. Sci.* July, 1939.
22. ————— *Proc. Am. Assoc. Ment. Def.* 44:13-24. 1939.
23. KALLMAN, BARRERA, and METZGER. *Am. J. Ment. Def.* 45:25-36. 1940.
24. KALLMAN, F. J. *The Genetics of Schizophrenia*. pp. 19, 225. J. J. Augustin. New York. 1938.
25. KEELER, C. E. *J. Hered.* 31:9. 1940.
26. LANDIS, G., and L. D. PAGE. *Modern Society and Mental Disease*. pp. 24-25. Farrar and Rinehart, New York. 1938.
27. LANG, T. *J. Nerv. Ment. Dis.* 92:55-64. 1940.
28. LEBEDEFF, G. A. *Proc. Nat. Acad. Sci.* 20:613-616. 1934.
29. LEWIS, N. D. C. *The Constitutional Factors in Dementia Praecox*. Nervous and Mental Disease Publishing Co., New York and Washington. 1923.
30. McCULLOCH, T. L. (Abst.) *Psychol. Bull.* 37:439-440. 1940.
31. McDougall, W. *Brit. J. Psychol.* (general section) 28: part 4, Apr., 1938.
32. MEYER, A. *Proc. 4th Conf. on Psychi. Educ.* Baltimore, Apr. 8-10, 1936 — National Committee for Ment. Hyg., New York, 1938.
33. MEYERSON, A., et al. *Eugenical Sterilization*. p. 130. Macmillan, New York. 1936.
34. MURPHY, D. P. *Congenital Malformations*. Univ. of Penna. Press, Phila. 1940.
35. OSBORN, F. *Preface to Eugenics*. p. 296. Harper & Bros., New York. 1940.
36. PENDE, N. *Constitutional Inadequacies: an Introduction to the Study of Abnormal Constitutions*. Lea and Febiger, Phila. 1928.
37. PENROSE, L. S. *Proc. Am. Assoc. Ment. Def.* 44:33-40. 1939.
38. ————— *Mental Defect*. p. 91. Farrar and Rinehart, New York. 1934.
39. ————— *J. Ment. Sci.* 84:693. 1938.
40. Philadelphia Conference on the Registration and Social Control of the Mentally Defective, etc. *Am. J. Ment. Def.* 45:3. 1941.
41. POLLOCK, H. M., B. MALZBERG, and R. G. FULLER. *Hereditary and Environmental Factors in the Causation of Manic-Depressive Psychoses and Dementia Praecox*. State Hospitals Press, Utica, N. Y. 1940.
42. *Population Index*. Population Association of America and School of Public Affairs, Princeton University, Princeton, N. J.
43. ROSANOFF, A. J., L. M. HANDY, and D. R. PLESSET. *Am. J. Psychiat.* 91:725-762. 1935.
44. SACHS, B. *Bull. Neurol. Inst.* 5:340-347. 1936.
45. SCHIEFFELIN, B., and G. C. SCHWESINGER. *Mental Tests and Heredity*. Galton Pub. Co., Inc., New York. 1930.
46. SCHWESINGER, G. C. *Hereditary and Environment*. Macmillan Co., New York. 1933.
47. SLATER, E. *J. Ment. Sci.* 82:626-633.
48. SPENGLER, J. J. *J. Hered.* 29:475-488. 1939.
49. TREDGOLD, A. F. *A Textbook of Mental Deficiency*, Sixth Edition. Wm. Wood and Co., Baltimore. 1937.
50. TRYON, R. C. *The Genetics of Learning Ability in Rats*. University of California Publication in Psychology, 4:5, 71-89. Univ. of Calif. Press, Berkeley. 1939.
51. WILDENSKOV, H. O. *Investigations into the Causes of Mental Deficiency*. p. 98. Oxford Univ. Press, London. 1934.
52. WILHITE, F. V. *Am. J. Ment. Def.* 45:145-151. 1940.

ARE WOMEN PEOPLE?

Or Let's Not Cry Over the Random Assortment of the Chromosomes

REVIEWER'S NOTE: *This treatise started to be a book review. It ended up as something else—a listing and amplification of the reactions engendered by the book. The "reviewer" is sorry things got out of hand, and he hopes that the author, the publisher and the reader will not be too hard on him.*

LEWIS CARROLL'S Adventures of Alice have latterly taken an important place as texts in the newer physics and the newer semantics. Carroll's bedtiding was not all fun; he did a good job of dramatizing the limitations of our sense perceptions, and in calling attention to the dangers of jumping to merely verbal conclusions. In the field of social semantics, another unappreciated masterpiece has too long gone unrecognized: Hans Christian Andersen's fable of the Chinese emperor who wanted a new suit of clothes. The weavers spent a year working on a fabric so tenuous that neither the emperor nor any of his court were able to see it at all. Nevertheless when the suit was finally "fitted" the emperor set forth to show this much publicized sartorial masterpiece to his admiring subjects. It took a child of six to point out to his shocked mother that the emperor had nothing whatever on.

Andersen does not tell what happened to the boy. Doubtless he was soundly thrashed when his embarrassed mother got him home. And so he should have been, for he had brashly undertaken to call in question a set of concepts and conventions which a whole city had adopted and accepted. The point of this story today is that in the present critical times, our emergency is so grave that we must follow the lead of the skeptical infant and ask direct and embarrassing questions of the imperial humpty-dumptyes who lead us in our processions and guide us in war or to peace, if there is to be a peace which will be more than a breathing space for bigger and better wars. To

see that Emperor Humpty-Dumpty has nothing on, one must come either from outside the city or one must be too young and unsophisticated to accept the ponderous nonsense which sees the fruit of the loom when an invisible shuttle carried no warp whatever.

That the world is out of joint hardly needs to be labored. What to do about it is by no means a simple matter. The perplexing array of "cures" suggested only shows how unsure we are as to the basic causes of this surpassing and perplexing array of diseases which afflict us. A correct diagnosis must always precede a cure, and we must do better than merely to hope for a miracle as we try one alleged panacea after another. Good intentions have long ceased to be a justification for programs of social reform and there is hope in the fact that today they are hardly even an acceptable one-way ticket to Heaven.

In elaborating the complicated blueprint which is to guide us toward a better world, many diverse and conflicting areas of fact, belief, and convention must somehow be resolved. As a solvent of such conflicts, a eugenic point of view must become increasingly important. This biological approach conceives of man as a species "in being" which must conform to its environment without too much rattling around or too much friction. On account of man's unique social organization, his environment extends into a biological fourth dimension; the area of the intangible and imponderable mental, psychic and emotional aspects of culture. He can sicken and die of maladies of the spirit as well as of the body. Race suicide, that endemic disease of the vast majority of those who can and do read and write, is the premier eugenic symptom of this alarming sickness. To give us a realistic perspective of man in his environment, a eugenic point of view is essential in developing a rational understanding of how we have arrived

at the perplexing crisis we face as a species, and what may be done about it.

The Two Revolutions

This point of view will also help us to deal intelligently and humanely with the revolution that has engulfed us in the past few decades. This revolution is not a simple matter either. We have completely upset Man's physical environment through the ramifications of two surpassing revolutions. The Industrial Revolution has enormously changed the size and the shape of the world as far as our species is concerned. On top of that the Vital Revolution has completely altered man's patterns of living and dying over large areas of the earth's surface. Man has come to grips with his old enemy death so effectively in the last hundred years that how we are born, when we die, what we die of today differ vastly from the way our ancestors did these things. This complete upheaval in our fundamental biological pattern as a species must be studied and understood, and rationally and humanely controlled if we are to avoid disaster. The understanding and development of humane controls necessary to avoid the pitfalls likely to follow from such vast changes is no simple matter: In fact it is one of the most difficult ventures man has ever undertaken. To cast this most vital problem on the assumedly broad shoulders of "the blind forces of nature" or to saddle overworked Providence with it are neither of them evidences of intelligent behavior. If we are not willing to finish the job and come through to understanding and to humane and livable solutions, the future is hardly inviting.

The urgent importance of this aspect of the crisis is not even suspected by most people, including some of our leaders who are attempting to deal with the emergency. This challenge to our minds to use the machinery of science constructively for basic social understanding is the great challenge of our time. The defeat of totalitarianism and the problems of the peace which must follow it are only a facet of this greater problem, of really effectively coming to grips with

life. This we must do because we have so successfully begun to come to grips with death in the Morning. (Death in the Afternoon is only secondarily a eugenic problem.)

". . . He Created Them"

One of the basic factors in this crisis is the perplexing question of marriage and the family and of the relations in 1941 society of men and women generally. And in this quarter of our world nothing much has happened during the machine-revolution or so far in the life-revolution. The rising sea of books on this subject testifies as to the bubbling and boiling in this quarter of man's environment, and to the need for some new and synthetic approaches. Recently added to the marital literary sound and fury is a book by Miss Pearl Buck which brings a novel outlook and which raises some interesting questions.* Miss Buck's upbringing in a missionary family in China gave her a unique opportunity to see two very different cultures at grips with the perennial man-woman question. Then after she had grown up in China she returned to America, the homeland of her parents, where she gained a wider outlook on Western marriage and sex mores.

