

# THE EUGENICS REVIEW.

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## Some Birth Rate Problems.

By MAJOR LEONARD DARWIN, Sc.D.

### 1. Is there a growing correlation between efficiency and infertility?

The war has turned the attention of many to questions connected with population, and although the essential problems remain unaltered, this seems in consequence to be a suitable occasion for considering what should be the attitude of eugenists towards certain birth rate problems. Even if the necessity for reducing the birth rate of the less fit, and for increasing the fertility of the more fit, be accepted as the basis of the eugenic creed, it will be difficult for several reasons to include within the compass of one address even an outline of all the points which ought to be considered before sound judgments can be formed on the questions to be discussed. In the first place many of the topics necessarily touched on are of a highly controversial character, and in regard to a few of them I fear I may not hold opinions identical with those entertained by some of my colleagues on whose judgments I place great reliance. Then, again, there are certain less obvious influences at work, tending very slowly to affect the population of civilised countries both as regards quality and quantity, which must not be overlooked. Lastly, in any such discussion it is necessary to include topics outside the scope of pure eugenics; because we are often faced with the difficult task of weighing in the balance the immediate social and economic benefits arising from certain causes against the probability of deterioration in the racial qualities of the nation slowly taking place as the result of the same causes. In fact my address must be regarded rather as being intended to initiate a discussion than as an indication of finally settled opinions.

One of the more complex and disputable slowly arising effects of modern conditions, which has to be considered, is that held to be due to the fact that in any social system, where competition is not wholly excluded, it must always be easier to attend to the interests of the members of a small family than to those of a larger one.\* As compared with the children belonging to large families, those belonging to small families will be likely to receive a better education and in many other ways to get a better start in life, with the result that they will on the average rise higher in the scale of society as graded by the incomes

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\*Many will hold that it is advantageous to belong to a large family. See *Problems of Population and Parenthood*, Chapman & Hall, 1920, pp. 395-396. But the problem of the relative advantages to children whilst remaining in the same social grade as their parents is not the same as the problem of the *probability* of their moving out of it one way or the other.

earned. But the size of the family depends, amongst other things, on the inborn qualities of the parents, that is on the qualities which obey the laws of natural inheritance. The children belonging to small families thus sorted out into the better paid ranks will, therefore, in a measure inherit certain natural qualities which will tend to promote the appearance of small families amongst their descendants; qualities which include both physiological infertility and those temperaments which favour either late marriage or voluntary limitation after marriage. In fact, the possession of heritable qualities resulting in a low rate of multiplication and the receipt of high pay or wages may be expected to become slowly more and more closely correlated. At the same time, but without any reference to the size of the family, it has been suggested that the more efficient members of society will be continually winning their way to the front; and as their greater efficiency must be due in some degree to certain heritable natural qualities, it follows that these natural qualities will in like manner be passed on to some extent to their descendants. Hence the conclusion arrived at is that greater natural efficiency will also come to be associated in some measure with higher pay or wages. This latter association, it may be remarked, is likely to be reinforced by the greater power of selection in marriage possessed by the well-to-do as compared with the poor.\* Now as most marriages take place within the same economic social grade, it follows from these premises that the well-paid and naturally efficient will continually keep mating with the well-paid and naturally infertile; and that, by the mingling of these two streams, natural efficiency will as the generations succeed each other come to be slowly but increasingly correlated with natural infertility.†

If a theoretical study of the causes now at work in our midst leads us, as above suggested, to believe in the existence now or in future of this disastrous correlation between natural efficiency and natural infertility, it behoves us to enquire whether facts conform with or refute this belief. In any such enquiry as to existing conditions, many difficulties have to be faced, too numerous here to be considered. Unquestionably the well-to-do now have smaller families than the poor; but in my opinion this is certainly in a measure due to their greater wealth placing within their reach more of the pleasures and interests which compete with marriage and parenthood in attractiveness, and which, therefore, tend to reduce the size of families by promoting both late marriages and voluntary birth limitation after marriage. It is, however, impossible to prove that the relative infertility of the better paid is entirely due to this or any other environmental effect; and facts do not forbid us to believe it is in part due to their being endowed to a greater extent with those hereditary qualities mentioned above as favouring the appearance of small families.

\*In times gone by the death rate was higher all round; and this higher death rate, by having more effectively weeded out the same inferior types among the poor than among the rich, may have reversed this effect, and have thus tended to correlate poverty and natural efficiency. The more rigid the barrier between classes the more probable would have been this result.

†See article by J. A. Cobb in "The Eugenics Review," January, 1913, Vol. IV., No. 4, p. 379.

When it is remembered that any increase in the facilities for interchange between the classes, however desirable it may be, must tend to increase those selective effects which are due to the advantages possessed by small families, it must be admitted that, even without the support of existing facts, students of heredity are justified in having grave fears that efficiency and infertility will come to be correlated in the future.\*

## 2. Complete equality of opportunity cannot be advocated as a remedy.

Those who do entertain any such fears will be led to consider the advisability of devising some means of preventing this undesirable correlation from arising or increasing; and as the origin of the trouble would be due to the advantages now possessed by small families, obviously a cure could be found by putting all young people on an equal footing in regard to such advantages. There is, moreover, another eugenic argument in favour of such an even start in life for all, and that is that if all the differences in environment were to be removed, differences in success in life would obviously then entirely depend on differences in inborn qualities. Under these conditions there would be far less difficulty in recognising the racial advantages which would result from measures tending either to check the multiplication of those whose careers had proved them to be undesirable as citizens or to increase the multiplication of the stocks proved by attainments to be innately superior. It will be seen, however, on examination that to attempt to introduce any such absolute equality of opportunity would be a policy to be condemned, not only on racial grounds, but also because of its more immediate social effects.

Dealing with these non-eugenic considerations in the first place, the policy of an even start in life would involve all children being removed at birth from their homes; for parental care is of immense value, and the fewer the children in a family, the more time could the parents devote to each one of them. In spite of Plato's advocacy of this proposal, it must be dismissed, both as being utterly repugnant to mankind, and as being likely to produce disastrous social consequences. For practical purposes it is more important to note that to give all children an even start in life in every respect would involve all being placed on an equality in regard to financial conditions. But if no parents were to be permitted to spend more on any one child than is expended by the parents of the largest and poorest families on any one of their children, then the State would have to step in and to cover practically the whole cost of maintenance of every child, including house rent beyond that paid by the childless. In fact, every economic check on an increase in the population would have to be removed. Now it is certain that economic conditions do affect the birth rate to a considerable extent; but how great would be the effect in existing cir-

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\*Dr. Stevenson's paper in the Journal of the Royal Statistical Society for May, 1920, should be studied in connection with this subject; for he there gives reason for believing that even as late as about 1880 there was comparatively little difference in fertility between the classes,

cumstances of the removal of every financial brake on over-population it is impossible to foretell.

