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THE DOCTRINE OF MALTHUS AND THE INCREASE OF POPULATION DURING THE LAST DECADES.¹

THE rate of increase of population during the last decades has been in such conspicuous contradiction to what the teaching of Malthus would have led us to expect, as to call for a renewed examination of these doctrines in the light of the experience of to-day. This examination I have made in a treatise, with full statistics, which was published by the Royal Bavarian Academy of Sciences. I should exceed the space which the ECONOMIC JOURNAL is able to place at my disposal if I attempted to reproduce these statistics here, and must therefore confine myself to stating in condensed form the results which can be deduced from them.

Malthus maintained that mankind had a natural tendency to increase faster than the means of subsistence. The capacity and the desire for reproduction were alike greater than was necessary to compensate for the loss by death, and both the former remained constant. Hence there was a permanent disproportion between the number of human beings in existence and the amount of food required for their support. There were two methods by which equalisation could be established: by misery and crime, or by moral continence. Hitherto only the former had been effective. As soon as the means of subsistence rose above the measure of the absolute necessities of life, numbers would increase until wretchedness pressed back the position of the population to its former level. A permanent improvement, therefore, in the condition of the lower classes could not take place until there had been a general spread of moral continence.

What do the facts since 1871 show? The condition of the lower classes has admittedly improved during this period in a hitherto unprecedented degree. This has been proved in the case of England by Bowley, but it is no less true of all the Western European nations, of America and Australia. Accord-

¹ For a fuller statement of the author's views, see *Transactions of the Historical Section of the Royal Bavarian Academy of Sciences*, vol. xxiv, class iii, p. 567.

ing to Malthus, this increase in prosperity should have been followed by a general increase of population. And this has been the case. But did it take place in the manner predicted by Malthus—by a general increase in the number of marriages and births?

Malthus starts—apart from the incorrect statistical basis of his doctrine, into which I cannot enter here—from two erroneous psychological principles :—(1) The supposition that the cause of the increase of the human race is the desire for propagation, and (2) that this remains constant in all circumstances.

But there is no such thing as the desire for propagation. The causes responsible for the increase of population are the desire for sexual intercourse and the love of children. But sexual desire is under the influence of mental activity, an influence which is capable not only of stimulating and increasing, but also of diminishing it, which, in short, can regulate its activities. And the love of children manifests itself in more ways than the mere bringing of them into the world.

Sexual desire is indeed the most powerful of all impulses. At a low stage of civilisation it acts with the same elementary force as among animals, and the same applies to the lowest classes and individuals of a more civilised era. In these cases the love of children is a negligible factor in the man's life, their care being entirely relegated to the woman. A change in this state of things occurs as soon as a large family brings with it consideration, influence and power. The man at this point also begins to wish for children, for the more numerous these are, the more he becomes a person of consequence and influence. Wherever, at this stage of civilisation, sexual intercourse has taken on the form of marriage, every man strives to marry as soon as he has reached the age of puberty. Marriage appears so essential that anyone who remains single is looked upon as an almost unnatural being, and is certainly despised.

It often happens that moral conceptions survive the primitive circumstances out of which they have evolved. So it has come about that even among nations that have attained a high degree of civilisation, a single life is held to be morally reprehensible, and marriage is regarded as a duty for men and women. Even at a primitive stage, however, certain limits to the contracting of marriages had to be observed. As soon, for example, as a wife had to be bought, the man who wished to marry had to be able to produce the purchase-money. Such obstacles, however, are not absolutely effective. A more effective check was

given to the birth-rate by the change in economic conditions which took place when a large family, instead of being an advantage, began to occasion expenses, which constituted a definite burden. A second check was produced by the working of a real increase of refinement on the character of mankind.

The influence of these changes becomes apparent (1) if we compare the increase of population in the upper with that in the lower classes, wherever the necessary data exist; (2) if we consider the increase of population which has accompanied changes in the economic conditions of the mass of the people; and (3) if we compare the relative increase in population in countries where better economic conditions prevail with those in which the conditions are not so good.

A decline in the birth-rate may be due to one of two causes: to the diminution of marriages or to the diminution of the number of births per marriage.

According to the valuable statistics collected by Pontus E. Fahlbeck for Sweden and Finland, the number of married persons among the nobility and the upper middle classes is 10 to 23 per cent. less than among the entire nation; also the average age at marriage of the men is higher in the upper than in the lower classes in both these countries; not so, however, the average age at marriage of the women. The same facts are brought out by a comparison of the average age at marriage in the various occupations in Copenhagen, Rotterdam, Dordrecht, England and Prussia. In Great Britain and Ireland there is further, since 1891, a decrease in the number of married persons, and since 1873, in spite of rising wages, a decline in the marriage-rate. According to Malthus, a rise in wages must have produced an increase in the number of marriages. So also we find a decline in the marriage-rate of Russia, Hungary, Servia and Italy. The decline in the United States, in Chili, Uruguay and in the Australian States, with the exception of Western Australia, is specially remarkable, for in America and Australia the number of persons of marriageable age is constantly increased by immigration.

In the German Empire, on the other hand, the number of marriages increased between 1881 and 1900, as did also the number of married persons. During the same period the marriage age, both of men and women, fell, especially in the towns. The greatest number of marriages took place in the large towns with a growing factory population, while in the towns inhabited

by millionaires¹ and prosperous citizens the number of marriages declined. A similar increase of marriages may be noted in the remaining countries, not yet specified above.