This rare opportunity to become intimately acquainted with two very different cultures has resulted in a remarkable ferment in Miss Buck's thoughts and feelings. The reviewer is somewhat disappointed that a good beginning in developing a novel and stimulating point of view failed quite to come through to an integrated philosophy. She has oversimplified her human beings rather too much. Distressed that the differences between the sexes have too often been over-emphasized, Miss Buck tends to swing too far the other way and to allege they differ merely in their anatomy and in no other respect. And in the process Miss Buck manages to throw several babes out with the bath. In recent years there have been great advances in the science of endocrinology which prove that the real differences between the sexes are

*Buck, Pearl S., *Of Men and Women*. Pp. 203. \$2.50. John Day & Co., New York. 1941.

hormonal, and that the much publicized anatomical divergences are a weak reflection of these basic endocrinal difference which color our form and our feelings in diverse ways. That these differences have been cast in a stupid mold of "superior" and "inferior", of domination and acceptance, does not alter the fact that they exist, and that in blueprinting a new world they must be reckoned with.

Thus in her excitement about the world of men and women in America today Miss Buck has overlooked or ignored rather large areas. The reviewer suspects that she has compensated for this omission by verbally pawing the air to make up for this basic shortcoming. It smacks just a little of Andersen's naked emperor to pretend that men and women are duplicates, not complements, whose lives together should be at their best a theme with variations and overtones, not a sort of breathless double-talk. This gives us the possibility of a duet with harmony, rather than rather insipid exercises in the scale of C major on two pianos. The musician's art consists in the harmonizing of different tones, even of dissonances. The artist in life faces the same problem.

Some of Miss Buck's over-simplifications are a bit reminiscent of the disingenuous and disintegrating talk of "freedom" in the 1920's. But the reviewer is inclined to the paradoxical suspicion that on the whole it will be better received by men than by women. As a somewhat perplexed male himself, the reviewer can find little that upsets him in the least. Perhaps this is because he had the curious experience of just having read what is perhaps a perfect introduction to this book. Susan Glaspell's *The Verge*. He understood that this was a fantasy about plant breeding, but stripped of a bizarre symbolism it is essentially a plea somehow to get through to reality in human relations. The "edge plant" which dared not push on into new fields of form and fragrance may be botanical nonsense but it is sound sociology. This brilliant and acrid portrayal of the conventional and traditional rejection of newness or of change throws into sharp

relief Miss Buck's urgent critique. All of us too much resemble the tradition-bound sister who has so long been "a thief and a liar and a whore with words."

Bound Feet and Bound Minds

Miss Buck's observations really extend over three culture-patterns, because she has seen in China a complete revolution in the relations of the sexes. Little more than a generation ago women in China were puppets of the family, physically bound to the home by the wrappings which crushed their feet as babies. In spite of this they had a tremendous influence. Today in China women march beside men in the armies which face the Japanese invaders. As a result of this complete reversal in their position in society, Chinese women, with less opportunity than their American sisters, have nonetheless much more effective liberty than in this country. In the new capital of China there is a woman bank president; in America there are thousands of female bank clerks but no presidents of the fair sex: they rarely attain even the thirteenth vice-presidency. Which leads us to the strange paradox that today women are much more tradition-bound in this land of the free than they are in that ancient cradle of tradition across the Pacific.

Through their long history Miss Buck holds that the Chinese have attempted to deal factually and realistically and humorously with the world about them and with the people with whom they must live as relatives and neighbors. Since women have always been more numerous than men, and since marriage was conceded by the Chinese to be an honorable and desirable estate, polygamy was recognized not so much as a necessary evil as an inescapable inconvenience. Since women were destined to center their lives in the home, their training and their physical development were guided to this end. The footbinding was definitely a symbolical rite to typify the realities of the situation. In other ways the attempt was made to accept the facts of life and to deal with them as intelligently and humanely as possible. Mostly

the effort failed because it is impossible to have a people half slave and half free, which was the essential result of this system. Enslaved women as mothers of free man offered a continuing incongruity that wracked the system dangerously and engendered endless stresses and strains through the centuries.

In contrast with this situation in China, Miss Buck sees the American approach to the problem as essentially romantic and illusionary. The Chinese tried to be realistic, and out of that realism they produced a home life with many fine features and many consolations. Americans have gone at things quite differently. We have never clearly defined to ourselves what the real place of women in our society is, and we have trained them for a bogus adulthood which few of them—and they the exceptionally gifted—could ever realize. American girls have much greater freedom in their upbringing than Chinese girls. These beginnings would lead us—and them—to believe that they were to have a life of untrammelled freedom and unlimited opportunity. In this conventional picture there is only one traditional profession at which women are expected to excel: home-making (ignoring the mis-called oldest profession). She is sure that no serious attempt is made to train women for either of these vocations in our schools and colleges. And in her documentation of this view, Miss Buck cites the fact that in America nobody, and especially the women, expects a woman to be a leader in business, profession, or the arts. The predicament which this foggy fantasizing has brought us to is excellently symbolized in the works of Mr. James Thurber whose drawings of perplexed and frustrated people have become classics, and whose recent stage success, "The Male Animal," is nothing if not an epitomy of perplexed and futile rages—excellent comedy as an evening's entertainment, but grim in the extreme in proportion as it holds up the mirror to society.

Dissolving the Phantasy

All of this would be funny if it were not so tragic and pathetic, and if in this

situation were not to be found some of the seeds of our present crises and perplexities. Out of this welter of traditionalized misunderstandings, Miss Buck sees both sexes groping in a fantastic blind man's bluff, varied by periods of increasingly urgent tension, relieved by the ultimate disaster of war. In a complicated world, people must somehow be able to return to simple unifying experiences—to contact with the basic realities of life and death. Childbirth, Miss Buck argues, furnishes this experience to women, and men on account of their physiological ineptness in this direction are driven to seek simplified contacts with reality in the madness of war. America's "gun-powder women" (as the author designates our growing army of spiritually and emotionally ill-clad, ill-housed, and ill-fed femininity)—driven to an ill-defined but nonetheless urgent desperation by stupid and irritational patterns which cast too many into a reluctant role as economic and intellectual zombies—have quite enough energy either to blow our entire culture into kingdom come or to rescue us from the brink of disaster. But to effect the miracle of this rescue, we must harness our eyes and our hearts and minds to building a more intelligent pattern of existence. Faser's *Golden Bough* bulges with the fantastic folklore by which men and women have contrived to misunderstand each other through the ages. Woman, Miss Buck points out, is no angel, and her bogus translation to this rank in the folk-lore of chivalry has hurt more than it has helped. Neither is she a devil, Mohammed and Saint Paul to the contrary, and the same goes for man as well.

Hardly anybody looks upon making a real home as an occupation in itself, a deplorable fact which the Census Bureau tacitly admits in its list of over six hundred occupations which leaves "housewife" or homemaker tacitly among the great unoccupied. In those halcyon pre-gadget days when a man could work a half-dozen wives into early graves (in decent sequence), of course) the home was a much more robust institution than it is today. Miss Buck does

not feel this is all the woman's fault, and in that she is quite right. It is a symptom of the genius of our age, somehow to rob human life of meaning and social significance. The starving people of the Middle Ages sprinkled Europe with cathedrals which are an affirmation and a challenge. Our stupendous movie-houses, with a new super-colossal feature every week are a silly pipsqueak of response. The harnessing and expression of fundamental urges must somehow be re-effected. When that is done men and women will find it easier to get along, and to build meaningful lives. And when democracy rounds this corner, the Nazi menace, and the other corrosive menaces to human liberty will cease to terrify.

And the matter is not one merely of academic importance or of speeding the individual pursuit of happiness. In Germany, Miss Buck points out that the "gun-powder" women were among those who led the retreat to Nazism. In spite of a clear warning that "Kinder-Küchen-Kirche" meant a return to serfdom, all too many educated German women embraced these chains. She sees a real danger of a similar gruesome bellwethering in this perplexed land of ours. And if eugenics is to serve as the rallying ground for a modern crusade to capture a new heaven and a new earth, then the gun-powder girls must be enrolled, if such alarming trends are to be corrected. From more than one angle the need for the kind of revolution Miss Buck envisages is becoming evident.

One of the most encouraging and useful concepts of the newer eugenics is that in all races and in all social classes there is a huge diversity of genetic potentialities and disabilities, a diversity which far exceeds that found in any social or economic class. No group has a monopoly of all the hereditary virtues or of the vices and defects. The same thing can be truthfully and clarifyingly said of the sexes. The diversity of all kinds of characteristics is as great in one sex as in the other. To try to classify human beings with respect to qualities and abilities because they have two

X-chromosomes instead of one is no more sensible than to claim that all the long headed people are among the chosen and all the round headed people are genetically and environmentally outcasts and pariahs.

Just at this point there is a place for a whole roomful of inspired social draftsmen who have the vision and the will to go courageously to work on problems of human diversity, which we have never really been done right by. God made man in his image, Scripture tells us, but *which man?* With becoming modesty we never have any real doubts about this: each of us is generously willing to take the job of stand-in, if not in person, our class surely. Photography, advertising, the schools, the movies and the radio have contributed their quota to an absurd process of standardization, with the "Arrow Collar Man" and "Miss America" as the ideals toward which each breathing blob of anthropomorphic clay is to be molded. The bracketing of differences as "superior" and "inferior" by some absurd yardstick is cruel and stupid, for there is abundant opportunity in a specialized society for a great variety of types and abilities. In fact, the standardization of human beings were it possible, would be a tragic disaster. It is high time once for all to strap old Procrustes to his own slumber-nook and leave him there. Then let us make up our minds to accept eagerly, to prize, enjoy and utilize that great wealth of varied talents and abilities which we find in our species as sex differences and as individual differences. The magic of the hormones makes of sex a mechanism for achieving greater diversity: this we cannot change by pretending otherwise. But we can change perfectly stupid conventions that some of these differences, whether they be conditioned by genes in X- and Y-chromosomes or elsewhere in the body genic, are *per se* to be looked down upon. Instead of making of this diversity a social hair-shirt, a tragedy and a ghastly waste, let us accept it and utilize it to the glory of mankind.—ROBERT COOK.