In considering the effects of any growth of the population, it is important to realise that even a moderate continuous increase of numbers would in all probability lead to a lowering of the standards of life, as I have endeavoured to prove elsewhere.\* This conclusion is based on the fact that the state of our civilisation depends in a measure on the ease with which the necessaries of life can be produced; a fact most easily realized by imagining what would occur if all our energies had to be expended on the production of food, and by noting that we should then of necessity have to lapse back to a state of naked savagery. The things needed for self-improvement and a higher life nearly all require time both for their creation and for their utilization, and the greater the amount of time set free for such needs, the nearer could human beings attain to their ideals. It follows that as soon as the production of food reaches the stage known as that of diminishing returns, that is as soon as any additional workers employed on the land would find it harder than the existing population to win the necessaries of life, then any further increase in the population would tend to lower the civilization of the nation as a whole. This deteriorating tendency might no doubt be overcome for a time by the impetus of an existing movement towards higher things, but such a counteracting influence could not for ever stop the commencement of a downward movement. And as most authorities agree that, taking the world as a whole, agriculture has now reached or is nearly approaching the condition of diminishing returns, does it not follow that any continuous increase in the population would sooner or later result in a lowering of the standards of life?

Though we cannot exactly foretell the consequences of a further adoption of the policy of an even start in life, it seems to me certain that if fully adopted it would produce very harmful social results through over-population. As there always has been and always will be a widespread and praiseworthy desire to help all young children, this will ever lead to a demand for the removal of all those financial strains falling on parents which result from a proper care of the children. These demands will generally be made without it being perceived that these financial burdens on parents constitute the most effective existing check on fertility, and in ignorance of the harmful consequences which their removal would probably produce by increasing the distress due to over-population. If a personal opinion on a matter not eugenic may be permitted, no material advance in the civilisation of the masses in India will be possible as long as their numbers continue to increase at the present rate; the troubles of Ireland have been in no small measure due to the difficulty of finding work for additional hands; and in the past the desire for expansion because of an increasing population has been one of the main underlying causes of war.

It is, therefore, of the highest importance that statesmen should realise not only the dangers likely to result from the lessening of

these or other safeguards against over-population, but also that their continued maintenance should be regarded by all who care for the future welfare of their nation as being amongst the most important of all social problems, and as likely to become more important with every growth of democratic sentiment.

#### 8. Birth limitation as a check on population has had serious dysgenic effects.

As to the possible checks on over-population, our attention is naturally first directed to voluntary birth limitation. In discussing this subject I do not propose on this occasion to consider the methods used, except to say that abstinence in marriage must be included amongst them.\* Nor do I intend to deal with the moral questions involved, though they are of the highest importance, for time makes it necessary for me to limit myself to a consideration of the racial effects of these practices. As these anticipated effects would result from changes produced in the birth rate, it may be as well first to note that a knowledge of the possibility of birth limitation might make some persons more willing to marry by lessening the fear of all the many troubles connected with the bringing up of a *large* family. Any increase in the practise of birth limitation might, therefore, result in an increase in the marriage rate of persons who are capable of taking thought for the future and who prefer a small family to either no family or a large one; and in this way it might increase the birth rate of a part of the population endowed with good natural qualities. The resulting additional births would, however, we may be sure, be more than counterbalanced by the decrease in the number of births resulting from this assumed spread of the knowledge of the methods of birth limitation; for birth limitation seems always to have reduced the total birth rate in the past. All that can be said is that we here find a cause tending somewhat to lessen the dysgenic effects of birth limitation about to be considered.

The enquiry which we have to make with regard to birth limitation is not only whether it would place an adequate check on fertility, but also whether that check would be in other respects beneficial or harmful. As to the first of these questions, the low birth rate in France appears to indicate that birth limitation can under modern conditions prevent any increase whatever in the population, and if numbers only are to be held in view, its adequacy as a brake on over-population might often be sufficient. But there is much evidence to prove that during the last half century or so the inferior types, especially those inferior in moral and mental qualities, have been multiplying more quickly than, for example, the skilled mechanic and the hard-working professional man. Many considerations point to the conclusion, moreover, that the more widespread adoption of the practice of birth limitation amongst those more highly remunerated has been the main cause of the greater decline in their birth rate. It follows that if certain hereditary qualities do give any assistance whatever to men

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\*Though medical questions are not here dealt with, due weight must of course be attached to any risks of immediate injury to health.

in winning higher wages or salaries—which can hardly be denied—and if these qualities are held to be on the whole beneficial to mankind, then birth limitation, by having relatively lessened the multiplication of the stocks possessing these good qualities, must have had a dysgenic influence; and the students of Galton's works, who realize how great is the influence of inborn characters, will hold that its influence may have been thus far highly dysgenic.

Looking to the future we have, therefore, to consider whether these harmful effects of birth limitation can be in any way obviated. It has often been suggested that it is merely ignorance of the methods which makes some classes of the community practise limitation less than others, and that all that is needed is a wider extension of this knowledge. It would, no doubt, be possible to lessen the difference between the birth rate of the more and that of the less fit by inducing the inferior types to adopt birth limitation to a greater extent than at present, and consequently to make these practices less dysgenic than they are now. But the well paid limit their families more than do the ill paid because certain pleasures and aspirations rendered possible by wealth are more open to them, and because many of these attractions do act as rivals to parenthood. And as no propaganda in favour of birth limitation could directly affect the distribution of wealth, no such propaganda could prevent differences in birth limitation and, consequently, in the birth rate. Granted that there is a correlation between the rate of remuneration and natural efficiency, it follows that a general campaign in favour of birth limitation could not put an end to the dysgenic influence of the differential birth rate in so far as it was due to differences in wealth. It will, moreover, be seen in the next section that a natural aptitude for taking thought for the future, as well as certain other on the whole desirable natural qualities, do promote the practice of birth limitation; and here again, as no general advocacy of birth limitation could immediately affect these natural qualities, no such all round propaganda could affect the differences in the birth rate of different sections of the community in so far as due to differences in natural qualities. In fact as long as differences in certain natural qualities and in wealth exist between the different classes of the community, so long will the practice of birth limitation be in danger of having a dysgenic influence.

