Rebuilding family life in the post-war world : an enquiry with recommendations / [edited by Sir James Marchant] ; introduction by the Right Hon. Lord Horder.

wellcome collection

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

REBUILDING FAMILY LIFE IN THE POST-WAR WORLD

An Enquiry with Recommendations

CONTRIBUTORS

Lord Horder
R. M. Titmuss
W. B. Reddaway
Sir John Boyd Orr
Prof. F. A. E. Crew
Sir Arthur MacNalty
Dr. Margaret Jackson
Dr. Eliot Slater
Dr. Grace Leybourne-White
The Rt. Rev. Dr. E. J. Hagan

Editor: Sir James Marchant

PRICE TWO SHILLINGS

REBUILDING FAMILY LIFE IN THE POST-WAR WORLD

An Enquiry with Recommendations

CONTRIBUTORS

Lord Horder
R. M. Titmuss
W. B. Reddaway
Sir John Boyd Orr
Prof. F. A. E. Crew
Sir Arthur MacNalty
Dr. Margaret Jackson
Dr. Eliot Slater
Dr. Grace Leybourne-White
The Rt. Rev. Dr. E. J. Hagan

Editor: Sir James Marchant

PRICE TWO SHILLINGS

NOTE BY THE EDITOR

IN so many-sided an enquiry into the grave and urgent problem of the renewal of our Family Life after the war, no definite attempt has been made to produce an unanimous report. On the contrary, it was decided from the beginning that whilst the contributors were united in a common purpose, they should each be free to express their personal convictions. It was considered that the unfettered statement of their differing outlooks would be of more service to the cause we advocate than the unconvincing exhibition of an innocuous unanimity. And that resolve has also led to the discarding of collective anonymity. Each particular contribution is signed by the author and each author is responsible for the opinions expressed therein.

Agreement, however, with the contents, taken as a whole, is substantial, and reservations, if they had to be made, would be more in words than in principles. We would ask the press and our readers to consider this combined contribution to the greatest problem which our race and nation has to solve if it is to survive and endure. Appreciation is expressed of the excellent work of the publishers and of their generosity in producing this book at a low price for the benefit of the cause they and we would serve.

J. M.

CONTRIBUTORS

The Right Hon. Lord Horder, G.C.V.O., M.D., F.R.C.P.

Richard M. Titmuss, *Author of "Poverty and Population," "Parents' Revolt" and "Birth, Poverty and Wealth."*

W. B. Reddaway, M.A., *Lecturer in Economics in the University of Cambridge; Member of the Economics Committee of the Royal Commission on Population. Author of "The Economics of a Declining Population."*

Sir John Boyd Orr, M.P., D.S.O., M.C., M.D., LL.D., F.R.S., *Director of the Rowett Research Institute, Aberdeen.*

F. A. E. Crew, M.D., D.Sc., Ph.D., F.R.C.P.E., F.R.S., *Professor of Public Health and Social Medicine in the University of Edinburgh.*

(continued inside back cover)

REBUILDING

FAMILY LIFE IN THE POST-WAR WORLD.

An Enquiry with Recommendations

[edited by Sir James [Marchant]

Introduction by

The Right Hon. LORD HORDER

G.C.V.O. M.D. F.R.C.P.

ODHAMS PRESS LIMITED, LONG ACRE, LONDON, W.C.2

STAMP on p. 6 →

CONTENTS

Introduction

By LORD HORDER

MANKIND is a collection of families and upon the primitive unit of the family the number, and to a large extent the quality, of the children "brought into the world" mainly depends. For centuries rulers and governments have worried about great increases and great decreases in their population.

In the eighteenth and early nineteenth centuries there was a notable increase in the population of Great Britain. This has been attributed to the great prosperity following the Industrial Revolution. The rise in the birth-rate gave great concern to Thomas Robert Malthus (1766-1834), who published in 1798 his famous *Essay on the Principle of Population as it affects the Future Improvement of Society*. Malthus maintained that mankind increased in accordance with a law of geometrical progression, whereas food only increased in accordance with a law of arithmetical progression. In order to find enough food for the nation the population must constantly be kept within bounds, if not by the action of starvation, pestilence or war, then by what Malthus termed "moral restraint."

Today, the problem that gives us concern is not the increasing, but the declining, population of Great Britain. Within twenty-five years statisticians assure us that we are likely, if present trends continue, to have a smaller population than we now have, with fewer children, young people, and women of the reproductive ages, but with many more old people.

The problem of the declining birth-rate in Britain first received national attention during the war of 1914-1918. On the initiative of Sir James Marchant, the National Birth-rate Commission was set up, consisting of members representing the Local Government Board, the Registrar-General, and economic, social, medical and religious organizations. It examined numerous witnesses and assembled a great body of evidence, which was published in four successive and voluminous reports, and a fifth report on the Prevention of Venereal Diseases. The Government of that day welcomed the Commission's findings. "You have stirred," said the Rt. Hon. W. Long, President of the Local Government Board, on receiving the Commission and its first report, "the minds and hearts of men in so profound a way that even the most careless, the most indifferent, cannot be deaf to your entreaties or regardless of your suggestions." Nevertheless, what were considered as more pressing crises during the inter-war years prevented any action. The birth-rate continued to fall, and the annual number of births represented an eventual decline in population.

So serious has this downward trend now become that the Government has set up a Royal Commission on the subject.

We have, in this country, a number of organizations the leading *motif*

of each of which, if not so expressed, bears strongly upon the theme of family life: The Eugenics Society, the Family Planning Association, the Marriage Guidance Council, the Pioneer Health Centre, the Food Education Society. No doubt it is the fact of my close connection with all of these that led the Editor to invite me to introduce the present volume to its readers. The Peckham Health Centre, with its great promise of future exploitation, made the family, and not the individual, the unit of membership and the material for research into "the circumstances which will sustain the citizen in full health and what orientations such fully functioning entities will give to Society." Though the child is the dominant factor in our outlook for the future, it is the family that mainly determines the child's physical and mental stability, and therefore its emergence as a social unit for good or for ill.

How could it be otherwise?

The family is a very primitive institution and its survival has demonstrated beyond all doubt that it serves an essential function in the evolution of the race. Again, the family reacts healthily and happily—or contrarily—upon the parents as much as it does upon the children. Here is another great inducement towards fostering and protecting it.

A great, and significant, correlative of the Family is the Home—a name which is more dear, I suppose, to people the world over than almost any other in their language. To a great extent the sentiment of the Family has been transferred to the Home. And just as (to use the words of an old writer) "we pass through the love of our family to love of mankind," so we extend the notion of the Family home to that of our country and all its loveliness: "England, Home and Beauty." But all this wistful longing, though it is, doubtless, sentimental, is healthy, constructive sentiment; it leads to courage, to devotion to duty, to nobility of thought and action—in short, to the healthy mind in the healthy body. The hygienic value of the family and home relation, both physical and spiritual, being so great, every opportunity must be taken to create the Family and every effort must be made to ensure its permanence. In the words of the Prime Minister, "for this reason well-thought-out plans for helping parents to contribute this life-spring to the community are of prime importance."

It is obvious, therefore, that side by side with the question of the declining population and, indeed, not to be dissociated from it, is the rebuilding of family life, in many cases shattered, broken or disorganized by the social upheaval of a second world war. To help the people of this land to reconstitute their family life is the purpose of this book. Once more Sir James Marchant has entered on a field on which he is so great an authority. He has gathered under his editorship a distinguished band of contributors, each of whom deals with different phases of the subject on which he or she can speak with special knowledge and experience.

The statistical evidence is first surveyed. This constitutes a review of the whole field of inquiry. The subject is then examined from a number of different aspects: economic and social, nutritional, health, psychological, biological causes, and significance of the dwindling family, educational and spiritual. A section follows on the special influence of war on family life.

As the Editor points out, each contributor has been unfettered in the views and opinions expressed. Though differences exist, it is remarkable how striking is the authors' unanimity. And they have not stopped at their examination of the causes of the declining population and of the many and varied considerations which are prejudicial to a happy and contented family life. They have also been constructive; they have propounded a series of recommendations which, if acted upon, will go far to rebuild the British home and family.

The problem is both vast and complex; here an attempt is made to simplify and clarify it as far as possible.

I strongly commend this book to every thinking man and woman throughout the country who can help to fulfil its high aim—the rebuilding of a national family life on sure foundations after the stress and upheaval of six years of war, in which not only the family but our country's very existence has been at stake.

HORDER

THE STATISTICS OF PARENTHOOD

By RICHARD M. TITMUSS

DURING the war of 1914-1918 the problem of the declining birth-rate in Britain first received general attention. The National Birth-rate Commission issued its reports, and the experience of heavy casualties among the youth of Britain, together with a sharp fall in fertility, brought into prominence the subject of the future size and structure of the country's population. Another factor, not unimportant then, but much more influential in 1944, was that these speculations took place in a situation of man-power scarcity. A shortage of men and women in times of war tends to remind a community that, in estimating wealth, the primary source resides in a nation's stock of human capital.

But after 1919 the problem of population was eclipsed by other, and on a short term view, more urgent questions. Nevertheless, after the short-lived boom in 1920 and 1921, the birth-rate continued on its downward course. During the seventeen years 1923 to 1939 the rate for England and Wales fell below, and remained below, the safety line. The lessons of this trend were slow in gaining recognition. Once again there were other crises, more immediate and more pressing, to engage the attention of government and governed. Then, as now, there were few who realized that a country's population is determined many years ahead. The size of the population of men and women aged thirty in 1939 sprang from the 914,000 births in 1909. In 1969 the population of the same age will represent those still alive from the 619,000 births in 1939. The mechanics of population change may appear to be slow—and therefore, of no great urgency—but they are nevertheless certain.

•

Growth and Stability

The Domesday Book recorded that the population in England was about 2,000,000. How far this was accurate it is impossible to state. Nor are there any reliable estimates of the population until the early nineteenth century. But it has been suggested that in the fourteenth century there were about 3,000,000 people in England. During the following four centuries it is probable that the population rose slowly to around 6,000,000. The first Census in 1801, which was faulty in many respects, returned a total of roughly 9,000,000 for England and Wales. Thereafter, the population grew at an astonishingly rapid rate. Within fifty years (1851) numbers had doubled—to 18,000,000. In the next sixty years (to 1911) they doubled again—to 36,000,000. But in the thirty years since 1911 the population rose by only 5,500,000 to 41,500,000. In

Scotland, numbers rose from 2,000,000 in 1821 to 4,800,000 in 1911. The next thirty years saw the addition of only 200,000 people making a total of 5,000,000. Ireland (Eire and Northern Ireland) had a population of over 8,000,000 in 1841 but only 4,200,000 in 1939. We can thus see that, in terms of total numbers, Britain underwent a revolution in population growth between 1801 and 1911. Since 1911, however, the impetus of growth has been slowly dying away and, today, we can no longer look ahead to any further significant additions to our total population. Of all things in the realm of population study this at least is certain. With the ending of the First World War, Britain entered a period of stable population—a position which, however, can only be maintained by a substantial rise in the birth-rate. Stability is often illusory and this is very true of such dynamic factors as birth, marriage and death. Underneath the apparent stability of 1920-1940 there were many forces all making for a prospective decline in Britain's population in the years ahead.

A Picture of the Trend in Fertility

As an illustration of the changes that have occurred during the past ninety years we give below a table depicting, for England and Wales, (1) the total population, (2) the number of women aged fifteen to forty-five, (3) the number of married women aged fifteen to forty-five, (4) proportion married, and, (5) the annual number of live births (average for the ten years):

This table provides a glimpse of the great changes that have taken place in family size in less than one hundred years. When, for instance, the

TABLE 1

Year	*Total population*	*No. of women aged* 15-45	*No. of married women aged* 15-45	*Per cent married*	*Annual live births*	*Average for*
1851	17,928,000	4,235,000	2,004,000	47	647,000	1851-1860
1861	20,066,000	4,721,000	2,320,000	49	750,000	1861-1870
1871	22,712,000	5,240,000	2,601,000	50	859,000	1871-1880
1881	25,974,000	5,990,000	2,943,000	49	889,000	1881-1890
1891	29,003,000	6,891,000	3,244,000	47	916,000	1891-1900
1901	32,528,000	8,121,000	3,804,000	47	930,000	1901-1910
1911	36,070,000	8,990,000	4,288,000	48	810,000	1911-1920
1921	37,887,000	9,468,000	4,596,000	49	713,000	1921-1930
1931	39,952,000	9,825,000	4,918,000	50	607,000	1931-1938
1938	41,215,000 (estimated)	9,954,000	5,396,000	54		

total population of the country was under 18,000,000 (or less than the combined population of Greater London, Lancashire and Yorkshire today), 4,235,000 women aged fifteen to forty-five were producing, every ten years, 400,000 more children than the number born to nearly 10,000,000 women during the 1930s. Yet, in 1851, housing conditions were incomparably worse than they are today, the standard of life of the mass of the people was primitive in the extreme, sanitation, pure water and amenities hardly existed and social services—as we know them today—had barely been thought of. Or, again, we can take a closer view and look at the changes during the last fifty years. Since 1891 the number of women in the reproductive age groups has risen by 3,000,000 while the number married has grown by over 2,000,000. Yet, despite this, the number of live births each year is lower by 309,000.

The Birth-rate and the Death-rate

Why, it will immediately be asked, has the population continued to grow during the period when the birth-rate has been steadily falling? Very briefly the answer is that mortality has fallen much faster than fertility. Table 2 on page 10 gives a broad picture of the situation.

The rate of decline in infant mortality is very striking—from 150 to 50 in forty years. From the standpoint of population development this is important. For example : of the 3,023,000 births in 1931-1935, 187,000 died before they reached their first birthday. If, however, the rate for 1896 to 1900 of 156 had obtained in 1931 to 1935, 472,000 infants would have died—namely 285,000 more. It is obvious that if mortality falls more steeply at the younger ages than among older people the effects are more influential on future population trends. And that is precisely what has happened in the past sixty to seventy years. Just as the table shows a striking decline in infant mortality so, at all ages up to the end of the reproductive period, there has occurred a large scale decline in the death-rate. Above, however, the age of sixty-five no very considerable fall has been recorded. The second line of the table illustrates the *total* decline in mortality standardized to remove the effects of a changing age structure in the population.

This dramatic transformation in the chances of death has had the effect of *stretching out* the population. But a time must come when the greater number of old people—2,500,000 more aged over sixty since 1914-1918—who have steadily been moving up the escalator of age must die. Then we must expect to see a rise in the crude death-rate ; when this begins to operate and the annual number of deaths exceeds the annual flow of new babies the total population must start to decline.

In considering the role played in the past by declining mortality in *masking* revolutionary changes in fertility we have to remember that death-

TABLE 2

Year	*Deaths of infants under 1 year per 1,000 live births*	*Standardized death-rate per 1,000 living*[1]	*Live births per 1,000 population of all ages*
1841-1845	148	20·6	32·3
1846-1850	157	22·4	32·8
1851-1855	156	21·7	33·9
1856-1860	152	20·7	34·4
1861-1865	151	21·4	35·1
1866-1870	157	21·2	35·3
1871-1875	153	20·9	35·5
1876-1880	145	19·8	35·3
1881-1885	139	18·7	33·5
1886-1890	145	18·5	31·4
1891-1895	151	18·5	30·5
1896-1900	156	17·6	29·3
1901-1905	138	16·0	28·2
1906-1910	117	14·4	26·3
1911-1915	110	13·7	23·6
1916-1920	90	13·4	20·1
1921-1925	76	10·9	19·9
1926-1930	68	10·3	16·7
1931-1935	62	9·6	15·0
1936	59	9·2	14·8
1937	58	9·2	14·9
1938	53	8·5	15·1
1939	50	8·5	14·9

rates cannot fall below zero. There is still scope for a reduction in Britain's infant mortality, and also in death-rates at other ages, in comparison with those already obtained in some social classes, in other countries, and in certain parts of England, but the margin is insignificant in relation to the changes that have occurred in the past fifty years. While every effort has to be made to reduce preventable mortality we cannot hope, however, to arrest the present trend of population unless fertility is raised.

Migration

The possibility of new substantial additions to our numbers by migration to this country has been ruled out. Such a movement on any scale is not, of course, impossible ; but it is most unlikely. It would be impracticable to suggest drawing from the Dominions (particularly as some of them are looking to us for additions to their population) and most of the countries

[1] Civilian mortality only in 1915 to 1920 and from 3rd September, 1939.

of Western Europe are in much the same position as ourselves. There is, however, likely to be a surplus population in the Balkans and Eastern Europe and among the coloured races of India and the Colonies. But the difficulties bulk so large at the present time (although they may not do so in thirty years time) that it seems wiser to leave out of account in this chapter both immigration and emigration.

The Measurement of Fertility

Table 2 showed that since the 1870-1880s the birth-rate has fallen from around thirty-five to fifteen just before the outbreak of war in 1939. By "birth-rate" we mean that for every 1,000 people of *all ages* in the country fifteen live[1] babies were born (legitimate and illegitimate) during the year. But this does not tell us very much about the extent to which a given population is replacing itself. Reproduction depends on a number of important factors, chief of which is the number of women of child-bearing age. For the measurement of fertility the age group fifteen to forty-five is generally used. The next important factor is the amount of marriage in women of these ages. With this data (given in Table 1) and the number of legitimate live births we can compute the General Fertility Rate, namely, the number of legitimate live births per 1,000 wives aged fifteen to forty-five. In the period 1876 to 1880 this index stood at 296; in 1938 it was down to 114—a fall of 60 per cent. But just as it is important to know the number of married women fifteen to forty-five, so it is essential to know how this reproductive group is distributed over the thirty years of the childbearing period. A community with the bulk of this group aged between thirty to forty-five is obviously in a less satisfactory position—from the viewpoint of future fertility—than a population with most of this group concentrated in the ages under thirty. Similarly, it is important to know how the annual flow of births is distributed between mothers of different ages. Is, say, a given birth-rate produced by a high proportion of first births to mothers aged twenty to twenty-five or, say, a high proportion of fourth and fifth births to mothers aged thirty-five to forty-five? These are the sort of questions we need to answer if we are to consider practical remedies to meet the threat of declining numbers. Until the passing of the Population (Statistics) Act in 1938, however, we did not know the age of the mother at the birth of the child. But now we have this information we are enabled to compute more accurately a replacement index. The Registrar-General's Review for 1938 (Part 2) showed, for instance, the distribution of births according to the age of the mother (see Table 3, page 12).

This shows us that, in 1938, 80 per cent of the legitimate live births

[1] Stillbirths are therefore excluded.

were born to mothers aged between twenty to thirty-five. What we now want to do is to combine this—and other data—into a single figure which will show the measure of replacement.

TABLE 3

Percentage Distribution of Legitimate Live Births According to Age of Mother.

England and Wales, July-December, 1938.

Under 20	20-25	25-30	30-35	35-40	40-45	*45 and over*	*All ages*
3·5	23·3	32·6	23·8	12·6	3·9	0·3	100

The Reproduction Rate

Such an index has been employed effectively by Dr. R. R. Kuczynski and it is called the Net Reproduction Rate. This rate takes account not only of specific age fertility rates but the sex ratio (i.e. the proportion of girl babies) and mortality among women. While the sex ratio does not change to any considerable extent over a long period of time, mortality, on the other hand, is important if we wish to know how many girl babies are likely to live to the reproductive age. The value of this index is that it shows, at a glance, the extent to which the fertility of a given year would suffice, if maintained, to replace the existing generation of parents, actual and potential, by a generation of equal size. A net reproduction rate of unity, i.e. 1·0, means that every mother will be replaced by another mother and no more; in other words, the community will be exactly replacing itself. A population, then, with a net reproduction rate of unity would eventually become stationary, assuming always the current rates of fertility and mortality did not change. Subject to the same qualification, a rate of more than unity signifies that the population must eventually increase, and a rate below unity means that a population is doomed to die out. The important thing to note about this index is that it represents, to a high degree of approximation, a rate of growth to which the *present* population is tending. Thus, with the use of this index it is possible to make true comparisons of the population situation in varying countries with different demographic elements, and also to make forecasts of the situation in the future on certain assumptions about the trend in fertility and mortality.

Reproduction rates have been calculated for England and Wales by Kuczynski, Glass and others and, more recently, by the Registrar-General. The latter has, however, developed what is described as the "effective reproduction rate." This takes into account assumptions that mortality will continue to decline in the future. Thus, the index becomes a com-

bination of *actual* fertility and *future* mortality. For this reason it is open to criticism. The use of this method results, of course, in somewhat higher rates than those obtained by using the actual fertility and mortality of a given year. The "effective reproduction rates" as published by the Registrar-General for 1933 to 1943 are :

1933, ·747 ; 1934, ·766 ; 1935, ·764 ; 1936, ·774 ; 1937, ·785 ; 1938, ·810 ; 1939, ·808 ; 1940, ·772 ; 1941, ·761 ; 1942, ·853 ; 1943, ·903.

If no assumptions concerning improved mortality had been made these rates would have been somewhat lower. Technicalities aside, however, it can be seen that in 1933 fertility was about 25 per cent below replacement level and in 1943 about 10 per cent below.

The Birth-rate 1933 to 1943

The upward trend in births from 1933, after over fifty years of a steadily declining rate, clearly demands further attention. Does this trend indicate a basic change in family size ; in attitudes to parenthood ? Or is there something illusory about these figures which should make us cautious in passing judgment on short-term oscillations ?

The Effect of Changing Rates of Marriage

In this war, as in the last, marriage rates have fluctuated violently. When the numbers of new marriages contracted rise or fall we must expect parallel movements in the birth-rate. These changes, up or down, in the annual numbers of births may be brought about mainly by an unusually high or low proportion of first births to young couples. In 1915 the rate of new marriages per 1,000 total population, after fluctuating around fourteen to seventeen during the preceding seventy-five years, suddenly rose to a record rate of 19·4 ; and then again in 1920, after a slump to 13·8 in 1917, a new record was established in the rate of 20·2. From 1922 to 1932 the rate varied between 14·3 and 15·8 ; but in 1933 it began to rise, climbing slowly to 17·6 in 1938, 21·2 in 1939, and then in 1940 to the highest point ever reached—namely 22·7. The inevitable recession occurred in 1941, when the rate fell to 18·7, and still further to 17·8 in 1942 and 14·3 in 1943. This decline continues, and with statistically unimportant fluctuations must continue, as our marriageable stocks dwindle.

Factors Favouring Reproduction

By 1942 we had a situation in which many short-term factors were operating together in favour of a higher birth-rate. In the first place the number of married women under forty had risen by about 20 per cent since 1931, and in 1939 to 1942 there had been a record number of new marriages. Actually there were 225,000 more marriages during 1939 to

1942 than there would have been if the moderately high marriage rates of 1936 to 1938 (approximately 17·5) had persisted; and if only half these additional marriages had produced one child there would thus have been 112,500 additional births during the war years. Yet over the period 1939 to 1942 there were, in fact, only 19,000 more births than there would have been had the birth-rate average of 1936 to 1938 been operating.

To put the matter in another way. During the past ten years there have been approximately half a million additional early marriages, mostly between young people, the mean age of spinsters at marriage having decreased considerably during that decade. Yet this enormous additional number of years of married life within the fertile age groups, though it has depleted our marriageable stocks possibly to a record low level, has had but a trifling effect on the crude birth-rate. This is all the more noteworthy when we recall how the smaller increment of new marriages after the last war produced such a far greater number of births.

The oscillations during, and after, the last war are indeed a warning against optimism today. During the year or two immediately preceding the war of 1914 to 1918 the rate of live births per 1,000 population was in the order of 24. By the end of the war it had fallen to 17·7, at that time the lowest annual figure ever recorded—the year 1918 having also been distinguished by the all-time lowest rate for any first quarter, namely 17·5. In 1918 the total number of women in the reproductive age groups, fifteen to fifty years, amounted approximately to 10,500,000, of whom some 4,800,000 belonged to the highly reproductive group of twenty to thirty-five years. It is significant that these women, in the sternest period of the war, produced between them some 663,000 live births.

These figures should be contrasted with those prevailing today. In 1941 the birth-rate touched bottom at 14·2; it rose to 15·8 in 1942, and still further to 16·5 in 1943. At mid-1939 the number of women in the age groups fifteen to fifty was 11,464,000, and in the group twenty to thirty-five it was 5,032,000—i.e. distinctly greater than the corresponding figures for 1918 and, it may be computed, not materially different from the figures of 1942 to 1943. Yet in 1942, despite this advantage of nearly a million more potential mothers, there were fewer births—i.e. a total of 654,000—than in the worst year of the last war.

After the last war the birth-rate rose sharply from the hitherto record low level of 17·7 in 1918 to 25·5 in 1920. In that year 958,000 infants were born to approximately the same number of women as in 1918. From this peak, however, the rate subsided rapidly, falling back to 17·8 by 1926 and then declining less steeply to 14·4 (the lowest between-wars figure) in 1933. Nevertheless, there were many in 1920 who believed that the rise to the highest birth-rate figure registered for ten years heralded a

permanent change in our reproductive trend. Similar conclusions —though with far less excuse, since we now have past experience for a warning—have been, and are being, drawn from the 1942 figures, which were again the highest for ten years.