CONTRIBUTORS IN THIS ISSUE

Edward J. Humphreys

Dr. Humphreys received his medical degree from Columbia University in 1930. He is Director of Research at Letchworth Village, New York State Department of Mental Hygiene, Thiells, New York, and editor of the *American Journal of Mental Deficiency*. He has been engaged in various clinical, educa-

tional and research activities in reference to the mentally defective and subcultural groups. From time to time reports have been published of these activities. He is a member of several national societies and is actively engaged in the work of committees concerned with psychiatric and social problems of the subnormal.

Gladys Schwesinger

Dr. Schwesinger has been a frequent contributor to the *EUGENICAL NEWS*. The March, 1940, issue contains an account of her varied activities. At present

she is just beginning work on a psychologist's analysis of the problems of national morale; and on psychological services in the national emergency.

MAN CONSIDERS HIS PARADOXES

**Man Stands Alone*, by Julian S. Huxley, pp. i-x, 1-297, 8 vo., 1940. Harper and Brothers, Publishers, New York and London.

"THE enslavement of negroes was justified on the basis of scriptural authority for the menial destiny of the sons of Ham; the brutalities of the Nazi Jew-baitings on that of the racial superiority of 'Aryans.' The group bias of the prosperous classes in early nineteenth-century England appeared in astonishing assertions about the inherent inferiority of the 'poor'; the same bias is evident in certain aspects of the eugenics movement today."

Professor Huxley's biological essays which are now published under the title *Man Stands Alone* cover a very wide field. Topics are discussed which range from the love-making of birds to the manner in which eminent human specimens advertise their own accomplishments. The subject matter of many of these expositions and their smooth and occasionally stilted style lure the reader back to the nineteenth century—that heyday for naturalists which existed before the animal life of the world was seriously menaced by the wanton encroachment of the works of man. Some of the essays are of special interest to people

who study eugenics. Readers may note, perhaps with surprise, how Professor Huxley's philosophy of scientific humanism leads him to conclude, on the one hand, that primitive races and half-castes must not be counted inferior until they have been given opportunities in education, and, on the other hand, that members of our own lowest social strata should not be allowed too easy access to hospital treatment. Eugenics is a science, the author believes, but it suffers from being a social science and the social sciences are still embryonic. In this domain, bias is inevitable and there are no objective criteria acceptable to all normal men. Some common errors, however, are pointed out. Phrases like "racial traits" and "National character," for instance, are almost devoid of meaning and the word "Aryan" applies only to a group of languages. Altogether, this book is a most instructive summary of the thoughts of a very distinguished British biologist on the affairs of the universe as he sits undisturbed by the firing of anti-aircraft guns and listens to the music of Sibelius on the radio.

L. S. PENROSE.

People



*What
Else
Matters?*

Of Minds and Bodies

People make a nation. Minds and bodies make people.

If the people have better minds and bodies, they will have a better nation. And a better nation will have a better future for the people who come later. The cycle grows with time.

There is a school of thought which holds that it is within mankind's own powers to develop better minds and bodies. This school is eugenics. It is an unusual school, for it refuses to stand alone. It believes that the natural sciences, the social sciences, the learned professions and the church must contribute their influences toward better minds and better bodies.

It believes that more babies should be born to parents of superior intelligence and physique, and fewer babies to other parents. But it believes that, in a democratic land, each family should decide for itself how many or how few children it will have. It believes all the people ought to be educated to eugenic principles so they will know, as parents, how many babies they *should* have—from the viewpoints of the parents, society and the children themselves.

It believes that we should make it economically easier for some parents to have more children—and easier for other parents to determine of their own will how few new citizens they will contribute to the world.

More children with the birthright of clear minds and strong bodies. Fewer children with clouded minds and faltering bodies.

This is eminently just toward humanity.

This is the essence of humanity for the very families involved.

This is eugenics.

Public Opinion: Thoughts on Eugenics

From Leaders in Several Fields

We know too little about environment and heredity but we know enough to know that healthful conditions make for health and that each kind tends to breed after its kind, that strength is more likely to come from strength than from weakness. This knowledge gives eugenics a fundamental place in the thinking of all persons interested in building up and maintaining a civilization.

CHARLES A. BEARD

Professor of Politics and Author
New Milford, Connecticut

In the field of eugenics there are a few points so well established, particularly with respect to the genetics of gross defects, that individual and social welfare demand an implemented public policy.

There are other points which touch, or should touch, the daily lives of the great "normal range" of human beings. These can be referred to as the basic goal of maintaining or improving the level of inborn qualities of the population, which now seems to suffer from an unfavorable birth differential. The goal should be realizable through a social frontier which makes parenthood a truly voluntary enterprise at all biological and social levels, which increases the economic responsibility of the community toward its children and correspondingly decreases the economic burden of the parents, and which provides an encouraging community setting—including better facilities for housing, recreation, and co-

operation in child care—for those whose capacity to produce well endowed children is now held in check by evident obstacles.

The results of such a plan, which is essentially a voluntary plan in a favorable social *milieu*, cannot be blue-printed in advance. But it is possible to make a *qualitative* prediction, on the basis of already available facts, that it would counteract the main forces which now threaten population quality. At the same time the plan appears to reenforce social values already accepted as fundamental in our culture.

DR. BARBARA S. BURKS
Department of Genetics
Carnegie Institution of Washington

Nothing can be more important to the student of economics than eugenics. The quality of the people is of vastly greater concern even than the geographical situation. Moreover, the problem of high wages for the unskilled laborer is insoluble so long as the lowest grades of intelligence continue to flood the labor market with low-grade labor. The standard of living, which we can rely upon to check the oversupply of skilled labor, is ineffective as a check upon the multiplication of the feeble-minded. In fact, in the strict technical sense, there is and can be no such thing as a standard of living among those incapable of exercising foresight.

The standard of living implies a conflict, in the mind of the individual, between sex and the desire for material goods. Unless the individual is capable of thinking about the future consequences of present action, that conflict does not exist in his mind.

DR. T. N. CARVER
Professor Emeritus of Economics
Harvard University

The industrial revolution, followed by the greatest era of technological invention our race has ever known, has given us a whole galaxy of problems urgently demanding solution. With un-

precedented control of environment, we are being forced to understand and control life as well. We have begun by coming to grips with death, so successfully that the pattern of survival we now enjoy is perhaps unique. We are beginning to realize that if we undertake to wrest from nature the control of birth, growth, reproduction and death, we must finish the job we have begun.

This demands not only knowledge—we must have wisdom, skill, humility and sympathy. The *application* of the unique fund of understanding of life we have accumulated demands an even higher type of inventive genius than the production of machines. As a fundamental groundwork and guide in this era of social invention—which must lie ahead if our culture is to survive—the facts of experimental biology and genetics, and the art of applying these facts at the level of human affairs, which we call eugenics, are basic to any fruitful progress. The alternative of not using this knowledge, and of adopting a policy of blind drifting, or of unrealistic "planning" which forgets the life sciences is so ominous that we dare not risk at least the attempt really to *think through* to a better and more hopeful world.

ROBERT C. COOK

Editor, "The Journal of Heredity"
Washington, D. C.

Well bred, well fed, well housed, well clothed, well healthed, well informed—a civilization giving these minimal privileges to its citizens will be well worth living in.

WATSON DAVIS

Director, Science Service
Washington, D. C.

Eugenics is the logical beginning point in all of our efforts for the conservation and improvement of human life and society.

GEORGE V. DENNY, Jr.

President, The Town Hall, Inc.
New York City

"American Eugenics Today," the publication of the American Eugenics Society, represents a point of view which should receive general acclaim. To me, it is especially gratifying that there is a society in America dedicated to national betterment which takes so sound a view of the problem. Certainly there is no need here for a conflict between the biologists and sociologists such as has heretofore marred any effort in this direction.

DR. LOUIS I. DUBLIN

Third Vice-President and Statistician
Metropolitan Life Insurance Company
New York City

I do not think we have to wait for more accurate knowledge or wait until the "economic" disadvantage of children is overcome by some public action. Our forebears built their churches and schools not because they had "economic surpluses", but because they *believed* these institutions had more *value* than their economic goods. High social sentiment must impart the feeling that children are more valuable than things and achievements, not merely to their parents but to society.

FRANK FRITTS

Co-author, "Fifth Avenue to Farm"
New York City

It seems to me that, if we wish to preserve our democracy and to advance our present civilization, we must rapidly develop a real science of eugenics and disseminate among all our people a knowledge of its findings.

HARRISON HIRES

Hires Root Beer Company
Philadelphia

I hope the whole subject of eugenics will soon be brought down to the intellectual level of high-school students. The future fathers and mothers of America should be taught its true

significances in simple terms. They must also be made to realize that parenthood is a serious responsibility and that the future moral, mental and physical stature of our country lies in their hands.

MRS. SHEPARD KRECH
President, Maternity Center
Association
New York City

During long periods in man's development conditions were such that he practiced eugenics unconsciously; conditions are now such that eugenical thought must be spread and eugenical practices consciously pursued or the human race will gradually lose the advance built up through thousands and thousands of years of progressive development.

NORMAN B. LIVERMORE
San Francisco

Eugenics seeks to change the distribution of births in such a way as will improve the average hereditary potential of human beings, making it possible for men in the setting of modern civilization to develop higher intelligence, greater vitality and more balanced, happier personalities.

FREDERICK OSBORN
Population Association of America
New York City

To make a better human race is the other side of the conservation problem of making a better earth for the human race to live on. The country is convinced of the soundness of conservation. It has not yet learned enough about eugenics.