#### 4. If birth limitation cannot be abolished, should it be utilized to lessen the fertility of the less fit ?

If birth limitation is certain always to exercise a dysgenic influence, ought not we, therefore, to try to wholly abolish these practices? There are certain forms of birth limitation, including abstinence after marriage, to which no one raises any objections on moral grounds; but as they require great self control, and are, therefore, for that reason, likely to be practised more by the fit than by the unfit, they are especially dysgenic in their effects on posterity. To prevent all the harmful racial effects of birth limitation by their abandonment, every method must be abandoned. Then, again, when we remember all the solid arguments in favour of birth limitation, based on the widespread poverty and misery now so often seen in large families,

which could thus be greatly mitigated; and that these practices have always existed to some extent; we must, I think, conclude that it would be vain to look forward to a time when they could be wholly abolished or even greatly lessened. This may be no argument in their favour, but it is a conclusion which must not be entirely overlooked.

Another consideration which has to be taken into account is that there are some reasons to believe that birth limitation has lately been spreading downwards, and that consequently it has in recent years been relatively more practised by the less fit than was the case some thirty or forty years ago. If this be true, it would follow that if a campaign against these practises were to have the effect of reversing the history of the last half century, its first effects would be dysgenic. Such a campaign would have to get beyond this first stage, and the present excess of the practice of birth limitation by the more fit over and above the practice by the less fit would have to be actually reduced, before this propaganda could begin to have eugenic effects. Thus, whilst an attempt to shut the door against all limitation would certainly fail, an unsuccessful attempt in that direction might at first do more harm than good as regards racial effects.

It is, as has already been remarked, impossible to estimate the effect of an entire abolition of the practice of birth limitation on the rate of multiplication of the people; for we cannot judge what changes would thus be produced in the birth rate, the death rate, the marriage rate, or the age at marriage. Though birth limitation was doubtless to some extent practised in 1875, the birth rate of that year was 11.3 per 1000 greater than that of 1918, and this fact alone is perhaps sufficient to indicate that a great decrease in voluntary birth limitation—probably the chief cause of this diminution in fertility—if combined with a further relaxation of the financial checks on fertility\* would greatly increase the birth rate, and would as an inevitable result bring with it a great but incalculable increase in the death rate, especially amongst the less fit. Simultaneous reforms in both these directions would, therefore, in the end tend to defeat their own aims by bringing the struggle for existence into full play; no doubt with the possible result that after some centuries of poverty, famine, pestilence and war, the race would be greatly purified by the process.† To tolerate such an idea is to abandon all the rational aims of eugenists, who desire to substitute some humane method of selection for the cruel methods obtaining in nature. Remembering that birth limitation cannot be wholly abolished, and that the first attempts in that direction might be dysgenic, we ought very carefully to estimate the effects, both moral and physical, of as far as possible, endeavouring to secure racial progress by a wider adoption of the birth limitation amongst the less fit, and by at the same time trying to lessen its use amongst the more fit. Would it be right to institute a simultaneous

\*No doubt the more birth limitation were to be abandoned, the less effect would financial pressure have in keeping down the birth rate.

†If wars are frequent they must become far less dysgenic than at present for even this hope to be entertained.

dual propaganda for and against these practices? It is in any case very desirable that the question of the advisability of voluntary birth limitation should soon be decided; for, until some general agreement is arrived at, neither this policy nor any other substitute for it can be effectively advocated.

**5. Will the practice of birth limitation to-day tend to check birth limitation in the future?**

Here, again, there are certain slowly growing racial effects which have to be taken into account before final conclusions can be safely reached.\* These effects depend on the fact that the differences in the extent to which birth limitation is practised by different individuals must depend to some unknown extent on the differences between their natural qualities or innate proclivities. As all these innate differences are subject to the laws of natural inheritance, it follows that the natural tendencies either to practise or to shun birth limitation may, like all other natural qualities, be slowly modified by selection as the generations succeed each other. These selective influences can best be realized by imagining mankind to be divided into two groups or classes of equal size, namely (a) those possessing the qualities inimical to the practise of birth limitation to a degree below the average, and (b) those possessing them to a degree above the average.† Assuming a condition of absolute ignorance with regard to the possibility of birth limitation to exist, then any uniform spread of a knowledge of these methods would obviously result in the practice of birth limitation being introduced to a greater extent amongst group (a) than amongst those having natural qualities giving rise to a stronger desire for it or less objection to it, than in the other half of mankind. As the result of this greater adoption of birth limitation, the birth rate of this group would, therefore, fall as compared with the national average; their descendants would become relatively fewer and fewer in numbers; and their distinctive qualities, namely, those leading to a tolerance of or a desire for birth limitation, would tend to be slowly eliminated from the nation. Thus we see that a spread of a knowledge of the methods of birth limitation must tend to eliminate the natural qualities favouring these practices, and that the more they are used to-day, the higher is likely to rise a natural barrier standing in the way of their employment in the distant future.‡

What then are these natural qualities which promote the practice of birth limitation and which will, by that practice, tend to be slowly eliminated? Amongst the qualities producing this effect which generally produce results in other respects desirable are:—the power of taking thought for the future (making the anticipated advantages of keeping down the numbers of the family tell with greater effect; the desire for self improvement, (against which aim family life often opposes obstacles); and temperance (for drunkenness banishes forethought). Amongst the undesirable qualities promoting birth limita-

\* I am largely indebted to Mr. R. A. Fisher in regard to the ideas contained in this paragraph, though our conclusions based on them may be different.

‡ See note in small type at the end of this address.



tion are ambition (or forethought wrongly directed); dislike of children; and, amongst women, excessive pains of childbirth, excessive fear of such pains, and unhealthiness in so far as it increases the dread of childbirth.\* As to highly developed sexual passions, it is doubtful whether they should be included in this list or not; for though they promote all methods of birth limitation, except abstinence, by making that abstinence difficult, yet, on the other hand they stand in the way of such practices by temporarily obliterating all thoughts of the future.† Lastly, as to any intuitive dislike of birth limitation not based on reason, such a quality will be held to be bad or good as we regard birth limitation as bad or good. Putting aside this last mentioned quality, we may, I think, conclude that the qualities leading to birth limitation are on balance desirable, and that their elimination by its slow selective effects would be harmful. If it should be decided that in order to prevent over-population, birth limitation must be tolerated, it follows that some means other than the abandonment of these practices must be adopted for preventing the growth of those of the above mentioned natural qualities which are held to be undesirable. Eugenic reform must be pressed forward in these directions by other methods.

**6. Segregation, even if combined with sterilization, could not alone supply the needed racial safeguards.**

Before passing on to consider the practical reforms which the foregoing considerations indicate as being desirable, it may be well to briefly recapitulate the results thus far arrived at, together with the universally admitted demands of eugenists. The necessary conditions for complete success in eugenic reform, if it is also to be beneficial in regard to its more immediate effects, seem to be as follows:—

1. That some adequate check on an increase in the population should remain in operation, this being needed on grounds other than racial.
2. That the more fit should multiply as rapidly or more rapidly than the less fit.
3. That small families should not come to the front more readily than large ones.
4. And if it be held that birth limitation should be regarded as a permitted practice, that it should not be the most practised by those most naturally inclined to it.

