EUGENICS AND MILITARISM

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I

EUGENICS may be understood by us to mean, in general, what Francis Galton meant it to be when he defined it as 'the study of agencies under social control that may improve or impair the racial qualities of future generations either physically or mentally.' In particular it means taking advantage of the facts of heredity to make the human race better, or to make a better human tribe or people. It means good breeding of the human species.

Militarism may be understood to mean war and the preparedness for war. The maintenance of standing armies and manned navies, the constant recruiting of young men by voluntary enlistment or by conscription, and the mustering out of time-served older men, are features of militarism no less important, perhaps, in the eugenist's consideration of war, than the sanctioned wholesale, reciprocal murder by which it is more dramatically characterized.

Examples of conditions which the eugenist considers as calling for improvement through better breeding, and whose existence, therefore, is a reason and a stimulus for eugenic study and action, are, to name but two or three, the following: —

Twelve out of one hundred children born in England die before reaching one year of age. These deaths, says one of the surgeons in a Liverpool infirmary for children, 'can scarcely be regarded as due to perils of infant life as they are due to prenatal influences.' It is exactly this peril of parentage that the eugenist recognizes as the greatest peril of them all, to infant life. It is a peril of bad breeding.

The investigations of a dozen competent men, confirming one another, have shown that feeble-mindedness and epilepsy are directly heritable defects, and that they follow, in their order of inheritance, practically the Mendelian formula. That is, the fate of the children of feeble-minded and epileptic parents can be foretold with confidence. Feeble-mindedness is not sporadic, spontaneous, or environmental in origin. It is a heritable characteristic of certain stocks or family strains. The eugenist sees in these facts a plain suggestion for action that will benefit racially the human species.

Karl Pearson and his assistants have proved that one fourth of the British married population is producing one half of the next generation. And that this one fourth — which is really only one sixth of the whole adult population — is a part of the population least able to give its offspring the care and general environment necessary to the best human nurture. Also, that in it there exists a larger proportion of members possessing heritable defects than among the rest of the population. The birth-rate is not merely decreasing, but it is decreasing selectively. The production of English children is becoming a process of increasing one type of the English population at the expense of other types. The eugenist,

concerning himself with this matter, would attempt to find out whether this selective propagation within the English people is tending to the advantage or disadvantage of the race; and if to its disadvantage, he would attempt to remedy it by publicity, education, and any other means under social control.

Similarly, any other condition of present human living that seems to have direct relation to human breeding is legitimate subject of the eugenist's scrutiny. Any institution of human life that seems to have direct relation, whether of advantage or disadvantage, to the modification of the race by determining in any way the character of race propagation, invites his attention. Such a human institution, of great age, great development, and great prestige, is war.

II

Stress is put in most writings against war on the imposing figures of the actual human mortality due to it. To attempt to estimate the millions of men who were lost in the Napoleonic wars is to bring one, first, to a shuddering realization of the horror of it all, and, next, to a serious thoughtfulness concerning the possible racial injury worked on the decimated peoples. And this thoughtfulness becomes more serious when one learns that one third of all the lost men came from a single nation, whose total population at the beginning of the wars was but twenty-five millions.

But great mortality in itself is not necessarily a great racial catastrophe. Indeed, it is, in the face of the geometrical progression by which reproduction moves, one of the veritable conditions of advance in animal life. Throughout the kingdom of life, plant as well as animal, the overproduction of individuals and their reduction by death to a fractional part of the original number is one of the basic conditions of progress, if Darwinism is a sound explanation of organic evolution. For this death will be in the nature of things selective, and hence will make for the modification of the species toward a condition of better adaptation to conditions of life. Indeed, the upholders of war have used precisely the argument of war's high mortality as a proof of war's real beneficence to the race. Ammon, for example, consistently develops this thesis, cold-bloodedly, to its logical extreme, and Seeck and numerous others are attracted by it in certain degree.

However, the advantage of mortality depends upon the impartiality of the application of its causes. Submit the whole population to a stress of living that results in a certain mortality, and this selection by death may well be advantageous to the race. It may weed out the weak, the biologically incompetent, the stupid, or the depraved. It may be a purification by fire.

But in the case of the mortality from war it is precisely this testing of the whole population, this randomness of exposure to its causes, that does not obtain. To my mind the immediate and the sufficient answer to the claims of those who see in war a biologically race-purifying agent, is the exposure of the character of the selection which war's mortality and injuries entail. Military selection is as far as possible removed from natural selection. It is peculiarly unnatural.