GIFFORD PINCHOT
Former Governor of Pennsylvania

The world today is filled with ideas for the improvement of conditions surrounding a man's life. Too little thought, however, is given to bettering the fundamental quality of the indi-

viduals comprising the human race. Eugenics should be to the world today what a good foundation is to a house, because subsequent development is obviously most effective when applied to a basically sound structure. A nation eugenically sound would be a nation of superior individuals. Yet most people fail to understand not only eugenics, but its implications. The success of eugenics depends not on the cooperation of a few enlightened enthusiasts, but on the concerted action of millions. Therefore the first constructive step in a eugenics program should be widespread education to instill in people a desire for fundamental improvement of their race and a knowledge of how eugenics, in helping them to attain such improvement, will work to their collective and personal advantage.

MRS. BEEKMAN HOPPIN POOL
Locust Valley
Long Island, N. Y.

If there were no children, there would be no world so far as any possible human knowledge goes. All art and mathematics and chemistry and the rest of human knowledge are worse than futile if there are no people for these to serve. Hence the most important thing is to have better people, rather than new developments in art and science. And the plain truth is that other countries within the last three or four years have made great progress in the improved quality of the children born. We also must make actual accomplishment at this time in this more deserving of all undertakings, if we are not to endanger the security and existence of our country.

PROFESSOR PAUL SAYRE
College of Law, State University
of Iowa

The program of the American Eugenics Society, without any thought of exalting any one class or so-called "race" over another, seeks to give individuals of all economic levels, social groups and ethnic stocks full and equal oppor-

tunity to develop their best potentialities and to produce healthier, happier and abler offspring.

Such a program deserves the widest study and the active support of all conscientious citizens, who must realize that we can no longer afford to let human reproduction and population growth proceed by the hit-or-miss methods of the past.

AMRAM SCHEINFELD

Author, "You and Heredity"

New York City

It has always been difficult for me to understand why people cannot see the obvious importance of eugenics. Certainly the abilities and potentialities of mankind are more affected and conditioned by mankind itself than any other one factor. To improve these potentialities and abilities, a proper understanding of sound eugenic principals is of the greatest importance unless one is so prejudiced as to deny that there is any such thing as heredity. Almost all people recognize that characteristics are inherited by all flora and fauna, but for some strange reason feel that hereditary principles do not apply to the human race. I believe this is due to the average individual's amour-propre, since the average individual would like to feel that he potentially is capable of rising to any height regardless of his geneology. Consequently many people do not want to recognize the importance of eugenics.

HARRISON BOWNE SMITH

Charleston, W. Va.

It is more important for man to acquire control over his biological evolution than to capture the energy of the atom,—and it will probably be far easier. The ordinary social and political issues which engross mankind are of trivial importance in comparison with the issues which relate to eugenics.

DR. LEWIS M. TERMAN

Department of Psychology

Stanford University

Population: Students of Its Trends See Need for Efforts to Control Its Course

"Race suicide" has many aspects. Deterioration in quality of population is fully as serious—very likely even more serious—than decline merely in numbers. The eugenic movement is concerned primarily with the preservation of valuable hereditary elements. Eugenics is not a panacea for the ills of mankind; but there is no avenue of progress which would not be significantly served by a general improvement of the abilities and capacities of the people in the nation. No other program can boast the universal value of the eugenic program. The eugenic program is, moreover, of especial importance in a democracy, where public opinion tends to determine rather than follow public decisions. In the last analysis, the fate of a nation and the happiness of its citizens depend on the acts of men; and in these acts no public leadership within a democracy can rise much above, nor fall much below, the general level of the majority of citizens. The fundamental aim of eugenics is to conserve and promote our natural human resources; to fail to support such a program is, in effect, to give the signal for race suicide.

HERBERT S. CONRAD
Associate Professor of Psychology
and Research Associate
University of California

Eugenics represents the only philosophic ideal and the only organized effort aimed at the improvement of the hereditarily determined constitution of human beings. As such it is vitally important. The complexities of modern civilization impose strains upon the members of society which it appears many of them are not fit to bear. The future welfare of mankind depends

upon our ability to produce men capable of dealing constructively with the products of their own science and technology.

PROFESSOR HENRY PRATT FAIRCHILD
Department of Sociology, Graduate School
New York University

The wealth of our nation is its people. The need of more self-supporting citizens and of fewer incompetents and unadjustables is self-evident. The only question is: how can we increase the proportion of our population which gives more than it takes? Through applied eugenics we can bring about permanent tax reduction, higher standards of living and a truly great and enduring nation. Many factors are involved, but I believe eugenics is fundamental to them all.

CHARLES A. HOFFMAN
Professor of Biology
State Teachers College
Minot, N. D.

The population problem, especially as related to quality, is the most fundamental and far-reaching that any people, or the whole worldful of us, has to face. Granted a well disposed, intelligent populace, and the rest is comparatively easy; but with poor inheritance, no permanent progress is possible.

Yet we cannot select the desired group by any instantaneous, wholesale method, by exalting any existing race or class as such. Everywhere, those *individuals* must be sought who, taken together, form the healthy, kindly, intelligent "race". And any social reforms that will encourage them to raise comparatively large families would be cheap indeed.

PROFESSOR DANIEL W. LARUE
Department of Psychology
State Teachers College
East Stroudsburg, Pa.

Eugenics is an essential phase of human progress, especially in a democracy. The development of eugenic theory requires the cooperation of biological and social scientists and social philosophers. The development of eugenic programs also requires the cooperation of statesmen, physicians, social workers and public-spirited citizens in all walks of life. It is important that a representative group of thoughtful citizens, specially organized for this purpose, take primary responsibility for the guidance and furtherance of eugenic theory and policy in the United States. The American Eugenics Society is the appropriate organization for this high responsibility. As such it deserves intelligent and vigorous support.

DR. FRANK LORIMER
School of Public Affairs
American University
Washington, D. C.

The most valuable natural asset of a nation is its population. The eugenics movement is bringing the present quality of this resource to the attention of thinking people, and is stimulating investigation into practical methods of effecting the improvement of its quality, methods involving the three aspects of human life, environment, response and heredity.

PROFESSOR AUSTIN R. MIDDLETON
Department of Biology
University of Louisville
Louisville, Ky.

"A Modern Eugenics Program" in "American Eugenics Today" is the outline for a reasonable, practical and singularly important plan of action. Four characteristics make it the only hopeful program:

- (1) It emphasizes the major importance of policies directed to the preponderant "normal" group rather than to the more dramatic pathological fringe.
- (2) It utilizes existing knowledge and makes no false claims, but escapes the sterile position of waiting until all the evidence is in.

- (3) It recognizes the essential unity of policies directed to improvement of the biological and cultural characteristics of the population.
- (4) It is soundly in line with the reasonable development of our institutions.

No one can know whether such a program could fully achieve its goals, but few can doubt that its application would yield a better life for better people.

DR. FRANK W. NOTESTEIN
School of Public and International Affairs
Princeton University

In a balanced program of scientific research looking toward the increase of human welfare, the study of eugenics and the study of man's environmental relationships occupy key positions.

DR. STUART A. RICE
Central Statistical Board
Washington, D. C.

That the regulation of the quantity and quality of our future population is mankind's greatest problem in applied science is a proposition too nearly self-evident to demand serious discussion. Whatever we may think of their programs of action or of the probability of their ultimate success, the eugenics and birth-control organizations are certainly grappling with the most fundamental issues which civilization faces.

PROFESSOR FRANCIS B. SUMNER
Scripps Institution
La Jolla, Calif.

To the student of population problems the enlistment of the intelligent interest of people in the quality of our future citizens is of the utmost importance. One need not subscribe to the extreme views of some of the followers of Galton to believe that we very much need to take thought how we may insure a fine quality

of body, mind and character to our future citizenry.

DR. WARREN S. THOMPSON
Director, Scripps Foundation for
Research in Population
Problems
Miami University
Oxford, Ohio

A country is no better than its citizens. The quality and quantity of tomorrow's citizens is dependent upon the support given the eugenics program today.

MISS ELEANOR WELLBORN
Graduate Student at the School
of Social Work
University of North Carolina

Not to be interested in eugenics is to lack perspective in looking forward for the human race. With our present system of easy communication, we are mixing the peoples of the world as never before. Unless we study eugenics and gain guiding principles, and seek ways to carry them out, there will be plenty of terrible disappointments ahead for individuals and for peoples.

DR. RAY LYMAN WILBUR
President, Stanford University

Public Health: These Workers for a Healthier Nation Speak for Eugenics

Helping families to learn the high value of health in life is a major responsibility of the public health nurse—one of her most cherished opportunities for service. As she goes into all types of homes, she sees the tremendous possibilities of happier families and a better social order if the principles of eugenics can be made known and applied.

Every young couple prepared for marriage with sound knowledge of biological facts, with understanding of the implications—spiritual and physical, personal and sociological—of the marriage relationship, is evidence for eugenics. Every pregnancy carefully planned so that both paternity and maternity are considered and safeguarded is evidence for eugenics. Every home which includes as many children as can grow into successful adulthood, sharing as they can the responsibilities of harmonious family life with well adjusted, busy parents, provides evidence for eugenics.

MISS ALTA ELIZABETH DINES
Director of Nursing Service
Community Service Society of
New York

Stripped of confusing and incalculable complications and implications, the practice of eugenics is merely another name or another level of interest for the ladder of preventive medicine.

The application of eugenics for human benefit is perhaps the soundest and, if we can believe the evidence of the biologists, likely to prove the most profitable form of preventive medicine.