The last two of these conditions apply to the less obvious slowly arising selective effects. Bearing all these considerations in mind, together with the impossibility of altogether doing away with birth limitation, the enquiry here suggested for consideration is as to how it is possible to build up a sound social policy on these exceedingly complex and almost contradictory conditions, and in what way those who regard

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\*These qualities, together with physiological or involuntary infertility, are those which, it has been seen, are likely to become in a measure correlated with efficiency. See p. 148.

†It seems like the irony of fate that abstinence in marriage is not only likely, but more likely than any other method of birth limitation, to increase the power of the sexual passions in the coming generations.

birth limitation as being justifiable should urge its employment in order both to prevent its evil results and to secure racial progress as well as certain more immediate benefits.

It will be generally admitted that we cannot either intentionally increase the death rate or directly interfere with selection in marriage; and from this it follows that practical eugenic reform must operate through the birth rate. Two questions therefore, obviously arise when we are considering what measures can practically be taken either to reduce the rate of multiplication of the less fit, or to increase that of the more fit; and these are in regard for example to the less fit, how to select them and how to diminish their fertility.

As to the method of selecting the less fit, what would be desirable would be that the choice should depend on the defects of each individual judged separately. If the proceedings were similar in broad outline to those adopted in regard to the mentally defective or to criminals, public support for the action taken would best be secured, and class prejudice best avoided. But here a difficulty at once arises; for what is needed for racial purposes is a decision in regard to *inborn qualities*, and not as to the qualities which are visible on the surface, so to speak. Unfortunately we can never be quite certain how far bad environment is responsible for the defects seen in any individual, even in the case of such a certainly hereditary defect as feeble-mindedness. All we can say is that every mental and bodily quality is on the average in some measure passed on to succeeding generations; and this is so universal a law that it cannot be entirely due to the similarity in the action of the environmental influences affecting parent and offspring. But from this consideration it does follow that we are forced in a measure to *rely on the average results* of experiences gained in the past in framing our eugenic policy; though, as regards each individual, the judgment can only rest on his personal qualities, whatever part environment may have played in moulding them.

Having selected the less fit by any such approved methods, how could we diminish their fertility? As to convicted criminals, imprisonment has this effect to a limited extent. As to the feeble-in-mind, the law now permits segregation, or detention in comfort; and it is to be hoped that this method will be more widely used in the future in the case of all other persons proved to be biologically defective in a high degree. Then as to sterilization, that method has also been advocated, on the ground that it interferes less with liberty than does segregation. But even those who are willing or anxious to adopt sterilization as a means of checking fertility must agree that it could only be compulsorily utilized as the result of the qualities displayed by the individual in cases where those qualities were grossly defective; whilst, as a voluntary method, it would not touch many of the cases where it was most needed. No doubt to prevent parenthood in the case of a markedly defective person is more advantageous than in the case of one only moderately defective; but there are reasons, too complicated to be stated in few words, why the relative advantage of dealing with the grossly unfit is not nearly so great as our common sense would lead us to believe \*

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\*See article in the "Eugenics Review" for October, 1918, Vol. X., No. 3, "The Need for Widespread Eugenic Reform."

Bearing this in mind he would indeed be a bold man who would advocate the use of segregation and sterilization on a sufficiently extensive scale, not only to prevent parenthood in the case of the grossly unfit, but also to deal adequately with the less fit; for it must always be remembered that as long as an increase in numbers amongst those below the average in racial values outweighs any increase that may be taking place amongst those above the average, so long will the racial qualities of the nation be deteriorating. Under no circumstances could segregation, with or without sterilization, be relied on as the sole means of diminishing fertility where that is desirable; and the grossly unfit ought not to be regarded as the only class to be considered.

**NOTE.**—In my address I have discussed the racial effects of a *spread of a knowledge* of the methods of birth limitation, but not the selective effects of an *advocacy* of their use or disuse, which is a distinct and difficult question. As an advocacy of anything is meaningless in the absence of a knowledge of the thing in question, let it first be assumed that, before the advocacy about to be considered began, there existed a complete knowledge of the methods of birth limitation, and that the natural qualities of the people were consequently producing their full effects in promoting or hindering these practices. We are at first inclined to assume that in these circumstances an advocacy of the moral rectitude of birth limitation, for example, would increase these practices more amongst that half of mankind most naturally inclined or tempted to them, as compared with the effect on the other half consisting of those less naturally prompted in that direction. If so, such an advocacy would tend to increase the ultimate selective effects which, it has been seen, a spread of knowledge of the methods of birth limitation would be likely to produce. But further consideration may well throw doubts on this conclusion: for when complete knowledge was making the natural qualities produce their full effects, we could not be sure on which half of mankind an advocacy would produce most *additional* results. We can at all events see that where childlessness had already been produced by birth limitation, its advocacy could produce no further effects: whilst it would be with those naturally averse from birth control, and, therefore, producing large families, that a propaganda in its favour might possibly, at all events, produce most effect. And if we cannot tell on which half of mankind a moral propaganda in favour of—or against—birth limitation would produce most effect, complete knowledge being assumed, we cannot forecast the ultimate racial consequences of such an advocacy as distinct from a mere spread of knowledge in regard to the qualities thus affected.

The foregoing argument only relates to those natural qualities which make individuals more or less likely to *practice birth limitation*, not to those qualities which tend to make *any propaganda* more or less effective. For example, a campaign in favour of all birth limitation being held to be wrong would be more effective amongst those either (1) more easily influenced, or (2) more under the influences of their consciences. Those thus influenced would produce more progeny in consequence of the propaganda, and it would thus tend to develop natural docility (or readiness to obey authority) and natural conscientiousness (or desire to do right) in the coming generations.

## Some Birth-Rate Problems.\*

(continued).

BY MAJOR LEONARD DARWIN, SC.D.

### 7. Existing conditions tend to create a correlation between the rate of wages and natural efficiency.

In searching for some method of distinguishing the less fit from the more fit in the hope of being able to affect their relative fertility, we see that educational tests present many advantages; for they might be applied in accordance with general rules applicable to all, and they would thus in some measure escape criticism on the ground of class favouritism. The Binet-Simon and other similar tests are now used in helping to detect mental defect sufficiently marked to justify segregation; but the less fit must be held to include large numbers of the mentally defective of such a high grade as not to be certifiable. Educational tests might also be of racial value when used in regard to the award of scholarships; for by such means the fertility of the more fit might perhaps be increased. No other methods of utilizing educational standards for racial purposes occur to me; for it is probably chimerical to suppose that any *widespread* differential treatment, if affecting the probability of fertility, and especially if compulsory, could ever be applied on such a basis.