How are these phenomena to be explained?

A certain falling-off in the percentage of marriages is simply explicable by the decline in the rate of mortality. Out of every thousand inhabitants there is a larger number between the ages of 15 and 40 to-day than there was in 1871. It happens less frequently therefore that marriages are dissolved by death, where, had this been the case, the survivor might have been disposed to re-marry; hence a decrease in the number of widows and widowers who would have started a fresh union.

This, however, can be responsible for a proportion only of the decline in the marriage-rate where this exists, and as a matter of fact it is precisely among first marriages that the decrease is found to have taken place.

In order to explain these phenomena, I will start with the upper classes, among whom alone the decrease in the frequency of marriage is found in *all* civilised countries. The conclusions at which we shall arrive will throw light alike on the cases where the decline in the marriage-rate has spread to all classes of the population, and on those where the marriage-rate has risen. The decline in the upper classes can be explained:—

1. As a consequence of the increased demands made on persons of the upper classes by education and preparation for their future avocations. A man needs more time to obtain the training necessary to fit him for the earning of his livelihood. Consequently, the higher his social and professional rank, the later he will marry, and there will be a relative increase in the number who remain unmarried.

We can explain on the same lines the increase of marriages in the German Empire, the fall of the marriage age in Prussia, its special fall in the Prussian towns, and, above all, in the large towns with a growing factory population. The majority of the population here has experienced in the last decades a change of economic conditions which has made marriage easier, for the increasing industrialisation of Germany falls within this period. The agricultural labourers, who had until then been obliged to emigrate in order to marry, because no dwelling was obtainable in the country, now moved into the German towns, and more especially into the centres of the great industries. As factory workers they succeeded in making a home at a much earlier age.

¹ [Millionaires must be interpreted in marks. *Translator's note*].

The same conditions prevail in other countries where the marriage-rate is rising and the age of marriage falling.

Great Britain, on the other hand, has long since been industrialised; the effects on the facilities for founding a home, of the transition from a predominantly agricultural to a predominantly industrial state, have long since worked themselves out. Here, on the other hand, the rise of the standard of comfort among the working classes places obstacles in the way of marriage exactly as it does among the upper classes. In America and Australia the decline of the marriage-rate, in so far as it is not attributable wholly to the scarcity of women, may likewise be traced to the increased standard of life among the lower classes.

In Norway and Sweden the marriage-rate fluctuates fairly regularly in inverse ratio to the rate of emigration. The decline of the Italian rate is apparently connected with the increase of emigration out of the country. Conversely the recent rise of the marriage-rate in Ireland and Spain may be connected with the decline of emigration from these countries. The extraordinarily high marriage-rate of Servia, of Hungary with its strong Slavonic element, of Saxony with its numerous factories, as also that of unpretending Japan, can be explained by the fact that the demands made on the education and preparation for a man's future occupation are relatively small, owing to the modest standard of comfort which obtains in these countries, or the greater facilities they afford for making a home.

2. Another cause responsible for the decrease of marriages among the upper classes is the growing difficulty of supporting a family in the face of increasing social requirements. This cause made itself felt earliest among the nobility, and most powerfully, where, owing to the system of primogeniture, the younger children were unable, if married, to live in accordance with the requirements of their rank. The decrease has been most marked since the ancient privileges of rank in the matter of public appointments and ecclesiastical preferment have yielded to the equalisation of rights, a process which coincided with a shrinking of the emoluments attached to the offices in question. Since when there has been the greatest number of bachelors and spinsters in families whose fortune consists solely of entailed estates.

With the rise in the standard of living, this tendency spread from the nobility to the upper classes in general. Here, too, marriage as a rule means retrenchment, and so a comparatively large number of persons remain unmarried.

3. A powerful influence for the decline of the marriage-rate is the altered position of woman. In the process of time, from man's slave she has become his companion, and, in accordance with the most recent developments, often even his competitor. Hand in hand with her growing independence came a rise in the social consequence of the unmarried woman. This was bound to react on the attitude of women towards marriage. It may be that the large increase in the proportion of women earning their own livelihood, which took place just between 1895 and 1907, is connected with the decline in the German marriage-rate, which until then had risen, and began, between 1901 and 1905, to decline from 168 to 160. In Great Britain the decrease in the frequency of marriage set in much earlier, and points even more conclusively to its connection with the strivings of women after economic emancipation, a phenomenon which made its appearance much sooner in that country than in Germany. It is clear that the increasing economic independence of woman must diminish the force of one of the motives that leads her to marry. She becomes less ready to undertake the work of a housekeeper under the disadvantage of not being able to give notice; she frequently feels no inclination for the burdens which marriage would put upon her; she is less inclined to submit to a man's will, occasionally she agrees with Bernard Shaw in denouncing the home as "the girl's prison, the woman's workhouse." In short, she is less disposed to marry as her grandmother did, because, as a matter of course, a girl marries as soon as a suitable opportunity offers. She is more apt to reject one suitor in order to wait for a better man. She will look for real feeling as the decisive factor in the case, and will prefer to remain single rather than marry without affection or inclination.