The Elements Making for a High Birth-rate Today

Among other favourable factors now operating, in addition to the marriage rate, we must reckon full and regular employment, rising wage levels,[1] and the payment of allowances for several million children. The conscription of women for industry and the Forces must also have led many women to decide, as one Member put it in a recent House of Commons debate, that they could best serve their country as mothers ; and we must add as other factors the high concentration of the Armed Forces in this country as compared with 1917 and 1918, the presence of very large numbers of young men from the Dominions and elsewhere, and the measures taken by the Government to safeguard the health of expectant and nursing mothers and of young children. Furthermore, the number of female births registered in 1920 and 1921 was 210,000 greater than in 1918 and 1919, and the vast majority of these had reached marriageable age by the outbreak of the present war.

Thus, an extraordinary series of favourable elements, all operating within the last few years, have been brought to bear on our reproductive trend. Between them they might have been expected to lead to a marked rise in the number of births. On a critical examination of recent demographic history, however, it becomes evident that we are still advancing on the last wave of a tide of high fertility. The consequences of the low reproduction rates from the mid-1920s have yet to come. At the moment economic conditions are favouring a high level of young marriages ; delayed marriages and delayed births from the years of the great depression are also contributing their share ; and we have been "borrowing" marriages and probably births from the future. It is, as Kuczynski remarks, "absurd to assume that those who now marry at twenty-four would adopt the views and habits of another social group only as a

---

[1] In this connection we may quote a recent American investigation into the relation of business cycles, marriage rates and birth-rates during 1919 to 1937 (Galbraith, V. L., and Thomas, D. S., *Journal Amer. Stat. Ass.*, 1941, 36). The authors' conclusion was : "This suggests that the direct restriction of first births during depressions is somewhat less than that of immediately higher orders, a finding that is compatible with the spread of the small family system. The conclusion seems inescapable that, during the past two decades, the preventive check has been extensively in operation. Marriages are 'controlled' during depressions, and, within marriages, births of all orders are likewise controlled. Since birth rates of higher orders are overweighted with births to the lower income, occupational, and educational classes, it is clear that the birth control movement has penetrated deep into the social structure during the past two decades."

consequence of marrying earlier." [1] In other words, earlier marriage and the earlier birth of one child does not mean that families will be larger.

Perhaps, however, "borrowing" is not the right word, for we may not intend to pay back. Thus, in a period of unprecedented economic prosperity we have, while temporarily enjoying an abnormally large age group twenty to forty, been recouping from the past and "stealing," shall we say, from the future. To this favourable situation we have added an entirely novel incentive for women to have at least one pregnancy. Future students of demographic history may well ask why, in this favourable situation, with the danger of national defeat removed, and the promise of a new and better world within realization, the rise in the birth-rate has not been higher than recorded to date. It is indeed more than probable that the rise will continue for some time, perhaps reaching twenty per 1,000. But let us remember the oscillations in the past and bear in mind that what is happening today in Britain is also happening in other parts of the world. In the U.S.A., in most parts of the Dominions, and even in Denmark, Holland, Sweden, Switzerland and Czechoslovakia the crude birth-rate rose in 1941 and again in 1942. Whereas the rise in 1942 for England and Wales (over the average for 1936 to 1938) was 6 per cent, the corresponding increases in Sweden, Switzerland and Denmark amounted to 23 per cent, 21 per cent and 14 per cent respectively.

Hidden Factors

Preceding sections of this chapter have depicted the recent demographic history of England and Wales and they have also shown how the structure of today's population is fashioned by many forces deriving from the past. Population is always in the making, a confluence of past realities and present social forces. Because of these dynamic and ever-changing characteristics it must always be a hazardous affair to speculate about the future size and structure of a population. There are many reasons why we should not describe these speculations as "forecasts" but only as statistical exercises. One is that population estimating means averaging and people do not behave as averages. Another reason is grounded in the hard fact that we really know so little about the actualities of birth, marriage and death. To give a few examples : we do not know how many childless couples there are and for how long these couples have been married and at what ages they were wed. We do not know how many families there are of one, two, three, or any number of children. We do not know, of all today's parents, when they had their first baby ; how long they waited before they had a second and a third and so on. And when we try to peer into the future we have not a starting point as we do not know what the

[1] The New Population Statistics. Occasional Paper No. 1, issued by the National Institute for Economic and Social Research. Cambridge University Press, 1942.

answers are for the past. Supposing, for instance, we take all women married at age twenty-five who had had three children by (*a*) 1928 and (*b*) 1943. We should want to know how many years it took the (*a*) group and the (*b*) group to have three children. Did (*b*) take up more years or less? Is there, in fact, a longer time interval (and therefore, by implication, more *planning* of family size) between (say) first and second babies today than there was twenty years ago?

Questions such as these are of fundamental importance in any realistic population policy; in the question, for instance, of at what stage family allowances should commence. As we do not know the number of childless couples according to age and length of marriage (and the changes that have taken place in the amount of childlessness in recent years) we cannot judge with any precision whether measures to encourage childbearing should begin with the first birth or later. It does not, of course, necessarily follow that because we lack this information all population measures should be deferred. But it does mean a bigger risk that such policies will be misdirected and economically wasteful. It is to be hoped, therefore, that the Royal Commission on Population will eventually supply us with some of the answers to these problems in the statistics of parenthood.

Differential Fertility

When we talk about the birth-rate, the fertility rate or the reproduction rate we are, in fact, discussing a *national average*. An average, however computed, is the sum of many different units and may hide more than it discloses. What we want to know, and it is important where births are concerned, is the extent of the differences *within* the average. Let us imagine, for example, that we have two countries, A and B, both with a net reproduction rate of ·80. In country A there are only small variations in the rate of different social and occupational groups and in the rate shown by different geographical regions. In country B, on the other hand, the rate of ·80 is made up of high fertility in some groups and regions and very low fertility in others. Now from the viewpoint of future population trends country B is in a much stronger position. In the course of time the high fertility groups will act as a brake on the national average while the low groups will become of less importance. Moreover, if a population policy is introduced it may stand a better chance of success because of the existence of certain high fertility patterns.

But this argument, which concerns itself solely with the *quantity* of the population, overlooks a number of *qualitative* dangers. It cannot be regarded as wise or healthy if a considerable section of the future population is being recruited from a number of very large, and very poor, families. Is this the position in England today? Are we, or are we not, confronted with a situation in which the economically under-privileged are producing

a disproportionately large number of babies while those more favoured with a good environment are unduly restricting the size of their families?

The Relationship between Poverty and Large Families

The answer, in short, is that we do not know. It is generally accepted, however, that the birth-rate first began to decline in the 1870-1880s among the well-to-do sections of society. Since then, the inverse association of fertility with social and economic status has been reported with monotonous regularity from many countries. This is especially true of Britain where this social phenomenon has become firmly, and to some observers almost irremovably, implanted in the public mind. The literature on the subject of poverty and large families is vast and stretches far back in the social history of England. The condemnation of the poor for their poverty and large families is equally extensive. But social behaviour changes with time while the minatory finger remains.

For assembling and studying the material on differential fertility in England and Wales we are indebted to D. V. Glass, R. R. Kuczynski, to other demographers and to the Registrar-General for his famous Report on the Fertility of Marriage (1911). Broadly, the conclusions of this work show that there were, in the middle of the nineteenth century, significant differences among social classes in England. During the last quarter of the century, as the decline in the overall rate of fertility accelerated, class differentials steadily widened. Although the basic material was, and still is, imperfect, it is the considered opinion of competent observers that the differences in fertility between rich and poor were at their peak somewhere between 1891 and 1911. At the time of the 1911 census it may be said that, to use a rough index of the range between the classes, the fertility of unskilled workers exceeded that of the highest social class by 80 per cent. The fertility questions in the census of 1911 were not, unfortunately, included in the censuses of 1921 and 1931. No accurate material is therefore available for the study of class fertility since 1911. Nevertheless, attempts have been made by a number of workers to trace the curve of class birth-rates between 1911 and 1931. The conclusions of all this patient research cannot be elaborated here but for those who wish to study the details reference should be made to Glass's book, *Population Policies and Movements*. In summary form, however, it may be said that the results of this work point to a narrowing of the class differential between the census years of 1911 and 1931. This general conclusion is, moreover, strengthened by the manner in which regional differences in England and Wales have closed up. In other words, fertility patterns, and consequently, attitudes to family size, were apparently becoming more uniform among markedly different social and economic groups, both urban and rural, in the different regions of the country.

No conclusive evidence exists as to the position since 1931, and the effects which large-scale unemployment may have had in spreading more widely, and more forcibly, the knowledge of how large families both create and prolong poverty. It is to be noted, however, that those regions, which in 1931 displayed the highest fertility rates (Durham and Northumberland and South Wales), had registered, by 1939, the largest declines. During the period in question the number of live births per 1,000 women aged fifteen to forty-five fell by 16 per cent in Durham and Northumberland and 10 per cent in South Wales while the decline for the whole of the country was 4 per cent.

It is to be hoped that in this field of class and regional fertility, where so much is at present a matter of speculation, the Royal Commission on Population will be able, in the near future, to shed some light.

The Future Trend of Population

After a broad survey of the more important elements in the past and present population of the country we are now faced with the question: what is the probable course of population in the future? It is at this point that, as we have already emphasized, we depart from established facts and enter the sphere of speculation. If this is constantly borne in mind there is much value in studying, what we may call, the orderly unfolding and continuation of the past into the future. In other words we must assume that something which, biologically, amounts to a human revolution and which has developed, practically without cessation, for nearly seventy years, will continue into the future. And this standpoint we must maintain, *especially in the face of a large potential for further decline*, until we have the clearest evidence that a fundamental change has taken place in the deliberate decisions by millions of parents as to the size of their families. Henceforward, we must not continue to rely on receiving a large number of forced levies from the poorest groups in the community. We must assume that the number of unwanted births will decline. Whether an equal, or larger number, of *wanted* births—or voluntary contributions—will take their place is, again, a matter for speculation. Above all, we should remember that these births—whether forced or free—will have to come from a new generation—a generation that may not resemble, in its way of life and in its attitude to the unknown future, its more generously fertile predecessors.

Essays in Population Forecasting

By the middle of 1944 nine different estimates of the future population of England and Wales had been published. In addition, four separate estimates had been made for Scotland, four for Great Britain and one for the United Kingdom and Ireland. All these eighteen exercises in demo-

graphic forecasting varied according to the assumptions made about the future course of fertility, mortality and migration. Clearly, there is no end to the number of assumptions that can be made about the future behaviour of these elements. But when we remember that all these statistical computations have had to leave out of account the effects of the war—and its aftermath—on mortality (both service and civilian), migration and fertility there is little value at this stage in making fresh sets of forecasts. In any event we may note that, for the next twenty-five years, there is no very great variation in the results obtained by different authors using certain reasonable assumptions. The majority of these "reasonable" forecasts all point to two inescapable facts: (1) that by 1970 there will have occurred some decline in the total population, and, (2) that a significant shift in age structure—from childhood to old age—will have taken place.

We will, as an example, select one of the less alarming forecasts, namely, Estimate No. 1 by D. V. Glass.[1] In this estimate Glass assumed the continuance of the fertility and mortality of 1935. In that year the net reproduction rate stood at ·76. Migration was excluded. The following table sets out the results and, in order to judge the magnitude of the changes, the actual populations between 1851 and 1935 are also shown.

TABLE 4

ENGLAND AND WALES

Age Group Populations, 1851-1935.

Glass's Estimates (*No.* 1) 1945-1980 (*in millions*).

Year	(1) 0-14	(2) 15-19	(3) 20-39	(4) 40-59	(5) 60-64	(6) 65+	(7) *Women* 15-44	(8) *Total* 15-64	(9) *Total population*
1851	6·354	1·757	5·502	3·003	0·481	0·831	4·235	10·743	17·928
1871	8·202	2·180	6·687	3·946	0·623	1·075	5·240	14·436	22·712
1891	10·172	2·951	8·806	4·928	0·773	1·373	6·891	17·458	29·003
1911	11·051	3·337	11·745	7·039	1·021	1·879	8·990	23·241	36·070
1921	10·500	3·503	11·658	8·652	1·282	2·291	9·468	25·095	37·887
1931	9·520	3·435	12·710	9·668	1·657	2·963	9·825	27·470	39·952
1935	9·267	3·090	13·164	9·981	1·840	3·303	9·813	28·075	40·645
1945	8·223	2·954	13·030	10·876	2·067	4·204	9·669	29·153	41·353
1950	8·037	2·738	12·454	11·438	2·110	4·536	9·257	28·740	41·312
1955	7·777	2·686	11·758	11·836	2·159	4·769	8·778	28·439	40·985
1960	7·430	2·638	11·362	11·740	2·283	4·940	8·336	28·023	40·392
1965	7·051	2·555	10·635	11·682	2·516	5·141	8·065	27·386	39·578
1970	6·699	2·432	10·253	11·160	2·571	5·467	7·599	26·415	38·582
1975	6·398	2·299	9·956	10·533	2·504	5·743	7·277	25·292	37·432
1980	6·138	2·184	9·579	10·159	2·236	5·859	7·006	24·158	36·156

[1] See *Population Policies and Movements*, Oxford, 1940, and *Eugenics Review*; January 1944, Vol. 35, 3 and 4.

By 1980 the number of children will have fallen by 2,000,000 while the number of people aged sixty-five and over will have risen by over 1,600,000. The total burden of dependency on the working population aged fifteen to sixty-four (which will be smaller by about 5,000,000) will not have changed very much. But this working population, as well as being smaller in size, will be older, as columns two to five show. The youthful age group, fifteen to nineteen, will experience a substantial reduction and so will the reproductive group of women aged fifteen to forty-four.

If we take a more pessimistic view and assume, as Glass did in his Estimate No. 2, that fertility and mortality continue to fall in an orderly way, the former ceasing to decline by 1960 and the latter by 1970, we arrive at much lower figures. On this basis, the total population declines by 1980 to 33,040,000 while the group aged nil to fourteen falls by about one-half to only 4,000,000.

But whatever figures we arrive at, on any reasonable view of probable developments, they all tell the same story. Within twenty-five years we are likely to have a smaller population, fewer children, young people, and women of the reproductive ages, and many more old people. We should not forget, moreover, that the bulk of the population of 1970 is already born. Excluding migration, we know today the *upper limit* of the population aged twenty-five and over. The *lower limit* depends, of course, on the rate of mortality among this population during the next twenty-five years. The size of the population aged under twenty-five depends, therefore, on the future trend of fertility. And there is no evidence yet to show that any fundamental change has taken place in the trend of fertility which, for over sixty years, has been pointing in a downward direction. It will be time enough, when we learn—not that there are fewer childless couples or fewer couples with one or two children—but when there are substantially more parents with three, four or five children, to reconstruct these somewhat gloomy forecasts of the future population of England and Wales.

Trends in Other Countries

It is not possible to survey, within the limits of this section, the population position of each individual country in the world. All that can be attempted is a broad indication of the trend up to the outbreak of war in 1939.

It was estimated that, around 1933, the population of the world was in the neighbourhood of 2,050,000,000, of which whites numbered about 720,000,000, or roughly one-third. About 60 per cent of the human race is contained in India, China, other Asiatic countries (excluding the U.S.S.R. and Japan) and native Africa.

Dr. Kuczynski has calculated that whites as a whole (exclusive of the U.S.S.R.) had not been replacing themselves after 1932. It is impossible to tell how far the war has changed this situation.

Broadly, however, we may say that the problem of population in England and Wales is repeated, within varying degrees and at different stages of development, in other countries peopled by whites. The one outstanding example is, as we have said, Soviet Russia.

The following table sets out, for the latest year up to 1939 for which the figures are available, the situation in twenty-eight countries. Some of these rates are only provisional and are subject to an unknown margin of error.

TABLE 5

	Country	*Net reproduction rate*	*Year of estimate*
1.	Austria	·64	1935
2.	Switzerland	·79	1939
3.	Estonia	·79	1938
4.	England and Wales	·81*	1939
5.	Sweden	·81	1939
6.	Belgium	·83	1936
7.	Norway	·83	1938
8.	France	·90	1939
9.	Denmark	·92	1939
10.	Czechoslovakia	·94	1929–32
11.	Latvia	·95	1938
12.	Finland	·96	1938
13.	Scotland	·96	1938
14.	United States (Whites)	·96	1937
15.	Germany	·98	1939
16.	Australia	·99	1939
17.	Hungary	1·00	1938
18.	New Zealand (Whites)	1·07	1939
19.	Canada	1·09	1938
20.	Poland	1·11	1934
21.	The Netherlands	1·12	1937
22.	Italy	1·13	1935–37
23.	Ireland	1·16	1935–37
24.	Bulgaria	1·19	1933–36
25.	Spain	1·22	1930–31
26.	Union of S. Africa (Whites)	1·30	1938
27.	Portugal	1·33	1930–31
28.	Japan	1·44	1937

* "Effective" reproduction rate. (See page 12.)

For the first sixteen countries the rates are below replacement level and are the result of a decline in fertility over a great number of years. In some of these countries the decline set in earlier than in others and the speed of the decline has varied from one to another, but they all have in common the fact that reproduction is inadequate.

In the remaining countries a decline which has been in progress for some years has not yet brought the rates to below replacement. A few of these countries are probably by now below replacement, while others are rapidly approaching that point. All these countries—including Japan—are travelling on the same road to population decline but each one of them has reached a different stage on the route.

The rise in the birth-rate that has taken place recently in England and Wales is, we may note, paralleled in a number of other countries. This is true (up to and including 1942) of Canada, the United States, Denmark, Ireland, the Netherlands, Sweden, Switzerland, Australia and New Zealand. But these increases, apart from a few cases, are not exceptional and illustrate the fact that England is not unique in registering a war-time increase in births. The only country which has, however, reported a heavy fall in the birth-rate is Germany. In recent years the rate has been : 1931 to 1935, 16·6 ; 1936, 19·0 ; 1937, 18·8 ; 1938, 19·6 ; 1939, 20·4 ; 1940, 20·0 ; 1941, 18·6 ; 1942, 14·9. The extensive decline since 1939-1940 represents a loss of nearly 500,000 births and places the German birth-rate well below that for England and Wales.

Some Essential Facts of the World Situation

The Dominions, the United States and Western and Northern Europe represent the zone of low fertility. The countries within this zone have passed the period when death largely determined the size of the population. The main regulator is now voluntary fertility. While some countries, like England and Wales, France and Sweden, are further on the road to population decline it may not be long before other countries in the group reach the same position. Canada and Australia, for instance, are already conscious of the fact and are discussing the possibility of extensive immigration. But it is clear that there is no large margin in any of these countries—particularly Britain—to allow of their releasing considerable numbers of their youthful age groups to increase the population of Australia and Canada. The problem of low birth-rates in this zone of low fertility cannot indeed be solved by a redistribution of existing populations.

In Southern and Eastern Europe, however, a different problem presents itself. Although birth-rates were declining before the war nevertheless this area is still one of high fertility. Notestein and his colleagues remark:[1]

[1] *The Future Population of Europe and the Soviet Union.* F. W. Notestein and Others. League of Nations. 1944.

"It is in this overcrowded agrarian region that the projections suggest an increase of 20 million persons of working age between 1940 and 1970. War losses will undoubtedly reduce that increase, drastically in some sections. Probably they will do so without changing the essential nature of the problem; smaller increases will have to be met with depleted resources. It is safe to conclude that the hope for rising levels of living and for peace in this politically unstable region involves the solution of its immediate problems of population pressure."

Without a solution the classical Malthusian situation may present itself. No such problem is, however, likely to obtain in Soviet Russia. As Notestein and his colleagues point out: "Soviet Russia is growing much more rapidly than the rest of Europe and predictions regarding future population trends are more difficult. Even assuming that the U.S.S.R. follows the Western European pattern of fertility decline, as the remainder of Eastern Europe is doing, the projections suggest a population 25 million greater than that of North-western and Central Europe by 1970. War losses may reduce this margin but the potentialities of very great population growth in Russia will not be eliminated by the war. However, this large population growth, if it occurs, will probably not create the problem that it would in other sections. The U.S.S.R. is the outstanding example today of a country with a large, rapidly growing population and ample room in which to expand." Excluding war losses, the estimates made suggest, for example, that by 1970 Russia will have 43,300,000 men aged fifteen to thirty-four (an increase of 13,000,000 on 1940), Germany 9,900,000 (a fall of 1,400,000), and the United Kingdom 5,700,000 (a fall of 1,900,000).

Finally, as an illustration of the immense variety of demographic problems in different parts of the world there is the issue of India's 400,000,000 people. In this continent, containing one-fifth of the world's population, numbers increased by about 50,000,000 between 1930 and 1940. Here is a problem which, in its scale and range of social, economic and political questions, will tax all the wisdom and ingenuity of man and equals in its potentialities for good or evil the very different issue of declining population which faces Western civilization in general and Britain in particular.

For Further Reading

Population Policies and Movements. D. V. Glass. London. 1940.
The Measurement of Population Growth. R. R. Kuczynski. London. 1935.
The New Population Statistics. R. R. Kuczynski. London. 1942.
Dynamics of Population. F. Lorimer and F. Osborn. New York. 1934.
The Menace of British Depopulation. G. F. McCleary. London. 1937.
Current Trend of Population. Ministry of Health, H.M.S.O. London. 1942.
The Future Population of Europe and the Soviet Union. F. W. Notestein and Others. Geneva. 1944.
World Population. A. M. Carr-Saunders. London. 1936.
Parents Revolt. R. M. and K. Titmuss. London. 1942.

ECONOMIC AND SOCIAL ASPECTS OF FAMILY LIFE

By W. B. REDDAWAY, M.A.

TWO very simple facts are of dominating importance when one considers the economic and social aspects of family life. Firstly, for a considerable number of years after they are born children are unable to earn their own living, so that somebody else must provide the money for their food, clothing and other requirements. Secondly, for a considerable number of years they are also unable to look after themselves, so that somebody else must look after them and do a considerable amount of work for them.

These two factors are not wholly distinct, since by spending more money parents can convert part of what is usually the "labour" element into a financial one : thus the wealthier classes frequently pay a nurse to look after their children and so increase the money cost, but reduce the burden of labour which would otherwise fall on them. This overlap between the two components is perhaps a useful pointer to the fact that the "money" part of the burden of bringing up a family is not something which can be avoided by financial device, such as the use of the printing press, but corresponds to a very real burden which must be borne by somebody. Robinson Crusoe, if he had had a wife to produce children, would have had to devote part of his energy to producing food and clothing for these children, which otherwise he might have used for his own consumption ; a Communistic society which shared everything in common would have less to distribute to its adult members if it had also to provide for children. The burden of supporting children in their early years is one which must be borne by somebody, though the second example shows that there is no inexorable rule whereby it is laid on the parents.

It would be a mistake, however, to think of the economic and social aspects of children solely in terms of the burdens which they necessarily create. Even those parents who grumble most about the expense and work which children involve will generally admit that there are also considerable advantages in having a family and that they "would not be without their children for the world." Most people find that they derive considerable pleasure and pride from parenthood, and that they like having some object to which to devote their affections ; children give to the parents a common purpose and interest in life which is of very real value and which is appreciated by both father and mother as something which brings them closer together. Apart from these joys of parenthood, there is also in some cases the possible source of income which the child represents for

later years, though this factor is frequently of little importance. In brief, life might be easier without children, but it would also be a great deal emptier.

One point which is of considerable importance in connection with the advantages brought by a family is that they may not increase very much as the family grows larger, whereas the burdens increase very substantially. The parents may well find that one or two children provide them with a sufficient outlet for their parental pride, and provide a sufficient common interest. Admittedly, if there were no other children in the world they might feel that they were not really deriving very full benefit from family life, since one of its joys is to see children playing together, but particularly in towns there is no real difficulty in finding playmates of the right ages in other families. Thus the advantages may increase far less than proportionately to the number of children, whereas the expenses and the domestic work rise more nearly in proportion, and the extra strain on the parents caused by a fourth child may be more serious than that caused by the earlier ones, because their margin of surplus income and energy is already absorbed.

Importance of Conventional Standards

In regard to all the factors discussed above, it is absolutely essential to realize the enormous importance of conventional standards in influencing the results. Thus to take the question of the money cost of a child. Sir William Beveridge put this at about 9s. a week in his Report on Social Insurance. Such a sum would have seemed fantastically high a century ago, even to people who were relatively well off. This is not simply a reflection of the fact that prices have risen considerably in the last hundred years—even making allowance for this factor, the equivalent of 9s. a week would have been so large a part of people's incomes in the 1840's that they would have considered it absurd as a measure of the basic cost of a child. Similarly, Indians at the present time would regard the standard set by 9s. a week as quite fantastic, and the same would be true to a lesser extent of many countries on the continent, where incomes are very much lower than in Great Britain. On the other hand, the richer classes in this country would regard the estimate of 9s. a week as quite meaningless in relation to the expenses of bringing up a child in the only way which they would regard as at all satisfactory. To some extent this is accounted for by the fact that Sir William included nothing in his estimate for the cost of education, since it is possible for parents to have their children educated free; but even apart from this particular item, the standards which are regarded as a minimum by the richer classes, if the child is really to be "one of the family," would require a very much greater outlay than 9s. a week. In a similar way, we may confidently expect that an estimate of

9s. a week would be regarded as setting far too low a standard by the time that our grandchildren are considering such problems. It is absolutely essential that any discussion of this matter, and still more any policy on the subject, should take very full account of the influence of time, country and class on people's conventional standard as to what is required.