Those who feel compelled to admit that compulsory methods, such as segregation and sterilization, would alone be inadequate to safeguard a nation against the harmful effects of any differential rates of multiplication between the different sections of the community, whatever method of selection might be employed, may be forced to turn their attention to voluntary birth limitation as the most obvious and possibly the only method of greatly affecting fertility. Now when seeking to promote racial progress, it is always wise to consider whether it is not possible to utilize methods which might also be advocated on account of their anticipated immediate effects; and if it should be admitted that birth limitation may have to be accepted as a safeguard against the dangers of over-population, this forms an additional reason for studying its uses for eugenic purposes. No doubt it will be held by many that birth limitation could do all that was needed in regard to over-population if the best methods were made widely known; but, even if this were granted, we yet should have to enquire what would be the effect of such a policy in regard to the racial qualities of future generations. If it were true that all the different sections of the population which are multiplying more rapidly than the average, were in no degree inferior in racial qualities to the groups

\*The opinions expressed in this article, though written by the President, do not represent a policy authoritatively adopted by the Council.

multiplying more slowly than the average, then there might be no serious racial danger to be feared, and a check on the fertility of the grossly unfit might be all that was needed. But if this is not the case, that is to say if there is any correlation whatever between the rate of increase in numbers and inferiority in natural qualities, then even if the total numbers were to remain stationary, the average quality of the nation would keep deteriorating, and a eugenic remedy would still have to be sought. We should even then have to prevent the somewhat inferior stocks from continually overflowing into vacancies caused by the infertility of the better stocks.

In whatever way the nation may be divided into sections, it will be found that the worse paid groups are now, as a general rule, multiplying more quickly than are the better paid; and we are, therefore, led to enquire whether there are any corresponding differences between these groups in regard to their racial qualities. As already remarked, individuals endowed with superior natural qualities are continually being transferred from out of the lower paid grades into those receiving on the average higher wages, and *vice versa*; with the result that a correlation is being promoted between the rate of remuneration and innate efficiency. It is unquestionably very difficult to prove whether this correlation does now exist or not, because of the difficulty of discounting the effects of environment; and no such investigation will here be attempted. But those who console themselves by dwelling on this admitted difficulty should remember that even if such a correlation does not now exist, the gradual removal now taking place of the barriers which make it hard either to rise or fall in the social scale, and the consequent more frequent interchange between the social classes, will steadily increase the tendency for low pay to become associated with natural inefficiency. It is the rates of pay and not inherited wealth which should be held in view; for though wealth may indicate an ancestry endowed with energy, it may also be a reason why its possessor is not found amongst those who have obviously failed in life. Moreover, since wealth in any form, whether inherited or acquired, facilitates the winning of more wealth, it might be right, when considering what measures other than persuasive appeals should be taken in consequence of any such correlation, to confine our attention to such a broad distinction as that between those who can and cannot win a living wage; for by confining any measures to those who had failed to win such a wage, we should in normal times in a properly constituted society be dealing with persons endowed with some defects in natural qualities, whether mental or physical. Unfortunately if it be suggested that a correlation almost certainly does now exist in some degree between low pay and natural inferiority, this is often held to be equivalent to an attack on the poor; whereas all that is asserted is that many of, but not all, the persons belonging to the worst paid sections of the population are endowed with certain natural qualities which are in part responsible for their want of success. In any case, if low wages are or will soon be associated on the average both with a high rate of multiplication and with somewhat inferior biological qualities, this is a fact which must not be passed over in silence; for it means that racial deterioration is now actually in progress or will be shortly.

### 8. How can the fertility of the less fit be lessened ?

Those who believe that a correlation does exist between the rate of multiplication and innate inefficiency must, therefore, admit that merely to prevent the population from increasing would not be a sufficient safeguard; for on this hypothesis, in order to prevent racial deterioration from taking place, the rate of multiplication of the now more rapidly multiplying sections of the community must be lowered until it becomes no greater than that of the now less rapidly multiplying sections. In seeking to produce this result, every effort should in the first place be made to persuade the less fit to multiply less rapidly. Reasons have, however, been given for believing that both a low rate of remuneration, and certain natural qualities often associated with it, would militate against a campaign in favour of voluntary birth limitation amongst the inefficient. This method of reducing fertility is, moreover, now certainly failing to produce an adequate effect in many directions; and as there is a widespread desire to lessen by further state aid the burdens of parenthood, and thus to remove all existing checks on an increase in numbers; it seems most unlikely that a mere advocacy of birth limitation amongst the less fit would in the future reduce their rate of multiplication to the level of that of the more fit. And as the practice of birth limitation may in the coming generations increase the strength of the natural qualities which now hinder its adoption, the difficulties of such a campaign may be expected to increase rather than to decrease. Does it not, therefore, seem essential that some further pressure should be applied with the object of making the less fit more disposed to limit their families? We have seen that the ideal plan would be to select the parents on whom pressure should be applied according to their individual qualifications; but such a proposal would be hopelessly impracticable with regard to any scheme applicable to the great mass of the population. The pressure ought to be widespread; it should be such as cannot be evaded by parents; it should be applied on a system governed by general rules; and the liberty of the individual should be secured as far as possible. Can any methods of applying pressure, other than such as act through the agency of finance, be suggested which would meet these conditions? I know of none.

What should be the nature of the financial pressure which might be applied to parents in order to lessen fertility amongst the less fit? This would obviously depend on the methods of limitation generally held to be justifiable; for the greater the self-restraint needed in employing them, the greater would have to be the pressure necessary adequately to promote their use. The suggestion which first presents itself to our minds is that parents should be under an obligation to pay for the proper maintenance of their own young children without public assistance from state or charitable funds; for such a pressure would tell more on the less efficient, and would increase with the size of the family. This to many will sound a harsh proposal, and it would undoubtedly cause suffering however carefully safeguarded. But if any methods of birth limitation not involving very great restraint should come to be generally admitted as justifiable, and if such methods were to be made widely known, then the bringing of

a child into the world might come to be regarded as a purely voluntary act. And if any persons by purely voluntary acts do bring a heavy burden on the state—that is on their fellow citizens—is it wrong to make them suffer sufficiently to induce them to avoid a repetition of that procedure? Whether it be right or wrong it seems probable that the skilled artisan, for example, who is now limiting his family too much, will wish to deal with the situation drastically when he realizes how heavy is the burden thrown on him on account of the amount of assistance given by the State to the large families of the ne'er-do-well population. Moreover Trade Unionists now see clearly the advantage of belonging to a limited and close corporation; and when they also realize that they are thus only partially hedging themselves in against the evils of over-population, leaving its main harmful effects to be suffered by those outside the pale of strong trade organisations, they will wish to deal with the population question equally drastically.