DR. HAVEN EMERSON
DeLamar Institute of Public
Health, College of Physicians
and Surgeons
Columbia University

One of the most interesting as well as most important objects of the study of heredity is to acquire knowledge regarding human inheritance.

Knowledge of the relation between inheritance and the susceptibility to or immunity from various diseased conditions may eventually be a most important factor in human health and happiness.

It also seems to me that enough knowledge of human inheritance has been acquired to make it possible to reduce appreciably the continuance of certain forms of incapacities.

PROFESSOR LAWRENCE E. GRIFFIN
Department of Biology
Reed College
Portland, Oregon

The realization of the true objectives of eugenics as urgently requires the confidence of public opinion in the altruism of its motives as it needs the cooperation of administrative agencies and the medical profession. To gain this indispensable prestige, any eugenic program must be founded upon thorough, scientific knowledge, constructive demographic and educational ideals, and a sound community spirit, clearly avoiding speculative experimentation and any compromise with political expediency or selfish and prejudiced individualism. A careful collection of scientific facts about the biological principles governing the reproduction and organic descent as well as the development of physical resistance and mental adjustment in man, is certainly the best, and probably the only, foundation from which to build general interest and professional support in the practical application of eugenic concepts.

DR. FRANZ J. KALLMANN
New York State Psychiatric
Institute and Hospital
New York City

Among the many valuable and interesting ideas in "American Eugenics Today", may I express my special enthusiasm for the paragraph titled 'Many Eugenic Applications Can be Made Immediately?' Man's course has indeed con-

stantly been that of manipulating his surroundings to fulfill his needs through more precise knowledge of the forces at work. Pending increasing knowledge of himself which man is in this century more consciously accumulating, and which is the hope of civilization, genetic changes proceed unremittingly. It is possible, even with the knowledge at hand, to select the more valuable among these changes, so many important points are there on which all evidence, genetic, social, humanitarian, esthetic and economic, converge. To proceed from those most recognized, least opposed centers of evidence is the sure start. From thence new knowledge must be constantly accumulated, and tried at the touchstone of which are the more vital, the more truly intelligent, the more socially valuable, among the many possible fulfillments of human life.

DR. LAVINIA MACKAYE
Division of Hygiene and Public
Health
University of Michigan

The invaluable relationship which has grown between the eugenics and birth-control movements is, to one who has been closely associated with the latter, deeply appreciated. The American Eugenics Society, in indicating the place of democratized birth control as an instrument in helping to carry out its program, has rendered inestimable assistance in building acceptance for the true objectives of the birth control movement.

MRS. LOUISE DE B. MOORE
New York State Birth Control
Federation
New York City

The significance of the eugenics movement here, as I see it, is that it is endeavoring to study, sanely and scientifically, the biological and genetic factors which make for and against the breeding of a better race. The fact that the American Eugenics Society emphasizes the need of making birth control available to all strata of society is of particular interest to us, because

it is an immediate and practical step toward a balance of the present dysgenic differential birth rate.

DR. WOODBRIDGE E. MORRIS
General Director, Birth Control
Federation of America, Inc.
New York City

What sorts of persons are we by innate constitution and what sorts of persons will come after us? This question underlies all other questions, for behind problems of education are questions of educability, underlying considerations of disease are factors of natural resistance to disease, and so in every aspect of life. The American Eugenics Society has made, I think, an important contribution in attempting with considerable success a general formulation of attitudes and trends which would make of us and our descendants more desirable sorts of people. I hope this broad formulation may become generally known and form part of the thinking of all who are planning for the social future.

DR. STUART MUDD
School of Medicine
University of Pennsylvania

As a medical student I am especially aware of America's chronic lethargy with regard to putting into action an already well-defined American eugenics program.

Sound eugenic principles must be taught to the American youth. Certain eugenic measures must become laws—and such laws must be enforced—if American culture is to improve or endure.

Eugenics must become a part of our national life.

FREDERICK M. NEBE
Student
University of Nebraska

Present dysgenic tendencies, particularly relative to over-regeneration among inferior groups, will mean racial degeneration unless corrected by application of eugenic principles. Earlier

stern natural selection methods no longer apply. Selective sterilization is only narrowly applicable, even among the misfit and the unfit. Medical science tries to save everyone born or even conceived. Abortion and infanticide should be prevented. Only widespread education regarding eugenic principles and both the removal of handicaps to normal marriage and childbearing and the general application of dependable contraceptive information can shift the excessive regeneration from among inferior to superior couples. Eugenics is the chief hope for improving the quality of the species.

DR. ROY NORTON
Professor of Public Health
Administration
University of North Carolina

I congratulate the American Eugenics Society on what seems to me a perfect exposition of a eugenics program. I say this on the basis of many years practice in the specialty of gynecology and obstetrics. I believe that it is admitted by nearly all such specialists that there are many women who require medical aid both in helping them to have children on the one hand, and on the other hand to protect them from becoming pregnant when childbearing would be unhealthful for them. This point of view agrees entirely with the program that you have outlined, that a program of eugenics should be based on "individual differences" and not upon a program of "class differences".

DR. RICHARD N. PIERSON
President
Birth Control Federation of
America
New York City

I am of the opinion that in the causation of certain mental disorders hereditary factors play an important part. Hence, a program for their prevention must necessarily include measures of eugenics.

DR. AARON J. ROSANOFF
Director, State Department of
Institutions
Sacramento, Calif.

*The Sciences: They offer their Learning
to Help Mankind Improve Its Future*

Can human society use its knowledge of the laws of heredity so as to prevent its own deterioration? This is the problem of eugenics. It is a problem which should receive the earnest consideration of all serious-minded people.

PROFESSOR H. L. BRUNER
Zoologist, Butler University
Indianapolis

I have read carefully the statement of principles and objectives contained in the publication of the American Eugenics Society entitled "American Eugenics Today", dated January 1939, which I endorse whole heartedly and completely as expressing the consensus of present scientific opinion in the United States and Canada.

PROFESSOR W. E. CASTLE
Division of Genetics
University of California

It is very gratifying to see that eugenics is now taking a definite and logical position which all of us, I am sure, are anxious to support.

PROFESSOR C. H. DANFORTH
Department of Anatomy
Stanford University

The goal of eugenics is to people this earth with the finest men and women which every stock and nation can produce. Its program might be called by analogy the control of cosmic immigration. From the vast reservoirs of the unborn the eugenist would summon to life on this planet only those who can use its privileges without greater woe than weal to themselves, harm than gain to others. They must be human beings

physically and mentally equipped for life and the service of society. No thinking person who faces squarely the statistical evidence of imminent deterioration in our stocks today, and who at the same time glimpses the vision of what the human adventure on this planet might in its greatest triumphs achieve, can withhold his support from either the ideals or the working program of eugenics.

RICHARD M. ELLIOTT
Chairman, Department of
Psychology
University of Minnesota

It seems to me quite evident from a knowledge of the working of the laws of heredity that it is impossible, in any highly civilized country, to preserve or improve the present physical and mental stamina of the people without the adoption of some practical and far-reaching eugenic program.

C. P. GILLETTE
Professor Emeritus, Department
of Entomology and Zoology
Colorado State College

The eugenic problem should be of the supremest interest to all intelligent men and women. No race of wild or domesticated animals can be found in all the earth with such a high percentage of defectives in it as is now present in the human stock. The biological improvement of the race is the one paramount issue in comparison with which all other human problems are trivial.

DR. WYMAN R. GREEN
Head of Department of Biology
Brothers College, Drew University
Madison, N. J.

Eugenics is at the foundation of all human improvements. Just as water in a pipe can rise no higher than its source, so the capabilities of an individual are determined in large measure by the stock from which he comes. The scientific

study of human heredity, therefore, is right at the foundation of progress.

DR. FRANKLIN STEWART HARRIS
President, Brigham Young University
Provo, Utah

If the race avoids the inevitable degeneracy which will result from the continuation of the present differential birth rate, it must take eugenics seriously, learn much more about it, and put into practice effective measures for counteracting our present dysgenic tendencies. There are no problems confronting us of greater importance or urgency than the problems of practical eugenics.

DR. SAMUEL J. HOLMES
Zoologist
University of California

Human populations are subject to the same laws of evolution which affect other organisms. Mankind may change either for the better or the worse biologically. If the inheritance of the human race is to be improved, two things are necessary: (1) Much more extensive knowledge concerning the inheritance of important human physical and mental traits, including information as to the effects of specific environmental influences on these traits; (2) A eugenics conscience on the part of human populations.

PROFESSOR HARRISON R. HUNT
Head of the Department of Zoology
Michigan State College

As a geographer I am a profound believer in the power of physical environment to influence the occupations, vigor, character and achievements of nations. As a teacher and as one who eagerly desires to improve the condition of mankind, I am an equally profound believer in the influence of education and other cultural surroundings. Nevertheless, years of study have convinced me that heredity is just as important

as either physical or cultural environment. The three are related in much the same way as food, drink and air. All are essential. A civilization which spends billions of dollars on education but pays no attention to the heredity of its people is as senseless as a person who makes every effort to procure wholesome food but continually drinks polluted water.

DR. ELLSWORTH HUNTINGTON
Research Associate in Geography
Yale University

The sane application of the principles of eugenics is a sine qua non of a more perfect society in the future. Only through continued eugenic research, and the comprehension and application of such research, can society hope to solve that most fundamental of all human problems, betterment of human stock.