This influence becomes the more effective the greater the number of enjoyments which enter into competition with the amenities of married life. The increase of new inventions and discoveries, of trade and travel, the general spread of education and culture have widened the circle of interests and the tastes of both men and women, have increased their requirements and made many new pleasures accessible to them. Hence the home has lost its paramount importance for the man, and also for the woman; the share of life's joys which marriage contributes to happiness has decreased in proportion as these other joys have increased. And where married life would, for the persons concerned, be incompatible with the satisfaction of these new requirements, whether for pecuniary or other reasons, marriage is

often renounced altogether. Hence the decline of the marriage-rate more especially among the upper classes. But this also explains why the percentage of marriages decreases among the people as a whole, as the nation ascends in the scale of civilisation. The desire for marriage decreases in proportion as the pleasures increase which are accessible to everyone, but which, for the reasons already specified, must be renounced on marriage.

5. Lastly, there is no doubt that among the upper classes the mutual satisfaction of the sexes is not so great as it used to be. The woman's greater independence, her increased culture and more self-reliant judgment—in short, all that which we reckon as progress—have contributed to this result. She has become more critical. On the other hand, just in proportion as she is less anxious to encourage a man to offer marriage, so he has become less inclined to make the offer; perhaps, indeed, his inclination has suffered even more than hers. The female sex still cherishes more illusions on the score of marriage than the male, and the later the age to which modern developments tend to postpone marriage, the more completely has a man lost his illusions by the time his finances would allow him to marry. It is just this greater independence of the woman, this increased culture and more self-reliant judgment, which make marriage appear less comfortable and desirable to many a man. At a higher mental and moral level, however, this diminished mutual satisfaction of the sexes is rooted in a nobler cause. The spread of culture and refinement, a higher conception of what marriage as a union should achieve, makes it more difficult for man and woman alike to find someone whom either will be prepared to accept as a companion for life. Each will exact more, will have a higher standard; each is less able to find someone who comes up to the ideal, or to achieve the ideal required by the other.

But however important the marriage-rate may be for the birth-rate, yet only about one-fourth of the total number of births fall to the new marriages. It is not the marriage-rate, therefore, which turns the scale in the question of population. If it did, the increase of population of France, for example, would be greater than that of Bavaria, for the French marriage-rate between 1901 and 1905 was 153, while the Bavarian was only 152. Nevertheless France would, at the existing rate of increase, take 367·1 years to double her population, while Bavaria would do so in 53·1 years. Moreover all European, Australian and the majority of American States, whether their marriage-rate has risen or fallen, have experienced a decline in their birth-rate during the

past thirty years. To all appearances, then, it is not the marriage-rate, but the number of births per marriage which decides the question of population. This, too, shows a decline of fertility in most European countries, among the white inhabitants of the United States, and in Australia. What is the cause?

An attempt has been made to explain the situation by the fact that the death-rate has declined with the increasing prosperity of the last decades. The average length of life has increased. Hence the character of the population has changed: those who have passed the prime of life have relatively increased, and the number of persons producing children has diminished in proportion. When however we find that in 1880, 389 out of every 1,000 inhabitants of the German Empire were between 15 and 40 years of age, while in 1890 their number had increased to 395, it turns out that the decade in which the birth-rate fell from 392 to 360 was precisely the period during which there had been an increase in the number of persons of the most fertile age, and a decrease of emigration.

Similarly statistics show that in England and Wales, Scotland, Norway, Sweden, Prussia, Holland, Belgium and France, all countries where the birth-rate has fallen, there is to-day a much larger number of persons of both sexes at the productive age than ever before.

The only possible explanation, therefore, of the diminished birth-rate is the decline in the average number of births per marriage. This phenomenon first made its appearance in France, where, since the reign of Louis XVI., the birth-rate has declined steadily from decade to decade. It stood at 39 at the beginning of this period, and at 23·3 during the years 1901–1905. To understand these facts, we have only to compare the number of births among the well-to-do with those among the poor.

According to the calculations of Bertillon, the following relation obtained in France in 1862 between frequency of birth and the possession of real estate. In 30 departments, in which 285 out of every 1,000 inhabitants owned land, the birth-rate was only 24·78 per 1,000; in 31 departments, which averaged 240 landowners out of every 1,000 inhabitants, these accounted for 25·70 births; in 21 departments, where the number of landowners had fallen to 177 per 1,000 inhabitants, the number of births rose to 28·10. The more proletarian the department therefore, the higher the birth-rate, and *vice versa*.

A comparison between industrial and agricultural departments leads to the same conclusion, and this is further confirmed by a

consideration of the state of affairs in the departments where there are many prosperous peasant proprietors. The birth-rate in the industrial departments "Nord" and "Pas de Calais" has fallen only very slightly during the nineteenth century; in the department "Seine-Inférieure" it has even risen; while in the more prosperous departments "Yonne," "Côte d'Or," "Charente," "Puy-de-Dôme," "Gers," "Garonne," "Lot-et-Garonne," "Maine-et-Loire," with their well-to-do peasant population, it has diminished by one-half. On the other hand, in Brittany, as well as in the departments of Corsica and Losère, where the peasant population is poor, the birth-rate is as high as in the industrial districts. Such increase of population as France can still show is due to the increase in the two industrial departments Nord and Pas de Calais, but for which the deaths would actually outnumber the births in France.

