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Differential Fertility and Family Allowances*

THE Registrar-General is a maker of castes: he divides his people into classes according to the social status of the occupations which they follow but his classes are to be distinguished also by differences in wealth, in culture, and in reproductivity. It is this differential reproductive rate that alarms the eugenist.

The number of children per married couple represents the contribution of a social or occupational class to the next generation, and this contribution differs very markedly from class to class as one passes in review from the teachers on towards the occupational class of the general labourer. It matters not whether one uses the yard-stick of social status, of wealth, or of culture, one finds that, on the average, the most socially eminent, the wealthiest, and the most cultured classes exhibit a much lower reproductive rate than do the socially submerged, the poor, and the uneducated.

The relative reproductivity of the different classes will be determined by differences amongst them in the birth-rate, which is a true reflection of the operation of all those agencies which raise or reduce fecundity, which condition the frequency of mating, which render fertilisation more or less certain, and which influence the viability of the embryo and foetus. In this connexion, therefore, the birth-rate, the abortion-rate, the infantile mortality-rate, the marriage-rate, and the age at marriage all have to be considered. But since it has been shown that differences in the amount of marriage and in infantile mortality (so far as contributions to the next generation are concerned) are not so important as are differences in the birth-rate itself, and further, that differences in the number of children born to married women irrespective of age are of more importance than are differences in age at marriage, it is possible to disregard all else but differences in the actual birth-rate, and to seek reasons other than the marriage-rate and the age at marriage in order to explain the fact that, on the average, the wealthy, the cultured, and the socially eminent make distinctly smaller contributions to the next generation than do their opposites.

A social class can continue only through reproduction or else through reinforcement from without. So long as the State continues to regard the middle-class as a desirable constituent of its population, so long must parentage on the part of its members be

* The Social Selection of Human Fertility: the Herbert Spencer Lecture delivered at Oxford, 8 June 1932. By Dr. R. A. Fisher. Pp. 32. (Oxford: Clarendon Press; London: Oxford University Press, 1932.) 2s. net.

regarded as a social service. It appears, however, that the supply of children by this middle-class (which constitutes some 10-15 per cent of the total population) is sufficient only to replace one-half of the present parental generation. It is the case that the class is being reinforced continually by such as ascend to it from the less affluent social strata, but it has not yet been shown that the calibre of these reinforcements equals that of those whose company they join. It can be argued that the middle-class is the product of a very intensive selective process, that it created itself during the eighteenth and nineteenth centuries, its families usually having had their origin in individuals who wrenched themselves free from some harsh environment and gained social promotion in their own time through the exhibition of their own talents. It would seem that such as could exhibit abundant enterprise, thrift, and foresight were able, in those days, to attain a certain level of affluence, and that these were the founders of the middle-class.

This class is only worth saving if the qualities which distinguish it are socially desirable and are in any degree the peculiar true-breeding properties of the class. It is by no means improbable that this class has, through selection, come to be somewhat differentiated in certain respects from the general body of the population from which it sprang and from which it is recruited. Possibly it is not without significance that the children of this class are to be distinguished from those of others by differences in the intelligence quotient. Furthermore, though one should be accused of bias, it is possible to hold the view that in respect of perseverance, of ambition, of æsthetic taste, of grasp of moral principle—the very qualities that make for good citizenship—this class and its members are exceptionally well endowed.

If this be so, then it would seem that through a low reproductive rate the spread of these qualities is becoming more and more restricted with each successive generation. In this there is furnished a major problem awaiting the attention of the serious statesman. The problem would seem to be that of dissociating a low reproductive rate on one hand and the estimable qualities that make for good citizenship on the other. At the present time, and in the existing social system, it is an obvious fact, recognised by all, that it is a distinct advantage to the individual so to choose his parents that he is either an only child or else one of two; for in these circumstances he can expect to be better tended, better educated, and secure a better financial launching into some chosen competitive professional

career, and thus more quickly obtain that social promotion which is so universally desired than can one of a family of five to ten. To choose parents of low fertility is to choose not only one's parents but also one's environment—plentiful food, ample shelter, rest, and attractive recreation.

Infertility has an economic value, and social promotion is favoured by a low reproductive rate. In all ranks of society, infertility, whether pathological in its causes or the result of deliberate voluntary choice, endows its possessor with definite social advantages. The question to be asked and answered is this: Is relative infertility a cause of social success, or is it a consequence? Must one be sterile to be socially successful, or does success bring sterility in its train? Dr. R. A. Fisher, in the Herbert Spencer Lecture recently delivered at Oxford, deals with this question. The subject of his lecture was "The Social Selection of Human Fertility", and it is an attempt to create a substructure for eugenic optimism out of the genetics of populations. He presupposes that the qualities which have made for success within the social organisation that has existed during the last two hundred years in Great Britain are genetic, and is of the opinion that social promotion is gained through the expression of characters which make for useful citizenship. He makes out a very strong case for the adoption by the State of a system of family allowances. It is shown that such a system provides no economic motive either for having children or for refraining from having them, but that it merely abolishes the economic bonus for childlessness and permits parents to regulate their reproductive rates.