Unfortunately the situation is not quite as simple as the foregoing remedy would seem to suggest; for every parent throughout the land receives some financial assistance from the State, direct or indirect. The kind of help received by all ranges from a direct subsidy on the bread eaten by the family to the protection given by the police in the streets. Perhaps the only rule that could, therefore, be laid down would be that State aid to parents should not be given in such a form and to such a degree as to maintain, by stimulating a relatively high birth rate amongst the less fit, a correlation between fertility and natural inefficiency. The kind of persons whose fertility it is especially desirable to check are those little capable of taking thought for the future; and, on this account, the pressure on parents should be such that they could not fail to realize that it would be applied *immediately* on the family becoming unduly large. From this it follows that it is particularly undesirable that married couples with large families should be relieved of all the costs incident to childbirth and on the rearing of *young* children. On the other hand it must not be forgotten that childless marriages are in many ways exceedingly undesirable in regard to their more immediate consequences. This tangled conflict of opposing considerations would possibly best be met by a firm resistance to the modern tendency to remove by State aid all the financial strains falling on parents as such, and by allowing no discriminate assistance, or assistance not received by all alike, to be given out of public funds in such a manner as to lessen the cost of bringing up young children at home when the family in all numbers, say, more than four or five, both parents being alive; the poor law being always available in the background. The strains falling on those habitually earning a living wage ought to be met by some system of insurance. No such reforms as these may now be possible; but it might nevertheless be essential to adopt some such policy if national deterioration is to be prevented.

9. Indiscriminate motherhood endowment is likely to produce a dysgenic differential effect on the birth rate.

Those who look to quantity, and not at all to quality, will regard with equal satisfaction a decrease in the fertility of the more fit and

of the less fit, granted that their fear is that of over-population. On the other hand, those who look to quality without reference to quantity will observe with equal satisfaction an increase in the fertility of the more fit and a decrease in that of the less fit; because an increase in the numbers of the more efficient, and a decrease in the numbers of the less efficient, would equally tend to raise the average racial qualities of the whole. If both quality and quantity are to be taken into account, then it may become necessary to choose between two evils, namely, between the pressure of increasing numbers and national decline due to deteriorating racial qualities; and, in these circumstances, the eugenist would doubtless prefer to face the sufferings due to over-population as the less enduring of the two evils. The object which eugenists have in view is to improve the racial qualities of future generations; and for this purpose no doubt, the less fit cannot multiply too slowly as compared with the more fit. But if our sole aim should be the more restricted one of preventing actual deterioration in the race, then every increase which could be brought about in the birth rate of the more fit would make it by that amount less necessary to decrease the birth rate of the less fit; for, in order to secure a racial equilibrium, all that would be necessary would be to bring down the rate of multiplication of the less fit until it was on a level with that of the more fit. From this it follows that if we are looking solely to the amount of the pressure which would have to be applied to the less efficient sections of the community in order to make them *lower their birth rate* to a sufficient degree to prevent racial decline, we should lighten our difficulties by *increasing the birth rate* of the more fit. To increase the rate of multiplication of the more efficient stocks is, therefore, unquestionably the right policy to pursue as long as there is any risk of racial deterioration.

As to the possibility of increasing the fertility of the more fit, the endowment of motherhood by the State has been claimed as being a method, not only of producing that result, but also of diminishing the fertility of the less fit. The amount of the money which a married woman of the working classes receives in order to cover all her expenses is often entirely independent of her own exertions and entirely dependent on the will of a wage earner, from whom she can only sever her connection with great difficulty; and it is urged that the more intelligent the woman, the less likely is she to put herself in such a position. Any economic independence, such as would result from motherhood endowment, would therefore stimulate the birth rate of the more cautious amongst women. In addition to this valid plea, it is also urged that even in the great majority of households where the man does "bring home his money" with great regularity, the lessening of the economic strain of parenthood would increase the birth rate of the more fit along with the rest. As to this latter argument, it overlooks the main aim of the eugenist, which is to increase the birth rate of the more fit, not actually, but *relatively* to that of the less fit. And as it is almost certain that any scheme of motherhood endowment would be on a flat rate, it would be of comparatively little value to the well paid, and would therefore only affect their birth rate to a relatively small extent. If low pay is correlated, however



slightly, with inefficiency, it follows that in this respect motherhood endowment, by producing a greater increase of fertility amongst the ill paid, would be dysgenic in its effects. In direct opposition to this conclusion, it has been maintained that the endowment of motherhood may be expected on the following grounds actually to decrease the birth rate of the less fit. Parents drawing better pay have doubtless smaller families on the average than those drawing worse pay; and as motherhood endowment would have an effect similar to that of a rise of pay, on these premises it is contended that such a reform may be expected to reduce fertility, especially amongst the poor. But this argument is quite unsound, because it takes no account of the probable causes of the correlation between inefficiency and fertility. Reasons have been given for believing that this correlation is in part due to differences in the inborn qualities of the more and of the less fit; and such differences could not be affected by motherhood endowment or by any other change of environment. This correlation is also partly due to greater wealth opening out to its owners more of those possibilities which compete in attractiveness with marriage and parenthood; and, in order that the possession of wealth should put a check on fertility, it follows that it must be possible for the potential parent to use it to satisfy some desire other than those depending on parenthood. The endowment of marriage without reference to parenthood might lessen fertility, it is true, because the sums received might be expended as the parents chose. Another consideration to be noted is that selfish husbands might make an addition to the family income, resulting from an addition to the family, an excuse for bringing home less to the wife; and endowment might act as a direct premium on parenthood with such undesirable beings. Thus the plea that motherhood endowment on a flat rate would relatively increase the birth rate of the more fit represents the reverse of the truth as regards average results. Possibly if the endowment, besides varying with the wages received, were to be made to altogether cease if the family\* increased in numbers above a fixed limit—as has actually been proposed—then such a reform, whilst it would certainly act as a material check on the birth rate amongst those unable themselves to provide for a large family, might also produce certain positive eugenic results by giving economic independence to careful women. such a proposal is now out of the question, and motherhood endowment under present conditions would certainly have to be classed amongst the dysgenic methods of expending the public revenue.