The same conclusions may be drawn from the statistics of Kiaer, according to which the majority of marriages in the prosperous departments of Seine, Côte d'Or, Orne, Lot-et-Garonne produce only one or two children, while in the poor departments Finistère and Corsica, and the industrial department Pas de Calais, a very small percentage of the marriages produce as few as one or two children, and the majority show a larger number.

A comparison of the various towns with each other points to a similar conclusion. As early as the thirties of last century it was shown by Hippolyte Passy that the towns inhabited by the upper and lower bourgeoisie had a very low birth-rate, while the towns with a large working population had a high one. Thus according to his calculations the proportion of births to marriages in the towns of Tours, Versailles and Angers was only 2·5-2·6, while it was 4·6 in the manufacturing town of St. Etienne, and about 4 in Nîmes and Boulogne. Passy had already noted that the birth-rate in the manufacturing towns was greater than the general French average.

The same connection between prosperity and the birth-rate is shown by the figures collected in 1886 by Tallquist. The smaller the sum of estate, door and window tax per head of the population yielded by the different departments, *i.e.*, the smaller the means of the inhabitants, the greater was the number of legitimate births that fell to the share of every thousand married women, and *vice versa*.

And still the same results follow from a comparison of the birth-rate and the prosperity of the several quarters of Paris: the more prosperous the quarter, the less fertile its inhabitants.

When the decline of the birth-rate in France had been conclusively proved, this was at first regarded as an exclusively French peculiarity, and the criticisms passed were friendly or the reverse according as a low birth-rate was held to be an advantage or a misfortune. Since the seventies of the nineteenth century, however, the tendency of the number of births per marriage to decline with the increasing prosperity of the people seems likely to become universal. Even nations hitherto renowned for their wealth of children are visibly becoming subject to the same fate as France.

This is especially noticeable in Great Britain and Ireland. In England and Wales the birth-rate rose during every period of five years beginning from 1841–1845, until between 1871 and 1875 it reached its maximum of 355 births to every 10,000 inhabitants. Since then it has fallen uninterruptedly. In the period 1901–1905 it had fallen as low as 281. The birth-rate of Scotland and Ireland moves in the same direction, though for different reasons.

In Ireland the birth-rate fell from 2,384 to 2,348 for every 100,000 inhabitants during the decade 1881–1891. But, as Sidney Webb has pointed out, the number of married women of child-bearing age in proportion to the total population diminished so much during this period that, in spite of the trifling decline shown by the birth-rate, there is actually an increase in the fertility of the marriages. If the proportion of the ages and sexes in Ireland had been the same in 1901 as in 1881, the Irish birth-rate would have been 3 per cent. higher in 1901 than in 1881.

The case is different with Great Britain, where there is no such cause to account for the decline in the birth-rate. Had the proportion of the different ages in the population of England and Wales remained constant between 1861 and 1891, and had the division into married and unmarried remained exactly proportionate, the number of births per 100,000 inhabitants would still have fallen as follows :—

1861	...	...	...	3,236
1871	...	...	...	3,312
1881	...	...	...	3,273
1891	...	...	...	3,125
1901	...	...	...	2,729

In other words, had the fertility of the married women remained constant, there would have been 21 per cent., or, in

actual figures, about 200,000 more children born in England and Wales in 1901 than has been the case.

I have already dealt with the decline of the marriage-rate in Great Britain consequent on the rise in the standard of comfort of the working classes. That the increase of wealth and the rise in the standard of comfort are responsible also for the diminution in the number of births per marriage, is proved by a comparison of the birth-rate in different districts according to the number of domestic servants employed there—that is, according to their degree of prosperity. The corrected birth-rate for Bethnal Green—the district of London which has the smallest number of non-Londoners, and where the proportion of inhabitants who keep servants is smallest—fell between 1881 and 1891 by 12 per cent., *i.e.*, by exactly as much as that of the North Riding of Yorkshire. In Hampstead, on the other hand, which keeps the largest number of servants in proportion to its inhabitants, the rate fell no less than 36 per cent. Next to Hampstead come Kensington and Paddington, which keep servants in almost the same proportion as Hampstead: their birth-rate, which was already lower than that of Hampstead, has fallen 19 per cent., and is now less than two-thirds the rate of Bethnal Green. Dr. Newsholme and Dr. Stevenson on the one hand, and Udny Yule on the other, have compared the corrected birth-rate of five groups of London districts, differentiated according to their average poverty. The result shown is that the small group of three “wealthy” districts numbers 2,004 births in wedlock for every 100,000 inhabitants; the four groups which include nineteen districts of medium prosperity have between 2,362 and 2,490 births; while the poorest group, which includes seven districts, has no fewer than 3,078 legitimate births—*i.e.*, 50 per cent. more than the wealthy districts.

But the decline in the number of births is not confined to the propertied classes. Skilled artisans, as John Stuart Mill had already pointed out, have smaller families than unskilled labourers. Quite recently Sidney Webb has shown that the “maternity” payments made between 1866 and 1904 by the Hearts of Oak Society, to which only the aristocracy of the English working classes belong, have diminished in every consecutive period of five years since 1871–75, in consequence of the diminution in the number of births.

In all these cases, then, we have an intentional limitation in the size of the family, whether the motive be the disinclination of the parents to being hampered in the enjoyment of other

pleasures, or their fear of losing the earning capacity which renders these other pleasures accessible.