I believe that it may be shown by two methods that the direct selection of war is not advantageous, but in almost all cases thoroughly disadvantageous to the race. The two methods are: first, the determination of the character of that part of the population especially exposed to the selective mortality of war; and, second, the

determination of certain actual results of this selection.

As to the first, one learns immediately, when his attention is directed to the way in which armies are made up, that an army is not a cross-section of a population, not a general representative part of it, but a selected part of it. They who point to the advantage of military selection as certain to issue from the selective struggle between the opposing armies and from the selective results of the varying endurance and resistance to exposure, disease and wounds, of the individuals in each army, do not sufficiently consider the fact that the whole of each army consists of a group of individuals not chosen at random from the population and representing both sexes, all ages, and weak and strong alike, and is already, by the very conditions of its organization, a part of the population selected first for sex and then for ripe youth, full stature and strength, and freedom from infirmity and disease. So that practically every individual lost from an army means the loss of a man of better physical condition than that possessed by some other one man left behind in the civil population. For the actual figures of present-day recruitment in the great European states show that of the men gathered by conscription, as in France and Germany, or by voluntary enlistment, as in Great Britain, from 40 to 50 per cent are rejected by the examining boards as unfit for service because of undersize, infirmities, or disease.

For example, in the decade 1893–1902, out of a total of 679,703 men offering themselves for enlistment in England, 34.6 per cent were rejected as unfit for service, 9 per cent were rejected after three months' provisional acceptance, and 2.1 per cent were discharged as invalids within two years, making thus a total of 40 per cent of all those applying that were turned back into the civil population as not physically fit men. In 1911, of the 64,538 men who offered themselves for enlistment in England, Scotland, and Wales, 28,900, or 44.78 per cent, were rejected for physical unfitness by the examining board. More than 63 per cent of all the applications for enlistment from the city of Edinburgh were rejected, and more than 57 per cent of those applying in Leeds. In London 36 per cent were rejected.

And these figures by no means reveal the closeness of this selection, for the requirements of height and chest measurements are so well known that men obviously under size or obviously infirm do not offer themselves, or if they do are at once rejected by the recruiting sergeants, so that they never reach the regular examining boards. Evidence presented to the Inter-Departmental committee on Physical Deterioration in the United Kingdom indicates that out of every one hundred men who offer to enlist in the British army only forty are accepted, sixty being returned to the civil population as physically unfit. And although it may be objected that the flower of the British working classes do not offer themselves for enlistment, yet it is admittedly true that the British army is not composed exclusively, or, indeed, by any means largely, of British riff-raff. While many, perhaps a majority, of the applicants for enlistment are men out of work, a condition of temporary unemployment in Great Britain is by no means a certain indication of incompetency. No observer of present-day industrial conditions in England would claim this for a moment.

At any rate, this possible criticism of the shunning of the army by the better classes of young men can have no bearing in the case of the French and German conditions, where compulsory service obtains. In these countries

all the young men arriving at military age each year are liable to service, a certain proportion of them being chosen by lot to join the colors. The annual contingents, or 'classes,' are examined, man by man, by carefully chosen boards, to determine the physical fitness or unfitness for military service of all this youth of France and Germany.

As a result of these personal examinations, France has, for nearly one hundred years now, regularly rejected as physically unfit from 30 to 40 per cent of those examined each year. Prussia has rejected, for many years, from 35 to 50 per cent. (This is, of course, I should mention in passing, no basis of comparison between the male youth of France and that of Prussia, for any slight difference in the requirements as to height or bodily condition, or in the rigor of applying the recruiting regulations, would account for the differences in proportion of rejected.)

The point of all this that I have just written seems to me plainly to be that military selection occurs chiefly before the fighting ever begins, and results in the temporary or permanent removal from the general population of a special part of it, and the deliberate exposure of this part to death and disease; disease that may have a repercussive tendency on the welfare of the whole population to a possibly much greater degree than is apparent at first glance. And this part of the people, so removed and injured, is in quite a special way of great importance to the preservation of the racial integrity of the population. For in the first place it is composed exclusively of men, its removal thus tending to disturb the sex-equilibrium of the population, and to prevent normal and advantageous sexual selection. Next, these men are all of them both of the age of greatest life-expectancy after reaching maturity, and of greatest sexual vigor and fecundity. Finally, they are all men, none of whom fall below and most of whom exceed a certain desirable standard of physical vigor and freedom from infirmity and disease. And for each of these men so removed from the general population, at least one other man, falling below this standard, has been retained in the civil population.