PROFESSOR D. E. MINNICH
Chairman, Department of Zoology
University of Minnesota

The present-day eugenic program is in complete harmony with the principles of educational psychology and child development in emphasizing the following: Both recognize the interaction of heredity and environment in the production and growth of the human organism, and the inter-dependence of these factors in the development of mental and physical traits. Both eugenics and psychology are concerned in the scientific investigation of the role of differential heredity and differential environment in accounting for differential development in human beings. Present-day eugenics is in accord with progressive education in respecting the uniqueness of the individual, and the right of each person to attain his maximal development. Both recognize the existence of individual differences in any unselected group and the correlative need for individualization of treatment. Both acknowledge the preponderating influences exercised by the home, particularly the parents, in shaping the health, character, personality and social attitudes of children. Both admit the biological and psy-

chological needs of adolescence in its struggle for maturity in our present-day culture, and the natural right of the adolescent to become a self-sustaining individual, psychologically and economically, with correlative opportunities for obtaining a job, a mate, and founding a home and family of his own. It is implicit in eugenics and education that the child has a right to the best opportunities for development possible in our democracy. Eugenics does not depart from the principles of progressive education in its greatest insistence that the larger families be encouraged to accrue to parents best qualified to bear and rear children, and that parents least able to do right by their children should be encouraged not to undertake greater responsibilities than they can well assume.

DR. GLADYS C. SCHWESINGER
Psychologist
American Museum of Natural
History
New York City

A eugenics program based on sound biological principles can be made of vital concern to all humanity.

PROFESSOR A. FRANKLIN SHULL
Department of Zoology
University of Michigan

The prospect for the next million years would be bright indeed if everyone heeded the eugenic golden rule, that is: Do Unto Your Descendants As You Would Have Had Your Ancestors Do Unto You.

DR. HERBERT E. WALTER
Biologist
Brown University

Negative measures are distinctly worth while, since the multiplication of weakness and defects should not be permitted; positive measures are more inspiring, since their utilization requires vision and courage.

DR. ROBERT M. YERKES
Psycho-biologist
Yale University

Education: Those Who Teach Look for Wider Teaching About Eugenics

An understanding of eugenics does not demand much biology but it demands the sociobiological point of view, including the important psychological aspects. Properly taught, and in this form, the wide teaching of eugenics should be encouraged by the American Eugenics Society.

MAURICE A. BIGELOW
Professor Emeritus of Biology
Columbia University

It is vital to the future of the human race that eugenic principles receive wide support in the present generation.

DR. JEAN BRIERLEY
Texas State College for Women
Denton, Texas

At this time when Europe is shedding its best blood in the hope of preserving its ideals and interests, the need of protecting American blood through the application of sound eugenics becomes increasingly important. Annually we have been allowing the youth of our land to pass through the portals of learning, trained in the gathering of material wealth, but blissfully ignorant of how to preserve the characters of the race to which they belong. The mycelium-like growth of a degenerating civilization is already obvious and yet the sound of body and mind are ignorant of the laws of heredity and unmindful that the insidious encroachment of race degeneracy may be passed to future generations through their faulty selection of a mate.

It is far better to preserve our race through a population enlightened by the knowledge of the laws governing heredity than to attempt to preserve a remnant through the force of arms.

What does it profit a race if it gains the whole world and loses its own soul, for in the past great and powerful nations have perished from the destructive forces that accumulated within their walls.

I am in full accord with your timely efforts to advance the knowledge of eugenics at this time.

GRAEME A. CANNING
Associate Professor of Zoology
The University of Tennessee

Instead of leaving the science of eugenics to the improvement of the beasts of the fields, the pets of the home and the foodstuffs we eat, widespread interest should, most obviously, be aroused in the study and execution of the biological improvement of the human race.

THERON J. DAMON
Curator of Manuscripts
American Antiquarian Society
Worcester, Mass.

I believe that eugenics is incomparably the greatest concern of the human race.

PROFESSOR IRVING FISHER
Department of Political Economy
Yale University

Thousands of rural study groups in America are becoming aware of our "population" problems and are ready to listen to and participate in programs relating to eugenics. Few of the educational institutions that they look to for leadership and guidance have staffs prepared to do Extension work in eugenics. There is a real challenge to the American Eugenics Society to help place suitable and authentic subject matter into hands of workers in the adult educational programs of the Cooperative Extension Service in Agriculture and Home Economics and of other rural action agencies, service organizations and educational institutions.

NAT T. FRAME
Leader, Division of Farm Population
and Rural Welfare, Area 3
Bureau of Agricultural Economics
United States Department of Agriculture

Eugenics in the future will be one of the fundamental subjects in all schools.

DR. ALES HRDLICKA
Curator, Division of Physical
Anthropology
United States National Museum
Washington, D. C.

The setting up of a clearing house for factual material available today, it seems to me, is the most urgently needed service for any agency primarily interested in furthering educational measures for improving the population. The widely scattered source materials of many inter-related and yet separated scientific disciplines make it well nigh impossible for any one student, single-handedly, to keep himself posted on observations and discoveries in medicine, genetics and chemistry, in psychology and in numerous methods of teaching now adopted to varying degrees of abilities, intelligence and adaptabilities. It seems imperative that such a student possess, furthermore, a working knowledge of sociological factors which play such an important part in the moulding into a personality of the original clay with its innumerable uncertain elements. The command of such knowledge should be basic and essential for all those who are now helping to lay the foundations for the slowly developing science of human beings, specifically those engaged in the borderline sciences between medicine and sociology.

DR. MARIE E. KOPP
New York City

Eugenic propaganda will go farthest if it is treated as incidental to all other social advance. If the eugenicist is to save his soul, he must first lose it. The time is ripe for the eugenic group to give the educator a eugenic philosophy which can, without obtruding itself, permeate all aspects of education.

DR. H. N. MacCRACKEN
President
Vassar College

I will be particularly interested in cooperating with the American Eugenic Society in the better development of a eugenic point of view, not only in this college and community, but wherever it is possible to make an approach along these lines.

ALBERT Z. MANN

Dean of International Y.M.C.A.
College
Springfield, Mass.

In my course in human genetics I devote the last two or three periods to eugenic programs of this and other countries. This year I wound up the course with extensive quotations from "American Eugenics Today," and found that the class of nearly forty good students heartily approved of its viewpoint.

PROFESSOR H. H. NEWMAN

Geneticist, Department of Zoology
University of Chicago

I have been teaching genetics at this institution since 1921. As the years have passed, the need for emphasizing eugenics to college students has seemed more important and necessary. A rational eugenics program is highly desirable in the general population. Man should become sufficiently enlightened about human heredity so that remedial measures for human betterment may become a definite part of society's program in education.

DR. J. M. ROBINSON

Head, Department of Zoology-
Entomology
Alabama Polytechnic Institute

Man has learned to improve through control the breeding of domestic animals. He has been singularly slow to adopt sound control of his own reproduction. A vigorous eugenic program is of vital importance to the race.

PROFESSOR HAROLD ST. JOHN

Department of Botany
University of Hawaii

The aim of eugenics, better people, is desired either consciously or unconsciously by all thinking men and women. The methods of eugenics for achieving this aim, however, have been the subject of disagreement. The broader program of the American Eugenics Society, with its emphasis on individual differences and respect for human rights, is a significant step toward unifying the variant forces and concentrating their efforts in behalf of improving people. Such a step is of tremendous importance when supplemented by intensive education of society concerning eugenic problems and by a wide distribution of eugenic knowledge. If efforts can be concentrated and society can be educated, then, future generations—and this is vital to civilization—will be well born.

CURRIN V. SHIELDS
Student, University of Nebraska

In the developing of a eugenics program for a democratic people, surely the salient objective is to do the greatest good for the majority of individuals. The broader eugenics program as developed by the American Eugenics Society has this end in view. Americans should, therefore, support the program. To reach the greatest number of people, eugenic topics should be discussed with senior students in our secondary schools. Such studies have been added to the curriculum of certain high schools with success. Many senior students become parents soon after graduation, and would put into effect the eugenic teachings.

S. EDMUND STODDARD
Superintendent of Schools
Blackfoot, Idaho

The social need for alert, resourceful, able and strong people increases with each generation with the increasing complexity of our civilization. The percentage of superior people could be sharply increased by the application of already existing genetic knowledge. A general appreciation of the importance of human improvement will lead to increased use of this knowledge.

DR. STEPHEN S. VISHER
Geographer
Indiana University

The Family: Marriage and the Home Are the Stage for Man's Progress

International agreements, constitutions and laws are of no avail except as succeeding generations develop along right lines. Hence, children are the most important thing in the world today, while their parents and training determine their character and usefulness. I believe the American Eugenics Society is doing a work which is even more fundamental than that of the preacher or teacher.

PROFESSOR ROGER W. BABSON
Statistician and Economist
Babson Park, Mass.

When society does not shape and pursue a well defined program of eugenic development, the diverse influences and pressures affecting human behavior as regards marriage and the creation of children work haphazardly, therefore often dysgenically. These same influences and pressures are capable of reorganization in such a way as to minimize negative and dysgenic results, and encourage positive and eugenic results.

EUGENE L. BELISLE
Executive Director, Massachusetts
Mothers' Health Council
Boston

Certainly all other programs of social reform are useless in the long run if we do not conserve a biologically sound stock of human beings to carry on our civilization. Apart from this biological question, which we must sooner or later face, there is the sociological question of the wastefulness involved in raising the big families in the little houses and the little families in the big houses.

PROFESSOR JOSEPH K. FOLSOM
Department of Economics and
Sociology
Vassar College

Professional, clerical and skilled manual workers, large and small owners, business executives and many groups of semi-skilled workers are failing to reproduce themselves. In the cities only unskilled laborers and certain marginal economic groups show a material rate of increase, which is particularly rapid in the case of those on relief.