Another proof of the connection between wealth and the birth-rate is afforded by the investigations of Verrjn Stuart into the number of births in proportion to the rent of dwellings. This inquiry embraces Rotterdam, Dordrecht and forty country communities of Holland. Fahlbeck has shown that in Sweden and Finland the nobility, the teachers in the two State Universities and those in the higher educational institutions are the least fertile members of the population. For Italy we have Del Vecchio's interesting proof that the birth-rate is highest in the districts which contain the largest numbers of persons who have not learnt to read; that it is lower in districts which have a medium number and lowest in those which have the smallest number of absolutely illiterate persons.

In Germany, Kiaer was the first to prove, by comparing the births in a wealthy and in a very poor district of the town, that the birth-rate is higher in the poorer district throughout, and that the latter has much fewer childless marriages than the richer district. Then Mombert made investigations in seven large towns, Berlin, Hamburg, Leipzig, Munich, Dresden, Magdeburg and Frankfort-on-Main, taking the average rent of the dwelling as the measure of prosperity of the different districts. He proved conclusively that fertility decreases with increasing prosperity and increases with diminished prosperity, and he showed that this tendency does not depend upon differences of rank, nor require that the difference in means and social position shall be very great, but makes itself felt even where the differences are slight. He proved that even among the unpropertied classes improved economic and social conditions tend to decrease the number of births. Further, he proved that this holds good not only in large towns, but throughout Germany, and also that the callings and occupations which enjoy a higher social standing and command larger means, show in general a smaller degree of fertility per marriage.

But the decline in the birth-rate, as already mentioned, is not confined to the European countries cited above. It is also found in the United States of America and in Australia. As regards the former, Kuczynski has shown that the fertility of the whites born in the two New England States is now only half as great as that of the population of most European countries, and only three-quarters as great as that of France. During the first fifty years of the Republic on the other hand, the white population

had quadrupled itself by natural increase. The increase of the white population of the United States depends to-day on the continued immigration from Europe; if this were to cease, the North American Republic would, in view of the great fertility of the negro, become black in quite a short, predeterminable time.

And in Australia it was reported by a Royal Commission in 1904 that a serious decrease of fertility had taken place since 1889, chiefly owing to the artificial prevention of conception and the inducement of miscarriages, as well as to pathological conditions brought about by the use of preventive medicines. The Australian birth-rate is indeed the most remarkable of those already discussed. Statistics show that in this land, where the working classes are better off than anywhere else in the world, where they have the last word in politics, in this "working man's continent," the decline in fertility is almost the greatest of all. It equals the decline in the European countries of the lowest fertility, viz., Ireland and France, but far surpasses them in the speed with which this decline has taken place. The native white populations of Massachusetts and Rhode Island alone show a lower figure.

When we come to inquire into the cause of this phenomenon which accompanies increasing prosperity with such unfailing regularity, we must at the outset discard the hypothesis of any connection between it and religion or race. It made its first appearance in France, and at a time when France was admittedly still predominantly Catholic in spirit. Statistics show that among the Jews there is a diminution in the birth-rate in proportion to the increased prosperity of the people concerned. It is only among very poor Catholics or very poor Jews that we find a high birth-rate. The same applies to considerations of race. Prince Bülow complained most pathetically in the Reichstag of the greater fertility of the Polish women, and pointed to this as the chief cause for the ground gained by the Polish population in Germany. But the German women in the poor districts of Oberpfalz and Lower Bavaria are more fertile than the Poles. The Polish districts show the greatest fertility because they are the poorest and the most backward; the great majority of the Slavs form the quintessence of the proletariat in Prussia. We should be just as far from the truth if we attempted to trace the decline of the birth-rate to increased industrialism or to the growing tendency to live in towns. This hypothesis is refuted chiefly by the case of France since the beginning of the nineteenth century, more especially by the high birth-rate in the great indus-

trial departments Nord and Pas de Calais, and by the very low birth-rate among the prosperous 'peasant population of the agricultural departments, where the people live on the land. It meets with additional refutation from the Australian birth-rate since 1885. Nor do English statistics, as shown by 'Sidney Webb, afford any confirmation of this view. In Germany, indeed, the towns are less fertile than the country, and the birth-rate began to fall earlier there, and fell lower. This, however, is quite compatible with our position, since German prosperity, which, as shown by the statistics of Prussian incomes, increased throughout the State, increased most in the towns; the income tax for the years 1901-7 averaged 8.61 marks per head of the population in the towns, and only 2.15 marks in the country. Germany then forms no exception to the rule, and the increased prosperity in her towns must be acknowledged as the cause of the greater decline in the birth-rate, for this greater prosperity is accompanied to a very great extent by the welcome as well as by the unwelcome phenomena which lead to such a decline. The opposite relation between town and country, which is revealed by a comparison of the departments Nord and Pas de Calais with the country population of France, as well as by a comparison of the English towns and counties, is sufficiently explained by the fact that the lowest sections of the working population in the French departments and the English towns in question are generally below the level of the rural population. It may be said that where the rural population is very poor or coarse or uncultured the birth-rate in the country is very high, and much higher than in the towns; where, however, there is a preponderance of prosperous peasant inhabitants, or where the conditions of the country working population improve, the birth-rate declines, sometimes even more than in the towns.