The removal is effective even when the individuals are not all killed or injured, for during their time of service all these sturdy young men have no part in the racial propagation. And although after the required years of service they may, if returned alive, take up their part in this eugenic function, much of their value in this function has been lost, not only by inevitable preoccupation of their place for a certain number of years by inferior men, but, as I shall point out later, by a dangerous degeneration of many of them, while in service.

If one is inclined hastily to consider the number of men engaged in military service as so small as to be practically negligible in estimating the influences tending toward racial modification of a population, let him recall the fact that the French and German armies of to-day, on peace footings, number each more than half a million men in actual service. Germany's total by her new law, just going into effect, is more than 800,000. These numbers represent more than one per cent of the whole population of the two countries, and, which is more to the point, more than five per cent of each country's men between the ages of eighteen and thirty-five. France now takes annually into military service two out of three of all her young men arriving each year at military age. There have been, of course, times in her history when she has had to take all of these

young men who could possibly carry arms. Napoleon's grim remark apropos of the question of his personal riches, 'J'ai cent mille hommes de rente,' was the truth. And he lived up to his income.

Let him who is inclined to see in the removal of a selected five per cent of the men of reproducing age from a given population, no serious influence on the racial modification of that population, recall the fact of the increase by geometrical progression of the characteristics of any given type in the population; so that if one type starts with ever so slight an advantage in numbers, its preponderance over other types increases very swiftly. For example, Ammon has shown that if, of two types in a population, one has an average birth-rate of 3.3 and the other a birth-rate of but one tenth more, namely, 3.4, the second type will, in only twenty-three and one-half generations, be double the number of the other in the mixed population.

III

We may now ask if there is any direct evidence of the racially disadvantageous working of military selection. Seeck describes the difficulties experienced by the Roman Emperors in refilling their emptied armies with efficient Roman soldiers, because of the actual lack, after a long period of continuous war, of able-bodied citizen youth. Rome, in maintaining an army of about 350,000 men, required an annual recruitment of nearly half that number. The time came, however, when actually not more than 10,000 suitable men of Roman citizenship could be raised each year. Seeck finds the reason for this, not in actual reduction of numbers in the Empire, but in the race-deteriorating results of continued war through the removal from the population by military selection of its best male reproducing element.

Napoleon's difficulties in the later years of the wars of the Empire were the parallel of the earlier Roman conditions. In order to make his conscription net gather its necessary load of doomed men he first had to reduce, in 1799, the minimum height of conscripts fit for service, which had been established by Louis XIV in 1701 at 1624mm, and had remained unchanged for a century, to 1598mm (an inch lower). In 1804 he lowered it two inches further, namely, to 1544mm, a total of three inches below the original standard. It remained at this figure till the Restoration, when (1818) it was raised by one inch and a quarter, that is, to 1570mm. Napoleon had also to reduce the figure of minimum military age.

Guerrini has shown that the mortality of German children between three and five years of age, born in 1870 and 1871, was higher than the corresponding mortality of children born in 1869 and 1872. For Prussia, for example, the numbers per one hundred are: 1869, 31.51; 1870, 33.83; 1871, 35.12; 1872, 32.76.

The mortality tables of France show that there has been a steady decrease since 1800 in the death-rate of children under five years with the exception of one period. In the decade 1815–1824, immediately following the terrible man-draining wars of the Revolution and the Empire the annual death-rate of children under five was higher by one and one half per cent than in the highest other period.

But the most conspicuous and definite example, so far determined, of race-deterioration through rigorous military selection and race-reparation by reason of an amelioration of its rigor, is that of the fluctuation in the height of Frenchmen during the past century.

Not a few unconsidered and exaggerated statements, as well as a good many hasty or overdriven criticisms, have been made concerning this matter. But if my own statements regarding it seem too swiftly or positively formulated, because offered here without any accompanying critical examination of the data on which the statements are founded, they are, let me say, really based on a rather exhaustive and, I hope, impartial consideration of both data and criticisms. In some future fuller paper, perhaps, I can so expose the matter that each may come to his own conclusions.