#### 10. Several methods of increasing the birth rate of the more fit should be considered.

Passing on from the methods of stimulating birth limitation, if and when it ought to be stimulated, to the methods of repressing these practices, when harmful, we have to ask, putting aside motherhood endowment, what can thus be done to increase the fertility of the

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\*The definition of the word 'family' would present difficulties. If by it were meant the children of the same two parents, then under this proposal by changing partners the numbers of allowances for children obtainable by each individual might be indefinitely increased, and a premium might be placed on divorce.

more fit? Birth limitation is now so largely practised that certain classes of the community may be fairly described as dying out, and to lessen this practice amongst those well endowed by nature should be regarded as the most pressing of all eugenic problems. Here again persuasion, on the grounds of morality and patriotism, must be made to do all that is possible in this direction; but here again it is certain to be insufficient to meet the situation. As to repressing these practices by external pressure, in order to advocate the right kind of pressure it is necessary to ascertain what are the reasons which now prompt parents to limit their families; and these seem to be in the main the fear of the economic troubles likely to arise from the appearance of more children, and the desire to give such children as have arrived as many advantages as possible. As to the economic fears felt by parents for their own futures, it is worth considering whether it would not be possible to legally entitle parents to draw direct from the employer, say 5 per cent., or 10 per cent. if both are alive, of the excess of the salary earned by each son over a certain fixed minimum wage; thus making the production of a large and well paid family an enduring financial advantage. Even if such rights were not widely exercised, legislation of this kind would indicate clearly the financial obligations of children towards their parents. Another means of lessening the financial burdens of parenthood would be by a further increase in the allowances made on account of children in the assessment of the income tax; a subject which has been already sufficiently discussed.\* It may, however, be as well to remark that the eugenic arguments in favour of such a reform seem to me to be entirely dependent on the existence of a correlation between income and natural efficiency.

As already remarked, educational tests would be far the best methods of distinguishing between the more and the less fit for eugenic purposes; and from this it follows that to lessen the burden falling on parents on account of the education of their children, if proved by properly conducted examinations to be well endowed, would be a suitable method of diminishing the practice of birth limitation amongst the more fit. If the remuneration of manual labour should become on the average higher than the remuneration of mental labour, then this argument would fall to the ground—and our civilisation would be doomed. It has been seen that it would be dysgenic to go too far in lessening the costs thrown by the *young* on their parents; and for this reason, and because there would be no racial advantage in promoting mere precocity, the easement of the financial strain due to parenthood should not begin before the child is, say, ten years old, if it be merely intended to be racially beneficial. Besides giving large grants to all secondary educational establishments, an entrance examination being insisted on, scholarships should be awarded which, in the case of the more highly gifted, should cover all costs, including maintenance in such a home as that of the skilled artisan. These scholarships must

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\*See article by Mr. Crofton Black in "The Eugenics Review" of July, 1920 Vol. XII., No. 2. Also "The Eugenics Review" for January, 1920, Vol. XI., No. 4. Evidence before given the Royal Commission on Income Tax by the President.

be very freely given if their anticipated award is to have any effect on potential parents in regard to birth limitation.

Whether all these measures together would have sufficient effect may well be doubted when it is remembered that the aim of the parent often is to safeguard the *existing* children, on whom all thoughts are concentrated. To make economic pressure certainly effective, would it not have to be of such a kind as would make parents feel that the appearance of another child would be actually advantageous to those already born? Unfortunately all the plans which occur to me for bringing about such a result will, I fear, be classed as visionary. It would doubtless be possible in income tax assessments to make the allowance *per head* for each child actually to increase concurrently with an increase in the number in the family; scholarships might be given more freely and on better terms to members of large families; whilst in accordance with the proposal of some thorough-going German eugenicists, parents might be prohibited from bequeathing their entire estate to their children unless numbering at least four, part of the surplus being confiscated to the State.\* It is not difficult to imagine the kind of comments with which any of these proposals would be received. The well-to-do should, however, remember that if the receipt of benefits not fully covered by the payments made, and coming from institutions aided by government funds or private endowments, ought to be described as charitable assistance, then nearly every parent in this country who has a son or daughter at a public school or college is in the receipt of charity. Those who advocate any limitation of charitable aid to the unfit on eugenic grounds should raise no objection to financial pressure being applied to themselves with similar objects in view. Perhaps it is not out of place here to remark that the opponents of eugenics will urge that if the more fit do not choose to multiply sufficiently rapidly to keep up the strength of the nation, they have no right to complain at being taxed to cover the expenses of parenthood falling on those who do do their duty in this respect. Is not the only effective reply on the part of the well-to-do to such a contention to begin to multiply less slowly?

Birth limitation amongst the more fit would not be altogether dysgenic in its results; for, *if practised for the sake of lengthening the interval between births*, it would have certain eugenic consequences, besides lowering the infant mortality rate and improving the health of mothers. One of the racial advantages of children appearing at longer intervals would be because the less fit on the average die at a younger age than do the more fit; with the result that, with a wider voluntary spacing between births, the less fit would in consequence have *relatively* fewer progeny than if birth limitation were not practised with this object in view. Then, again, with wide intervals between births, the elder children of a family, if of superior ability and winning scholarships covering all costs, would have ceased to be a burden on their parents before it was too late for other children

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\*Journal of Heredity, February, 1920, p. 64. The plan of drawing money direct from the employers of the sons might also be limited to parents of large families.

to appear; and worthy parents would be encouraged by the award of scholarships to their children to increase the size of their families. The desire for more children is readily obliterated in thoughtful parents by the presence of many infants in the home at once, and wider intervals between births, due to voluntary limitation, would add to the eugenic effects of the above proposals.

**11. The less direct selective effects should also be considered.**

The foregoing considerations apply to the main eugenic needs of the situation, leaving the more indirect selective effects still to be considered. We have seen that the advantages possessed by small families in regard to material advancement will tend to produce a correlation between higher remuneration, natural efficiency, and natural infertility, including that resulting from the inborn qualities which favour birth limitation. We have just seen that the aim of eugenic reform should be to make the illpaid and, on the average, somewhat less efficient citizens multiply to say the least no more quickly than the better paid and, on the average, somewhat more efficient types. If success should attend such efforts, the results would no doubt do something towards preventing the further spread of the evil then already created by the growth of this correlation between efficiency and infertility; for under these conditions the naturally more fertile but less efficient stocks would no longer keep encroaching on or swamping the less fertile and more efficient. But this might only be a partial cure; for the smaller and naturally less fertile families might keep winning their way to the front. As long as this was the case, the more efficient would be becoming more infertile, the difficulty of preventing racial deterioration would keep increasing, and this would go on as long as the smaller families possessed any material advantages and could in consequence more easily win their way to the front. To insist on a pass examination in the case of all reaping advantages from State or private funds in regard to secondary education would be beneficial, but would not put the smaller families on an equality with the more fertile. To produce the desired safeguard, scholarships covering all costs might with advantage be freely given on specially favourable terms to members of large families; for by this means certain naturally fertile stocks would be passed into the ranks of the better paid, thus tending to obliterate this harmful correlation. Such a scheme, together with others tending to give advantages to large families, all of which it has been suggested will be classed as visionary, would also by stimulating competition, increase amongst the well-to-do the probability of members of small but inefficient families falling down into their appropriate places in the social scale. In fact many plans could be suggested for checking the growth of the correlation between inefficiency and fertility by giving advantages to large and thoroughly efficient families; though all of them would increase the more immediate dangers to over-population.