It is not generally recognised that a family endowment system already exists in Great Britain, but that the allowances are paid only to children of the unemployed and to those who are in receipt of poor relief. It is the case that a man with a sufficiently large family in certain of the occupational groups is actually better off when unemployed than when in employment. It is indeed provocative of thought to note that if two couples are compared, one of them childless and the other with four children, but both receiving the same income for equivalent social services, their effective incomes available for personal expenditure and savings stand in the ratio of 3:2, the childless couple receiving a bonus amounting to one-third of their income in consequence of not having four children.

Dr. Fisher improves upon the cry of 'equal pay for equal work', for he advocates an equal standard of living for equal work. He claims that a wage including family allowances sufficient to meet the

entire cost of children would secure this end and would cut out the heavy bonus for childlessness which is an outstanding feature of the present system. In this lecture the details of accountancy which the institution of such a system would demand are not discussed, but Dr. Fisher advocates that in general the allowance payable to parents in each social grade should be proportional to the basic salary in that grade—that is to say, that the allowance should be equivalent to the actual cost in expenditure and savings incurred on the average on behalf of each child in the group.

Brief reference is made to the system of family allowances which was instituted after the War by a group of French industrialists and which is now extended to include all the wage-earning classes throughout the country. In Great Britain, the beginnings of such a scheme are seen in the establishment by Sir William Beveridge of a system of family allowances for the teaching staff of the London School of Economics. In the University of Edinburgh, parentage is made less of a burden by the fact that the children of the staff are excused class fees.

Dr. Fisher possesses all the qualifications of the really good propagandist. If he wears a professional label, it is that of the statistician; if he has a hobby, it is biology. He is a propagandist in human biology and rides his hobby in a most attractive fashion. His blandness is really dangerous; nothing is easier than to accept his views without question. However, his persuasiveness is not greater than his knowledge. If there be an alternative to this simple, lucid, concise suggestion, then it must undoubtedly come from a skilled economist who is also a confirmed bachelor.

If, as Dr. Fisher implicitly states, a system of family allowances encourages a rise in the reproductive rate, then much of the infertility of the middle-class can be nothing more than unexploited fertility—that is to say, middle-class parents could readily have more children if they should so choose. This controlled fertility may result from the habitual use of contraceptives, or, as seems more probable, it may be due to the fact that in this class the frequency of sexual intercourse is relatively low. It appears that a child that is not a burden is quickly conceived. If this is the case, if, in the opinion of the State, a higher reproductive rate on the part of the middle-class is to be desired, then it may well be that if and when prosperity returns the deduction from the salaries of civil servants and others which were recently made will not be restored, but instead a system of family allowances will be instituted.

It has to be recognised that the efforts of the many who wish to correct what they regard as the evils of the differential birth-rate by endeavouring, through an appeal to idealism, to induce others of their own group to beget larger families have not met, and will not meet, with any discernible success. It is quite useless offering the alternatives of the present comfort of the reproducers on one hand and the indefinitely future welfare of society in general on the other. This latter appeal possesses no strength.

It was true, and possibly is still true, that a man may be so moved by his idealism as to be willing to die for his country, but it is not to be expected that he will be equally willing to procreate in her service until he has been convinced that his children will enjoy the advantages that have meant so much to him. Economic security means more to the average man of the middle-class than does the decline of the Empire or the suicide of the race.

A Synthesis of Medieval Science

Introduction to the History of Science. By George Sarton. Vol. 2: *From Rabbi ben Ezra to Roger Bacon.* (Carnegie Institution of Washington, Publication 376.) Part I. Pp. xxxvi + 480. Part 2. Pp. xvi + 481-1251. (Baltimore, Md.: The Williams and Wilkins Co., 1931.) 12 dollars.

THE first volume of Dr. Sarton's "Introduction to the History of Science", already reviewed in NATURE, was universally and deservedly acclaimed as a major contribution to our knowledge of the growth of civilisation. The second volume, which follows after a brief interval of four years, covers the twelfth and thirteenth centuries—or, as Dr. Sarton puts it, the period from Rabbi ben Ezra, "one of the greatest Biblical commentators of the Middle Ages", to Roger Bacon, the *Doctor Mirabilis*. There is probably no single scholar competent to subject the book to a thorough and authoritative critical analysis, but the general verdict can scarcely be other than that the author has fully maintained, and, indeed, in several notable respects, surpassed, the high and exacting standard he set himself in the first part of the work. One finds it difficult to decide whether Dr. Sarton is more to be praised for his courage in attempting so stupendous a task, or for his unflagging determination in carrying it to so successful a conclusion; it is at least certain that no future historian of science, of learning as a whole, or of civilisation itself, will consider his library adequately equipped unless a copy of Sarton is within arm's reach.