It turns out, therefore, that differences of creed, race, occupation or domicile, which are adduced to account for differences in the rate of fertility, and all changes in the former which observers have claimed as an explanation of the decline in the latter, appear on closer inspection to reduce themselves to differences and changes in material prosperity. Moreover, economic conditions, as Mombert recognised, may influence the birth-rate in two directions. An improvement in economic conditions, especially when it follows on previous economic disturbances, increases the number of marriages in general, and therewith the number of young married couples, and so especially of married women at the child-bearing age. So far an improvement in

economic conditions tends to increase the number of births. But, as we have already pointed out, barely a fourth of the total number of births in a year falls to the newly-married. This tendency, therefore, cannot counteract the opposite influence which a permanent improvement in wealth and culture exercises on the remainder of the married population. This, as a comparison of different ranks, as well as of the same ranks and the same people at different stages of development, has shown us, results in a diminution of births. Thus the development of the German people, especially between 1890 and 1900, clearly shows that "in spite of increasing prosperity, in spite of the fall of the marriage age and the lengthened duration of marriages, the number of births has steadily declined." (Mombert.) In countries where the standard of comfort of the working classes began to rise earlier than in Germany—as, for example, in England—the improvement in their conditions led to a decrease even of the marriage-rate, and so to a diminution in the number of births due to fresh marriages.

But what can be the cause of this coincidence of decreased fertility with increased prosperity?

We must recognise as one of the causes the increase of certain diseases which go hand-in-hand with the development of wealth and culture described above. These are :—

1. The diseases of sex. These appear as a concomitant to the postponement of marriage; are found more frequently among the well-to-do than among the poorer classes, and consequently to a much greater extent in the towns, and especially in the large towns, than in the country. In the case of women, sterility or the capacity to bear only one child frequently follows on illnesses of this nature.

2. The same effect is produced by mental disease. The nervous strain induced by the increasing development of civilisation has led to an increase of mental disease, and it is not, as has been supposed, marriage which wards off mental disease, but rather the predisposition to this which prevents marriage.

3. The principal cause, however, of the decline of fertility is the diminution of the desire for reproduction. As prosperity increases, so do the pleasures which compete with marriage, while the feeling towards children takes on a new character of refinement, and both these facts tend to diminish the desire to beget and to bear children.

The competition of other pleasures makes itself felt in the case of the woman as well as in that of the man, though in a

different manner. In the woman it produces a distaste for the spending of her entire existence in pregnancy and child-bed; this distaste becomes more pronounced in proportion to the increased variety and tempting character of the pleasures which must be foregone. Even Adam Smith wrote: "A half-starved Highland woman frequently bears more than twenty children, while a pampered fine lady is often incapable of bearing any and is generally exhausted by two or three." So that the lower birth-rate of the upper classes was already known to Adam Smith, but he was mistaken in looking for the cause among physiological instead of psychological conditions. The same observation had been made by the ancients, and we find in Juvenal:—

"Sed jacet aurato vix ulla puerpera lecto";

and even the cause was by no means unknown to them. Thus Ovid had said:—

"Raraque in hoc aevo est, quae velit esse parens."

—(In nuce, v. 24.)

In other words, in the time of Ovid the reason why women did not have many children was not that they could not produce them, but that they did not wish to do so. This was the case, too, with the ladies of fashion in the time of Adam Smith, and the same applies to the society woman of to-day. She does not want to be cut off from all the joys of youth and all the pleasures which wealth can offer by a series of pregnancies following on each other in uninterrupted succession. In the case of other modern women the decline in the desire to have children, or at any rate, many children, is attributed to the movement for emancipation. Women who follow intellectual pursuits or who wish to live their lives to the full, desire to be hindered as little as possible by the duties which the nursery imposes; others who follow a profession feel themselves hampered by motherhood in the earning of money which would make other pleasures possible. And of the factory worker Sidney Webb points out that the protective measures which prohibit her from returning to work for a definite number of weeks after child-birth, deprive her of the means of subsistence, and she naturally seeks to avoid the recurrence of such an enforced stopping of supplies.

With this we enter on the domain of economic causes, which are especially responsible for the decline in the desire for reproduction in the case of the man. Not but that this is often due to consideration for the health of his wife. The chronic invalidism which is a frequent consequence of much child-bearing,

and more especially of confinements following each other in rapid succession, restrains the man from indulging in the gratification of his desires, wherever he has risen above the state of regarding the woman solely as an instrument of his pleasure. The most potent check, however, in his case is the consideration how far, if he were to call a great number of children into existence, the increased demand thus made on his resources would cut him off from other satisfactions. In the peerage it has been demonstrated that the conditions of the tenure of their possessions, together with the real or supposed duties of their rank, lead to such a limitation in the size of families that the majority of them die out in two hundred years. The advance in the technical arts, in trade and industry, in science and art, has made countless new pleasures accessible to everyone—pleasures, however, in which they can participate only if they can command the requisite means. This has popularised the state of affairs which at first was found only among the upper classes.

The greater delicacy of the feeling towards children works in the same direction. With increasing prosperity, mankind generally rises above the state of blindly giving way to its animal instincts, and so parents become more and more conscious of their responsibility both for the character and number of the human beings whom they bring into the world. This leads many weakly people to refrain from giving life to children to whom they might transmit their diseases. In other cases parents will rather strive to ensure to the children whom they have already brought into the world a good education and a larger patrimony, so as to equip them better for the modern struggle for life. Both these facts tend to restrict the number of births.