This importance of conventional standards or ideas is by no means confined to the question of the money cost of a family. These also have a very great influence on the amount of domestic work which a family involves, since ideas have changed very greatly as to the amount of parental care which is necessary to ensure the proper upbringing of a child. If it were considered reasonable that a child should simply be turned out into the streets to look after itself between meals, then the domestic work involved would be greatly reduced; similarly, if it were considered quite reasonable for the child to go about in unkempt clothes and for parents not to worry very much about its cleanliness and general appearance, then again the mother's duties would be vastly reduced. People's standards in regard to these matters vary almost as much between one century and another, or one country and another, or one class and another as do their ideas about the material standards of consumption which a family should have, and so the amount of money which must be spent on it.

An intermediate case, which falls between the two factors of money cost and parental care, etc., is the very important one of housing standards. So long as people's ideas about what is required in this direction were very modest, it made relatively little difference to the parents' requirements whether they had one child or five; the same size of house would more or less do in both cases. This sort of outlook persists to some extent even in most unlikely places—thus Sir William Beveridge's calculation of the cost of a child included no allowance for rent, presumably on the assumption that the parents would live in the same house irrespective of the size of their family. Moreover, this assumption, unreasonable as it may seem when stated explicitly, nevertheless does to a very considerable extent correspond with the facts; the census taken in 1931 showed very little correlation between the size of the family and the number of rooms in the house, so that apparently it was about equally likely that a house of more than average size would be occupied by a large family or a small family. With the progress of ideas on this subject, the increased requirements of house room felt by the bigger family will become more important, and one must expect that parents will reckon both an extra expense for rent and increased labour in running the larger home as a corollary to a large family.

Conventional standards also have a very great influence on the importance attached by people to the advantage which a family brings. Thus

in a world where there are many other sources of pleasure and of common interest between husband and wife, much less importance may be attached to the desirability of having children, more especially as a family might mean that the parents had neither the money nor the leisure to pursue their other interests as much as they would like. Largely because of this kind of argument, the "social prestige" which used to be brought by the possession of a large family has to a considerable extent disappeared; whereas in Victorian days it was regarded as a sign of one's prowess to have produced a large family, today it is liable to be regarded as a sign of old-fashioned and unprogressive ideas. The development of a conventional size in relation to a family is undoubtedly of the first importance.

A more tangible result of changing conventions is the reduced speed with which a child becomes an income earner. It is not so very long ago that children began to be at least partially self-supporting at the age of about seven, so that the parents had far less by way of a burden to bear in the early years; furthermore, it was also considered right and proper that the child should support its parents when they became too old to work. Without implying that parents think of their children primarily in monetary terms, the revolution in ideas on this subject may nevertheless also be regarded as of the first importance.

Effect of Convention and Competing Interests

It will be seen from the above discussion that modern conditions have had a cumulative effect in militating against large families. The normal ideas about the proper amount which should be spent on a child are very much less modest now than they used to be; similarly, the normal ideas about the amount of care and attention which should be devoted to the child have also progressed a great deal and ideas about housing standards have also advanced. Competing interests and pleasures, such as the traditional rivalry between "the baby Austin in the garage and the baby in the nursery," have developed in all directions; in particular, the mother's ideas about how she should spend her time have moved very considerably and she has developed interests other than those centred on her family. It is true, of course, that the average income has also risen substantially, but the ideas about what should be spent on a child have moved at least as rapidly, and other outlets for the parents' income, as well as their energies, have developed out of all recognition. Perhaps most important of all is the effect which all this has had on people's ideas as to what is "the done thing"; whereas previously a man hardly felt that he was a man unless he had had a reasonable number of children—and the same was true of a woman—it is now the man with four or five of them who feels he has something to explain away rather than the man with the conventional two.

Present Contribution of the State

We should now consider the role of the State and other social bodies in relation to the economic and social aspects of family life. In the first place we may note that the State has done a considerable amount towards relieving parents of some of the burdens which a family brings. Perhaps most important of all is the fact that the State offers free education to all children who wish to come to State schools. If all parents had to face the burden which the upper and middle classes take upon themselves by paying for private education, then the movement in ideas about what sort of education was necessary would doubtless have been slower; nevertheless we can be reasonably sure that it would have gone a considerable distance, and the expense of school bills would have been a most formidable deterrent to the rearing of a large working-class family.

Partly because it was clearly little use offering a child free education if it were too hungry to take advantage of it, the Government also provides a considerable number of children with free meals at school; even with the recent developments, however, this only applies to a fraction of the total child population, and it is a most welcome thing to see that the Government White Paper envisages a much greater development of this system. Quite apart from the saving of expense to the parents, the amount of work previously thrown upon the conscientious housewife by the necessity of providing a good middle-day meal for the children as well as something hot for her husband in the evening was formidable, and the relief will be a real one.

The State has also done a certain amount to assist the family man by giving him a rebate on his income tax where his income is large enough to become liable to tax. Thus a man with three children is allowed to deduct £150 from his income, which would otherwise be assessed to tax, and with the present rate of 10s. in the £ this implies that he actually has available for his family's expenditure £75 a year more than a similar man with no children. This is a very real assistance—nearly 10s. a week for each child—but the system is rather peculiar in two respects: a really poor man will receive no benefit from it at all, because his income would not be large enough to attract any taxation in any case; and, secondly, even people with a relatively substantial income are liable to receive a smaller reduction in their tax in respect of the later children in the family, because the allowances for the early ones bring their remaining income into the zone where only a reduced rate of tax is payable. Even during the war our man with three children would, in fact, only get the full benefit of the children's rebates if his salary were over about £500 per annum, and before the war the corresponding figure was higher.

Another important way in which the Government has made things rather easier for the family man is through the national milk scheme,

including the provision of cheap milk for school children. This brings a very real saving for the large family, especially in respect of children under five. Thus at present every child under five can have a pint of milk per day at 2d. instead of the ordinary price of 4½d., giving a saving of 1s. 5½d. per week; if the family income is below a certain level (varying according to the size of the family and various other circumstances), then the milk is provided free and the saving goes up to 2s. 7½d. We might perhaps also mention here the cheap orange juice and cod liver oil which are provided for children under five, and take note of the fact that expectant mothers share in these benefits.

The State also makes some provision for a man's family when he is unemployed or in the Forces, without demanding anything specific in return. Thus a man with a family pays nothing extra by way of unemployment insurance contribution, but nevertheless receives a greater benefit than the childless man if he is unemployed; similarly, a man in the Forces is not expected to do more work merely because he has a family, but the State nevertheless gives the family an income in addition to what it hands over to the soldier. It is very important to note, however, that as yet the State does nothing for the family man by way of a children's allowance when he is in ordinary employment, although the latest proposals do visualize an allowance of 5s. a week in cash for all children after the first. One very serious consequence of the present system is that the unskilled labourer with a large family was liable to find, before the war, that he received a greater income when he was unemployed than when he was in work, since in the former case his income included an allowance for his family whereas in the latter it did not.

So far we have been dealing essentially with the measures taken by the State to reduce the *financial* burden of parenthood, without considering the part of the burden which takes the form of extra domestic work, etc. The State does do a certain amount, largely through the medium of local authorities, to assist the family man in ways which do not involve the direct granting of a cash benefit. Perhaps the natural item with which to start, since we have seen above that it tends to occupy a rather intermediate position between the "cash" items and the "work" ones, is housing. To a limited extent preference in the allocation of Council houses is given to people with large families. Since the Council house is very frequently let at a lower rent than other houses with equal amenities (to some extent as a result of subsidies), this discrimination does amount indirectly to some assistance towards a family man's budget; to an even greater extent, perhaps, it amounts to an increase in the amenities of his life, since the most probable alternative would not be that he paid more for an equivalent private house, but rather that he paid about the same amount for a more old-fashioned one.

In considering the above, one must remember that the preference only applies, broadly speaking, on *Council* estates and that even with these it is not of much practical importance in some towns. The number of Council houses is still much smaller than the number in private ownership, so that the assistance given to family men in the very important matter of housing is relatively slight if we consider the whole field. Only in a much smaller number of cases still is housing used as a medium through which to give the family man the equivalent of a direct cash grant; this does happen in some cases where rent rebates are given to families whose income is small in relation to their needs, a criterion which in practice is bound to favour families with a considerable number of children more than childless couples.

Apart from housing, assistance is given in various ways, such as the provision of a maternity service, nursery schools, public playgrounds for children and in some cases a system of "home helps." The most important point to note in this connection is that the services are all too often in a very primitive stage of development; thus, nursery schools are available for only a small proportion of children below school age, and the number of local authorities running a service of home helps is minute.

Need for Better Financial Arrangements

With the assistance of the above brief survey of what happens at present, we should now consider what developments are wanted in the future, and what sort of economic and social arrangements will favour the rebuilding of family life.

Without in any way implying that the Nation is governed solely by mercenary motives, the first essential is clearly to get our financial arrangements more in harmony with modern ideas. This does not necessarily mean that parents should be relieved of the *whole* cost of bringing up a family, nor yet even of the *minimum* amount which must, by modern ideas, be spent on the children. It is quite reasonable to expect that the parents should bear some part of the cost, since we have seen that children bring certain advantages and since there is a real gain in the parents' feeling that they are devoting a part of their own income to the children's welfare. But it *is* important that our arrangements should see to it that the financial burden on the parents involved in bringing up an adequate family is not made greater than they are prepared to bear, and in considering this point we must be very careful to pay due heed to the importance of conventional standards; we must allow for expenditure on the child on a scale which conforms to modern ideas and not to those of the last century.

One point in regard to the above needs some very careful thought, and that is the question of how we should frame our arrangements so as to

cover the middle and upper classes as well as the poorer part of the population. It may sound a fine democratic idea that all children should be treated equally, but if one is realistic there is no denying the fact that a child of the middle-class home costs much more to maintain and educate than a child in a poorer one; it would, indeed, be a very queer sort of family life which we had fostered if the expenditure on the parents' own welfare conformed to middle-class standards, but that on their children was no greater than in poorer homes. If our arrangements are drawn up solely with a view to the conditions of the poorer classes, then it is inevitable that they will not bring very much relief to the middle-class parent, who is comparing his position not with that of the labourer with the same-sized family, but with the childless man of his own social class. We should not, of course, desire that childless people in the working class should be taxed so as to pay for the public school education of children in the upper classes, but we do want to see to it that our arrangements give sufficient assistance to the middle-class family man *vis à vis* his childless counterpart to ensure the rebuilding of family life in that class as well as in the poorer one. This point is discussed at greater length in connection with income tax rebates below.

The first essential for setting up a proper financial framework on which to rest a proper family life is clearly the provision of family allowances to assist in meeting the expenses of bringing up children, together with maternity grants or the equivalent to help meet the expenses inevitably associated with the child's arrival. On this point the Government have now proposed an allowance of 5s. per week for every child except the first, and also various maternity allowances. The family allowances are specifically stated to be wholly met from general taxation, and they are available to all families, irrespective of means. Without necessarily accepting the figure of 5s., these principles seem entirely right, and as people's ideas on the subject become more emphatic it is very likely that the allowance will be increased. The omission of the first child is a very reasonable way of limiting the cost of the scheme if this must be done; in general the parents can reasonably be expected to provide for the expense of *one* child, especially if, as promised in the Government White Paper, there is a considerable development of school meals and other benefits in kind. If the system is to be made more generous, there is a better case for raising the allowances of the larger families rather than for including the first child.

The system of family allowances proposed in the White Paper provides the essential foundation on which our arrangements should be built. Nothing is specifically said in the Paper as to whether the receipt of the allowance will mean that no income tax rebate can be claimed in respect of that child. It is sincerely to be hoped that no such development is

intended, since it is only by combining a flat rate allowance with an income tax rebate that there is much hope of producing an arrangement which is suitable for classes other than the poor. It may seem undemocratic to say that the child of the rich man should receive what amounts to a second allowance, but this is really a case of confused thinking. The income tax rebate should be thought of as a means of adjusting the cash available to a family man on an income of, say, £600 a year as compared with the cash available to a bachelor with the same income, rather than as anything to do with the relative positions of the rich family man and the poor one. If we desire to do more in the way of equalizing incomes as between the classes, then the rate of income tax can be made more progressive, so as to take away a larger slice of the higher incomes, whether these belong to bachelors or family men ; but in deciding how much of the burden of taxation should fall on the family man and how much on the bachelor with the same income, we should think in terms of conditions in that particular class.

If the problem is approached on these lines, it is fairly clear that even if combined with a flat-rate family allowance the present income tax rebates are considerably *smaller* than is really desirable for people with middle-class incomes, whilst the family man in the super-tax ranges will consider them of little value. If we are to provide a proper basis for family life in all classes, then there is a great deal to be said for a system of tax rebates which allows the deduction from the taxpayer's income of a fixed *proportion* (say one-fifth) in respect of each dependent child, rather than a fixed *money sum*. This would mean that as one went up the income scale, so the difference between the tax paid by the bachelor and the man with a family would grow progressively greater, and the relief would bear some relationship to the expenses which would be likely to be thought appropriate to the upbringing of a child in those circumstances. Looked at from a rather different angle, the proposal might be thought of as a system whereby a family income is first divided between the members of the family and then each one taxed separately ; this way of considering the matter shows that there is nothing inequitable in it as between the rich and the poor—we can still say that the rate of tax shall be very much higher for people with high incomes than for people with low ones, and so in effect make the childless people in the higher income ranges pay more taxation in order to balance the reduced amount demanded from those with large families.

The above scheme amounts to a sort of national variant of proposals which are frequently put forward whereby any national system of family allowances should be supplemented for those in the higher income groups by "occupational pools." This system is already in force in a few cases, such as the staff of the London School of Economics. The idea is

that an occupational group should, in effect, tax itself in order to provide allowances for those of its members who have family responsibilities. This method has the great advantage that the group can fix the size of the transfer between its members at a level considered appropriate to the circumstances of their social class, rather than to the national average. The drawback of the system is that it is not very easy to arrange. It may be that a group of people in a certain occupation will consider that they have this sort of "community interest" but it is not very easy to get the scheme working. It could be applied to such cases as the Civil Service, and probably also to the Banks, if the people employed by these organizations agreed that it was desirable that men with families should receive an extra allowance rather than that the general salary level should be higher. It is clearly much more difficult to work the system where the people are not employed by any organization, for example, in the case of doctors, but even in these professions the necessary arrangements might be made, given sufficient goodwill on the part of all concerned. Thus all the doctors might contribute a stated proportion of their income to a central fund, run by the British Medical Association, out of which allowances would be paid to those with families. If such a system can be organized, with the agreement of all the people in the group, then it is certainly to be welcomed.

One particular aspect of the financial burden of parenthood clearly calls for action of one kind or another, and that is the cost of the traditional public school education which is considered more or less essential for upper- and middle-class children. This is not the place to discuss educational reform, but it is right to say that so long as the middle and upper classes want to have exclusive privileges for their children, the cost of meeting these must be met by these classes. It would almost certainly be preferable to reform the system of education by making the best education available to all with the necessary ability to profit by it, eliminating the "financial" test for entrance, and then the cost of that high-quality education might reasonably be made at least partially a charge on the Exchequer. If this system is not adopted, then in the interest of their own survival the upper and middle classes must produce some system of either rendering the education cheaper, or else forming a fund (or series of funds) to assist their members to meet their school bills.

One small point is also worthy of mention on the financial side, and that is the set of social arrangements and conventions whereby married women are, or are not, in practice able to secure employment. This, also, is a matter which cannot be fully discussed here. To some people it might appear that the rebuilding of family life might suffer if it were made easier for married women to obtain employment, but this would be a very narrow view. Not all women's talents lie in the domestic field, and

many have undertaken extensive training for other work. It seems much better that our arrangements should allow those women whose natural inclination is to go on with their ordinary employment to follow that inclination and earn the necessary money to pay someone else to do a large part of the housekeeping and domestic work needed in their family. In many cases they may well be able to earn considerably more than they have to pay for the necessary domestic assistance and the children may be better provided for in consequence.

Other Desirable Improvements

So much for the financial side of family life. It is not so easy for the *State* to deal with the other problems of parenthood, so long as we continue to have a system in which most of the Nation's activities are conducted by private enterprise. It is true, of course, that there are certain fields where it is recognized that the State, or the local authorities, are responsible for seeing that certain facilities are available, very often free of charge ; in these cases—for example maternity services, free playgrounds, nursery schools—it is most important that the services should be developed very greatly, since at present they are often quite inadequate by the best modern standards. But in other spheres, such as housing, the State only plays a relatively minor role, and this makes it very difficult for it to secure the progress which is really desirable. So long as most houses are privately owned, we cannot rely on the Council house alone to solve the problem of "family housing," and improved arrangements confined to this part of the field cannot take us very far ; indeed, there is a certain danger that they will create a privileged class of municipal tenants, which is likely to be selected more by accident than by any true criterion of need, and so may be a cause of jealousy. If all houses were owned by a Governmental authority, then there might be a great deal to be said for a system whereby all families paid much the same rent, but only the larger families were allowed to have the larger houses.[1] This would automatically mean that there would be no deterrent to having a large family on the grounds that an adequate house would be either unobtainable or far too expensive.

In general, however, we are more likely to secure proper results over the whole field if we see to it that the *income* of the family man is sufficiently great for him to be able to pay for the things which a family needs, rather than if we seek to organize the State provision of each of these separately or even of the important items like housing. In many cases the "cash allowance" system is preferable, since it allows the maximum of scope for differences in individual taste and needs ; for example, it

[1] Or perhaps people who wanted a larger house than they were "entitled to" by reference to their family circumstances should be allowed to have it on making an additional payment.

would be rather a wasteful system if a free pram, cot, etc., were distributed to each family, rather than if a cash grant were made, since many of the families might well have a greater need for other things and prefer to economize on these items by buying second-hand or some other method. On a realistic view, one must also take account of the fact that State distribution of these articles, whether free or at a reduced price, is bound to be extremely unpopular with a large number of the private traders, so that the policy may be reversed as a result of political pressure.

"Home Helps"

Although in general the argument of the above paragraph is probably correct, nevertheless the State should be ready to step in if private enterprise fails to provide something which is clearly required, or if it is particularly convenient to mix the provision of a service with the making of a grant to the family, or in some cases if we want to give the service a certain amount of "status." Nearly all these tests apply in the case of the provision of "home helps." It is very unlikely that private enterprise will organize an efficient service of these people, at least on a sufficiently universal scale ; it is very convenient to combine the provision of the service by the local authority with some sort of subsidy to the poorer consumers ; and if the system is run by the Government or the local authorities, then it is much easier to give it the status necessary both to attract the right type of women and to encourage mothers to avail themselves of it. The provision of a cash grant to the expectant mother, with the idea that she would then be able to pay for a home help service run by private enterprise, is an unrealistic method of approach.

The question of home helps is one which might perhaps be considered at greater length. With the rise in conventional ideas as to what sort of provision should be made when a child is born and how much of a burden should be put on the mother, the need for somebody to come and assist with the running of the home for a period before and after the confinement has greatly increased ; similar help is required in various other domestic circumstances such as illness in the home. We are no longer prepared to rely solely on the good offices of neighbours and relations to prevent the family from being neglected in these crises. With the increased proportion of women over the age of about forty or forty-five, which is now to be expected in the population, it should be quite possible to organize a service in the employment of local authorities which would be made available to those households which particularly needed it. Such a service would go a considerable way towards improving the amenities of family life and would remove one of the factors which discourage people from having more children. Another service which might help in the same direction, and which might well be provided by municipal

enterprise, if private enterprise does not step in, would be a "nappy service"; in many parts of the United States the household drudgery inherent in repeatedly washing the baby's nappies is completely eliminated by a commercial service which makes frequent deliveries of clean ones in exchange for dirty. The mother does not buy nappies at all, but pays the firm to keep the baby supplied with clean ones in the same way as "towel hire" companies keep offices supplied with clean towels for their staff.

Social Attitude towards Family Life

Finally, we should consider what is required by way of changes in the *social* attitude towards family life and the resulting arrangements. It would be quite wrong to look to the Government or the local authorities to provide all the improvements that are required; much which would be inappropriate for Government action, may well be supplied by social bodies or simply by neighbours if the appropriate attitude towards families is adopted. For example, one clearly cannot expect the Government to see to it that parents are not deterred from having children by the thought that they would be unable to go out at night, owing to inability to leave the children; it might well, however, become the accepted thing that neighbours would help by "sitting in" on suitable occasions and such a body as the W.V.S. might arrange for some sort of emergency pool, based on a rota system, to be called upon as occasion arose. Similarly the State cannot ensure that parents will not be deterred by the fear that neighbours will complain about the noise made by children, but an improved social attitude towards families might make a considerable difference; if this did develop then the preference of private landlords for childless couples might be somewhat reduced, since the presence of a family in one flat would no longer be regarded as such a reduction in the amenities of the block.

This sort of changed social outlook towards the family is one which it is very hard for the State to produce by any direct means, and indeed propaganda on the subject might well prove positively disastrous. It seems more reasonable that the State should approach the matter indirectly; if it shows that it appreciates the importance of family life by making suitable arrangements to foster it in the spheres which are recognized as Government responsibility, above all by making suitable financial arrangements, then public opinion on the subject may well develop and social arrangements to assist the family will also improve. Conceivably a certain amount of "education" about the long-run advantages of having a family might help, since it is a natural human characteristic to overrate the importance of the immediate disadvantages relatively to the benefits which accrue in later years; but in the main the proper

procedure is for the State to make parenthood reasonably attractive and then to allow individuals a free hand. The last thing which we should seek, if we set store by true family life, is anything that might in any way resemble "compulsory parenthood," even if the compulsion is only moral rather than legal.

SUMMARY

Bringing up children costs both money (to feed and clothe them, etc.) and labour (to look after them).

These costs are real and inevitable, but there is no inexorable rule whereby all, or even part, of them should be borne by the parents.

A family is also a source of pleasure to the parents; in particular it provides them with a common interest. Later on it may also be a source of income.

Conventional standards vitally affect both the money cost of bringing up a family and the work involved. They vary enormously between different centuries, different countries and different social classes.

Conventional standards and ideas also affect the advantages derived from a family. A large family may or may not bring social prestige; children may or may not speedily become a source of income.

Modern conditions have a cumulative effect in militating against large families.

The financial assistance now provided by the State—free education, school meals, income tax rebates, the national milk scheme, dependants' allowances for the unemployed and members of the Forces—is far from negligible, but produces strange anomalies, mainly because there is no general family allowance.

The assistance given in other ways is very inadequate.

The great need for the future is that family life should have a proper financial basis, adapted to all social classes. The non-financial burdens of parenthood should also be lightened.

RECOMMENDATIONS

1. Family allowances should be introduced, payable by the Treasury at a rate irrespective of the parents' income.
2. It is more important to increase the allowances paid to large families than to include the first child.
3. These flat-rate allowances should be accompanied by income tax exemptions equal to a fixed *proportion* of the parents' income (say one-fifth for each child). The rate of tax should be increased so that the revenue is maintained, with the largo families paying less and the small ones more at each income level.

4. "Occupational pools" to assist large families should be encouraged where the members of a suitable group desire them.
5. The education system should be reformed so that middle- and upper-class parents do not feel forced by convention to incur very heavy expense.
6. The barriers which in practice prevent many married women from continuing their career should be abolished.
7. In general, assistance to parents should be in cash rather than in kind; assistance in kind can seldom be sufficiently universal—thus most families do not benefit from cheap municipal houses. Nevertheless, school meals, nursery schools and maternity services should be greatly developed.
8. The system of home helps should be vastly extended.
9. Direct State propaganda in favour of larger families is more likely to do harm than good. By its financial arrangements the State should show that it appreciates the importance of the family, and so indirectly foster a helpful public attitude towards them. This would be reflected in general social arrangements, which would be designed to take account of "family" problems.

NUTRITION AND THE FAMILY

By SIR JOHN BOYD ORR

IN a very real sense, food is the physical basis of family life. The dependence of the infant on its mother for sustenance and the dependence of the wife and children upon the father as bread-winner reinforce the natural tendency for the family to be the fundamental unit in human society. Diverse interests in work and play separate the members, but they are continually being reunited at meal-time. Special family functions and gatherings are always accompanied by a special meal. Indeed, the sharing of the same food and the common participation in a feast are fundamental to the social and religious customs both of the family and of larger groups of human society.