The French government has kept, since the beginning of the last century, detailed figures of height and freedom from or presence of infirmities, in the case of all the conscripts examined by its army boards. From these figures (not all published but all available) can be determined the number of men accepted for service and the number of men rejected because of undersize or bodily infirmity, and therefore the varying proportion of physically unfit to physically fit men arriving at the age of twenty in the successive years of the century.

From these figures it may be stated with confidence that the average height of the men of France began notably to decrease with the coming of age, in 1813 and after, of the young men born in the years of the Revolutionary wars (1792–1802), and that it continued to decrease in the following years with the coming of age of the youths born during the wars of the Empire. Soon after the cessation of these terrible man-draining wars, for the maintenance of which a great part of the able-bodied male population of France had been withdrawn from their families and the duties of reproduction, and much of this part actually sacrificed, a new type of boys began to be born. These boys indeed had in them an inheritance of stature that carried them, by the time of their coming of age in the 1830's and 1840's, to a height one inch greater than that of the earlier generations born in war time. The average height of the annual conscription contingents born during the Napoleonic wars was about 1625mm; of those born after the wars it was about 1655mm.

This fluctuation in height of the young men of France produced, as an obvious result, a steady increase, and later decrease, in the numbers of conscripts exempted in successive years from military service because of undersize. Immediately after the Restoration, when the standard of minimum height was raised from 1544mm to 1570mm, certain French departments were quite unable to complete the number of men which they ought to furnish as young soldiers of sufficient height and vigor, according to the proportion of their population.

Running nearly parallel with the fluctuation in number of exemptions for undersize is the fluctuation in number of exemptions for infirmities. These exemptions increased by one third in twenty years. Exemptions for undersize and infirmities together nearly doubled in number. But the lessening again of the figure of exemptions for infirmities was not so easily accomplished as was that of the figure for undersize. The influence of the Napoleonic wars was felt by the nation, and revealed by its recruiting statistics, for a far longer time in its aspect of producing a racial deterioration as to vigor than in its aspect of producing a lessening of stature. And the importance in war, or in anything else, of vigor and capacity over size has been well shown us in late years by the Japanese.

There is probably no other such clear case of a race-deterioration caused by war which can be given such tangible

quantitative measure, as this French one. And yet the data from Saxony and Prussia, so far as studied, point strongly to a certain degree of positive result, even if one less conspicuous as to quantity and less susceptible of accurate determination. In Italy, Livi has gathered in his monumental *Anthropologia Militare* a host of statistics of Italian conditions, from which can be seen with fair clearness a quantitative race-deterioration in certain critical periods. I say this in the face of Livi's own conclusions which are on the whole opposed to the statement. His attention however is chiefly given to attempts to determine if a race-deteriorating influence of the Italian wars can be demonstrated in comparing certain departments of the country with each other. In this attempt he comes to negative results only.

The evidence regarding the results of the short but severe Franco-Prussian War of 1870–71 is going to be, when worked out in detail, of much interest. In France the results seem to be plain as to an increase in the classes of 1891–92 (twenty years later) of exemptions for undersize but not for infirmities. However, the whole subject is very complex. The possible race-modifying results of variations in crop conditions and general prosperity, in industrial changes and in emigration, and so forth, have to be kept ever in the investigator's mind. As also the apparent possibility always of an actual racial advantage from the selective influence of a short swift war which may go no further in its destructiveness than to weed out the weaker from the armies and to return fairly intact the stronger after only a short absence from home.

But with all the difficulties of clearing the statistics from extraneous modifications, there is available in the data of the recruiting records of the European countries actual basis for statistical proof and quantitative measure of the dysgenic or race-deteriorating influence of serious wars. There are tangible illustrations of the logical thesis of the biologist and student of human heredity: which is, simply, that the racial character of the next generation is inevitably influenced by any factor that increases or decreases the part played in race-propagation by any selected type of the population. If the removal of the taller men of the population by military conscription and military death decreases or inhibits their share in race-population, the stature of the next generation will be lessened. If these men are also the physically stronger, the less infirm, the nondefective, the proportion of weaker, infirm and defective in the next generation will be increased. The actual percentage of that increase can be declared wherever there are available sufficient statistics.

