SOME HOPES OF A EUGENIST By R. A. FISHER, B.A.

BEFORE commencing the paper, which you have so kindly asked me to read, I should explain that, in its original form, it was read at the last annual meeting of the Cambridge University Eugenic Society in November of last year. Since that time much new light has been thrown upon the subject, and my conclusions have become in some respects much more definite. However, although the original point of view, to this extent, has become out of date, the original conclusions to which I had arrived, primarily by inductive methods, appear to be strengthened by finding themselves incorporated in a much wider deductive scheme. I had hoped neither to dogmatise, nor to expound a rigid theory, but rather to express some measure of a great hope, which has been growing in me for the last few years.

From the moment that we grasp, firmly and completely, Darwin's theory of evolution, we begin to realise that we have obtained not merely a description of the past, or an explanation of the present, but a veritable key of the future; and this consideration becomes the more forcibly impressed upon us the more thoroughly we apply the doctrine; the more clearly we see that not only the organisation and structure of the body, and the cruder physical impulses, but that the whole constitution of our ethical and aesthetic nature, all the refinements of beauty, all the delicacy of our sense of beauty, our moral instincts of obedience and compassion, pity or indignation, our moments of religious awe, or mystical penetration—all have their biological significance, all (from the biological point of view) exist in virtue of their biological significance.

When men were first assured that there were reasons for believing that their ancestors of a certain period would be classified as apes, they appear to have been, for the most part, either shocked or amused. It has taken a long while for the extreme optimism of the view to manifest itself. Yet the optimism is very necessary and obvious. "What to man is the ape," says Zarathustra, " a joke, and a sore shame; so shall man be to Beyond Man, a joke, and a sore shame." We can set no limit to human potentialities; all that is best in man can be bettered; it is not a question merely of producing a highly efficient industrial machine, or a paragon of the negative virtues, but of quickening all the distinctively human features, all that is best in men, all the different qualities, some obvious, some infinitely subtle, which we recognise as humanly excellent.

But Darwinism is not content to reveal the possible, perhaps the necessary, destiny of our race; in this case the method is as clear as the ideal; the best are to become better by survival. It is in this that we differ from less biological Utopia seekers; humanity has never been poor in desires, in hopes or in dreams, it is the ways and means, the concrete results that are so sorely inadequate; eugenics comes at appropriate time, when our civilisation is already sadly acknowledging that the great bar to progress lies in human imperfection; for the first time it is made possible that humanity itself may improve as rapidly as its environment. The supposed conflict between heredity and environment is quite superficial; the two are connected by double ties: first that the surest and probably the quickest way to improve environment is to secure a sound stock; and secondly that, for the eugenist, the best environment is that which effects the most rapid racial improvement. The ordinary social reformer sets out with a belief that no environment can be too good for humanity; it is without contradicting this, that the eugenist may add that man can never be too good for his environment.

Eugenics is not inherently associated with nationalism; but in the world of nations, as we see it, nationalism may perform a valuable eugenic function. The modern nation is a genetic, a territorial, and an economic organism, and the modern tendency is to emphasise its essential unity, the community of interests of its individual members; European nations are grouping themselves along ethnic lines, and the individual finds himself more and more closely engaged in serving the greater interests of his race; in supporting the three great factors of a nation's material

prosperity, population, available wealth, and fighting strength. More and more also does the fortune of the individual depend upon that of his country. More and more universally is he supplied with education, with employment, with medical attendance, organised and supplied by the State. More fully does he come to rely for his prosperity on the success of his nation in diplomacy or in war. The widespread, fruitful, and successful races of the future belong to the dominant nations of to-day; and nations are rendered dominant principally by the loyalty, enterprise and co-operative ability of the people who compose them. In particular, the overmastering condition of ultimate predominance is nothing else than successful eugenics; the nations whose institutions, laws, traditions and ideals, tend most to the production of better and fitter men and women, will quite naturally and inevitably supplant, first those whose organisation tends to breed decadence, and later those who, though naturally healthy, still fail to see the importance of specifically eugenic ideas.