The provision of food for the family is a powerful factor in developing the altruistic qualities necessary to hold both the family and society together. Among the poor and relatively poor, who form the majority of the population in all countries, the provision of food makes the biggest demand on the energies of the parent. Even in a wealthy country like Britain where the standard of living is high, between 40 and 50 per cent of the total earnings of workmen goes in the purchase of food. The larger the family the greater is the proportion of the income which must be spent on food and, consequently, the larger is the number of luxuries or semi-luxuries which the parents must forgo in the interest of their children. But this sacrifice is not without its reward. The father of the family, sitting at the top of a well-laid-out table where the food he has provided is being enjoyed by healthy well-fed children, must have a sense of responsibility which enlarges his personality and a subconscious feeling of the dignity of manhood which is denied to the sterile male who has never had the duty of providing for his children. This development of character and the fuller life of the parents are ample compensation for the sacrifice made to provide for the food of their family.

Provision of Food the First Duty of Government

It is interesting to note in passing that food was one of the main bonds which united families into larger social groups. One of the first duties of the leader of the group was to see that food was available for all the members of the group. The title "lord" implies this duty. The original form of the word was "hlaford" which means literally "the loaf or bread provider" and, indeed, in medieval times the dependants of the baron or squire could feed in the great hall of the castle or manor house and often even at the same table as the master, though they did sit "below the salt."

As the economic structure of society became more and more complicated with the rise of cities in the mercantile and, later, in the industrial age, the responsibility of seeing that food was available for families passed to the central government. It has always been assumed that it is one of the primary duties of a government to see that food is available for its people and, since the time of Queen Elizabeth, there have been many poor laws and other government measures designed to provide food for those in need. The laws were often harshly administered, especially in the first half of the nineteenth century when in the industrial towns even young children had to work to help to provide food for the family. It was at this time that Thomas Hood, the poet, gave the gruesome picture of the poverty of families in "The Song of the Shirt," which contains the line: "Oh God that bread should be so dear and flesh and blood so cheap."

Deterioration in Diet and Physique in the Nineteenth Century

The difficulty of feeding a family was possibly greater in the beginning of the nineteenth century than at any other time in modern history. Since then conditions have improved. Family incomes of the poor have steadily increased, and the price of the 4-lb. loaf which in 1800 rose as high as 1s. 10d., fell to 6d. in 1900. By the beginning of the twentieth century, hunger had been almost completely eliminated in Britain. Poor laws were much more humanely administered and practically every family had an income which enabled it to buy sufficient of the cheapest foods to satisfy hunger and it was assumed that the provision of food for the family was no longer an important social or political problem.

It is interesting to note here that disease and ill health due to faulty diet actually increased during the nineteenth century. The height of recruits joining the army was lowered from five feet six inches to five feet. At the time of the Boer War the physique of recruits was so poor that the army demanded the setting up of a commission to inquire into the cause of the deterioration in physique of the manhood of Britain and, in the 1914-1918 war, the number of recruits from the working class suffering from some physical defect was so large that we were said to be a "C3" nation. The cause of this deterioration is now clear. Until towards the end of the eighteenth century the majority of families lived on the land. Milk, butter, cheese and eggs, which are all rich in the vitamins, minerals and protein needed for health, were cheap. At the end of the eighteenth century, in some country districts butter cost only 6d. per lb. and eggs about 2d. per dozen. It was bread that was dear. But the bread used then was wholemeal bread, which is rich in some of the vitamins. The researches of Drummond have shown that the diet of workpeople in the North of England in the eighteenth century, with the possible exception

of vitamin C, during the winter months was up to the modern standard for health. But with the rise of the industrial towns in the nineteenth century, with increased cost of transport, especially of perishable foods, the cost of the protective foods rose and, as we have seen, the cost of bread fell. Further, there was a change-over from vitamin-rich wholemeal bread to vitamin-poor white flour bread and a rise in the consumption of sugar, which contains no vitamins, minerals or protein, from a negligible quantity to about 100 lb. per head per annum. Thus, though during the nineteenth century the cost of a diet which satisfies hunger fell, the cost of a diet which maintains health rose and, by the end of the century, working-class families, though enjoying cheap food of a kind, were worse fed from the point of view of health than they had been in the eighteenth century. The deterioration in the state of nutrition and in the physique of the working class was masked by the great advance which had been made in public health in the elimination of infectious diseases such as cholera, dysentery, enteric, typhus and smallpox which had brought about a big reduction in the death-rate.

The New Science of Nutrition and its Application in the Twentieth Century

The new science of nutrition which has arisen in the last thirty years or so affords an explanation of the deterioration in physique. The deficiency of protein, minerals and vitamins in the diet of children leads to stunted growth. Deficiency diseases in early life may leave permanent disabilities, such as an ill-developed and malformed skeleton and poor teeth. A contracted pelvis, due to rickets in early life, increases the risk of birth and is one of the causes of a high maternal mortality rate and a high infant mortality rate. In addition to being the direct cause of the deficiency diseases, malnutrition is an important predisposing cause even of some infectious diseases, especially of tuberculosis.

This new knowledge of the effect of food on health opened up a new era in preventive medicine which, until well on in the present century, had been concerned mainly with the elimination or control of infectious diseases. We now had the knowledge to enable us to eliminate a number of diseases, the cause of which had long been a mystery and, what was equally important, to promote positive health. These diseases were common. In industrial towns, more than half of the children suffered from relatively gross forms of one or more of the deficiency diseases. Mothers suffered from malnutrition almost as much as children. But clinical investigations showed that, in addition to illness so severe as to be characterized by the term "disease," there was a vast amount of definite ill health due to minor degrees of deficiency in the diet.

The first obvious job was to ascertain the extent to which diets in common use were below the standard for health. It was found that about

1930, while the diets of families in the wealthier half of the community were on an average up to the standard, the diets of families in the poorer half of the community were below the standard. The lower the income per head of the family the more deficient was the diet. The reason for this, of course, is that in pre-war days hunger could be satisfied with cheap foods at a cost of about 3s. per head per week, whereas a diet containing sufficient of the more expensive protective foods cost about twice that amount. As the number of children in the family rose, the cost of feeding the family rose proportionately and consequently, generally speaking, the larger the family, the worse was the diet.

Correlation Between Diet and Health

Clinical examinations of families showed that there was a close correlation between the diet and the health and physique of the family. It is difficult to assess the relative importance for health, of faulty diet, bad housing and other conditions associated with poverty, but experiments in which the diet of children was improved showed that faulty diet is one of the two main enemies of health, the other being bad housing. Poor diet is probably the most important cause of preventable ill health and poor physique.

There is no need to enumerate the public health measures which were taken to apply this new knowledge. The provision of meals to school children, the milk-in-school scheme, the issue of cod-liver oil, dried milk and other vitamin-rich substances, free or at reduced cost to mothers and infants, and also the increase in the allowances for children of the unemployed, the arguments for which were based mainly on the need for better feeding of the children, all helped to improve the diet of poor families. At the same time, the new knowledge of nutrition was spreading and there was a rise in the standard of living which enabled a larger proportion of the population to get a better diet. As a result of all these measures, the consumption of the protective foods rose by nearly fifty per cent per head of the population between 1913 and 1939. And whereas about 1930 the diet of only half of the families in the country was up to the standard, by 1939 the diet of two-thirds of the families were, on an average, adequately fed and the diet of the remaining third had been greatly improved. There was a corresponding improvement in national health and physique. The gross forms of deficiency diseases were almost completely eliminated. Children leaving school were, on an average, nearly three inches taller than their parents were at the same age. The infant mortality rate fell by about 50 per cent. A well-fed mother means a healthier baby at birth and a well-fed baby has a better chance of survival. The tuberculosis death-rate was halved. While, of course, the improvement in the feeding of families was not the sole cause of all

the improvement in national health which has taken place in the last quarter of a century, there seems little doubt that it was the most important factor.

Food Policy for War and for Post-War

Our war food policy is based on this new knowledge of nutrition and, in spite of the great shortage of some of the protective foods, there is evidence to show that the nutrition, especially of mothers and children of the poorest section of the population, has actually improved.

Such is the background of knowledge and experience available for post-war plans for bringing the food of all families up to the health standard. This stands in the very forefront of post-war schemes for what the Prime Minister has called "the fuller life—the just and true inheritance of the common man." Mr. Eden, the Foreign Secretary, has declared that His Majesty's Government accepts the recommendation of the United Nations Food Conference that every government should undertake the primary responsibility of seeing that all its people are adequately fed.

This involves no new principle of government. It is the standard of food requirements which is new. Instead of ensuring that food is available to satisfy hunger, food must now be available on the much higher standard which modern science has shown to be necessary for health.

A number of authoritative bodies, such as the British Medical Association and an International Committee appointed by the League of Nations, have drawn up dietary standards showing the amount of each food constituent needed for the health of individuals of different age and sex. These bodies are all in general agreement. The following are examples of the kind of diet for a mother, a child and a family of three children which provides sufficient of all the food constituents necessary for full health.

It should be noted that the tables on pages 45 and 46 are merely examples of diets on the health standard. Hundreds of other diets could be drawn up which would be equally good but they would all have a high proportion of protective foods. For mothers and children nearly two-thirds of the total calories of the diet should be derived from protective foods and, for adults, nearly half of the calories.

In pre-war days, the cost of a diet on the health standard was beyond the purchasing power of a considerable proportion of the families in the country, especially those with a large number of children. This raises political and economic problems which need not be considered here. The food can be produced and our economics must be adjusted to the social end of providing for the health and welfare of our families. It is

probable that the means taken to ensure that a diet adequate for health is available for every family will be on the same lines as those adopted before the war and developed during the war. Public health measures, such as the issue free or at special prices of cod-liver oil, dried milk and other protective foods to mothers and children, must be continued at least as a temporary measure until every family can afford an adequate

---

TWO ADULTS AND THREE CHILDREN

Ages seven to eighteen years

By Canadian Medical Association (1940)

	AMOUNT PER WEEK
Milk	38 pints
Cheese	1½ lb.
Butter	3½ lb.
Potatoes	19 lb.
Fresh vegetables	24 lb.
Dried vegetables	1½ lb.
Fresh Fruit	8 lb.
Dried fruit	2 lb.
Meat or fish	8 lb.
Eggs	1½ doz.
Bread	22½ lb.
Flour and Cereals	7 lb.

Daily cost, 1s. 3½d. a person. Cost for family per week, £2 5s. 10d.

PREGNANT OR NURSING WOMEN

By League of Nations Committee

PROTECTIVE FOODS	AMOUNT PER WEEK
Milk	12½ pints
Meat (or fish or poultry)	1¾ lb.
Eggs (number)	7
Cheese	½ lb.
Green and leafy vegetables	1½ lb.
Potatoes	3¾ lb.
Legumes, i.e. peas or beans	2½ oz.
Raw fruit or vegetables to yield 250-500 units vitamin C, i.e.	1-2 oranges
Cod-liver oil	1 oz.
ENERGY-YIELDING FOODS	
Cereals, including bread	3¾ lb.
Fats, e.g. butter	amounts as needed to make up total energy requirements[1]
Sugar	

Price total 9s. (at 1938 prices).

---

[1] For purpose of costing, the rations of fats and sugar taken as ½ lb. each.

CHILD AGED 2 TO 3 YEARS

By League of Nations Committee

PROTECTIVE FOODS	AMOUNT PER WEEK
Milk	12½ pints
7 eggs (or equivalent as meat or fish or liver, if available)	½ lb.
Green leafy vegetables	¾ lb.
Potato (and other root vegetables)	¾ lb.
Fruit or vegetables	not stated[1]
Cod-liver oil	¾ oz.
ENERGY-YIELDING FOODS	
Fats (butter if possible)	2½ oz.
Cereals (calculated as bread)	¾ lb.

Price total 4s. 6d. (at 1938 prices).

diet. The purchasing power of the family can be increased by a rise in wages and an increase in allowances for families of unemployed, and foods can be subsidized to bridge the gap between purchasing power and cost. Children's allowances would greatly simplify the whole problem. If, without children's allowances, wages were raised to a level to enable the father of six or seven children to provide food for the whole family on a health standard, then the single employed man would be able to live in relative and undeserved luxury. This privileged position of the childless would then continue to be an incentive to avoid the responsibility of rearing a family.

It may be noted in passing that measures which will make the necessities of life on a health standard available for every family at a cost which will not involve too great a sacrifice on the part of the parents might have an important effect on the birth-rate. In the nineteenth century, when a child of five years of age could earn its food, children were an economic asset. In the twentieth century they are an economic liability. This liability and the fear that parents may be unable to give their children a proper start in life is undoubtedly one of the causes of the falling birth-rate among the more intelligent middle and working class. It is probably not without significance that in New Zealand, where within the last few years measures have been taken to ensure that no child born in the country will lack food and housing on the health standard and adequate education, the birth-rate has increased from 16·1 in 1935 to 22·8 in 1941.

The cost of a food policy based on the nutritional needs of families will be considerable and the question may arise whether the country can afford it. If the nation cannot afford to feed its children, then it cannot afford expenditure on a great many luxuries on which money is being

[1] For purpose of costing, one-third of the requirements of the pregnant woman is taken.

spent even in war-time. As a matter of fact, ill health and disease are so expensive that, as an economic measure, we cannot afford to allow preventable disease to continue. It has been estimated that before the war we were spending £300 million in treating disease. At least more than half of that is preventable. We spend enormous sums in maintaining health services and hospitals to treat diseases which could be eliminated at less cost. What we should aim at is not so much the building of hospitals to cure disease as the building of children who will not need to go to hospital.

Education: Psychology of Nutrition

But even if adequate food were within the purchasing power of every family, many might continue to be ill fed through ignorance and carelessness. Education on food values and on the proper method of cooking food to maintain its health value should be undertaken to a far greater extent in schools. Indeed, from fourteen onwards, nutrition in its widest sense, together with domestic hygiene, should form the most important subject in education. And education should not be limited merely to food values and cooking. The psychology of food is of the utmost importance. A clean, nicely laid table enhances the nutritive value of the food eaten. Of even more importance is the psychological atmosphere of a meal. "Better is a dinner of herbs where love is, than a stalled ox and hatred therewith." A meal should be the means of a happy reunion of a family in a spirit of harmony. There should be nothing said at a table calculated to cause anger or fear. Good food and good fellowship should go together and the family should rise from the table refreshed in spirit as well as in body. If nutrition in this widest sense were adequately taught in schools, it would have an enormous influence in promoting the happy family life which is the basis of a physically and spiritually healthy social community.

Nutrition profoundly affects mind and character. A high level of health of the body tends to be accompanied by a high level of mental health. Recent work at the Mayo Clinic in the United States has shown that deficiency in the diet affects the mind. People suffering from the lack of one of the B vitamins tend to be depressed, quarrelsome and non-co-operative. Children suffering from malnutrition tend to be unhappy and querulous. Their education is retarded owing to the lack of powers of concentration and the early onset of mental fatigue. Some part of the mental deficiency and mental backwardness, which is so common among children of the poor, is due to malnutrition. The foundation of education should be a perfectly healthy body, which can be attained only by the adequate nourishment of the child and of the mother before the child is born.

Food and the Social Problem of the Family

Before the war the diet of about 30 per cent of the families in the country was below the standard for health, that of the poorest 10 per cent being grossly deficient. Unfortunately, these were the families with the largest number of children and the ill effects of poor food were reinforced by bad housing. Under these conditions a happy healthy family life is impossible. The father of such a family has little inducement to take any pride in his responsibility as head of the family. He goes home from his day's labours to find a wife suffering from some degree of ill health liable to make her querulous and often lacking the energy needed to keep a house clean and comfortable, and children stunted in growth, often stunted in intelligence and frequently sick. It is little wonder that the head of such a household often spends his spare time more in a public house than at home. There is every reason for him to obey the scriptural injunction to "drink and forget his poverty and remember his misery no more." Contrast that picture with the home of a well-fed family with a vigorous healthy wife and healthy children, with a wholesome meal on a well-laid table waiting for the wage-earner. Sitting at such a table with such a family the head of the house can feel that he has the reward of his labours and that the family provides the fuller life and the highest form of human happiness and contentment.

The most valuable asset of a nation is the health and physique of its people and, as King George V truly said, "the glory of a nation lies in the homes of its people." The first step to building up a healthy race and happy homes is the adequate feeding of every family.

SUMMARY

Food is the physical basis of family life. The dependence of the infant on the mother for food and of the mother and children on the father as the bread-winner makes the family the fundamental unit of society.

In the nineteenth century, bread became cheaper but the protective foods, i.e. those rich in protein, vitamins and minerals, became dearer, so that the health value of the national diet fell. Mothers and children need relatively more protective foods than other people, and they suffered most in health. The majority of mothers and children in working-class families suffered from deficiency diseases, with resulting deterioration in national physique.

Early in the nineteenth century, the new science of nutrition revealed the cause of deficiency diseases. Public health measures, such as the free provision of cod-liver oil, milk and other protective foods to mothers and infants in poor families, the school milk scheme and the provision of

school meals, together with increased purchasing power of the working-class, led to a great improvement in national health and physique.

The war food policy is based on the nutritional needs of the people and, in spite of the shortage of many foods, there has been a continued definite improvement in the health of mothers and children.

In accordance with the recommendations of the United Nations Food and Agricultural Conference, the Government has declared that it accepts the primary responsibility of seeing that food sufficient for health is available for every family. This will lead to a great promotion of the health and happiness of families.

RECOMMENDATIONS

1. The war food policy of production for consumption and distribution according to needs should be continued and production of the protective foods should be geared up to national consumption requirements.
2. Public health schemes for free milk, cod-liver oil and other vitamin-rich substances to mothers and children should be continued until every family is able to purchase a diet fully adequate for health.
3. Free school meals should be provided for every child.
4. School meals should be used as object lessons to teach food values, cooking, the laying of a table, and also the psychological importance of making a meal a harmonious reunion of the family or of a larger group.

BIOLOGICAL ASPECTS

By PROFESSOR F. A. E. CREW

Reproduction

AMONG the attributes of living things which distinguish them from the non-living are the power to produce young of their own kind and the necessity or the urge to do so. Reproduction, the means whereby the species is enabled to continue in time and to increase in numbers is either asexual or sexual. In the more lowly forms of life it is asexual, being accomplished by the simple division of an existing individual into two, or else by the separation from an individual of a piece of itself which grows in size and complexity to become a new individual of a new generation.

In the higher forms, higher because according to our standards they are more complicated in design and more efficient in a greater diversity of functioning, reproduction is sexual, demanding for its exercise the mating of two sexually dissimilar individuals, male and female respectively.

The typical male is an individual equipped for the production of male-type gametes (marrying cells) and for the conveyance of these to the place where, meeting the ova produced by the female, they fertilize them. The typical female is an individual equipped for the production of female gametes, for the conveyance of these to the place of fertilization, and in forms like birds and mammals for the incubation either outside or within the body of these fertilized ova and for the care of the progeny that emerge therefrom.

Sexual reproduction thus involves sexually dissimilar adults, the parents; sexually dissimilar gametes, the ova and spermatozoa, and the production by the males and females belonging to one generation of offspring among whom are males and females.

Since by definition the family is a group of living things consisting of two parents and their offspring, it follows that it was the appearance of the sexes and the evolutionary development of sexual reproduction that made the family possible.

Parental Care

In many species in which sexual reproduction is the rule no evidence of interest in or care of offspring on the part of the male and female that produced them is encountered, e.g. most species up to and including fishes and amphibians. In these it is not uncommon for the eggs to be extruded from her body by the female and for the male then to discharge his spermatozoa over and about them (external fertilization). Typically in such cases the number of ova so extruded is exceedingly large, the fertilized ova are such as require no attention during incubation and the

offspring when hatched are so equipped as to be self-efficient in respect of food securing. Such species depend for survival and enlargement upon the production of large numbers of offspring as a means of compensating for an exceedingly high mortality rate among the young. Thousands of ova and millions of sperm yield hundreds of offspring, a large proportion of which succumb, but enough survive to conserve and even enlarge the total number of the individuals of the species. When once the mated pair have by their behaviour brought male and female gametes into close juxtaposition, they separate as abruptly as they met; and go their several ways showing a complete disregard for their progeny.

Fertilization in Birds and Mammals

But in birds and mammals, especially, there is to be observed a very great reduction in the number of ova produced by the female and available for fertilization. There is no corresponding reduction however in the numbers of spermatozoa produced by the male—he remains in this respect very much of a fish. Furthermore, internal fertilization replaces external fertilization, the ejaculate of the male being deposited within the reproductive passages of the female with the result that the meeting of male and female gametes is thereby rendered far more certain. The fertilized eggs of the bird are extruded from the maternal body, and must be incubated by the warmth of the parent's body before the development of the offspring is continued and the youngsters born. In the mammal, the fertilized ova are retained within the uterus (womb) of the mother during this phase of incubation, and she is equipped with mammary glands (breasts) whereby milk is provided for the offspring when born.

This reduction in the number of ova available for fertilization at any one time, which is the factor which sets the limit to the number of offspring produced, and the developments relating to internal fertilization and to incubation by the parent, are attended by the inception and elaboration of parental care. In this evolutionary development of parental care and in its manifest advantage to the species the explanation of the family is to be found. The family is a biological invention, which enables species producing relatively very few offspring to make species survival secure. In them, fewer offspring are produced, but of these, thanks to parental care made possible by the continuing family relationship, a high proportion can be expected to survive to reproduce in their turn.

Since the family, the grouping of parents and their offspring, is to be observed as a natural association in a wide variety of species, the human family cannot be regarded as the creation of a human society, as a social institution like marriage. A comparative study of the family throughout the higher forms of the animal kingdom provides clues concerning its origin, nature and biological significance. It suggests that the family is

in fact a biological invention, which in its most highly developed form ensures that continuing care of successive offspring, relatively few in number and therefore biologically very precious, shall be provided by both parents pre- and post-natally just as long as the offspring remain incompletely developed and therefore dependent upon adults of their own kind for protection, food and instruction.

Species Survival and Family Grouping

There are those who argue that species survival could have been secured just as well if no family grouping had existed and if all the males of a large assemblage looked after all the females and their offspring by any male. In the light of what is known it would seem to be more reasonable to accept the view that the family, which implies the continued cohabitation of a mated pair and the care of a particular male for his own mate and his own progeny is a better grouping than such a large assemblage when judged by its effects in increasing the chances of survival of offspring. The attitude of the male toward the young must surely be influenced by his own organic relationship with them, by the intimacy of his relationship with the mother, and by the smallness of the number of the offspring organically related to him. Furthermore, the very immaturity of his progeny and their obvious dependence upon him must evoke in the actual father reactions propitious to species survival stronger than those, which would be displayed by a multitude of unrelated adult males.

Conclusions from Evolutionary Theory

From the evidence provided by such a comparative survey and in the light of evolutionary theory, it would seem that, disregarding intermediate grades and obvious exceptions, the steps that have led to the development of the family as we know it in our own species have been somewhat as follows :

(*a*) No care of eggs by the adults of the producing generation, e.g. in insects and fishes.

(*b*) Care of the eggs by the adults of the producing generation, e.g. bees.

(*c*) Care of the eggs by one of the mated pair which produced them, e.g. the male of the midwife toad, which festoons himself with the eggs his mate has extruded and he himself has fertilized, and carries them around until they hatch.

(*d*) Care of the young after these have hatched by one of the mated pair that produced them, e.g. the male of the stickleback fish, which builds the nest, guards it and the eggs that his mate has laid therein and which he has fertilized. After these have hatched the male fussily and valiantly guards his offspring whilst they are very young.

(*e*) Care of the eggs and the young that emerge therefrom by both of the

parents that produced them. Family grouping that endures for a single breeding season, e.g. in certain species of reptiles, birds and mammals. Among birds parental care reaches a high level. In many species there is considerable co-operation on the part of both parents in nest building, in incubation and in the protection, feeding and instruction of their progeny. Only, when the last brood of the season is fully fledged, is the parental pair relieved of responsibilities and free to separate to find new mates at the beginning of the next breeding. Similar seasonal family formation can be observed in the case of a wide variety of mammals. In such instances, the rate of development of the offspring is such that at the end of the season the young are sufficiently well developed to be able to fend for themselves.

(*f*) As in (*e*), save the family grouping assumes the quality of permanence. Some birds pair for life even though at the end of each breeding season their parental responsibilities are ended for the time being. The gorilla, chimpanzee and orang-outang continue in their family grouping for more than a season. The young are slow growing and require parental care for several years. In them there is to be seen the beginning of the development of the family as the unit of an organized society. They congregate in bands, each of which is composed of several families and at the head of which, as leader, there is an old male.

(*g*) As in (*f*), but now the family is the recognized unit of an organized society. In man there is no breeding season. The female, producing as a general rule one ovum each month during the period of puberty-menopause, can conceive and the baby can be born at any time during the year. The infant is slowly developing and is dependent upon its parents for many years. There can be a succession of babies during a decade or more, so that the need for parental attention can continue to exist for a period of time that can outlast the ability on the part of the mother to produce ova. Fecundity (the ability to produce functional gametes) in the male persists throughout life, whereas in the female it ceases around the age of fifty. Since in the earlier days of human history it was very exceptional for either parent to attain this age, it follows that cohabitation would in those days be for life, if its duration were determined by the duration of the dependence of offspring on parents. In modern days the expectation of life at birth for both male and female is beyond fifty years, and so the cohabitation of parents as a rule persists after the biological dependence of their offspring upon them, and after the ability of the female partner to reproduce have ceased. But this is a social custom and not primarily a biological affair.