Well meaning people who believe that everything will be put right by slum clearance, public health technique, social "security" programs, redistribution of wealth, etc., overlook the patent fact that the more capable are not now having children in the proper proportion.

GEORGE H. GIBSON
George H. Gibson Company
New York City

It is difficult to think of a more worthy objective for widespread cooperative effort on the part of all men than that of raising the innate capacity of the human family, of encouraging the perpetuation of the biologically best of men and discouraging the perpetuation of the biologically unsound. Since the earth is limited in its capacity to sustain an indefinite number of human beings and since society is limited in its ability to care for the biologically unfit and unfortunate, it would surely be wise to improve the native fitness of the human population to live useful, happy, and self-sustaining lives.

W. W. HENDERSON
Professor of Zoology
Utah State Agricultural College
Logan, Utah

Scientists may debate whether there are genetic differences between classes, national, or racial groups, but it is certain that there are individual and family differences. By consciously modifying social changes so that the better endowed have larger than average families and the less well endowed smaller than average families, there is no doubt that we can improve the human stock.

PROFESSOR NORMAN E. HIMES
Department of Sociology
Colgate University

The future of mankind depends upon the strength, vigor and intelligence of the mass of the people. The preservation of racial health demands a reversal of the present trends in human reproduction. We need to re-establish confidence and pride in family life. We need a stabilized birth rate with three or four children to the average family. We need more children from the strong, vigorous and intelligent, and fewer from the weak.

DR. WILLIAM L. HUTTON
President, Eugenics Society of
Canada
Brantford, Ontario

There is no doubt in my mind that in the near future man's attention will turn definitely to that which has been so near at hand and so common that it has almost escaped his interest—that is, the human being. When we are properly concerned with the elements which go into his creation and determine his future possibilities, man will for the first time be thinking in the field which offers real opportunity of bringing human happiness and further development.

MRS. MARION B. LUITWEILER
Member of Governing Board of
Sumner Institute for Social
Progress, Wellesley College

The human race will continue to deteriorate so long as we continue to produce more babies from low-grade parents than from high-grade parents. In some manner this practice must be reversed and I believe that thorough understanding and wide practice of the principles of eugenics are the only means by which this result can be brought about.

DR. W. B. McDOUGALL
National Park Service
Santa Fe, N. M.

What the future holds for mankind may depend in large degree upon the progress he makes in the field of eugenics. As to genetic quality, this is obvious. It is almost as largely

true, however, as to cultural inheritance. Even if it should be the case that the most important differences of quality among men are cultural rather than genetic, it still would be true that the finest and most elusive elements of that culture are transmitted within the family, by means of the infection of childhood by maturity. To end the families of culture would go far toward ending the culture. The survival of both genetic quality and cultural quality rests on eugenics.

There have been few cases in history in which a great population has been so thoroughly combed of its best quality in all strata of society as is present-day America; with that best quality being educated and lifted to an economic status which tends toward extremely small families, or to none at all. For that reason, the development of a eugenic conscience is more pressing and more imperative in America today than in most historical periods.

DR. ARTHUR E. MORGAN
Former President
Antioch College

If a nation is to survive, it must produce enough children to take the places of the people who die each year. Moreover, it must produce those children in homes that can give them a good start in life, rather than a bad start. These axioms are the foundation of survival, and they are the foundation of eugenics.

DR. PAUL POPENOE
Secretary and General Director
Institute of Family Relations
Los Angeles

There are two ways for a species to become extinct: one through lack of adaptation to a changing environment and pressure from competing organisms; the other through evolution of a form that is more adapted to the particular environment. Eugenics is the only agency which has been or is actively concerned with which of these types of extinction shall come to Homo sapiens. Despite the incompleteness of our

knowledge of heredity in man, and the many problems confronting one who is interested in the improvement of man, eugenists are the only ones who have the courage to face these problems. May we give them our loyal support!

PROFESSOR J. H. QUISENBERRY
Department of Genetics
Agricultural and Mechanical College of Texas

The foundation of all eugenics is the truth that the laws of heredity apply just as much to our species as to animal species. It follows that a moral obligation rests upon the ill-constituted not to reproduce, and upon the superior to rear a real family instead of just one or two.

PROFESSOR E. A. ROSS
Department of Sociology and
Anthropology
University of Wisconsin

This program is characterized by its attitude of scientific caution, and also by the breadth of its scope. While primarily concerned with innate quality, it does not assume that all defects are innate. On the contrary, it stresses the importance of improved nurture. Social amelioration is an essential preliminary in a program which advocates the eugenic distribution of births among the whole population. Means must be taken to equalize the freedom of parents to have few or many children, and to remove the economic handicaps of parenthood. Only then may eugenic consequences be confidently expected from education designed to foster awareness of the values of intelligent, voluntary parenthood.

Such a program is of vital interest to all who have the future of our civilization at heart. In particular it must appeal to those who believe the cause of democracy to depend on fuller realization of the potentialities of family life.

DR. UNA BERNARD SAIT
Graduate School
Claremont Colleges
Claremont, Calif.

The most significant problem of modern eugenics is, to my mind, the economic ease of the individual parent's immediate environment. When he can make a living according to the norms of his immediate society, he is apt to have a eugenic number of children, and those children are apt to flourish to their full capabilities.

MYRON WEISS
New York Editor
New York City

Since I have probably lectured more widely than any one else on eugenics—I trust with increasing wisdom—I find the interest in sane, scientific eugenics growing rapidly. Whether they be small town groups or great educational or business gatherings, I find them more profoundly interested in how population trends, housing, economic and educational opportunity, personal, family and life ideals, ethics and religion are directly related to race improvement or impairment than in the doings of politicians or the state of the nation's budget. I believe the interest is healthy and intelligent, and needs only the guidance of high social statesmanship to become the most fruitful development both for a better race and a better world.

ALBERT EDWARD WIGGAM
Author, Lecturer, Publicist
New York City

"American Eugenics Today" is the most temperate and sound attempt at a biological justification for a social reform program that I have seen. The voluntary parenthood idea is a real contribution to eugenic thinking. It supplies a valuable new orientation whose implications can profitably be explored further.

PROFESSOR JULIAN L. WOODWARD
Department of Sociology and Anthropology
Cornell University

Social Welfare: A Close Ally of Eugenics, Helping Mankind Today

In the words of the American Eugenics Society, "eugenics seeks to modify the conditions of modern society in such a way that the distribution of births will be favorable to the improvement of inherent human capacities from one generation to another." In the words of the United States Housing Authority, "studies made over the past few years have repeatedly shown that the areas of high juvenile-delinquency rates are almost always the areas of bad housing." To breed juvenile delinquents in the present generation is not to encourage better parenthood in the next. The interdependence of eugenics and of the improvement of housing and neighborhood conditions seems obvious.

HAROLD S. BUTTENHEIM
Editor, "The American City"
President, Citizens' Housing
Council of New York

Personally, I am very much interested in the subject of eugenics, because I believe it is the most important subject we have before us at the present time. All our other subjects must inevitably depend upon it, for we cannot advance unless we have the right kind of stock to advance them.

DR. GEORGE B. CUTTEN
President, Colgate University

I have often weighed the charitable work which other organizations are doing, and I think it splendid that such institutions exist to give aid to those more unfortunate than we. But when I consider the special type of welfare which the American Eugenics Society is trying to create,

I always conclude that this is the most helpful, since eventually it will eliminate the necessity for charity as it is now given.

MRS. VITO DeMAIO
Newark, N. J.

Without quality we are helpless in our efforts to improve. Schools, colleges, churches and all the various social agencies cannot maintain the ideals and privileges of a democratic people without a high-grade mental level among their people. A sane and ethical eugenical program can go a long way toward reducing the number of individuals at the lower end of the quality scale and increasing those at the upper end. A sound application of our knowledge of the laws and facts of heredity is far more important regarding human beings than it can ever become in the case of plants and animals, and yet how much more careful we are in the pedigrees of the latter than in the former.

PROFESSOR RAY C. FRIESNER
Department of Botany
Butler University

The American Eugenics Society has taken a most significant step in presenting a program which is applicable to present-day needs and which can, through careful interpretation, immediately affect population trends in this country.

It is courageous of this society to be willing to step from the field of theory into a practical application of these theories while continuing the research and evaluation of eugenics. I particularly like the relation of the broader program of eugenics to other social values and feel that such emphasis would have an immediate and constructive effect.

MISS GLADYS GAYLORD
Executive Secretary, Maternal
Health Association
Cleveland

Housing workers must perforce be vitally interested in the work and achievements of eugenicists, and vice versa, as in the final analysis both groups are striving for the same goal: fuller and happier living for an ever growing proportion of the American nation.

ABRAHAM GOLDFELD
Executive Director, Frederick L.
Lavanburg Foundation
New York City

May the interest in eugenics grow and become a factor in the world planning during the years soon to come.

MRS. HENRY GREGOR
Miami, Fla.

After thirty years of study of social problems and of theories of social betterment, it still seems to me that eugenic policies hold a primary place in any program for the perpetuation and improvement of civilization. In the long run, our tremendous efforts to improve the environmental conditions of the unsuccessful elements in our population will come to naught unless we can check deterioration of the human stock.