This limitation of the size of the family, in consideration of the children's welfare, makes its first appearance among the aristocracy, where anxiety prevails lest the splendour of the family name and tradition should suffer from the inability of too large a number of children to live up to the requisite standard. This is evident even now from the fact that the birth-rate among the peerage, where the family fortune consists only of entailed landed estate, is specially low. Here children are produced until there is a male heir; when this is achieved, no more are born, hence such families number more daughters than sons. On the other hand, where there is no entail, or where there are other possessions besides the land, the birth-rate is higher, and there are more sons than daughters. A similar consideration, not for the glory of the family name, but for the integrity of the farm, acts

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on the peasants. Among the middle classes, too, including civil servants and officers, the same consideration for a better education and larger inheritance makes itself felt as prosperity increases. This is regarded as the principal cause of the decreasing fertility of marriages in America and Australia.

Another cause for the decline of fertility was found by Wappäus in the decline in infant mortality which accompanies improved conditions. According to him, parents who have a certain number of children living have not the same inducement to increase their families as those who have lost some of their children in infancy. Mombert is of the opinion that the great decrease of infant mortality in the towns, especially in Berlin, has been a contributing cause to the decline of the fertility of marriages. A more widespread prosperity has popularised the practice of the landed gentry with regard to the production of children.

The case is different with nations at a lower stage of civilisation and with the lower classes of the more advanced nations, in so far as the social conditions of the latter are in no way superior to those of the former. The more uncivilised the people, the lower the social class, the more eagerly woman is sought, either as a means of gratifying the sexual instincts, or for the sake of the work which she can accomplish; the younger therefore the age at which she becomes the object of desire. It is only when marriage ceases to be a merely physical union and becomes a union of souls, that man will look for a higher degree of intellectual development in the woman who is to be his wife. At a lower stage of civilisation, on the other hand, the pleasures of life consist almost exclusively in the satisfaction of natural instincts and desires. Hence at this stage the increase of population is conditioned solely by the increase of the means of subsistence, and the lower a people stands in the social scale, the more exclusively does the number of marriages depend on the results of the harvest.

Here marriage, as such, does not involve an immediate increase in the burden of life, but often quite the contrary; the woman works for her living, the income is doubled, and the expenses, until children arrive, are lower in proportion. Here regard for the children exercises no restrictive influence on the number of births, for the prospect of being able to help a few children on in life by more careful education or a larger inheritance does not exist. Nor are there at this stage any other pleasures to enter into competition with the satisfaction derived

from sexual intercourse. This can occasionally be confirmed by physicians with a large practice among the poor, even in Germany. When they enter homes of the most abject poverty, and make a remark on the large, and despite all the wretchedness, still increasing number of children, they are told of the part which sexual pleasures play in the lives of those who are debarred by circumstances from all other joys, in terms which, for cynicism of expression, far surpass the words of Diderot in "*Jacques le Fataliste et son maître*." I had myself a somewhat similar experience when, many years ago, I visited a number of workmen's families in the Saxon mining district. And a moment's consideration of the lives which these miners lead makes everything intelligible. The man goes down into the pit before sunrise, and, except during the summer months, the light has faded before he returns from his work. It is only on Sundays that he can see the world in all its colour and beauty. And when he comes home exhausted, what pleasures are still possible to his overwrought senses? We begin to appreciate the force of the passage in *Göhre*, where he tells us "that in the eyes of German working men, woman is nothing but an object for the satisfaction of sexual desire"; that woman among the German working classes is "valued much lower, considered much less, treated much worse," than in other ranks of life. It fits in with this that the woman in a home which I visited, had borne eleven children; several of these had died, others were playing about the room or crawling about the floor; a fairly grown-up one lay in bed, not because it was ill, but because it had no clothes; and in spite of this wretched poverty the birth of another was expected. But we need only read Zola's "*Germinal*" in order to understand why the mining population has the highest birth-rate.

Thus the different behaviour of different classes of the same people and of the same people at different stages shows that sexual passion is no constant and regular motive as Malthus assumed. It not only increases under the influence of cerebral activity, but it also decreases under the same influence. With increasing wealth and culture the variety of man's wants increases, and Gossen's law as to the limit up to which different kinds of pleasure are gratified, in order to realise the maximum of satisfaction on the whole, becomes applicable. Man limits his family when the increase of his family tends to diminish the sum total of satisfaction.

This limitation is in itself no virtue as it has been represented

by the Malthusians. It may be virtuous when prompted by altruistic motives. On the other hand, when one confronted with the choice between two pleasures prefers one to the other, this is evidently in itself neither moral nor immoral.

It is well known, too, that the diminution of the birth-rate which accompanies increasing prosperity does not imply an increase of sexual continence.