The human infant, when born, is exceedingly helpless. It leaves its place within the mother's body to pass into its mother's arms, where its development is continued. In the case of mankind it can be said that the infant passes from one kind of womb to another as it progresses from complete

dependence to self-sufficiency—the maternal uterus, the home, the school, even the university, each of them an environment designed to provide the conditions which permit and encourage normal growth and development, which protect and nourish, and include agencies that offer instruction in the techniques of living.

The Family as the Primary Social Unit

Most authorities are agreed that the family was the primary social unit, and that the clan and the tribe evolved through the expansion of the family by the addition to it of other families. Either the descendants of an original pair becoming full grown remained with the original pair to form family groups of their own (cohesion), or individuals or couples from other family groups added themselves to the family (adhesion) to form an association of families, which became the clan and the tribe.

This amalgamation of families to form larger associations was made possible with the development of techniques for increasing and conserving food supplies. It was encouraged by the development of the gregarious "instinct." Gregariousness takes the form of the exhibition of a preference for living along with other members of the same species, irrespective of their familial relationship to the individuals concerned. It can safely be assumed that such gregarious habits conferred advantages upon such as displayed them. In a gregarious group there is a community of interests and actions, that are advantageous to the individual and at the same time are advantageous to the group as a whole.

In human societies this innate gregarious tendency has developed into a truly social inclination : there is more than a mere preference to live in the company of other human beings : there is also a tendency on the part of individuals actively to co-operate with others.

The Nature and Significance of Sex

Having attempted to trace the evolutionary development of the family and to reveal its biological significance, it now becomes necessary to examine the biological nature of its original foundation, sex itself. To do this we must dig deep.

In the lowliest forms there is no sex and therefore no family. In the higher forms there is sex. The understanding of sex is a complex matter ; it involves the study of cell reproduction, of genes and of the process known as mutation. Only a brief outline can be given here of these important subjects.

The human individual, like all other multicellular creatures is built up of an exceedingly large number of microscopically small cells, the architectural units of which living things are made. The typical cell, composed of living stuff, protoplasm, includes a nucleus. This, unlike the rest of the

cell, consists of a material, which, because it takes up dyes readily, is known as chromatin. This chromatin exists in the form of a tangled skein of fine threads. During certain phases of cellular activity this skein can be seen to consist of a number of discrete rod-like bodies known as chromosomes.

Autosomes and Sex-Chromosomes

The number of these chromosomes is fixed and constant and is typical of the species. By reference to the chromosome number the species to which the individual from which the tissue being microscopically examined was taken can be identified. In man the number is forty-eight, arranged in the form of twenty-four pairs. Twenty-three of these pairs are similar in both sexes and are known as *autosomes*. The remaining pair differ in the male and female and are therefore known as *sex-chromosomes*. In the female cells the sex-chromosome pair are identical; they are termed X-chromosomes and may be represented by the symbol XX; in the male the sex-chromosome pair are dissimilar; one part is like the female X, the other unequal mate is termed the Y-chromosome; the sex-chromosome pair of the male is therefore represented by the symbol XY. In the nucleus of the mature sex-cells or ripe gametes produced by the human individual there are twenty-four chromosomes, each representing one member of each chromosome pair present in the nuclei of the body-cells and of the unripe gametes. Each ovum (female cell) available for fertilization contains one complete single set of chromosomes, including one X-chromosome, while every spermatazoon (male cell) available for fertilizing such an ovum contains a similar set, except that the twenty-fourth will be either an X- or a Y-chromosome.

Male Biological Responsibility for Sex in Man

In fertilization the union and fusion of the nuclei of ovum and spermatazoon yields a fertilized ovum, which is the new individual. This has twenty-three pairs of autosomes and one pair of sex-chromosomes, one member of each pair having come from the mother by way of the egg, the other from the father by way of the sperm. The sex-chromosome, which decides the sex of the individual, consists of an X-chromosome from the mother and either an X- or Y-chromosome from the father. If the former, an XX individual is produced, which is female; if the latter an XY individual, which is male. It thus follows that the male partner is biologically responsible for the sex of the offspring, although, before and since the time of Henry VIII, women have been unjustly blamed by husbands, desirous of male offspring, for giving birth to females. In birds the converse obtains (see page 58).

The fertilized egg divides, and its derivatives continue to divide to produce the innumerable cells out of which the body is built. At each division

each of the forty-eight chromosomes divides along its length to produce two identical daughter chromosomes and into the nucleus of every new cell passes a complete set of forty-eight chromosomes, so that in respect of chromosome constitution every cell is similar to the fertilized egg in which it had its origin.

So it is that male and female in mating produce males and females among their progeny. Since only one baby results from conception as a rule, it can be either a boy or a girl, which it is being determined by the kind of spermatozoon that happens to fertilize the egg ; if a X-chromosome-bearing sperm then the product is a female (XX) ; if a Y-chromosome-bearing sperm, a male (XY).

If twins are conceived they may be identical or fraternal. Identical twins have their beginning in one and the same fertilized egg, XX or XY. They are therefore always of the same sex and remarkably alike. Fraternal twins on the other hand arise in two separate eggs which happen to be fertilized at the same time, each by a separate sperm. These fertilized eggs may be XX, XX ; XY, XY ; or XX, XY. The twins can therefore be two girls, two boys, or a girl and a boy and will be no more alike than are ordinary brothers and sisters born at different times.

The Genes

The chromosomes themselves are built up of discrete hereditary units known as genes, which are arranged in linear series along the lengths of the chromosomes each having its own particular place in the length of a particular chromosome. Of these genes there are many thousands therefore in every chromosome set. Since of each pair of chromosomes one has come from either parent the individual possesses in respect of all genes two of a kind.

The genes are the agents which control and direct the development of the characters (details of structure and of function) of the individual. Some impose on the developing individual the necessity to assume the characters of the species to which the individual belongs in virtue of its ancestry ; others relate to familial characters and still others to purely individual characters that make him different from all others.

An individual develops as a mammal, as a human being, as a specimen of the white, black or yellow variety of human being, and, for example, as a blue-eyed, red-haired individual with outstanding mathematical ability, because of the particular genes that are included in his genotype (genetic constitution). Genes determine what an individual may become : what in fact he does become is largely determined by the extent to which environmental agencies can modify such genetic inclination. Thus, whilst a blue or brown eye-colour is determined solely by the action of genes, the stature of an individual, though its limits are predetermined by genes, is

much influenced by nutrition and similar agencies. In the development of many physical and mental characters nurture is more powerful than nature.

A gene is mutable, it can undergo changes in internal organization which result in the alteration of its action upon developmental processes. A mutation is the inception of a new heritable variation resulting from such a change; it is a device that has become adapted and elaborated for the provision of material possibilities of evolutionary movement.

Mutation implies the substitution of a gene that, having been tested and found worthy, has come to be in harmony with the rest of the genotype and through this with the conditions of the external environment, by another the merits of which have yet to be determined. It is usual therefore to find that mutation implies a disturbance of an equilibrium within the genotype and between the individual and his external world. It is therefore usually disadvantageous to the individual and this disadvantage can range from inconvenience to complete lethality. It is well known that "sports," as mutant forms are popularly called, are delicate and difficult to rear when first they appear.

Sex is the mechanism that has become adapted for the dispersal of a mutant gene among the individuals of a population. Mutant genes that have arisen separately in the paternal and maternal lines can, through the exercise of sexual reproduction, be brought together in one and the same individual offspring. Through sexual reproduction a new mutant gene can become incorporated into a variety of genotypes and thus be given the opportunity for finding itself associated with other genes with which it can interact to the advantage of the individual.

The Sex-Ratio

If the usefulness of sex lies in the opportunities sexual reproduction provides for the creation of variety in gene association upon which the selective agents can play, its advantages will be most thoroughly exploited when among the individuals of a population there is displayed the greatest variety in mating. This could be attained, if among those able to reproduce there were a sex-ratio of equality, equal numbers of males and females. Such a sex-ratio would permit the formation of the maximum number of family groups.

A device for the production of such a sex-ratio is the XX, XY mechanism. The human male is heterogametic, producing two kinds of spermatozoa, X-chromosome and Y-chromosome bearing respectively. If the two kinds are produced in equal numbers and if each kind is equally functional in fertilization, then the primary sex-ratio, the numerical proportions of the sexes among the offspring at the time of conception should be equality. If thereafter the two kinds of individuals, male (XY)

and female (XX) are equally viable, then the secondary sex-ratio, that which obtains among the newly born should likewise be equality and if, after birth male and female are equally viable, then among the population generally the sex-ratio should also be equality.

Higher Death-Rate of Males

There is evidence, however, which indicates that in fact in a large number of, perhaps in all, species in which sexual forms are present the male is definitely less viable, more fragile, more prone to illness and more easily removed by death than the female. There is a sexually selective mortality which affects the male more seriously than the female so that by it the sex-ratio is affected. It cannot be related to sex-chromosome constitution for the reason that it operates also in birds, species in which the male is homogametic (XX), the female heterogametic (XY). It would seem to be correlated with the condition or state of maleness itself.

It is established that in a population like our own there are more boys than girls among newly born babies, the secondary sex-ratio being around 105 : 100. It is established also that among the individuals in the population of eighty-five years old and over there are about twice as many women as men, the sex-ratio among them being about 50 : 100.

The cause of this astonishing swing from a high to a very low sex-ratio is revealed by a study of mortality tables such as those issued by the Registrar-General. If the whole population is broken down into five-year age groups, 0-5, 6-10, etc., etc., and, if then the numbers of males and females of each age group dying during the course of the year are compared, it is found that at all ages and from all causes more males than females are removed from the population by death. This, of course, cannot apply to the oldest age groups since in these there is a preponderance of females and so there are far fewer males to die. Obviously, the real recipe for longevity is for the human ovum to make quite sure that it is fertilized by a X-chromosome-bearing spermatozoon.

The sex-ratio among the still-born (babies dying at or about the time of birth at full term) is higher than that among the live-born. This means that to be born is a more dangerous adventure for the male. The sex-ratio among abortuses (babies dying during the course of pregnancy) is higher than that among still-births and highest of all among those dying during the first half of pregnancy.

It would therefore seem that many more males than females are conceived and that this device of producing a very high primary sex-ratio is the means of compensating for the greater fragility of the male. It matters not how severe this sexually selective mortality, acting both pre- and post-natally, is—so long as there are sufficient males among those, who stand at the threshold of their most active reproductive period.

A primary sex-ratio of inequality of this kind could be the result of (*a*) a differential production of the two kinds of spermatozoa, there being far more Y-chromosome bearing than X-bearing, or (*b*) a difference in the fertilizing power of the two kinds. It is not known which of these is the one that is responsible.

These matters must be considered in the light of the relative reproductive value of the two sexes. From the angle of species survival the major task of one generation is the production, efficiently and economically, of a succeeding generation that numerically will be in harmony with the conditions and resources of the habitat which it will occupy. That of the females is the production of the requisite number of fertilizable ova : that of the males, the production of spermatozoa in numbers sufficient to make the fertilization of every available ovum highly probable if not certain.

The male primarily is a fertilizing agent and a conveyor of chromosomes and their genes. If his duties end with fertilization, then economy will be observed if the male dies *in coitu* as in the bee and praying mantis, for example. It matters not that males should be the shorter-lived, so long as there are enough of them to supply sufficient gametes to fertilize all available eggs. But, if the male is involved in family responsibilities, then it is a matter of some importance that he should live as long as his responsibilities endure. Biologically, it is unimportant that in the eighty-fives and over there are relatively so few males.

Marriage: Biological Considerations

Marriage is a social institution established for the regulation of the relationship between the members of the family, this being part of an organized society. The family grouping, an association based upon feelings, which are deep rooted in living things, came into being long before the organized social grouping itself, before society in its own interests drew up rules and regulations, which have changed with the passing of time and have been different in different social groups. These rules are, in the main, meant to be such as to require the individuals within the family to regard as duties those acts and attitudes, which in their origins rose out of reasonable inclination and preference.

The functions of the male parent are not restricted to sexual and procreative activities. In all stages of civilization and in all parts of the world his duties, not necessarily born of his own wishes, but imposed upon him by society, have included those of supporting and protecting his spouse and his children.

There are two forms, monogamy (the marriage of one man with one woman) and polygamy (the marriage of one individual to several of the opposite sex). Polygamy takes two forms, polygyny (the marriage of one man with several women) and polyandry (the marriage of one woman with

several men). Monogyny (the marriage of one woman with one man) is really the same as monogamy.

Rules Relating to the Form of Marriage

The reasons for the adoption of a particular form of marriage are partly economic and social and partly biological. A low sex-ratio among the marriageable would encourage polygyny, one of near equality monogamy. The desire of the male for variety and his preference for youthfulness in his partner and the opportunity to exercise these would encourage polygyny. If social custom dictates that intercourse may not occur around the menstrual period or during the whole of pregnancy, then polygyny is favoured. If wives are purchased, then the rich can afford more than one. Where wives possess an economic value providing or adding to the husband's wealth and social position, then polygyny tends to be the rule : when the man earns and the woman spends monogamy is to be expected.

But in our civilization, monogamy as we know it, the marriage of one man to one woman at a time, derives its strength from those forces, which have led to the political, economic and sexual emancipation of woman, and to her elevation to a position of intellectual and recreational equality with her mate.

From the point of view of the biologist, the quality of the different forms of marriage is to be judged by the possibilities they provide for gene-distribution and by the quality of the environment they create for the nurture of the offspring. If human beings were uniformly homozygous, that is to say if everybody had the same genotype, then all offspring by all matings would be remarkably alike and variety exceptional. But everybody is very heterozygous and the genotypes of no two individuals (save identical twins) are alike. For this reason there is a considerable variety among the children of any one marriage : so considerable that monogamy as a means of producing genetic variety is sufficient. Monogamy would seem to be preferable, for the reason that it can create those home conditions that are most advantageous to the growing child.

Rules Concerning Mate Selection

The prohibition of marriage between mother and son and between father and daughter is universally prevalent, as is also the abhorrence of brother-sister marriages. Regulations governing the marriage of individuals of other degrees of kinship vary in different societies. There are rules of exogamy, which forbid the members of a particular group to marry any one of the same group; and there are rules of endogamy, which prohibit any member of a group to marry any one outside the group. In general, the endogamous rules have become less strict as civilization has advanced, and now derive almost entirely from nationalistic and religious authority, or

from the cultivated preferences displayed by individuals in an economically stratified society.

Exogamous regulations may have arisen in the experience that, as a rule, individuals, who have been brought up together, do not evoke attraction as does a stranger with a different behaviour pattern. It is not unlikely, however, that they have had their origin in the observations of the pastoralists to the effect that close inbreeding in domesticated animals was as often as not a dangerous procedure, leading to the production of weakly and deformed progeny and to the progressive diminution of the fertility of the stock.

The explanation of this is purely genetic. The genetic constitution of the average individual includes a large number of recessive genes many of which correspond to characters which take the form of defect or derangement. These characters are not exhibited for the reason that the gene is present in the genetic constitution only in the single dose, the individual is heterozygous in respect of it. For such a character to be revealed it is necessary for an individual to receive the gene from both parents, each of them being heterozygous, and the offspring homozygous in respect of the gene concerned.

Since closely related individuals are more likely than are unrelated to be heterozygous in respect of the same recessive gene, the mating of near relatives is more likely than is that of unrelated individuals to produce offspring that are homozygous for the gene. Inbreeding is dangerous because of the opportunity it provides for the production of offspring homozygous for genes that correspond to disadvantageous characters. This is the reason why the marriage of first cousins must be discouraged.

But inbreeding can of course yield equally easily individuals that are homozygous for recessive genes that correspond to advantageous characters. It has been through the deliberate and continued use of this system of mating that all the magnificent breeds of modern livestock have been fashioned. The effect of inbreeding is determined by the genotypes of the mated pair. If in them there are hidden recessive genes for undesirable characters then these can become expressed, if there is none but the desirable, then inbreeding will yield satisfactory results. Inbreeding is the best method of all that can be used for the investigation of the genetic constitution of individuals, but it can prove to be a very expensive method.

Rules Concerning the Duration of Marriage

None of these would seem to have a biological foundation. Among primitive peoples they vary greatly as do the rights of the partners. Commonly both have the right to dissolve the union and in some cases it can be broken only by common consent. Adultery on the part of the wife is the most generally recognized ground for annulment.

Similar variations are to be found among peoples of higher culture. With the rise of the Christian church marriage assumed the qualities of a sacrament and was theoretically indissoluble, though, of course, plentiful reasons of a kind were easily found for annulment. In the case of our own society, it was not until 1857 that divorce was obtainable, other than by Act of Parliament, and not until 1923 that husband and wife were given equality in respect of the grounds for annulment.

By the biologist divorce is assessed by its effects upon the offspring of the marriage, who are still biologically dependent upon the parents. The separation of a childless couple is a matter of no importance. Since over 50 per cent of divorcees remarry, divorce does not necessarily indicate that the institution of marriage itself is breaking down. Often, it seems that an unsatisfactory union is dissolved and a more satisfactory one begun. It is only the divorce, which results in the withdrawal and non-replacement of parental care from children, who stand in need of it, that is to be regretted.

Rules Governing the Relationship of Parents and Offspring

In the original family group authority lay in the hands of the "old man." This parental authority and filial duty were attitudes that continued through the tribe and onwards throughout the history of civilization and still are to be found in many societies today. The teaching of the Christian church reinforced the habit of obedience to parents. But parental authority has declined, partly, because the worship of the dead is no longer common and, partly, because changes in the social and political structure of society have tended to take the power out of the hands of parents and place it in those of the head of the State. Life has tended to become less familial and more national. Industry, with its factory system, has in its development disturbed the earlier relationships within the family and provided innumerable wage-earning opportunities for women and young people. Moreover, the State has assumed many of the former responsibilities of parents—protecting, feeding and educating the young—leaving to parents only those that relate to conception and pregnancy.

Whether or not the replacement of parents by bureaucrats is a good thing must be determined by reference to the quality of the care given to the young by the two parties. It is possibly true that the electric incubator and brooder are, from the point of view of the chicken, better than the mother hen. It is not true, however, that as yet at least the incubator is as good as the mammalian mother's womb, or that any satisfactory substitute has yet been found for the affectionate devotion of a human mother for her own baby : no foundling institution, no matter how scientific in management, has yet been designed that can equal, in respect of the moral and emotional development of children, the home, even though this does not lack a certain squalor. This is not to say that any parents and any

home are better than such an institution : this is certainly not the case ; there are great numbers of married couples who are demonstrably totally unfitted to have the care of their own children. In a modern industrialized society there is great need for the education of potential parents in their responsibilities and duties, for a knowledge of the techniques of raising offspring is not instinctive in us, it is an acquisition to be obtained only through serious study.

It is to be expected that the emancipation of women will become further enlarged and that many more alternatives to marriage and motherhood will be discovered, that divorce will be more free and that the institution of marriage will undergo further changes as the attitude of the general public towards sexual behaviour becomes modified through the replacement of ecclesiastical authority by scientific knowledge. It will be of the greatest importance that the biologist shall carefully watch the effects of these social developments upon the biological well-being of the people.

Whatever modification marriage itself may undergo, it would seem to be most desirable that the family grouping in some form or other should persist.

On the Choice of Parents

Though marriage does not necessarily imply reproduction it usually leads to this. Since the choice of partners predetermines the genetical qualities of the offspring, it is not unreasonable that those, who choose to marry, should consider their own genetical constitutions. In the case of domestic animals, it is the breeder who selects the parents in order to obtain offspring, which will exhibit the particular characterization he seeks. We choose our own partners and have no idea whatsoever of any objective in reproduction. It is far easier to plan for the breeding of a good cow than for the production of a good man, since we can define goodness in cattle. For the present, all that we can do is to avoid as far as possible matings that are likely to yield grossly defective offspring. Advice concerning such matters can be obtained from the family doctor.

There can be no valid basis for estimating and comparing the intrinsic worth of different individuals in respect of finer characters so long as the economic and social conditions are such as to prevent everybody enjoying equal opportunity for self-expression. Our society at present is stratified into classes with widely differing privileges. The desire for parenthood and the willingness to shoulder its responsibilities will not be influenced by consideration of the biological worth of offspring, unless parents in general have a very considerable economic security, and, unless they are extended such adequate economic, medical, educational and other aids in the rearing of each additional child, that the having of more children does not overburden them. Reproduction must not mean that the mother is

thereby debarred from participation in the life and work of the community at large. Social life must be adapted to the needs of parents and their offspring; towns, houses and community services must be reshaped with the good of the children as one of their main objectives.

Another prerequisite for effective biological improvement of our human stock is the legalization, the universal dissemination and the further development through scientific investigation of ever more efficacious means of birth-control, both negative and positive. Along with this the development of social consciousness and responsibility in regard to the production of children is required; and this cannot be expected to be operative, unless the appropriate economic and social conditions for its fulfilment are present; and unless the prevailing superstitious attitude toward sex and reproduction is replaced by a scientific and social attitude. It must become an honour and a privilege to be a parent of fine children, both in respect of their genetic endowment and of their upbringing.

Before people in general can be expected to adopt rational policies for the guidance of their reproduction, there must be a far wider spread of knowledge of biological principles and of the truth that both nature and nurture, both heredity and environment, constitute dominating and inescapable complementary factors in human well-being, but factors both of which are under the control of man and admit of unlimited but interdependent progress.

Falsity of Lamarckian Doctrine

Environmental improvements increase the opportunities for genetic betterment but the effect of environmental improvement is not a direct one on the gametes. The Lamarckian doctrine, according to which the children of parents, who have enjoyed better opportunities for physical and mental development, inherit these improvements, biologically is false. The intrinsic (genetic) characters of any generation can be better than those of the preceding generation only as a result of some kind of selection. If those with the better genetic constitution produce more offspring, on the whole, than the rest, either through conscious choice or as an automatic result of the way in which they lived, then selection operates and genetic improvement follows. Under the conditions of our society such selection is far less likely to be automatic than under primitive conditions, so that some kind of conscious guidance is called for. To make this possible, however, the general public must first appreciate the force of these principles and the social value which a wisely guided selection would have.

Conscious selection requires that there shall be an objective. The most important genetic objectives, from a social point of view, are the improvement of those genetic characters which make for health, intelligence and the temperamental qualities which favour fellow-feeling and social be-

haviour. The aim should be the raising of the average of the population nearly to that of the highest now existing in isolated individuals in regard to physical well-being, intelligence and temperamental qualities.

As we have changed the characterization of our domesticated animals, so we can change our own, when we wish. The time for this is not yet ; it is the task of this generation to prepare the way and all steps along this way will represent a gain, not only for the possibilities of the ultimate genetic improvement of man, to a degree seldom dreamed of hitherto, but at the same time, more directly, for human mastery over those more immediate evils that now are threatening our modern civilization.

SUMMARY

1. By definition the family is a group consisting of two parents, male and female respectively, and their offspring. This grouping was made possible by the evolutionary development of sex and of parental care.

2. A comparative study of this grouping throughout the animal kingdom suggests that the family is a biological invention, which ensures that continuing care of successive offspring, relatively few in number, and therefore very precious, shall be provided by both parents as long as the offspring remain incompletely developed and therefore dependent upon adults of their own kind for protection, food and instruction.

3. Since to understand the biological nature and significance of the family it is necessary to understand the nature and significance of sex, the sex-ratio, the gene and mutation, these matters are discussed in some detail.

4. A sexually selective mortality operates both before and after birth. The male is more fragile, less viable, more prone to illness and more easily removed by death. The true recipe for longevity is to be born a girl. From the biological angle it matters not very much that this is so : so long as there are sufficient males to provide the spermatozoa to fertilize all the ova produced by all the females of their generation, all is well.

5. Marriage is a social institution and not a biological invention. Its biological aspects are discussed. Monogamy, monogyny, polyandry and polygyny are compared in respect of their relative usefulness in respect of gene-distribution and of the quality of the environment they provide for the growing child and it is concluded that monogamy is to be preferred.

6. The production of offspring by two closely related individuals, father—daughter, son—mother, brother—sister, first cousins, is a dangerous adventure. The reasons for this are given ; they are purely genetic.

7. The duration of marriage must be determined by the duration of the period of dependence (biological) of offspring upon their parents. Divorce is to be considered according to its effects upon dependent children.

8. Changes in the social structure, alterations in the position of women and of the young in society are being followed by the breakdown of parental authority and filial obedience. The institution of marriage is undergoing modification, divorce is becoming more free, life becoming less familial and more national. All these movements are affecting the family and the interrelationships of the individuals comprising it. For the present, there is nothing as good to take its place as an environment for the dependent child. The biologist must watch with care and see to it that the biological foundations and the biological significance of the family are not forgotten, when plans for the future, which indirectly affect the family, are being made.