IV

But I have another aspect of the dysgenic influence of war to touch upon. It is an aspect that has especially attracted my interest recently, and one which does not seem to have been much emphasized before. It is the relation of war to human disease, and particularly to a special type of disease, whose results are, above all else, directly race-deteriorating in effect. I do not mean to say that the special danger from disease to men in military service has been overlooked by students of public hygiene or by the advocates of peace. I mean that no particular stress seems to have been put so far on the immediately race-degenerating influence of some of this disease. But first a few words as to the correlation of military service and disease in general.

In times of war, disease has always reaped a far greater harvest of deaths and permanent bodily breakdown in

the army than have the bullets and bayonets of battle. The twenty per cent of mortality by gun-fire in such bloody affairs as Austerlitz and Wagram, Moscow, Lützen, Magenta, Solferino, and Waterloo, was increased by disease in the same campaigns to the appalling proportion of 60 and even 70 per cent. In the terrible twenty-year stretch of the Napoleonic campaigns the British army had an average annual ratio of mortality from all causes of 56.21 per cent per 1000 men; the mortality from disease was 49.61 per 1000, leaving the direct losses from gun-fire to be only 7.60 per 1000. The British losses in the Crimea in two and one-half years were 3 per cent by gun-fire and 20 per cent by disease.

And this is the story of war from the earliest days even up to the very present. Fortunately, there has been a fairly steady decline in the relative figures of loss by disease as we read the story from past to present days. But there has occurred so far but a single radical exception to the general rule: this is, of course, the record of the Japanese armies in the Russo-Japanese war. Our own enlightened country lost, proportionately, many more soldiers in its last war, a few years ago, from groups that never got within sight of the enemy than from among those who had the opportunity of charging up San Juan Hill. And all these losses by disease in war times are, in proportion, it is needless to say, far in excess of the losses that occur at the same time in the civil population.

Even in times of peace, despite the fact that soldiers are cared for under conditions that should make disease among them more easily prevented and more easily controlled than in the case of the bulk of the civil population, and despite the fact that the men in military service have already passed a selective test, which weeded out from among them all individuals already tainted by obvious organic and constitutional disease, it has not been until the years of the present decade that the long-enduring rule of a higher mortality in time of peace in the military than in the civil population has been broken.

In the first decade after the Restoration, the mortality from disease in the French army at home was barely less than twice that among men of the same age in the civil population. In the middle of the last century the mortality among the armies on peace footing in France, Prussia, and England was almost exactly 50 per cent greater than among the civil population. When parts of the armies were serving abroad, especially if in the tropics, the mortality was greatly increased. For example, among the British troops serving abroad, outside of the tropics, the mortality was one third more than in the army at home; when serving in the tropics it was four times as great. Finally, in addition to all this actual high mortality among the military part of the population, a part specially selected for full stature, vigor, and freedom from infirmity, we must remember the constant invaliding home of the broken-down men to join the civil population. From the eugenic point of view this may be the most serious feature of disease in armies.

But the humane war against disease has made life safer for the soldier. In 1909 the mortality in the British army, both at home and abroad, was actually slightly less than that among men of the same age in England and Wales. Let us hope that it will continue so. Statistics collated in 1887 by Robert Lawson, inspector-general of British military hospitals, show that while from 1873 to 1894 there was always a greater proportion of deaths from phthisis in the army than among men of the same age in the civil population, — and how

suggestive this is, when we recall that the examining boards reject all obviously phthisis-tainted men from the recruits! — yet this proportion changed from nearly two to one in 1877 to three to two in 1884.

An interesting record, also, is that for typhoid fever in the French army, a record which has been carefully worked out by Dr. Brouardel for a special French commission on military hygiene. The mean annual strength of the French army in France, Algeria, and Tunis in the thirteen-year period, 1872–1884, was 413,493 men, with mean annual deaths from typhoid of 1,357, and mean annual cases 11,640, or one typhoid case to every 36 soldiers! Since the '70's and '80's, however, there has been a rapid lowering of both typhoid cases and deaths; the annual number of deaths per 10,000 men having been reduced from 32.1 in the five-year period, 1876–1880, to 8.7 in the five-year period, 1896–1900. And in 1901 there were but 5.7 deaths per 10,000. This result comes from the lessening of the number of cases and not from a lower proportion of deaths to cases, this ratio having remained at about 12 per cent from 1870 to 1900. The loss from typhoid is now no greater in the army than among the men of similar age in the civil population of France.