At the present time in this country the evidence appears to be conclusive that we are breeding more from the worse than from the better stocks; owing to the complex circumstances of the case, the comparison cannot be made directly; society is not stratified eugenically, and it is often objected that wealth is a bad criterion of eugenic worth; but as a matter of fact, society is not stratified financially. Even if it were, there would no doubt be quite a substantial correlation between capacity and means; as it is, we have rather a better criterion in the relative birth-rates of different classes. irrespective of wealth. The socially lower classes have a birth-rate, or, to speak more exactly, a survival rate, greatly in excess of those who are, on the whole, distinctly their eugenic superiors. It is to investigate the cause and cure of this phenomenon that the eugenic society should devote its best efforts. I shall not speak of the evils arising from a short-sighted social reform; social reform will, in time, reform itself; I would rather call attention to some of the more obvious factors in the low birth-rates of those classes in which most of the ability and worth of our nation is concentrated.

First, it is evident that a man with a taste for comfort and a mild ambition has every reason for not marrying young; he will be more welcome socially while he is a bachelor, he will have more money to spare, he will, I believe, find it more easy to obtain appointments. Secondly, when married, this same natural selfishness, tempered perhaps by solicitude for his children, gives him good reasons against having a large family. There is nothing new in all this; it was, no doubt, equally true in early Egypt, and in every civilisation since; it has the very beneficial effect, that selfish people tend to die out. The chief difficulty at the present time seems to be that wealth counts for so much. The mere possession of wealth, as opposed to other qualities, seems to have more influence than usual in determining social position. We have done our best, in the name of Justice, to replace an aristocracy of birth by an aristocracy of wealth; and hence arises the enormous economic waste of "keeping up a position." People indulge in luxuries, not because they feel a need for them, but in order to maintain themselves socially. And what is more, they make a very good investment; it is a cheap price to pay for the company of pleasant people; the pity is that so universal a tax should serve no useful purpose.

What appears to be the underlying principle in the decadence of civilized races has been revealed in an article by Mr. J. A. Cobb, which appeared in the EUGENICS REVIEW last January; an article which, if my faith in it is justified, must be regarded as containing the greatest addition to our eugenic knowledge since the work of Galton.

Mr. Cobb points out that in any society which is so organised that members of small families enjoy a social advantage over members of large ones, the qualities of all kinds, physical, mental, and moral which go to make up what may be called "resultant sterility" tend, other things being equal, to rise steadily in the social scale; so that in such a society, the highest social strata, containing the finest representatives of ability, beauty, and taste which the nation can provide, will have, apart from individual inducements, the smallest proportion of descendants; and this dysgenic effect of social selection will extend

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throughout every class in which any degree of resultant sterility provides a social advantage.

It is this principle, vital in its importance and almost universal in its application, which explains to us why civilizations in the past, with one notable exception, and especially urban civilisations, in which the value of wealth is greatly accentuated, have ultimately collapsed owing to the decay of the ruling classes to which they owed their greatness and brilliance. And it is this principle which must underlie the reconstruction of our own civilisation if it is not to share the fate of those which have preceded it.

From the individual point of view our duty is, I think, clear; like all healthy philosophies, eugenics urges us to simplify our lives, and to simplify our needs; the only luxury worth having is that of a worthy human environment. We must be ready to sacrifice social success, at the call of nobler instincts. And, even as regards happiness, has any better way of life been found than to combine high endeavour with good fellowship? We require a new pride of birth, in that whatever valuable quality we show really goes to establish the quality of the family; and a new confidence in our instinctive judgments of human worth. As the Dean of St. Paul's says, "We need a new tradition of nobility." For suppose that society were being regenerated from above, and dying off at the bottom, there would not only be a steady improvement of the whole race, but another effect would be noticeable.