HEALTH AND THE FAMILY

By SIR ARTHUR S. MACNALTY

THE family is the unit of race. "Man's groups," writes Sir Arthur Keith, "which in these days of swift communication include millions of families and thousands of square miles, were once no greater than a single family or tribe ; but it was in those far-off palaeolithic times, when man was acquiring the elements of his future civilization, that the seeds of race divisions were also sown."

In prehistoric times at first man lived in family groups. Then families combined for purposes of hunting, of cultivation of the soil, and of mutual protection, into tribes. Through conquests and alliances tribes became welded into nations, and out of nations came the races of mankind. The basic unit of the family remains, however complex or organized modern civilization becomes. Darwin traced the feeling of pleasure from society to an extension of parental and filial affection, since the social instinct appears to be developed by the young remaining a long time with their parents. He also ascribed to family union the acquisition of a moral sense or conscience, and instinctive love or sympathy for one's fellow-beings.

In the British nation the claims of family life are especially strong. We are a nation of families, and it is the laudable ambition of most men and women in this country to found a home and to bring up a family under the best possible conditions — "To make a happy fireside clime to weans and wife," as Burns wrote. The sense of civic responsibility and the humanitarian principles of British legislation owe much to the lessons inculcated by a wise upbringing.

Deplorable Family Conditions in the Past

Squalor, dirt and disease are inimical to the procreation and bringing up of a healthy family. The industrial revolution and the Enclosures Acts towards the end of the eighteenth century attracted and impelled the rural population into the towns, and slum dwellings were built, devoid of sanitation, with leaking roofs and casements admitting driving wind and rain. There was gross overcrowding ; the sick were herded with the healthy and infant mortality and disease were rife.

It is true that in these deplorable surroundings the domestic virtues have sometimes flourished and that men and women have emerged from poverty-stricken and insanitary homes, who have fought their way upwards and played their part in the councils of the nation. But in the past the wastage of human lives has been appalling. Even as recently as the quinquennium 1896-1900, out of every 1,000 infants born in

England and Wales 156 died before reaching their first birthday, as compared with the figure 62 for the quinquennium 1931-1935.

The early reports of the medical inspectors to the Poor Law Commissioners in 1838 give a terrible picture of the ravages inflicted by infectious disease in London at that time. They showed that out of 77,000 persons (in- and out-door paupers) 14,000 were attacked by fever, one-fifth part of the whole, and that out of the 14,000 attacked nearly 1,300 died.

As Dr. Southwood Smith observed :

> "The public, meantime, have suffered to a far greater extent than they are aware of, from this appalling amount of wretchedness, sickness and mortality. Independently of the large amount of money which they have had to pay in the support of the sick, and of the families of the sick, pauperized in consequence of the heads of those families having become unable to pursue their occupations, they have suffered still more seriously from the spread of fever to their own habitations and families."

For disease is no respecter of persons and epidemics bred in an insanitary environment have often spread to the homes of the well-to-do and clouded the happiness of many households. The head of the family asked only the boon of health in order that he might work to support his wife and children. Too often that boon was snatched from him by the unhealthy conditions of his environment.

Improvements in Environmental Hygiene

Hence, because the family is the microcosm of the State, the State has gradually realized its responsibilities for the health and well-being of the family. At first organized preventive medicine concerned itself chiefly with environmental hygiene in order to remedy the shockingly insanitary conditions under which the people lived. A Central Health Authority came into being, first the General Board of Health, next the Medical Department of the Privy Council, then the Local Government Board, and finally, the much more comprehensive Ministry of Health. Side by side with this central control of health the growth of local authorities—county councils on an elective basis, with the formation of administrative counties and county boroughs, urban and rural district councils—has developed.

The years 1875 to 1900 covered a long series of progressive reforms under the direction of the Local Government Board, which supervised especially such local government as related to the public health and the relief of the poor. These reforms comprised general sanitary improvements, pure water supplies, pure food supply, provision of isolation hospitals, public vaccination, the supervision of slaughter-houses and

common lodging-houses, etc. Local authorities obtained control over housing, powers to condemn slums and to provide new housing accommodation. Infectious diseases were made notifiable, while port sanitation prevented the admission of fresh disease and plague and pestilence.

These measures of environmental hygiene were followed by a great improvement in the health of the people and a general decline in mortality. This was all the more remarkable when it is remembered that urbanization was on the increase, a process favourable to the diffusion of infection. The great advances made in medical and natural science during the nineteenth century contributed largely to this progress.

Environmental hygiene has to be constantly watched and maintained. It has also advanced, especially in industrial hygiene, the control and purification of water supplies and in housing and town planning. A number of Acts dealing with these matters were passed prior to the outbreak of war.

Housing

The subject of housing is obviously closely associated with the well-being of the family. Slum-dwellers show a consistently higher death-rate than the community at large. In Manchester, for example, this rate was over 17 in the clearance areas, and less than 13 for the city as a whole. The slum death-rate of any industrial town is nearly double that of the average artisan district.

The housing policy of the Government has a threefold objective: 1. The eradication of the slums; 2. The abatement of overcrowding. 3. The provision of new houses at as low a rent as possible.

This policy, for the most part, has had perforce to rest in abeyance during the present war. Yet it is of vital concern to the national health and the well-being of the family. The Minister of Works foresees an "interregnum" covering the first two years after the war when transitional difficulties will make it necessary to include in building schemes a variety of emergency measures to relieve the nation's most pressing needs, e.g. the provision of prefabricated houses; this will be followed by ten years during which 4 million new houses will be erected. The Ministry of Health and local authorities are closely concerned with this programme.

Though environmental hygiene has proved of great benefit to the social welfare and health of the family, it does not directly influence certain defects and diseases which are responsible for high maternal and infantile mortalities, for lowered fertility, hereditary disease and unhealthy stocks. These are all conditions prejudicial to family life and are partly responsible for the decline in the population.

Since the beginning of the present century, preventive medicine has

enlarged its activities by taking the individual in hand, by promoting facilities and education for keeping him healthy, and by treating disease in the individual in order to safeguard the community.

Public social services have evolved out of voluntary social service, and a comprehensive poor relief service dealing primarily with destitution has been replaced by a number of health services based either on common citizenship or on a contract of social insurance. State provision is now made for the health and care of the individual not only from the cradle to the grave, but through the antenatal service, even before he is born.

All these services were devised to meet special needs, and it is only in these latter days that they are being co-ordinated and organized more effectively in relation to one another.

Problems of Maternity

There are three problems of maternity which have been the concern of the State for over twenty years.

1. The potential fertility of married women is not yielding its due proportion of births. In other words, the nation is not, on the basis of its marriage rate, getting its due proportion of new lives. This is due, of course, in part to the standards enforced by a higher civilization and to other profound social conditions which lie outside the sphere of preventive medicine and are discussed in other chapters of this report. It is not a feature of British civilization alone. But it is partly due to the hazard and uncertainty of child-birth and to the absence of facilities and preparation for it. Preventive medicine has a certain responsibility for the survival of the race.
2. Secondly, there has been an appreciable death-rate associated with child-birth affecting both the mother and the child.
3. Thirdly, there is the serious burden of married women's disablement and invalidism due to lack of knowledge and to insufficient or unskilful medical and midwifery attendance. "Much of the suffering entailed in maternity, much of the damage to the life and health of women and children would be got rid of, if women married with some knowledge of what lay before them, and if they could obtain medical advice and supervision during the time of pregnancy and motherhood."

There has been a steady and satisfactory progress in the provision of complete maternity schemes by local authorities. Such a scheme includes :

a. An adequate medical, midwifery and nursing service ;
b. The satisfactory and sufficient nutrition of the mother ;
c. Maternity centres providing antenatal supervision ;

d. Maternity home and hospital accommodation ;
e. Domestic aid before, at the time of, and after, child-birth ;
f. Maternity benefit and other financial aid in certain cases ; and
g. Early notification of births and still-births.

It is desirable to emphasize also the provision of post-natal care and gynaecological clinics staffed by medical practitioners experienced in women's diseases.

The Midwives Act of 1936 set up a comprehensive service of salaried midwives by local authorities. Every expectant mother, whatever her financial position, is now able to secure the services of a trained midwife for her confinement, or if she has engaged a doctor, she is able to obtain a trained midwife to act as maternity nurse and to assist the doctor. Medical practitioners can be called by midwives in cases of difficulty or danger and the doctor's fee is paid by the local authority in necessitous cases. Consultant obstetricians are available when required.

That these measures are exercising beneficial effect, together with the use of sulphonamides in puerperal sepsis, is shown by the progressive decline in the maternal mortality rate per 1,000 live births since 1935, as set out in the following table :—

MATERNAL MORTALITY RATES—ENGLAND AND WALES

1935	4·11	1939	3·10
1936	3·80	1940	2·60
1937	3·26	1941	2·76
1938	2·97	1942	2·47

Infantile Mortality

Extensive national work has been done in the reduction of infantile mortality. Associated with the maternity service just described are child welfare centres throughout the country for consultations, the help and guidance of the mother, and for the supervision of infancy and childhood up to five years of age. By the end of 1937 there were 3,462 municipal and voluntary centres in England and Wales. Of the 477,903 children who attended at the English centres for the first time during the year, 357,121 were under one year of age.

There are treatment centres for certain special ailments, but for the most part mothers are encouraged to take the child requiring treatment to a private practitioner. Health visitors visit the homes and encourage mothers to bring their children to the centres. Increasing accommodation is being provided in nursery schools and children's homes and for the sick child in hospitals.

More can be done in the development of maternity and child welfare work, but the benefits reaped by the nation from this service are already

remarkable, as the following table reveals :—

INFANT MORTALITY RATES—ENGLAND AND WALES

1900	156	per	thousand	live	births
1938	53	,,	,,	,,	,,
1939	50	,,	,,	,,	,,
1941	59	,,	,,	,,	,,
1942	49	,,	,,	,,	,,

This is an astonishing reduction within less than half a century. From 1920 to 1937 the nation saved annually the lives of approximately 40,000 infants more than were annually saved in 1901-1910, and today still more lives are being saved.

Some reference may be made here to the causes of maternal and infantile mortality.

As regards the causes of puerperal mortality, on analysis it has been found that puerperal sepsis is the largest single cause (17 per cent) puerperal toxaemia is the second and puerperal haemorrhage the third. The deaths from all forms of sepsis and all forms of toxaemia together account for 30 per cent of all puerperal deaths. Maternal deaths also occur in connection with abortion, ectopic gestation, eclampsia, etc., in which there may be no live- or still-birth.

Deaths due to sepsis following abortion represent a large proportion (at least 60 per cent) of the total deaths due to abortion. The Inter-departmental Committee on Abortion, which reported in 1939, estimated that about 40 per cent of the annual number of abortions are criminal. This practice of artificially induced abortion appears to be on the increase and pervades all grades of society. The greater proportion of deaths from this cause occurs among unmarried women. Not only is criminal abortion to be inveighed against as a sin against the gift of life and hostile to racial welfare, but the grave risk of sepsis and death to the mother should be made more generally known.

Foetal and Neonatal Mortality

The three principal causes of infantile mortality which together account for 70 per cent of the death-roll are :

1. Developmental conditions, including injury during birth, prematurity, debility, convulsions, congenital malformations, etc.
2. Respiratory diseases.
3. Gastro-enteritis.

Man dies even before he is born, and foetal and neonatal mortality together are responsible for a loss in England of about 43,000 lives annually. Nearly three-quarters of the total neonatal deaths take place in the first week and about half of these on the first day.

L. G. Parsons[1] gives the causes of neonatal death in 1,500 autopsies as follows :—

Gross malformation	16 per cent
Asphyxia, atelectasis, birth injury, prematurity	42 „ „
Infection	36 „ „

Death is often due to more than one of the four main causes and to any one or any combination of the four.

As Chief Medical Officer of the Ministry of Health, I pointed out in 1938 that more research and investigation in which the obstetrician should be associated with the paediatrician, are needed to reduce still-birth and neonatal mortality. Barcroft and his colleagues by their interesting researches on asphyxia, which accounts wholly or partly for 50 per cent of neonatal deaths, are revealing much new knowledge on this problem, and the clinical work of Parsons and of Dr. Elaine Field shows what can be done to preserve the life of the premature infant.

Desirable Improvements in Maternity and Child Welfare Work

The chief cause of the decline of infant mortality is the fall in the death-rates from congenital debility, diarrhoea and enteritis, bronchitis and convulsions, and to a less extent from infectious diseases and tuberculous diseases.

What are the measures most calculated to secure further reduction in the rate of infant mortality? Improvement in environmental hygiene generally and housing of the family in the first place. Then come the provision of adequate, cleaner, and more suitable food (see section on "Nutrition and the Family"), pasteurization of milk, and the more extended use by expectant and nursing mothers of the facilities provided for the supply of milk and meals.

The extension and development of maternity services, home visiting and infant welfare centres, are most important. Every mother should be educated in the care and management of her own child and should know how to protect the child from avoidable disease or infection. All child welfare centres should receive children up to five years of age. With these measures should be associated a domiciliary nursing service so that every family at need may have a trained nurse for the major and minor maladies of infants. There will, however, be many infants and children who cannot properly be nursed at home. There must, therefore, be increased hospital accommodation for them under conditions which will ensure skilled medical and nursing treatment and safety from the dangers of cross-infection.

The public should be educated generally in the importance of obtaining

[1] First Charles West Lecture, Royal College of Physicians. *The Lancet*, 1944, i, 267.

suitable provision for maternal and child welfare. Lastly, it is abundantly clear that further scientific investigation is required in the study of child hygiene and the diseases of infants and children. Here the paediatricians can render great assistance, and in the early days of the war their help to this end was enlisted by the Ministry of Health and continues to be given with most beneficial results.

The School Medical Service

When the child at five years old leaves the fostering care of the child welfare service, his health becomes the care of the School Medical Service. This service, established in 1907, is designed "to improve the health conditions both personal and in regard to environment, of the children of the nation," and to endeavour to secure "the physical improvement, and as a natural corollary, the mental and moral improvement of coming generations." It introduced school medical inspection, which has developed into treatment of school children, including medical, dental and orthopaedic clinics, the sanitation of school premises, systematic physical training, provision of milk and school meals, and special education for defective children, blind, crippled, mentally deficient, with the appointment of school doctors and of school nurses to visit the homes and to impress upon parents the importance of seeking medical advice when required for their children.

Time only permits of mere enumeration, but it is an impressive catalogue of great social progress. In successive reports of the Chief Medical Officer of the Board of Education it has been shown how medical inspection of school children has separated the impaired and defective children from those that are normal and healthy, how arrangements have been made for attending to the health of both sick and healthy children, how many morbid conditions have been reduced, how the general physique of school children has improved, and how, in addition to direct medical results, the teaching of hygiene and cleanliness, the physical training and the provision of school meals have reformed the physical condition of the children of this land beyond all comparison with the past. A health conscience has developed both in the children and in their parents.

The School Medical Service thus makes an important contribution to the well-being of family life. Through Mr. Butler's wise Education Act it will doubtless go on from strength to strength. In particular, in the future, it will call more frequently on paediatricians for the treatment of children's diseases, their study and prevention.

Reference is apposite here to diphtheria, which is "the chief killing disease of childhood." In 1942 there were 41,404 cases of diphtheria notified with 1,826 deaths, and these were much lower figures than those

recorded in the past. Yet there is available a safe and harmless method of immunization which would in time eliminate this destroyer of child life. The unprotected child is from twenty to thirty times as likely to die of diphtheria as the immunized child. It cannot be claimed that immunization always gives complete protection to the individual child, but the Canadian and American experience has shown beyond all doubt that the disease can be defeated by a high percentage of immunization. Each year some 600,000 babies in this country reach their first birthday. This is the ideal time for immunization against diphtheria. Hence the campaign for immunization instituted more than a decade ago by the Ministry of Health must continue, and to be successful must enlist the support of the parents of every young family throughout the land.

Although not strictly pertaining to preventive medicine, another active cause of diminution of the child population may be mentioned. Every day, on an average, five children lose their lives as a sacrifice, in many instances, to the juggernaut of speed and careless driving on the roads of this country. In other words, 1,825 children, potential fathers and mothers, are annually destroyed by motor vehicles. It is high time that this holocaust of young lives was ended, although the remedies cannot be considered in this chapter.

Diseases Specially Inimical to Family Life

The welfare of the family and the causes and prevention of maternal, infantile and child mortality have been considered at some length, but the story would be incomplete without reference to certain diseases which are especially inimical to family life.

(*a*) Tuberculosis

One of these is tuberculosis. If the bread-winner becomes tuberculous, too often he continues at work until his disease is too advanced to be arrested, he and his family sink in the social scale, and they become a financial burden to the State. In addition, other members of the family often become victims of the disease.

The question of heredity in relation to tuberculosis has often been discussed. Karl Pearson believed that assortative mating and the postulation of an inherited tuberculous diathesis might explain the fact that a considerable proportion of wives and husbands are both of them tuberculous beyond what chance would account for, but any possible hereditary influence is far outweighed by other known and preventable causes. Such causes are overcrowding and insufficient ventilation favouring contact infection, malnutrition, infectious diseases, particularly measles and whooping cough in children, diabetes, alcoholism

and cirrhosis of the liver, insanity, syphilis, influenza, a potent activator of latent tuberculosis, and industrial infections such as silicosis and asbestosis. In women pregnancy and prolonged lactation frequently aggravate tuberculosis, if already active, or call into activity a latent focus of disease.

The influence of nutrition and of social well-being on the death-rate from pulmonary tuberculosis is of great importance. The two factors are interdependent and can hardly be dissociated. When food is cheap and wages are high there are fewer deaths from tuberculosis. When poverty prevails there is a higher death-rate.

In the past whole families were destroyed or decimated by this fatal disease. So disastrous were its effects on the nation that it was the first complete social health service established by the State. The National Tuberculosis Service in Great Britain was set up in 1912. It was made an integral part of public health, and every measure calculated to promote the health and well-being of the community is a contribution towards its efficiency.

These are the comprehensive methods of attack. First of all the general measures of public health—environmental hygiene, housing, abatement of overcrowding, pure milk supply and good nutrition. Then come the maternity and child welfare services and the school medical services. With these are co-ordinated the Tuberculosis Service itself, with the county council or county borough medical officer of health as administrator, the tuberculosis officer, the health-visiting and nursing staff, and institutions for diagnosis, treatment and care. The dispensary is the centre of the scheme. Linked with it are sanatoria, hospitals, institutions for surgical forms of tuberculosis ; arrangements with general hospitals, technical training sanatoria for adolescents, industrial centres, residential and non-residential ; the village settlement, of which Papworth is the model and example, and the Care Committee.

Important work in research has been done by tuberculosis committees of the Medical Research Council, while the National Association for the Prevention of Tuberculosis, the Joint Tuberculosis Council and the Tuberculosis Association play their part in forwarding progress in many directions. The many workers in this Service have seen their reward in the steadily declining death-rate from tuberculosis year by year. In 1938, the last year of peaceful endeavour, all forms of tuberculosis were declining. In 1911, immediately prior to the setting-up of the national scheme for combating tuberculosis, there were in England and Wales 38,422 deaths from tuberculosis of the respiratory system, a figure which in 1938 had fallen to 21,930. The diminutions in the deaths from other forms of tuberculosis (bone and joint disease, meningitis, glandular

disease) were even more remarkable. In England and Wales in 1911 these deaths were 14,698 ; in 1938 they had fallen to 4,426.

The prevention of contact infection, the increased pasteurization of milk, earlier ascertainment and skilled surgical treatment, all no doubt had their effect in this remarkable result.

The baneful effect of war in favouring tuberculosis mortality is well known. In 1939 the deaths from tuberculosis in England and Wales had risen to 26,250, although war conditions only prevailed in a little more than three months of that year. In 1940 they were 28,144 ; in 1941, 28,670 ; and in 1942, 25,547. The improvement in the last recorded year has coincided with a lull in enemy attack.

Experts have pronounced that the present scale of rationing is adequate for the tuberculous, if carefully planned, as in sanatoria and hospitals. The consumptive at home or in lodgings may not be able to secure such a diet, and many think a case for special nourishment can be made out on these grounds.

War conditions are, for many reasons, favouring tuberculosis among all callings. In this increased incidence the factory workers share, but the primary causes of it lie for the most part outside the factory.

Measures of prevention and treatment may be grouped into immediate and future measures. The deadly effects of tuberculous milk are well known, and universal heat treatment of all milk would abolish tuberculosis of bovine origin, which is responsible for about 2,000 deaths in England and Wales annually as well as much suffering, illness, crippling and economic loss.

Miniature or indirect radiography is an important aid to early diagnosis, but it reinforces and does not supplant clinical examination. It must not be used as a "rule of thumb" diagnosis. Recent work in chemotherapy encourages the hope that eventually a drug may be found which will destroy the tubercle bacillus in man (vide "Chemotherapy and Tuberculosis," *Nature*, 1942, October 31, p. 517).

After the war Great Britain will be faced with a greatly increased incidence of tuberculosis, particularly in ex-Service men. It is high time to marshal all our forces, and the Ministry of Health is already taking active steps. More institutional provision and beds will be needed. The village settlement, which provides the ideal solution of the tuberculosis problem, and other methods of rehabilitation will be required. The Medical Research Council favours the setting up of a national board in order to co-ordinate the planning of a national rehabilitation scheme.

(*b*) Venereal Diseases

Venereal diseases fall on the just as well as on the unjust and are the

source of much invalidity, many deaths and great individual and social unhappiness. The two main types of venereal disease are syphilis and gonorrhoea.

Congenital syphilis was first described by Ambroise Paré in 1633. It is the most important and frequent cause of abortions and premature births. Syphilis may attack any organ of the body in the adult; indeed, it has been said that if a student knows syphilis and its effects he knows nearly all medicine. The most deadly results are seen in the circulatory system—degenerative heart diseases and aneurism carry off men in the prime of life—and in the nervous system—general paralysis of the insane and locomotor ataxia.

Venereal disease, like tuberculosis, is one of the camp-followers of war, and it was as a war emergency that the Local Government Board in 1916 made counties and county boroughs in England and Wales responsible for the Venereal Diseases Health Service. Scotland set up a similar organization. The discoveries of Schaudinn, Wassermann and Ehrlich in the early part of this century provided mankind with methods of diagnosis and effective treatment. Pyrogenetic and other treatment for neurosyphilis has proved encouraging.

Gonorrhoea is very rarely the cause of antenatal disease and death, for if acute it will prevent conception, and if chronic it is one of the main causes of sterility. It may cause serious complications after birth to both mother and child and about 70 per cent of cases of *ophthalmia neonatorum* are due to maternal gonorrhoea. The discovery of the sulphonamide group of remedies has proved a most valuable weapon against the spread of this disease. The duration of active symptoms is usually reduced from some weeks to a few days and any complications, such as gonorrhoeal opthalmia, epididymitis and arthritis are rapidly controlled. Vulvovaginitis of children and its attendant domestic distress promise also to become a relatively minor problem. The work, therefore, of preventing and controlling the dire effects of venereal diseases has met with great success. The incidence of venereal disease can be best judged by examining the figures for syphilis; the wide use of sulphonamide remedies makes the figures for gonorrhoea less reliable. Between the years 1931 and 1939 new infections with syphilis declined steadily by over 46 per cent. Then, unfortunately, the advent of war disturbed this favourable decline. War circumstances favour the spread of venereal diseases through the general state of heightened nervous tension and excitement in persons lacking in self-control and proper moral standards, while the shifting of large numbers of people in military camps, in the neighbourhood of munition works, or through evacuation to areas hitherto sparsely populated, may be associated with outbreaks of these diseases in places unprovided with treatment centres. For

these reasons the Ministry of Health has advised county and county borough councils in some districts to expand existing centres and in others to set up new ones. Between the years 1940 and 1941 there was a rise of 40 per cent in sufferers from syphilis in England and Wales (including Service cases). The increase in new syphilitic infections since the beginning of the war now amounts to about 120 per cent. The incidence of gonorrhoea cannot be so closely estimated for reasons already given ; but taking Service statistics as a guide it is estimated that during the year 1942, new infections of gonorrhoea were from six to seven times as many as those of syphilis.

In various ways the Ministry of Health are coping with this serious threat to the population and family life. Closer co-operation has been encouraged between the treatment services of local authorities and the Forces, and local authorities have been urged to expand facilities for treatment wherever necessary and promised an Exchequer grant of 75 per cent of both capital and running costs of new provision for war-time needs. Out-patient and in-patient treatment is available for members of the Forces not only at hospitals within the Emergency Hospital Scheme but also at civilian centres if they are referred to these by the appropriate Service authorities. Further, local authorities have arranged for suitably qualified general practitioners in rural areas to give treatment at their own surgeries during normal attendance hours.

Representations had been received that a small number of irresponsible people were spreading venereal diseases and that they refused to attend voluntarily for treatment. Accordingly, in November, 1942, Regulation 33B was added to the Defence (General) Regulations. This regulation made it an offence for any person, indicated as a source of their infection by at least two patients under treatment for venereal disease, to refuse medical examination or, if necessary, treatment by a special practitioner after being required to do so by the medical officer of health of a county or county borough, or to cease treatment until certified as not suffering from the disease in a communicable form.