PROFESSOR FRANK H. HANKINS
Department of Sociology
Smith College

The important thing to know about the modern program of eugenics is that it seeks the same benefits for the worthy who live on Hester and Main Streets that it desires for the worthy on Park Avenue. Its viewpoint is quite American and quite democratic. The fact that one of its major emphases is on the strengthening of family life should commend the program to thoughtful men and women everywhere. In proposing that all of us become persons of good stock, the view of the American Eugenics Society harmonizes with the purposes of other well known and highly regarded social agencies. Like them, the Society wants prevalent in America good citi-

zens, persons of the best inheritance that sound social measures can produce, persons whose acts are based on intelligent choice and high ideals. Yet the Society does not duplicate these agencies. Working prophetically ahead of the march of profound social changes, its ideas help these agencies the more wisely to focus their efforts for the betterment of the common life in America.

WEAVER W. PANGBURN
National Recreation Association
New York City

The student and teacher of evolution cannot help wondering what *Homo sapiens* is going to do about replacing the drastic, inhuman but very salutary things that struggle for existence has done and is still doing for man. Man's mating instincts are deprived of practically all the guiding factors that govern lower animals. Medicine and social services of many sorts are humanitarian, benevolent and, therefore, necessary. But what can man do to offset their inevitable prevention of the process of natural selection? Only one thing has so far appeared, and that very recently. That is eugenics. Eugenics and its rapidly improved teachings offers the only "way out" from the dilemma of human intelligence and social consciousness versus a logical and inevitable deterioration of human stock.

PROFESSOR HENRY F. PERKINS
Department of Zoology
University of Vermont

It is my opinion that eugenics as a subject is being absorbed by the various biological sciences. Much of the impetus for this came from the American Eugenics Society. The logical sequence to eugenics is euthenics, and if we keep these two concepts alive in the minds of scientific and social workers, euthenics will permeate the social sciences as eugenics now permeates the genetic sciences.

DR. CARL E. SEASHORE
Dean, Graduate College
State University of Iowa

Eugenics seems to me the most important long-term movement in America today.

GORDON STRONG
Dickerson Station, Md.

Of all the problems of population, none is more fundamental and urgent for solution than that presented by the continuous production in the human race of individuals incapable of self-support, living in misery, increasing the burdens of society and lowering the vitality of the race. The attacks in the past upon this ancient problem of human wastage have failed in solving it because the source of this defective product in heredity has not been recognized. The programme of eugenics is a powerful stimulus to investigation of the phenomena of heredity and is awakening the layman to a consciousness of the part inheritance plays in man's make-up and in human society.

PROFESSOR R. J. TERRY
Department of Anatomy
Washington University
St. Louis

I believe the emphasis on the broader program of eugenics is important, for too often the eugenics program is tied, in the minds of those who are not familiar with the subject, to methods of restricting births to the socially unfit. The program of education and of proceeding toward reduction of the stumbling blocks to a program of eugenics in a democracy seems logical.

MRS. GORDON WAGENET
National Council for Mothers and
Babies
Washington, D. C.

The Church: The Shepherds of Men's Souls Speak for a Eugenic World

How I wish and pray the public would study and then apply eugenics. Frankly, there is NO way out for the world unless mankind deliberately sets out to raise the level of humanity. The only way a high standard can be maintained is by purging the human stock.

THE REV. HENRY DARLINGTON
Church of the Heavenly Rest
New York City

Few matters are more pressingly important than the application to our social problems of such well established information in the realm of eugenics as we actually possess. The failure to do this is almost certainly going to put us in the position of endeavoring to cure symptoms while basic causes of social degeneration and disorder go untouched.

DR. HARRY E. FOSDICK
Riverside Church
New York City

The Talmudic caution, "Woe unto him who defies the purity of his family," probably is a warning against the dangers of inheritable defects and disease. Even those born of incest or adultery are not allowed to enter into marriage with an Israelite. These prohibitions and many others that could be cited from both legislation and the lore of the Jewish people prove that we have always understood something of the importance of health in connection with marriage, and the necessity of safeguarding children against defectiveness and transmissible disease. We should, therefore, be among the

first to appreciate and to adopt the program of eugenics and health developing in our own day.

RABBI SIDNEY GOLDSTEIN
Free Synagogue
New York City

Two things above all others are needed today; a plan *of* life and a plan *for* life. The first means a revival of religion, religion as a reverence for life. This is dependent upon the ability of the Churches and the people in them to relinquish their dogma and answer a questioned world even as Jesus answered questing Thomas, saying, "Here is the way to meet life and its problems." The second is dependent upon the acceptance of a sensible and scientifically approved program of eugenics. With the plan *for* life in our minds and the plan *of* life in our hearts, filled with understanding, with warmth, with firm faith in the fact of God, we may swing wide the doors of the future in confidence of our ability to meet whatever it offers.

THE REV. GEORGE J. HALL
Saint Thomas Church
New York City

One reason why eugenics is a subject of vast importance for each generation is because each generation is faced with the necessity of saving society. It is impossible to establish society on so solid a foundation that it will automatically remain pure and vigorous. This is admittedly true in the moral realm, and it is also true in the physical realm.

DR. DANIEL L. MARSH
President, Boston University

As one who is daily confronted with the problems of human distress and maladjustment, I am heartily in favor of a program of eugenics. Many of our efforts in behalf of individual and social rehabilitation are minimized by reason of the

fact that we are trying to check effects when we should be correcting causes. Eugenics puts the emphasis upon the latter and as such belongs in the category of sensible, scientific technique.

THE REV. ROBERT S. MILLER
First Unitarian Church of Omaha

The work of the American Eugenics Society seems to me to represent the principles of sound research in a most difficult field where superficial judgments often times come easily to hand. The mysteries of family, race and social progress require the most statesmanlike approach attainable, and it seems to me that the leaders of the American Eugenics Society are pursuing the correct methods. Old taboos must be dispelled and new outlooks advocated. These in turn must be tested and proved before they are given authority and approval. In this complex task, I am confident that the American Eugenics Society can be counted upon to render the maximum scientific and socially valuable service.

RABBI LOUIS I. NEWMAN
Temple Rodeph Sholom
New York City

To be "eugenic" is to be "well born," and that is an asset of incalculable value. Unfortunately we cannot do anything about our own birth, but we can do something about the generations yet to be born. Actual improvement of the race will be accomplished not by learned discussions of the genes and chromosomes, but by supporting a eugenics movement reaching the masses of the people and impressing them with the fact that, while it is desirable that their offspring be photogenic, it is vastly more important that they be eugenic.

In other words, what I think about eugenics is simply that the subject must be taken out of the academic atmosphere which has too long been its usual habitat, and must be popularized into the public consciousness. This will be accomplished not only by accurate information

distributed through the public press, the magazines and popular books, but by getting our educational leaders to include the subject in high school curricula. When our young people choose their mates for marriage, they should be conscious of the fact that they are, to a large extent, determining the assets and handicaps of their offspring unto the thirtieth and fortieth generations.

DR. CHARLES FRANCIS POTTER
Founder and Leader, the First
Humanist Society of New York

Members of the American Eugenics Society in thirty-two States, the District of Columbia, Hawaii and Canada are represented in these statements.

The American Eugenics Society

ITS PAST: What is now the American Eugenics Society originated at the Second International Eugenics Congress held at the American Museum of Natural History in New York City in September, 1921.

It was incorporated in 1926 as successor to the Eugenics Committee of the U. S. A. and the Eugenics Society of the U. S. A.

ITS FUTURE: A soundly informed public opinion is the first requirement in the process of formulating social changes which would have eugenic results. In its current publications and in its quarterly magazine, the American Eugenics Society presents the carefully drawn conclusions of the country's leading students in the field of eugenics and the underlying sciences. As its membership increases and with the continued cooperation of the many social agencies which are already giving it support, the society should be enabled to bring to a wider public throughout the country a reasonable and effective call for support of sound eugenic measures which will affect the whole fabric of society and increase the possibilities of permanent social advance.

Address:

Rudolf C. Bertheau, Secretary

50 West 50th Street

New York, N. Y.

Officers and Directors

Samuel J. Holmes, President

Professor of Zoology, University of California, Berkeley,
California

Mrs. Shepard Krech, Vice-President

President, Maternity Center Association, New York City

Frederick Osborn, Treasurer

Population Association of America, New York City

Chauncey Belknap, Lawyer, New York City

Guy Irving Burch, Washington, D. C.

Robert C. Cook, American Genetic Association,
Washington, D. C.

Watson Davis, Director, Science Service, Washington, D.C.

George V. Denny, Jr., President, Town Hall, Inc.,
New York City

Henry P. Fairchild, Professor of Sociology, New York
University, New York City

Irving Fisher, Professor of Political Economy, Yale
University, New Haven, Conn.

Joseph K. Folsom, Professor of Sociology, Vassar College,
Poughkeepsie, N. Y.

Willystine Goodsell, Associate Professor of Education,
Teachers College, Columbia University,
New York City

Bell Gurnee, Washington, D. C.

Frank H. Hankins, Professor of Sociology, Smith College,
Northampton, Mass.

Ellsworth Huntington, Research Associate in Geography,
Yale University, New Haven, Conn.

Eduard C. Lindeman, Professor of Social Philosophy, New
York School of Social Work, New York City

Robert Littell, Associate Editor, "Readers Digest,"
New York City

Frank Lorimer, Professor of Population Studies, American
University, Washington, D. C.

Henry F. Perkins, Professor of Zoology, University of
Vermont, Burlington, Vt.

Paul Popenoe, Secretary and General Director, Institute
of Family Relations, Los Angeles, Calif.

William F. Snow, General Director, The American Social
Hygiene Association, New York City

Warren S. Thompson, Director, Scripps Foundation for
Research in Population Problems.
Miami University, Oxford, Ohio

Mrs. Frank A. Vanderlip, President of Board of Trustees,
New York Infirmary for Women and
Children, New York City

Albert E. Wiggam, Author and Publicist, New York City