Another of the more indirect selective effects which has to be considered is that due to the fact that the practice of birth limitation to-day must tend to promote the increase in the coming generations of all those natural qualities which will then tend to check birth limita-

tion. Those who consider that birth limitation is advantageous thus find themselves in difficulties; for by promoting these practices to-day they are not only thus tending to lessen them amongst future generations, but they are also taking steps calculated to slowly eliminate certain qualities which even the opponents of birth limitation will admit to be beneficial. To prevent the slow growth of this natural impediment to birth limitation, the families of those naturally averse to these practices would have to be no larger than the families of those naturally tempted in this direction; and this would, it will be seen, be in a measure the result of effective eugenic reform. Those who take little thought for the future, including nearly all who are slightly mentally defective, as well as those whose natural qualities lead either to an absence of any desire for self-improvement or to intemperance, would not only be the types which would be eliminated by successful eugenic reform, but would also comprise many who are naturally little drawn to practice birth limitation. In fact in so far as a desire to practice birth limitation, by its use amongst the well-to-do, has come to be correlated with the natural qualities which facilitate the winning of good wages, all the methods of relatively increasing the birth rate of the better remunerated would tend to increase in future generations the natural qualities favouring birth limitation. It should not be forgotten, however, that all the natural qualities promoting birth limitation—excessive pains in childbirth, for example—are not good; and that these bad qualities would be increased in future generations by any check on the practice of birth limitation. In regard to all these less direct selective effects perhaps all that can now be done is to call attention to the extreme difficulty of the problems involved.

## 12. Conclusion.

What I have attempted in my address has been to suggest certain basic questions concerning birth limitation which have to be decided in order to ascertain in what directions eugenic reform should proceed. Every one admits that the unquestionably unfit ought not to become parents, and nearly all agree that persuasion, segregation, and some add sterilization, are methods which are available for this purpose. But can we rest content with considering only the exceptionally fit and the flagrantly unfit? Must not believers in the laws of heredity hold that a relatively more rapid rate of multiplication of the less fit—that is of those stocks which are below the average in the natural qualities held to be desirable—would inevitably lead to racial deterioration? And if it be granted that any differential birth rate, which would tend to produce an increase in the numbers of the less fit in the coming generations, ought to be prevented from arising, what steps could legitimately be taken with this end in view? As to compulsory methods, such as the segregation or sterilization of the unfit, it will hardly be held even by their warmest advocates that they could effect all that might be necessary in order to cover the wider field of the more and the less fit. Reasons have, moreover, been given for believing that persuasive appeals, aiming at reducing the rate of multiplication of the less fit and increasing that rate in the case of the more fit, though they should be utilized to the utmost, could not

alone be relied on to afford an adequate safeguard. How then are we to deal with the situation? It will be generally admitted by those who have studied the question that the total abolition of birth limitation would result either in a great increase in numbers in all civilized countries, or to a great increase in infant mortality, or to both; and to those who regard these evils, together with their probable consequences of famine or war, as a necessity, I have nothing to say. But of those who are not prepared to face these consequences, we must ask whether it would not be hypocritical, if not dishonest, not to openly acknowledge our indebtedness to birth limitation as one of the causes of our present immunity from these troubles, such as it is? And if forced to acquiesce in the necessity for birth limitation because of its more immediate consequences, must we not consider what objections can be raised against the promotion of its more extended use for racial purposes by means other than mere persuasion?

Certainly no equality in the rate of multiplication of the different sections of the community now exists, and we are, therefore, next led to enquire whether all these sections are all alike in racial value. And as statistics clearly indicate that the birth rate is lower on the average amongst the well-to-do than amongst the ill-paid, and as we are rightly continually fighting against the higher death rate now associated with poverty, it becomes necessary to ascertain if there is any correlation whatever between the rate of wages and natural efficiency. Even if facts do not enable us to answer this question with great assurance as regards existing conditions, does not the present tendency to remove all hindrances to transfers taking place from one economic grade to another strengthen the arguments for believing that such a correlation is in any case likely to arise in the future? Since the existing differences in the rates of multiplication appear to have mainly arisen during the last seventy years or so, is it not futile to appeal to history to prove that no evil effects are now thus being produced? Ought we not, therefore, to face the question boldly, and to consider whether the relatively higher rate of multiplication of the ill paid, and the relatively lower rate in the case of the well-to-do, should be allowed to continue indefinitely? Can any methods of equalizing these rates be suggested except such as are dependent on the utilization of the agency of birth limitation, its stimulation in certain quarters and its repression in others? To lessen the practice of birth limitation amongst the more fit might be, and I believe would be, the most important of all eugenic reforms; yet, as it may be a very difficult direction in which to advance, does not this make it all the more necessary to reduce the birth rate amongst the less fit? Finally, would not such financial pressure as would result from parents being obliged to cover the bulk of the cost of rearing their own young children produce the needed stimulus in the least objectionable way? Eugenic reform cannot advance on a wide front until these questions have been answered.

Every reform passes through two stages, that of proposal or preparation and that of accomplishment; and, in regard to most eugenic reforms, the interval between the two is likely to be a very long one. Does not the probability of great delay before the fruit is gathered make

any timidity in clearly setting forth our opinions all the more inexcusable? To those who like myself have come to the conclusion that the tendency of the financial pressure of poverty to reduce fertility ought not to be combated but rather promoted, it is of little use merely pointing out the drawbacks to all such schemes, for they stare us in the face. We long to find other efficient methods of safeguarding the nation against deterioration, and to produce a better scheme would be the only reply we should regard as effective. Many eugenists are racial Micawbers, hoping for something to turn up; but the differential fall in the birth rate is too recent and too formidable a fact to allow of any such policy of procrastination. All of us ought to come out into the open and show clearly what endeavours we think ought to be made to distinguish and deal with the less fit as well as with the unfit. Many thoughtful eugenists fear that the stigma of class legislation will be attached to some of the schemes here suggested for consideration; and their fears may be well founded. But however much the reputations of individuals may be damaged, a cause seldom suffers in the long run from honest mistakes being made or from unpleasant truths being spoken. Measures intended to deal with the less fit in order to be effective must be just, widely accepted, and widespread in action; and if stimulated birth limitation should prove to be the only method which fulfils these conditions, ought we not for the sake of the nation of the future to press for its adoption? Let no eugenist sit still with folded hands and say that the situation is one which cannot be met.