As a complement to this section, the Ministry of Health in 1942 began an educational campaign in an endeavour to make the public more aware of the risks and perils of these diseases and of the facilities for treatment provided. Broadcasts, advertisements in the Press, films and circulars to local authorities, are stimulating public interest in this matter.

(*c*) Rheumatic Diseases

As Dr. Philip Ellman has pointed out,[1] the rheumatic diseases constitute with tuberculosis two of the greatest scourges of mankind and

[1] "Tuberculosis and the Rheumatic Diseases," *Post-Graduate Medical Journal*, January, 1944.

are responsible for much social and economic disturbance, together with infinite human misery, disability and invalidism. The chronic rheumatic diseases more often than not occur in the prime of a man's life and curtail the family's sole source of income.

Rheumatic fever (acute rheumatism) is a familial disease and chiefly affects children between five and fourteen years. It has a clearly defined social incidence, falling twenty to thirty times as frequently upon the poorer children of the industrial town as upon the children of the well-to-do. Its incidence increases directly with malnutrition, overcrowding and bad housing. Its mortality is declining. In 1901 the mortality rate was 67 per million persons ; in 1938 it was 26·8 ; in 1939, 23·0 ; and in 1940, 20·5. "Its importance lies in the after-effects—the permanent heart-damage, lifelong disability and premature death—which may result from it rather than in the low immediate mortality." (Glover). The prevention of rheumatic disease rests with the medical practitioner and the public and education authorities. More facilities are required in the way of early ascertainment, diagnostic clinics, in-patient hospital accommodation and for prolonged and special convalescence.

Chronic rheumatic disease with all its protean manifestations—fibrositis, rheumatoid arthritis, osteo-arthritis, etc.—like rheumatic fever is of unknown aetiology. It kills slowly, but its morbid manifestations are widely prevalent. Many victims have to lead a life of helplessness, being bedridden or restricted to a wheeled chair ; the patient is thus a burden to himself, his family and society. It has been estimated that rheumatic disease is responsible for ten times as much incapacity as pulmonary tuberculosis, and that the loss of working days through such disablement amounts in England to one-sixth of the total disability through illness. One sixteenth of all money expended on pensionable invalidism is given to sufferers from these diseases.

The Empire Rheumatism Council, under the chairmanship of Lord Horder, endeavours to attack on broad lines all the manifestations of rheumatism. Research is required into the causation of chronic rheumatic disease, investigation into the comparative value of various therapeutic measures, increased provision of special out-patient clinics and of various forms of physical therapy, increased and more prolonged in-patient accommodation in research units at various hospitals, and after-care, vocational guidance and rehabilitation in all its phases. In these various ways the incidence and morbidity of this family scourge might be greatly checked and ameliorated.

(*d*) **Alcoholism**

It has already been mentioned that alcoholism favours tuberculosis ;

there is also general agreement that alcoholic excess promotes the spread of venereal diseases, though its effect is difficult to measure. Parental alcoholism is certainly a cause of antenatal and neonatal mortality, but as the National Birth-rate Commission, 1918-1920, pointed out, "its influence in this direction is so obscured by other causes that fluctuations in the amount of alcoholism within a given community do not necessarily produce corresponding fluctuations in infant mortality. In modern civilized communities, at all events, it is not a significant cause of depopulation." For the quality of the race alcohol is certainly detrimental. It is a taint which biological experiment has shown to be heritable and it leads to poverty, overcrowding, parental neglect of the offspring, mental degeneracy and crime. It is one of the most destructive enemies of family life. Dr. Ballantyne, a great pioneer in maternal and infant welfare work, said: "Alcohol is a menace to child-life at all stages of its existence through either or both parents."

Effect on Home Life

Drunken mothers in the past frequently overlaid and suffocated their infants. The deaths from this cause have fallen coincidently with the fall in alcoholic consumption. The effect of alcohol on the home life of the child has been emphasized by Cyril Burt and others. Burt says: "Of all the features of the vicious home the commonest and most remarked is drunkenness . . . for the impressionable years of childhood a drunkard's home is one of the worst conceivable. Money is squandered, health and discipline are neglected; the family is despised by the neighbours; and a perpetual life of discord, irregularity and passion is created and sustained."

Alcohol even in moderate quantities slows down the mental processes and contributes to industrial accidents and the motor and road transport accidents to which reference has been already made. As a rule these accidents are not due to gross inebriation but to an interference with neuro-muscular control and alertness of judgment.

Alcohol in the last war was seriously interfering with national efficiency. As Mr. Lloyd George said: "It became a choice between alcohol and victory." After the Government set up the Board of Control (Liquor Traffic) under the chairmanship of Lord D'Abernon, there was a most spectacular drop in the convictions for drunkenness, cases of delirium tremens, and deaths from cirrhosis of the liver and alcoholism in both sexes. Coincidently there was increased industrial efficiency, less lost time, less sickness and fewer accidents. These results were obtained by regulating the hours and conditions of drinking on physiological principles so as to secure three main ends, viz. "(1) the discouragement of the use of beverages of excessive alcoholic strength; (2)

avoidance of drinking alcohol on an empty stomach ; and (3) avoidance of continuous or frequently repeated drinking of alcoholic liquors" (Lord D'Abernon, *Scientific Basis of Drink Control*).

There is much less gross drunkenness today than in the past. This is due to better education, to provision of increased facilities for obtaining non-alcoholic refreshment and recreation, such as the cinema provides, to reduction in the strength of alcoholic beverages and to limitation of the hours at which such beverages may be served. On the other hand there is a great increase in drinking habits, for instance, "the cocktail habit" which Sir Arthur Hurst has shown may cause alcoholic hepatosis, a toxic degenerative process, in young people.

All those who have the welfare of the race and the maintenance of good family life at heart should discourage the immoderate use of alcohol.

The maintenance of good health and the prevention of disease include many social and economic factors as well as medical ones. In endeavours to effect this the family must be taken as the unit. There is, for instance the fundamental principle of the Peckham Experiment so enthusiastically initiated by Dr. Bruce Williamson and Dr. Innes Pearse, while the foundation of Chairs of Social Medicine in the Universities of Oxford and Birmingham indicates a realization of the growing importance of this work for family health and sound offspring.

National Health Service

In concluding this section on "Health and the Family" some reference may be expected to the subject of a national health service, upon which a White Paper was presented to Parliament by the Minister of Health and the Secretary of State for Scotland in February, 1944.

Good as the results have been, the present machinery of public health and medical organization is unwieldy and complex. There is much overlapping of effort. A number of small local authorities have inadequate resources for the full performance of their public health duties. Central and local government is at present too complicated, and it is also true that various health services were not planned comprehensively but were established independently to serve some special need, while various health reforms are necessarily permissive in character. It may be observed that the nuclei of a comprehensive medical service are already present in the Insurance Medical Service, the Public Assistance Medical Service, the Health Service and hospitals of the local authorities, the voluntary hospitals, the specialist provision made by municipal and voluntary agencies and the planning of the Emergency Medical Service. The task which only time, patience and experiment can solve is to combine this scattered provision into one harmonious whole for the health needs of the family and the future of the British people.

The scheme is now under discussion. It is receiving much criticism and may be modified in certain of its details. Granting all this, it emerges as a great conception, broad in view and full of wisdom and vision. Rightly used, it may become the Great Charter of British health. More remarkable still, it was planned in the fifth year of a war in which the national existence was at stake.

Conclusion

Here in brief space is an attempt to indicate what work has been done and is contemplated to give families the boon of health and to prevent death and disease among them. "Health is the soul that animates all enjoyments of life, which fade and are tasteless, if not dead, without it," wrote Sir William Temple. It rests with the people to make full use of the facilities provided by the State. No exhortations, no regulations, no schemes, however ably planned, can make a healthy nation unless the force of public opinion is behind them. And lastly, this support must be no mere lip-service. The individual must pay the price of health in temperance, in self-control, in regular habits and in hygiene of mind and body. Increased longevity and the decrease in national mortality in years of peace suggest that the families of Great Britain are not only aware of the health facilities provided, but are making them a bulwark in the fight against disease.

SUMMARY

The family is the unit of race. Deplorable family conditions were the result of the industrial revolution and increasing urbanization. Gradual realization by the State of its responsibilities for the health and well-being of the family indicated by improvements in environmental hygiene, housing and public social services. The problems of maternity. Improving rate of maternal mortality. Infantile mortality. Abortion hostile to racial welfare. Foetal and neonatal mortality. Desirable improvements in maternity and child welfare work. Benefits of the School Medical Service. The conquest of diphtheria, "the chief killing disease of childhood." The juggernaut of careless motor driving. Diseases specially inimical to family life: (*a*) tuberculosis; (*b*) venereal diseases; (*c*) rheumatic diseases; (*d*) alcoholism. Study of social medicine. A National Health Service. Conclusion.

RECOMMENDATIONS

1. Environmental hygiene must be constantly watched and maintained. In housing the objectives are: (i) the eradication of the slums; (ii) the abatement of overcrowding; (iii) the provision of new houses at as low a rent as possible.

2. Maternity and child welfare work must be further developed and extended. Further research work is needed, into neonatal mortality, the study of child hygiene and the diseases of children. Increased hospital accommodation, antenatal, post-natal and gynaecological clinics are required. Immunization against diphtheria must be further encouraged.
3. Measures for the protection of the family against certain special diseases: tuberculosis, venereal diseases, rheumatic diseases and alcoholism, are discussed and recommended.
4. Social medicine must be studied.
5. The nuclei of a comprehensive medical service are already present. The task is to combine this scattered provision into one harmonious whole.

CAUSES AND SIGNIFICANCE OF THE DWINDLING FAMILY

By DR. MARGARET HADLEY JACKSON

WHAT has been happening to the size of the population during the past seventy years and what is going to happen to it in the near future have already been discussed elsewhere in this book. It should be clearly understood that the steady fall in our birth-rate ever since 1870 has been almost entirely due to the deliberate decision on the part of married couples to limit the size of their families and that future population trends depend very largely on the wishes, translated into action, of this and future generations of parents. There is little evidence to suggest that a decline in natural fertility can account for such a phenomenal downward trend in the birth-rate.

Some may question this and contend that the rise or fall of populations is due to large global trends quite outside men's control and is not directly dependent on the personal whims of men and women. This may well have been broadly true in the past; indeed in some parts of the world (e.g. India) it still remains so. But there is abundant evidence that the marked fall in the birth-rate which has occurred mainly in the countries of Western Europe, the British Empire and U.S.A. is due very largely to voluntary limitation of family size.

Why?

If this is so what are the factors in our civilization which may be responsible? Why, during the past seventy to eighty years in the most civilized, or at any rate industrialized, countries have so many married couples shied away from parenthood? Polls of public opinion are not yet fashionable in this country so that we have no ready store of statistics to guide us, but the many thousands of histories accumulated in hospitals, in clinics and in private medical practice offer a fair indication of what has been going on in our minds.

The determination to limit the number of offspring is undoubtedly linked closely with the desire to "get on in the world." Indeed, in a highly acquisitive and industrialized society, life for many means little more than a struggle for existence on a level of tolerable material comfort. It is a fact that the successful families in such a society tend, either voluntarily or involuntarily, to be subfertile. This tendency has probably been noted by others less fortunate and perhaps more fertile, who, in an attempt to compete in the acquisitive race, try to limit their progeny in order that each child may be given the best possible chance and the slender patrimony not have to be spread too thin.

"He travels fastest who travels alone" is a maxim which leads the ultra-cautious even further in the same direction ; in the eyes of some, children are no longer an asset ; on the contrary, they are millstones round necks, hostages to fortune.

The custom of family limitation undoubtedly started among the better-to-do or more ambitious sections of the community and has gradually become widespread. Indeed, the less well-to-do, themselves often members of long families, close witnesses and perhaps victims of a hard economic struggle in which parents and children both suffered, have what must seem to them good and sufficient reasons for not wishing to breed too freely. Mass unemployment and a general sense of economic insecurity in the recent past are added factors. Many have lost faith in themselves, their fellow-men and the future. The influence of organized religion is less widespread, and spiritual ideals are ignored by many and replaced by a purely materialistic outlook.

By marrying late and by limiting their children to one or two, parents hope to raise or at least maintain their family standard of living. Admirable in many ways though this may be, it brings in its train a host of false values when it degenerates into a competition with neighbours over possessions. (Shortly before the war the writer was a guest at a large dinner party of what might be called middle- and professional-class persons. The conversation turned on what people wanted that they had not got. Almost without exception the party voted for another hundred or so a year so that they might buy a more expensive motor-car or some similar luxury. Not one wanted the money to enable him or her to rear more children.)

Again, some people are more concerned about their careers than on raising a family, and in many occupations discrimination is exercised against married men and women, particularly those with families. In our complex and restless pattern of society there are many counter-attractions to divert people from parenthood, and the entry of women into the large variety of gainful occupations now open to them damps down their maternal instinct which, at best, may not be fully aroused until after the birth of a first or even a second baby, by which time the paternal urge is often satisfied, whence a conflict may arise between husband and wife.

The unending domestic drudgery associated with a long family and the increasing shortage of domestic help fill many a woman with dismay. Some are physically unfit for childbearing and child-rearing and become exhausted in the process ; others dread the discomforts of pregnancy and the much advertised pangs of parturition. Lastly, the shortage of well-planned labour-saving dwellings, roomy enough to house a large family, is a common and real difficulty.

In short, industrialization and the consequent increase of wealth prompt

the successful members of the community not to have more children but merely to raise still further their standard of living; among the less successful there is born a great desire similarly to improve their material lot—and family limitation follows. Thus, although some of the cruder means of controlling fertility have been available from the earliest times, the widespread desire to make use of contraceptive devices is a recent development in our civilization.

To What Extent?

Speaking generally, it is rare to meet a couple who embarked on marriage with any clear notion of how many children they intended to have. Frequent answers to the routine question "How many children did you plan to have when you married?" are "None," or "We hadn't thought about it but we didn't want one right away." Very few intend to let nature take her course and chance having a baby within a year of marriage. The usual view seems to be that it is hardly decent, certainly not sensible, to set about starting a family immediately after marriage and that conception will inevitably and immediately ensue unless contraceptive measures are taken.

Thus, almost as a matter of fashion, newly married couples either practise withdrawal or make use of some mechanical or chemical contraceptive device. If a couple is highly fertile and employs some unreliable method of birth-control, a sizeable family may result; if subfertile, the most inefficient methods will succeed and the subfertility may only be discovered too late for treatment to be of much avail.

It is, however, a heartening sign of the times that many more young couples are beginning to seek advice at an early date if the wife does not readily conceive when conception is desired. Not only are they learning that something can be done to help them, but also apparently they are tending to try for their first baby at a stage earlier in married life than in the recent past.

To some extent, more particularly in rural areas, the custom still persists of courting, walking out and cohabiting until the fertility of the intended wife is proved by conception and pregnancy; then, and not till then, is marriage contracted. It is among this type that one meets the now rare families of ten to fifteen children and the wife who says, "I don't feel right without a baby about the house." The much more general attitude in this country seems to be that the right size for a family is in the region of two, that children are not the natural, inevitable and satisfying fruit of married love, to be conceived and born as an act of faith but are, on the other hand, a heavy and formidable burden. So busy have we been with other and more trivial matters that we have not stopped to consider whither this attitude is leading us.

The accident of religious influence and background seems to have little bearing on the matter, for although certain churches wholeheartedly condemn the practice of contraception while others try to ignore its existence, all have to some extent placed the seal of approval on the control of fertility as one of the necessary and laudable forms of self-control.

Effects

It must be borne in mind that contraceptives, like high explosives, are immensely powerful and far-reaching in their effects. Misuse of either may be fraught with the direst consequences to individual and community alike; used properly both can be of great service to mankind.

Considering the beneficial effects first, it is clear that by enabling fertile couples adequately to space and sensibly to limit their families according to their means, contraception helps to raise the standard of living of the family, reduces infant mortality and maternal risk, gives each child a better chance in life, enables mothers to be something more than domestic drudges, and prevents obstetric disasters by safeguarding those women who are unfit for childbearing.

If properly taught and carefully used, contraception should reduce the incidence of criminal abortion with its legacy of evil consequences and, by making it easier for couples to marry young, should also limit premarital promiscuity and the incidence of venereal disease.

Contraception can be of immense psychical value in that it relieves the overburdened superfertile mother of her recurrent fear of pregnancy, thus preventing marital tension and unhappiness and maintaining or restoring sexual harmony and confidence.

In a country with a geographically limited area, in which the death-rate is being reduced by a steady improvement in social and hygienic conditions, some control of natural fertility is almost certainly necessary, though the gloomy forebodings of Malthus and his followers 150 years ago about the "devastating torrent of children" which was heading this country for over-population and starvation, would now appear unduly alarmist. As we have seen, this conscious limitation of the birth-rate begins inevitably among the more far-sighted and prudent sections of a growing community; in order that it should not act dysgenically it is essential that the practice of contraception should be rapidly extended to those who are physically and socially unfit. Unfortunately, this ideal is still far from realization in this or, indeed, in most countries. Educative measures to encourage the fit to prove their fertility young and to breed in adequate numbers so that they may at least replace themselves, together with more efficient medical services to carry the knowledge and means of sound birth control practice to the unfit and overburdened, are urgently needed.

Turning now to the evil consequences of the misuse of contraception, these can hardly be over-emphasized.

Undoubtedly the ready availability of efficient contraceptive devices means that many couples fit and able to bear and rear healthy children use these devices perhaps almost as a matter of fashion without due regard for the more remote results both to themselves and to the community.

The dysgenic effect of family limitation being practised predominantly by the more intrinsically valuable members of a community has already been mentioned. To this must be added the social consequences of the disintegration of a full and vital family life which follows over-limitation and which is a misfortune, not only to the community as a whole but also, in a more personal sense of which they are often quite unconscious, to the members of the too small family.

The sizeable family of from four to eight children has much to commend it. For both parents and children it provides the best possible psychical background and affords admirable opportunities for inter-education. By contrast, the solitary ewe lamb is a thing to deplore. "Mother, father and one child," as the proverb runs, "means three fools." Only too often parental anxiety to see the only child "do well" may force it into an occupation for which it is physically or mentally unsuited and to which it cannot make a satisfactory adjustment. Its failure or perhaps its untimely death brings home too late to the hapless parents the folly of having put all their eggs into one basket.

From the point of view of the community, the too small family of from nil to three children means a contracting population, membership of which, as is pointed out elsewhere in this book and as may be discovered by many now living, is an uncomfortable business.

One evil consequence, certainly not fully recognized, is that by the short-sighted, almost routine use, of contraception at the outset of a marriage, women tend to postpone their first pregnancies to a comparatively mature age, thus increasing infecundity since after the age of thirty natural fertility declines.

This is not to say, however, that sound methods of contraception are in themselves a cause of sterility. For such a belief there is no evidence whatsoever. There is, however, some reason to suspect that the fact that they are readily accessible alike to the married and unmarried encourages extra-marital promiscuity and, with the exception of the sheath, which gives some degree of protection, helps to spread venereal disease. In a democratic country the remedy for this would seem to lie not so much in the control of supplies of contraceptives as in the readjustment and raising of moral values and standards of behaviour.

Against the use of mechanical and chemical aids to contraception it is frequently argued that they damage the reproductive organs and may even

cause cancer. It can be confidently stated that there is no scientific evidence to support the assertion that they are cancer producing, while the only methods known to have caused local damage are those such as the gold pin, douching with strong chemicals and the Gräfenberg ring, which are heartily condemned by most doctors.

Among the thousands of women who have been persistently using chemico-mechanical methods of birth-control and who have now been under observation for a decade or more at numerous clinics in this country, the United States and elsewhere, nothing has come to light to make the doctors in charge suspect that the occlusive pessary or sheath used in conjunction with a properly tested chemical suppository or paste can do any local damage.

It must, however, be made clear that the practice of abortion (which means the deliberate termination of a pregnancy already under way and is thus *not* a method of preventing conception) is always damaging and potentially fatal to any woman attempting it herself or with the help of what is somewhat curiously known as a wise-woman. Any doctor who has witnessed the results of such efforts to procure abortion is not likely to forget them, for they are such as to make "each particular hair to stand on end like quills upon the fretful porpentine."

Full control of his fertility is one of man's hard-won liberties, which modern methods of contraception have brought within his grasp. Used aright these can be a great force for good ; misused, they spell degradation and gradual extinction for the misusers.

Involuntary Sterility

It may reasonably be asked how many childless or one-child marriages are deliberately planned as such and how many are bitterly regretted. In this country there are no statistics available to answer the question with any degree of accuracy, but a figure of 10 per cent is often quoted as roughly representing the proportion of involuntarily sterile couples. Again, there is nothing very convincing to indicate whether this natural barrenness is increasing, stationary or decreasing. Such few facts as there are suggest that our existing social structure, our diet, our methods of agriculture and the complex artificiality of our way of life all tend to encourage subfertility. It is, however, quite certain that many more couples are seeking early advice when they realize that they are barren, and scientific knowledge as to the causes and methods of remedying sub-fertility is steadily growing, although the clinical facilities for applying such knowledge are still lamentably deficient.

SUMMARY

Fall in birth-rate since 1870 primarily due to deliberate choice of parents to limit size of families. The reasons for this retreat from parent-

hood are manifold, many of them dependent on our industrialized and acquisitive society. The use of some form of birth control is now almost a matter of fashion. The effects of contraception powerful and far reaching ; good and evil effects discussed. By contrast criminal abortion always potentially harmful. The problem of involuntary sterility.

RECOMMENDATIONS

EDUCATIONAL

Training the young, both boys and girls, in parenthood ; emphasis on the long term interest in rearing a family and the necessity of a vigorous rising generation to give point to human effort. Discussions on population problems and the question of children versus possessions at public and secondary schools, universities, W.E.A. meetings, etc. Instruction in the uses and abuses of contraception and the dangers of criminal abortion.

HYGIENIC, SOCIAL AND ECONOMIC

The quality of contraceptive appliances and chemical products to be under constant supervision and control of competent authority. The prohibition of free sale of contraceptives impracticable. Encouragement of early marriage and childbearing by economic, legislative and educational measures. Improvements in housing and health services. The widespread establishment of marriage guidance centres where people could go for skilled advice on all matters connected with marriage, parenthood and the rearing and spacing of children. Investigation into the causes of subfertility and its treatment. Control of venereal disease. A more humane attitude towards the illegitimate conception and a less tolerant one towards the professional abortionist and vendors of abortifacients.

PSYCHOLOGICAL ASPECTS OF FAMILY LIFE

By DR. ELIOT SLATER

THERE are very few of us who were not brought up in a family; and those who were not, who, for instance, spent their childhood in orphanages, are looked on by the others with pity. We are all vaguely aware that what happened to us in the earliest years of our lives has been very important in developing our character, and that a happy childhood enriches the rest of our lives. An unhappy childhood will also have the most far-reaching effects, and beside making the child himself miserable, will thwart his development into healthy manhood and in time to come raise difficulties in the way of his marrying happily. An important cause of an unhappy childhood is discord between the parents. In this way unhappiness may perpetuate itself from one generation to the next. When this is so, it is remarkable how little systematic work has been done on the psychology of family life, on how the personalities of father and mother may conflict with or balance one another, on the reasons for happiness or unhappiness. Some time ago, I was impressed with the importance of getting to know something of how the personalities of men and women fit together in this relationship, and what are the qualities they seek for in their mates. Since this time, an investigation[1] has been begun, and though it is far from complete, it has provided interesting information, some of which will be reported here. It must be remembered, however, that the results are only provisional, and later work may show that any of the opinions I have based on them are wrong. The reader is quite at liberty to reject any of the views I shall put forward, if he has grounds to do so.

General Wish for Small Families

The birth-rate is declining. Parents nowadays do not have the large families of their Victorian grandfathers, and they do not desire them. In a survey[2] of 2,526 Scottish families, Dennis Chapman found that in 48 per cent of the families there were no children under the age of fourteen at all. In 23 per cent there was one child, in 16 per cent two. In only 13 per cent of the families were there three or more children. In a Gallup

[1] The home visiting and history taking of this investigation has been done by a trained psychiatric social worker, my friend Mrs. Moya Woodside. The expenses were met out of research funds supplied by the Rockefeller Foundation.

[2] Wartime Social Survey, New Series No. 34, September, 1943, *The Location of Dwellings in Scottish Towns*, by Dennis Chapman.

Poll[1] reported in the *News Chronicle* of February 21, 1944, two-fifths of the people asked thought that the ideal family would have two children or less, two-thirds thought three children or less.

Why do married people wish for few children? Everybody has his own ideas on this, and we have no easy means of finding the right answer. Children, who used two generations ago to be financial assets, are now an expensive luxury. The married man with three children cannot live nearly as well on the same income as the childless pair or the bachelor. The whole structure of our society is against the large family. The family with six or more children is looked on with pity rather than respect, and is a subject for jokes. Houses and flats, cars and entertainments, and the advertising that sells them, are all designed for the family with at most one or two children. Even the primitive instincts of parenthood make no demand for a burdensome number of children, when all the care and affection may be lavished on one or two. Large numbers of parents still desire to buy their children expensive educations, and restrict their numbers in order to buy the "best." The really large families of today, in so far as they exist, are in overwhelming proportion the product of accident and not design.