But the actual dysgenic importance of the diseases fostered and diffused by military service, though certainly real, is mostly hard to get at in any quantitative way. The problem of the inheritance of disease, or of the inheritance of the diathesis of disease, has only in the last few years begun to receive the scientific elucidation necessary to its proper consideration from the eugenic point of view. Concerning the congenital transmission and eugenic importance of one terrible disease, however, and one that more than any single other is characteristic of military service, there is no shadow of doubt. It is a disease communicable by husband to wife, by mother to children, and by children to their children. It is a disease that causes more suffering and disaster than phthisis or cancer. It is a disease accompanied by a dread cloud of other ills that it causes, such as paralysis, malformations, congenital blindness, idiocy and insanity, all of them particularly dysgenic in character. It is a disease that renders marriage an abomination and child-bearing a social danger. And as a crowning misfortune it does not kill but only ruins its victims. While phthisis and cancer carry off their subjects at the rate, in England to-day, of 1000 per year to each 1,000,000 of the population, syphilis kills but a small fraction of 1000 a year, —a number unfortunately indeterminate under the present confused methods of registration, but certainly not exceeding ten. It is then not a purifying, but altogether a contaminating disease.

I have called this disease (and with it I may include the two more common forms of venereal disease) a scourge fostered especially by militarism. It is the cause of more hospital admissions among soldiers than any other disease. It caused 31.8 per cent of the total military inefficiency in the British army in 1910. It was the cause of one fifth of all the military hospital admissions for that year, yet it caused but one one-hundredth of the total military deaths.

And it is only in very recent years that the scourge has been no worse than it is now. In 1895 the admissions to hospital for venereal disease in the British army in India reached the enormous proportion of 537 per 1000 men. I hasten to add that this frightful condition has been greatly ameliorated.

Nor is the British army by any means the greatest sufferer from the

scourge. The United States army has twice as many hospital admissions for this same cause. Russia has about as many as Great Britain, Austria and France less, and Germany least of all. Germany, indeed, has done much more to control the disease than any other great nation, unless it be Japan, for which I have been unable to get data.

As venereal disease is not included in the list of notifiable diseases in Great Britain, — it certainly ought to be, — it is impossible to state exactly its proportion of abundance in the civil population. But this fact is most suggestive: of the young men who offered themselves for enlistment in the British army in 1910, 31½ per 10,000 were rejected because of their contamination by venereal disease, while in the same year there were 1000 admissions into hospital for such infection per 10,000 men in the army. In other words, while the army recruiting boards discover in the civil population and reject back into it but 31½ men suffering from venereal disease per 10,000 examined, the army finds within itself a constant proportion of attainted men of many times that number. It is, indeed, a very breeding ground of the most dysgenic of human diseases.

The Germans, I have said, keep their army freer from disease than does any other nation, unless it be Japan. In fact it is from German sources particularly that come the claims that military service is, if not actually a eugenic agent, at least a euthenic one. That is, that it provides a special advantage to developing manhood in its compulsory exercise, enforced habits of discipline, unescapable stimulus to patriotism and general moral control. As a German general put it at the recent International Eugenics Congress, military service is not injurious to the body but healthful, and not depressing to mind and spirit but inspiring.

If this should be granted for Germany, or for any other country as advanced in medical science and as effectively ruled, what of the effects of actual war on this specially selected and zealously cared-for part of the population? Would not the sacrifice be only the more costly and injurious to the nation?

Despite all delusive phrases to the contrary, the maintenance of an army is a preparation for war and a step toward war and not toward peace. Do governments, or will they, maintain this blessing of military service for the health and eugenic advantage of the people? Is it not done solely from the stimulus of expected war? Is it not done solely with the full expectancy and deliberate intention of some time offering this particularly selected and cared-for part of the population to the exposure of wholesale mutilation and death; this death to come, if at all, before this extra-vigorous part of the population has taken its share in race-propagation, which is the precise function the performance of which the race most needs from it?

I simply cannot see the eugenic advantage of war. On the contrary, not only do I think I can see from the standpoint of the biologist and student of heredity a plausible, logical case for the dysgenic effect of war and military service, but I also believe that we have accessible, actual statistical proof of this deplorable effect. We have in figures a quantitative measure of the hereditary effect of military selection. It is a race-deteriorating effect; the kind of effect that above almost any other kind makes an obstacle in human evolutionary advance. The most economical and most positive factor in human progress is good breeding. Race-deterioration comes chiefly from its opposite, bad breeding. Militarism encourages bad breeding.