The children of each class would, on the whole, occupy a slightly lower class than their parents; each class would be successively filled, not only by men of better natural ability, but by men of better education and of nobler traditions. Wealth, culture, and political power would spread naturally from above. At present it is no exaggeration to say that half our literature and drama is devoted to the education of people who have risen socially; I pay all honour to those who have established themselves by their efforts; but so long as society suffers decay at the top, so long must every class be vulgarised from below,

¹ The Nordic civilization of the 10th century, in which the ruling classes had very large families, and as we should expect from Cobb's principle, it seems to have been a very material social advantage to have many near relations.

Among these circumstances a progressive culture is impossible. It is strange to think of the destiny of this and other eugenic throughout the country. We do not dub ourselves knights of a new order. But necessarily, inevitably, it might be unconsciously, we are the agents of a new phase of evolution, Eugenists will, on the whole, marry better than other people, - higher ability, richer health, greater beauty, They will, on the whole, have more children than other people. Their biological type, characterised by their solicitude for human betterment, their scientific insight, above all their intense appreciation of human excellence, has a strong tendency to improve and to survive. Many will fail; many will forget; that is how we shall become more steadfast and more successful. And those that remain, an ever increasing number, absorbing more and more the best qualities of our race, will become fitted to spread abroad, not by precept only, but by example, the doctrine of a new, natural nobility of worth and birth.

There appears to be one other respect, besides that of the exaggerated importance of wealth, in which modern life offers us a very special problem. Briefly, the problem of specialisation. This is not essentially a eugenic problem, though the solution, if there be one, must lie in eugenics. Wherever we find different organisms in cooperation, there we find a division of labour; and, in general, specialisation in one faculty is accompanied by the degradation of others. Now, civilised society has established a system of cooperation, more extensive and more intricate, than any which exists between other animals, even between ants. It is perfectly consistent with eugenics to advocate either of two views: a sufficiently skilful system of breeding would produce either a complete generalised man, or a society of men with very different, highly specialised cooperative abilities. But to those of us to whom the thought of a man with one inordinate faculty is unbearably repulsive, there is presented a dilemma. Either men must conform to utilitarian needs, and become totally specialised, while our community becomes efficient, highly organised, and successful; or we must impair the efficiency of our community by setting a permanent bar to any very complete cooperation. It will,

however, be of assistance, if we recognise that specialisation is of several quite different sorts.

First, we may distinguish between the co-operation of different genetic types, or of incipient varieties, and that between members of the same race. Grossly to exaggerate the distinction we might compare the first to the co-operation between fungus and alga which forms a lichen; and the latter to that between bees in a hive. In the latter case we must distinguish between differentiation due to a natural polymorphism of the type, and differentiation due to the versatility of the individual; finally we must divide the actual versatility of a man who can turn his hand to many purposes, from the potential versatility of a child who is capable, with suitable education, of attaining any one of a number of different kinds of ability.

It is only in the first of these four cases, where differentiation is due to an actual difference of genetic type, that the differential birth-rate has any effect; and I imagine that this case explains the great bulk of human diversity. Yet the other kinds of specialisation no doubt exist, and may be of value, in allowing a differential birth-rate without any modification of the innate qualities of the population. It is just possible that such cases may be of great national significance. Suppose, for example, that a group of distinguished families possess potential or actual versatility to the extent of being able successfully to fill the role, either of a landed gentleman administering his estates, or of a soldier. A is the eldest son, and stays at home; his brother B goes to the wars; then so long as A has some eight children, it does not matter, genetically, if B gets killed, or dies childless, there will be nephews to fill his place.

We are as far as ever from any ultimate solution of the specialisation problem; but I would like to suggest, that, for the moment, the problem is not too acute to be met by a greatly increased versatility—if possible actual adult versatility. So that not only in youth, but throughout life, we may retain full sympathy for our fellow men.