Yet another doctrine of Malthus has been refuted by actual developments. The increase of the means of subsistence at the disposal of European nations in the nineteenth century, stands in direct contravention to his doctrine of the disproportion between the growth of population and the increase of the means of subsistence. Malthus had no presentiment of the extent to which the progress of science and the adaptation of her discoveries to the uses of daily life, would give man dominion over nature, nor could he foresee the marvellous degree to which the people who utilise this progress are enabled to increase the sum of goods serving to their support. I have not space to sketch even in outline the progress which has been made in agriculture, trade, and industry since the time of Malthus. The most important step was taken when the discoveries of science were applied to commerce, and the boundaries of the land whose fruits are at the disposal of the people of Europe, were extended. And if strict Malthusians would object that the importation of the means of subsistence from hitherto uncultivated lands, only postpones the disharmony between the supply of food and the numbers of the population, and that the evil day must come eventually, we would maintain that this would only happen if, when the law of diminishing returns had come into operation over the whole surface of the globe, the rate of increase of the population remained constant. But this increase will not remain constant, as we shall proceed to prove.

It is, indeed, a most remarkable fact that in spite of the decline in the birth-rate, the surplus of births over deaths has never been so great as since the beginning of the seventies of the nineteenth century. The explanation is that if increasing prosperity has led to a decline in the birth-rate, it has been accompanied by an even greater decline in the number of deaths. The consequence has been an absolutely unprecedented increase of population, and if this were to continue at the same rate as within the last twenty-five years, there would in 893·35 years be one European to every square metre of surface of the globe; and if we include the other races, we should in 1,000 years stand

shoulder to shoulder. But the manner in which the increase of population has taken place since the seventies, brings with it its own corrective. Increasing prosperity has not led to that increase of the birth-rate predicted by Malthus, but to a relative diminution of births; and if the European peoples have increased so enormously in spite of this diminution, we owe it to the fact that the decline in the rate of mortality has been even greater. If, however, this satisfactory mode of increase continues, the rate of increase will of itself tend to become less, until it eventually ceases altogether. For mankind will never cease to die.

The increase of population during the last decades has, however, corrected more than the theoretical teaching of Malthus. It has also placed his practical conclusions, and the bogey of over-population which he had called into being, in quite a new light.

Malthus drew from his theory the conclusion that lack of sexual continence was the real cause of the sorry conditions universally prevalent among the lower classes; hence the indispensable condition of improvement was the spread of the virtue of continence among them; unless this came first any improvement in their lot would be but transitory, and would only lead to an increase of marriages and a diminution of infant mortality, until in consequence of increased numbers the condition of the lower classes was once more depressed to its former level. The idea of attempting to improve the conditions of the lower classes by sexual continence is so Utopian as to make the maddest socialistic and communistic dreams appear sober in comparison. For granting for the sake of argument that the lower classes of any country followed this counsel, the moment the effects of their conduct began to be felt in the labour market, no effort would be spared to attract labour from other countries, where the same continence was not in vogue. Wherever the condition of the working classes is above the average, this superiority has such a power of attraction for the working men of countries whose conditions are not so good, that any effort on the part of a working class to raise its position by sexual continence would be inevitably frustrated. In order to succeed, therefore, the sexual strike recommended would have to be international! On the other hand, the rate of increase of population during the last decades shows that this exhortation to sexual continence, apart from any question of its probable effectiveness, is not even necessary. It shows that the causal relation between improved conditions of living and the height of the birth-rate is the very opposite to that advanced by Malthus. It is not the spread of an enlightened continence

which is a *sine quâ non* of an improvement in the condition of the lower classes, but such an improvement in circumstances is itself a preliminary condition for the diminution of the number of births.

There is, therefore, no occasion for the panic of over-population which Malthus called into existence; on the contrary, there has arisen in many places the very opposite fear—an anxiety for the future of the civilised nations due to the low rate of increase of population during the last decades. The question is frequently asked: if increase of prosperity leads to a cessation of the increase of population, what will be the fate of the civilised nations of the world? But this anxiety is unfounded, so long as the civilised people continue to press into their service without remission all the progress of the technical arts and sciences, of industry and economic organisation, in order to overcome the difficulties which the increasing parsimony of the land opposes to the satisfaction of their needs. For the extraordinary increase of population of the last decades has been spread by no means evenly over the surface of the globe. We find it in Europe, among the nations of European descent, also in India, since this has passed under European administration, and in Japan since the latter has begun to Europeanise itself. Among all the other nations there has either been no increase of population at all during the nineteenth century, or at best but a trifling one; these are countries where there has been no progress or an insufficient progress in the technical arts and in economic organisation. Consequently in these countries every new-comer has only as much space as the previous occupant of a place vacates on his behalf. Here the teaching of Malthus holds good without reserve. Here man has the tendency to increase faster than the means of subsistence. The sexual instinct which leads to the increase of the birth-rate rules with undiminished sway. Whatever numbers are born over and above the limit that can be supported in the existing stationary state of the technical arts are swept away. The infant mortality is enormous, and it is only when wars and epidemics have raised the death-rate that a larger number of the young generation can be supported. Although their birth-rate is much higher than that of European nations, their increase has been much slower, where, indeed, there has been any increase at all. Because they remained opposed to progress, Europe, with its smaller number of births, has progressed at their expense. Europe sent out her sons to produce on the soil of which the others had hitherto been masters what Europe needed in exchange for her own products.

And what applies to the past applies equally to the present and future. It is only if a reactionary economic policy, which should aim at securing that every European country should, so far as possible, produce all the commodities which it required, were to gain the upper hand, that this would lead to a deterioration of the life of the European population, and, as experience shows, not to an increase in the birth-rate, but to a rise in the death-rate. Then they would be overpowered by the now uncivilised races, as the Roman Empire was overthrown by the barbarians.

L. BRENTANO