Main Causes of Decline in Birth-rate

Married people of today are luckier than their grandparents in being able to put their wishes for family restriction into more effective action. Whatever the reasons for which parents desire small families, we can be sure that the main causes of the drop in the birth-rate are later marriage and the practice of birth-control, the latter being probably the more effective.[2] In the families of our enquiry, three-quarters engaged in some form of birth-control. This practice is in the process of revolutionizing our society. It has tremendous possibilities, both for good and ill. We have already read of some of its dangers, and they are serious. But on the whole it is to be welcomed, as it gives mankind another powerful weapon for the control of its own destiny. The good aspects are not to be forgotten. Where every child that is born is planned for and wanted by his parents, there is a much better chance that he will be brought up in a happy family. We have not yet reached that stage. Birth-control is still far from foolproof. In the families studied by Mrs. Woodside and me, the families that planned to those that did not were as five to two; and yet in the planning families about one child in three was the result of an accident. Taking all families together, there were more children

[1] I am indebted to the *News Chronicle* for permission to quote figures from the Gallup Poll, conducted by the British Institute of Public Opinion and published by the *News Chronicle*.

[2] See Raymond Pearl, *The Natural History of Population*, Oxford, 1939.

that were accidental than had been planned. The most usual course of events was for the parents to take what the gods gave them for a time, and then to try to clamp down altogether on further reproduction.

We are still in a transitional stage. In the years to come methods of birth-control will improve, and the proportion of parents who practise them will increase. We must look forward to the time when almost every child will be a wanted one. Though this will make for fewer children, it will also make for better ones. Children will be more highly prized, and will receive more individual attention. The requirements of their welfare will be studied and provided. We have already seen a great change during the present war in this direction.

Although married people want fewer children nowadays than they used to, they do not want so very few that the race would be in any danger—if they had as many as they wanted. We are told this in unmistakable terms by the Gallup Poll. The results of the Poll in January, 1939, provided the following table (of which the last column of totals has been added by me).

What is the ideal size of the family: husband, wife and (?) children?

Opinion group	*Number of children*						*Total of children*
	0	1	2	3	4	*5 or more*	
	Per cent	*Per cent*	*Per cent*	*Per cent*	*Per cent*	*Per cent*	
Men . . .	2	2	39	25	20	12	295
Women . .	3	1	36	29	20	11	295
Age 21 to 29. .	3	2	44	26	15	10	278
Age 30 to 49. .	1	2	40	25	20	12	297
Age 50 and over .	2	2	27	26	25	18	324
Higher income .	1	2	32	30	24	11	307
Medium income .	2	2	39	26	18	13	295
Lower income .	2	3	39	25	19	12	292

The table shows that younger people favour a smaller number of children than older people do. This may be because for the younger people it is a practical matter, while for their elders it is theoretical; or the difference may mean that our ideas of the right number of children in a family are getting more modest as the century advances. The table also suggests that the number of children thought right has something to do with prosperity, though the differences shown are small ones. If it were true that better-off people, who are more easily able to support them, favoured a higher number of children, we might take it as a source

of encouragement. If we could see to it that prosperity had something to do with merit and with service to humanity, it would perhaps then be the most desirable families who had the largest number of children. But the most striking lesson of the table is that people want quite enough children, for the race to continue successfully if they were actually born. If every hundred married couples actually brought 295 or even 278 children into the world, we should have no reason to worry about the falling birth-rate. If we could make social circumstances sufficiently propitious for parents to have just that number of children they thought ideal, there would be no need to dragoon them in any way, or to offer them any extravagant rewards. In a recent American study of a thousand engaged couples,[1] two-thirds of the young people said that they "very much desired" to have children, rather more than a quarter "mildly desired" children, and only about one in twenty objected to them. These figures also leave one in little doubt that the total number of children desired would be more than sufficient to perpetuate the race.

Some well-meaning people, who are very worried about the diminution of numbers that now faces us, think that all contraceptives should be barred, except on a medical prescription. This, I think, is mistaken. The possibility of the separate and conscious control of marriage and parenthood has come to stay, and it would be foolish as well as futile to try to put the clock back. To force children on an unwilling parent is unfair to both. Contraception is among the major blessings that science won for humanity. It releases the care-worn mother of the most exhausting of her burdens and allows her to shoulder just so much of it and at such times as she would wish. It puts into our hands the simplest of all methods for the improvement of our race, better than all the Draconian measures of Nazi eugenics. As we have seen, from the racial and biological point of view, we can rely on a sufficiently strong desire for children among ordinary people for the world to continue. All that is needed for a future of progress is the right social circumstances for the expression of this desire. For many years now the Soviet Union has been publicizing methods of contraception and has spent much on propaganda in its favour. After a fair drop, though not to our low levels, the birth-rate rose again and shows no sign of another fall; it is still sufficiently high for the Soviet Union to be able to plan on a rapid expansion in the population and a steady increase in the numbers of children and young people. In the U.S.S.R. a large increase in numbers is required to populate its vast territories and to lay the basis for prosperity. There is plenty of incentive for parenthood in the social conscience. In the British Empire, too, there are great territories awaiting development, but the social conscience is lacking.

[1] E. W. Burgess and P. Wallin, *Am. J. Sociol.*, 1943, xlix, 109.

Motives for Family Restriction

If it is true that people would wish for a satisfactory number of children, why is it that they are not having them? The Gallup Poll figures are not to be reconciled with the birth-rate, nor with the average size of families that we know today. According to the Gallup Poll, only 4 per cent of people think no children or only one an ideal number; and yet the majority of families must contain just so many. People are clearly falling far below their own ideals and deliberately restricting their children to a number that they do not think the best. It is important to enquire into the motives that may be determining them. Correspondents to newspapers have suggested that "of course" it is because of the unsettled state of the world. No sensible parent would wish to bring a child into a world where all that he can hope for is to become a soldier, or to live in an air raid shelter. From the information I have, this does not seem to be a motive for family restriction that has much force with ordinary people; nor has the birth-rate fallen so catastrophically during the war as this would suggest. To be sure, life in wartime is not to be compared with life in time of peace. In a number of ways, for instance, the exemption of the mother from various compulsory services, war provides incentives to childbearing that peace does not. In the families investigated by Mrs. Woodside, by far the commonest cause of a married couple keeping the number of their children below what they would otherwise like to have is lack of money. Money difficulties were mentioned four times as often as any other reason. The next most frequent reasons for excessive restriction of family were, in order of frequency:—

2. The poor health of the wife.
3. Housing difficulties.
4. Wartime circumstances, difficulties in home-making, separation of the parents.
5. The need to secure opportunities for the children.
6. The pains and difficulties of childbirth.
7. The sterility of one or other parent.
8. Children are too great a responsibility.
9. The husband thinks more than a very few children are unfair on the wife.
10. The wife suffers from some gynaecological trouble.
11. World affairs are so terrible nowadays; this is no world for children.
12. Lack of interest in children; the parents think that people are now more interested in having a good time.

We see then that the factors that people take into account, and which they are aware of as influencing them towards an extreme limitation of the family, are in the first place social and in the second medical. We are entitled to expect that medical improvements will come in time with the

normal progress of research. But the social improvements will have to be planned and fought for.

The people that gave the answers I have quoted were serving soldiers and their wives and they were fairly poor. For men and women like these, the money question is a very serious one. Incomes which are sufficient for a married pair, or a couple and one child, do not get proportionally increased with the birth of further children. In Birmingham[1] it was found that while only 3 per cent of the families with one child had an income which was insufficient to provide minimal needs, the proportion rose to 55 per cent for families with four children and 82 per cent for families with six. Dr. Yudkin[2] found that there were large differences between the children of small and of large families in height, weight, strength and quality of their blood, and that the children of the small families were better in all these. Family allowances, in cash or in kind, are the right way to tackle this problem, but they must be of sufficient size. People are certainly going to do without adding to their children if they have not enough money to support those they have got. These financial considerations matter not only to the comparatively poor, but just as much to the comparatively well-to-do. Here it is not so much a matter of basic needs as of social position and the embellishments and graces of life. These embellishments have indeed assumed altogether too great an importance; and their relatively trifling value in promoting happiness has become forgotten in a pre-occupation with outer show, and a desire to keep up with acquaintances. The comfort and the appointments of the home, a motor car, entertainments and holidays abroad, may have to be sacrificed if another child is to be added to the family. It is not a bad thing that parents should make some sacrifice for the sake of children, but we cannot expect them to renounce too much of the comforts that are enjoyed by others with whom they live and work.

Family Life and Happiness

Man is a lop-sided creature. Without realizing it, he suffers from large numbers of blind spots, prejudices and over-valued opinions. But one man, though he is unconscious of the beam in his own eye, will be able to point out the mote in his neighbour's. In general, any one collection of humanity will differ slightly from another in their angle of view, and though each thinks the other wrong, wilfully blind and stupid or deluded, in fact the truth may be expected to lie somewhere between the one view and the other. Poets and scientists, Roman Catholics and Quakers, white

---

[1] Report of Birmingham Social Survey Committee, 1942.
[2] J. Yudkin, *Lancet*, 1944, ii, 385.

men and Chinese, can supply each other with wholesome correctives. The same is true of men and women. It is difficult for a man, but easy for a woman, to see the exaggeration of the value *he* places on such things as nationalities and flags and misconceived abstract ideas. It is easy for him, though difficult for her, to see that *she* takes a personal relationship all too much to heart, or is jealous over a meaningless trifle. No matter the subject of discussion, men and women will take different views, and though each may never be able completely to understand the other, each can learn from the other an increased realism and enjoy an enriched experience of life. The sexes are as different as different species, certainly more different than, say, the white men and the yellow. Our differences compel occasional antagonisms, just as nature compels love. In the individual relationship between a man and a woman, at times one, at times the other, attitude may preponderate. Most married people mean well by their partners; the difficulties arise from their inability to carry out their good intentions. The sensitive and the considerate find it easier than the callous or the selfish.

Causes of Happiness and Unhappiness

In America a good deal of work, mostly along sociological and statistical lines,[1] has been done on the causes of happiness and unhappiness in marriage. As we might have expected, all the investigators find that early family background is very important. The young people have all the better chance of happiness if their parents made happy marriages, if they had a happy childhood, with brothers and sisters, learned to love their own parents and were brought up with firmness but no harsh discipline. Superiority and similarity of family background are of good omen, as are also life in the country, attendance at church or Sunday school, sensible instruction in matters of sex and a sensible attitude towards them, a good and an equal education. Brides who enter marriage with little or no previous sex experience have better chances; the outlook is better if the wife is not highly sexed, but it is a favourable factor if she experiences orgasm normally. In the engagement, the emphasis is on conventionality. It is all to the good if they have met through conventional channels, if they know each other a year or more before getting engaged, and stay engaged three months or more before marriage, if they are not too young (the man over twenty-two, the girl over twenty), and the man is about five years older than the girl; if the engagement is approved by the parents and is of an unromantic and rather comradely temper. Personality traits are also very important, indeed more important than the background. Men seem to choose girls that resemble their mothers, and girls men that resemble their fathers; in so far as they do this, it seems to tend to happi-

[1] e.g. E. W. Burgess, *J. Hered.*, 1939, xxx, 557.

ness. Fairly equal ability in husband and wife is desirable. Any sort of neurotic trait, an unhappy, pessimistic nature, or critical and inconsiderate ways, domineeringness, a husband's lack of self-confidence, lead to unhappiness. It is not a good thing if either partner is self-sufficient and is given, for instance, to facing troubles alone without seeking advice.

Causes of Unhappiness

In examining the records of the families investigated by Mrs. Woodside, it was striking to find how little people expected in order to be moderately content. If the husband did not drink, didn't gamble, didn't knock her about, gave her her money regularly, was to some extent fond of the children, the wife had learned not to demand so very much more. If the wife did not nag, or over-spend, and managed his home reasonably competently, the husband was satisfied. If the marriage was unhappy, failure in one or more of these negative virtues was one of the commonest causes. External difficulties, especially financial ones, were also commonly given as causes of unhappiness.

A frequent cause of unhappiness was temperamental. Husband or wife would say that violent temper, nervousness, irritability, attacks of depression, were ruining the peace and comfort of the home. In general, the neurotic was less happy and successful than the normal, in marriage as in practically everything else in life. The temperamental incompatibility of people who, though ill assorted, are in themselves normal enough, is not a common cause of married unhappiness. Most ordinary people learn to adjust to one another and rub along after a fashion, neither extravagantly happy nor the reverse. It would seem that the relationship is in itself a source of satisfaction, and that it needs something very definite on the debit side to bring it to bankruptcy.

A very common cause of unhappiness in this group of soldiers' families was the worry, fear and suspicion of the partner's unfaithfulness. This jealousy was felt much more by the men than the women. Where they existed, these suspicions were not infrequently justified by the fact. Where a husband had been sent overseas for two or more years, however much she loved him the wife might quite likely get entangled in some affair. An obliging neighbour would then be kind enough to pass the information on to the husband across the sea. There is a social tradition in favour of jealousy. It is regarded as a very respectable emotion, and the jealous often see it as a right and a duty to feel that way. Women sometimes appreciate a little jealousy from their husbands, as they regard it as a sign of love. In fact, it is a childish emotion. It is often dependent for its force on injured vanity, or an overweening possessiveness. Nevertheless, the emotion aroused by these incidents was frequently not so much jealousy as anxiety. The unfortunate man, who began to suspect his wife, was

often not so much enraged by a trespass on his preserves, as afraid that he might actually lose his dearest possession. He was quite prepared to forgive a sexual escapade on the part of his wife, having very likely had as much himself during the time of separation; but what he feared was not a casual physical contact, as in his own visit to an Alexandrian brothel, but a lasting association founded on love, that might cost him her companionship for the rest of his days. Clearly these incidents are to a great extent caused by the destructive effect of the war on family life. With the coming of peace we may hope that they will become very rare. Where mutual trust is not destroyed by the offices of an ill-natured informer, jealousy in marriage is seldom justified and is always a malignant influence.

Some of the satisfactions of marriage have already been touched on; for instance, the intimate companionship and the sharing of common tastes with a difference of view. There are others more solid. It needs at least two people to run a home, one to earn the money, the other to look after the house. Some remain content in the home provided by their parents; but even parents will not go on for ever. Men, just as women, feel the need for children of their own, and it is not a socially feasible proposition to have them without marriage.

Sexual Needs in the Average Marriage

Finally, there are the sexual needs themselves. It must be admitted that these are poorly catered for in the average marriage. Love-making degenerates into a routine and becomes for the man a source of physical appeasement rather than a spiritual experience of profound significance. For the woman, it is often not even as much as that. "My husband does not trouble me very often now," some of them will report with pathetic satisfaction. Orgasm, which should be the culmination of the sex act for the woman as for the man, is unusual rather than expected. Even on a purely sensual level, married love is, as a rule, a drab and uninspired affair. It is possible for a man and a woman to go on getting more and more in love with the passage of the years, and to get increasing rather than decreasing satisfaction out of the love relationship; but this is rare. Nevertheless, only about 10 per cent of married people, men and women, say that their sex relations are thoroughly unsatisfactory. What maintains the fidelity of the average pair is not so much a high degree of sexual satisfaction in one another as ethical considerations, the gradual diminution of sexual tension and a growing preference for comfort rather than "romance."

Romance and marriage are to some extent antagonistic. As we have seen from the American researches, the passionate and highly coloured attachments, especially of young people, are not a suitable basis for marriage; and we should not encourage a permanent union on such a

basis. It is a good thing that young people should work off experiences of that kind, if they must have them, before settling down to marriage. As Havelock Ellis has said, most people are monogamic but polyerotic ; they are likely to form a number of romantic attachments in the course of their lives, but only want to marry one person. With an ever more universal knowledge of the technique of contraception, we have to expect that married people, as well as the single, will sometimes have passing infatuations or indulge in short-lived adventures. Not all the teaching of the churches will prevent that. But the realities of marriage are more important and should not suffer shipwreck without some better reason.

The Neurotic in Marriage

In the families in our enquiry, only about 10 per cent were so unhappy that parting seemed desirable ; and there was not a great difference in this proportion between the families of the nervous and the normal soldiers. Despite this, the marriages of the neurotic were less happy than those of normal people. It is usually the husband or wife of the neurotic person who has to bear the brunt of the unhappiness, and is aware that he or she has made a mistake. Many neurotic men are very dependent on their wives and do not feel really happy away from the home ; they are the men who particularly suffered under the separation involved by being called up for the army. Though they might be devoted to them in a rather maternal way, their wives were often painfully aware that their husbands were not a tower of strength in time of trouble, and so were to some extent making the best of a bad job. Other types of unstable, or as they are sometimes called, psychopathic men and women make the most disastrous marriages, and bring untold unhappiness on their undeserving partners ; such people are the respectable sadists, the drunkards and ne'er-do-weels, the vain and empty-headed egoists and hysterics. Some of these characters make a very fetching first impression and are sufficiently plausible not to be seen at their true worth before the legal knot has been tied. There is no easy way to protect the innocent, and the chief safeguard lies in divorce laws that are not too rigid to prevent a remedy of the mischief when it has been done. Too often the injured partner tries to carry on too long out of a mistaken loyalty, or is restrained by financial difficulties, fear of all the complications, or even an undue consideration for the family name. It is probable that a child will suffer less from the loss of one parent than from growing up in a home that is divided against itself.

Occasional mistakes, sometimes disastrous ones, are bound to occur in marriage, when it is as chancy a thing as it now is. But the chances are regulated by loaded dice. The man who has made a very happy marriage is often inclined to think that he has picked the one woman in the world with whom such success would have been possible. The probabilities

are that he would have been just as happy with any one of thousands of others. The special value of a given person to us is only partly derived from the quality of his personality; it is in large part provided by increasing knowledge, intimacy and affection.

In our inquiry, the reasons people were able to give for being attracted to such and such a man or woman were often laughable in their inconsequence: that he played the piano well, that he was not sexy, he had such nice eyes, she laughed at him, she had hair on her legs, he had the feeling he had met her before, they fought like cat and dog. But the bin into which we stretch to make our pick is a small one and not very much of it is within our reach. Our choice is limited by geographical, religious and social boundaries,[1] and the people we eventually marry are likely to be very much the same as ourselves in the type of family they have come from, their education, occupation and interests. More important than the conscious reasons for preference are the unconscious ones. Both sociologists and psychoanalysts are agreed that, in marrying, people are drawn to personalities resembling a father or mother. Wherever the matter has been investigated, it has been found that like marries like. This is even true of such apparently irrelevant external details as the size of the township lived in as a child, Sunday school attendance, smoking habits, or the number of clubs belonged to. More importantly, it has been found that husband and wife resemble one another in intelligence as much as brothers and sisters do, and they are more alike than chance would allow in hair and eye colouring, shape of skull, health, length of life, and in various temperamental characteristics. In no point that has been examined, other than in sex itself, is there any general tendency for the marriage of opposites (see foot-note on page 95). This is a point of very great biological significance. It is also a factor that helps in making a success of the average marriage.

Biological Importance of Natural Selection

The biological importance of the similarity of husbands and wives is that it demonstrates that man has not removed himself, as is sometimes claimed, from the action of "natural selection." In a state of universal barbarism, the sick and the injured would die off unsaved by medical care. Great sections of the population would fall victims to plague or famine. We can and do protect ourselves from natural selection in that terrible guise. But all the time we are ourselves selecting who shall be the fathers and the mothers of the race. The processes of sexual selection are working powerfully. If we could harness them, we could add a great impetus to the evolution of humanity. At the present time, the majority of worth-while parents are not having the children they would like to

[1] G. Dahlberg, *Proc. 7th Internat. Genet. Congr.*, Cambridge, 1941.

have because of the impediments put in their way by our materialistic civilization.

Marriage and Parenthood

A childless marriage is seldom a very satisfactory one. As most people wish to have children, they are disappointed when no children come, and both husband and wife may be inclined to blame the other. Sterility, due to some medical cause, is a not infrequent cause of childlessness. In our group of families, it was present in about one-tenth of the marriages, and was about equally frequent in men and women. Very seldom do either husband or wife take the trouble to seek a doctor's advice, and when they do it is more often the wife than the husband that gets examined. If no children appear, and no precautions have been taken, it is worth while going into the matter properly, as frequently something can be done to put matters right.

Nevertheless, there are quite a number of married people who find sufficient companionship in one another and have no desire for children. Their marriage is reasonably happy, as they have absolved themselves from one of life's principal causes of anxiety as well as of joy. There can be no objection to this. Unwanted children are likely to fail to find the parental love they should have had and to start life under a disadvantage. If people who wish to have children have as many as they would like to have, there is no need to make intolerable demands on the voluntarily childless for the sake of a mistaken view of racial requirements. To do any such thing would be an interference with individual liberty which cannot be justified on either ethical or biological grounds. Sometimes, however, it happens that a voluntarily childless pair have a child by mistake, and then discover a latent power in themselves for parental love. We should not be ruled too much by prudential considerations in our decision whether or not to have children.

A more frequent cause of unhappiness in marriage is present when one of the partners wishes to have children and the other does not. If people discussed these fundamental questions with the thoroughness and sincerity they deserve before getting married, such disagreements would be rare. If either partner is deliberately misled on a point like this, it should be grounds for divorce. No one should be unwillingly tied to a sterile mate.

Just as there are people who wish to marry, but do not wish to or cannot have children, so there are people who wish to have children but do not want or are not able to marry. At the present time there are in England approximately a million women of marriageable age who could never find a husband, even if none of the men remained single. Very many of these women would like to have a child of their own, even without a husband and a father to care for and protect them. They do not do so,

principally because of social disapproval of unmarried parenthood. Now that we have so successfully separated sexual love and parenthood, our ethical views, which in some respects are out of date, might be revised. It would be idle to pretend that a high proportion of young people do not have their first sex relations before marriage with another than the eventual spouse. The penalty of social disapproval does not fall on the unchaste, but on the improvident. The girl who was so much in love that she forgot herself is reduced to misery, or tempted to a procured abortion; the cool and the calculating go free. The child who is afflicted by the stigma of illegitimacy is punished for a sin of which he is guiltless. On this point, at least, our sexual ethics make nonsense.

Moreover, the state of our knowledge and technical attainment is now such that, should she wish it, a woman may become the mother of a child without an act of intercourse at all. The father, who may be picked for his health, his moral, temperamental and intellectual qualities, never comes into contact with her. It is true that a fatherless child does not begin life under such happy conditions as a child in a normal home. But in a benevolent society, he should not have too much to lose ; and his possible disadvantage is not, in the author's opinion, a sufficient reason for depriving a million women of the most primitive of rights, and to deny them joys which they have only forfeited by chance.

General Conclusions

Society is now in a transitional stage in which the separation of sexual love and parenthood are proceeding apace. From the point of view of the happiness of the family, the health of the children, and the vigour of the race, the separation is to be welcomed on every count. We must indeed try to further the tendency in every way we can, and provide even the most improvident, the least educated, the least efficient in the management of technical gadgets, with the means to have exactly that number of children they wish to have and no more. We have reliable evidence that the willing parents will not starve us of a future generation. There is no need for us to set ourselves up as judges on who should and who should not be deemed fit to be parents ; in this respect, people can be left to be their own judges. Love of children, faith in the future, a belief in the destiny of the human race and a wish to take part in it, are motives we can honour and depend on as inspirations. We may expect the happy and the healthy to have a greater wish for children than the ill and the unhappy. Though we may respect the motives which decide an individual couple to do without children, we can in general watch the racial suicide of the unwilling parent with equanimity. It is probable that success and fertility have a tendency to go together.[1] But are we so satisfied with

[1] J. J. Osborn, *J. Hered.*, 1939, xxx, 565.

our present civilization that we can believe that success is a mark only of qualities that we can generally admire? We must set about rebuilding our society on a basis of equal opportunity for all, and on an ideal of service to the common weal. Evolutionary processes are slow but cumulative. The best we can hope for is to set them moving in a direction which most of us feel is somewhere near the right one. As development proceeds, we can expect that humanity will reach of its own accord a clearer and more definite view of its goal. The forces of natural selection are now under human control. In our hands, they may produce their effects by the creation, and no longer by the destruction, of life. To rear a happy and a healthy family is not only a joy to the individual, but a service to the race. In so far as we can appreciate and act on this ideal, the foundation is laid for the progress and betterment of human societies.

SUMMARY

People nowadays do not desire so many children as their parents used to have. The few large families of today are nearly all unplanned. Birth-control is not foolproof, and accidents occur in planned families. Nevertheless, people are not having as many children as, ideally, they would like to have. If they did the birth-rate would be high enough to prevent a dwindling population. They are held back by money difficulties, ill-health, the shortage of housing and many other obstacles, all of them remediable by social measures and the advancement of medical science. Men and women can get very much from each other in the intimate companionship of marriage. American researches into the social and psychological factors that are associated with a happy marriage are described. The most frequent causes of unhappiness are mainly temperamental. The importance of marital infidelity and jealousy is discussed. Marriage provides sources of satisfaction of a solid kind. Sexual needs are not, as a rule, well catered for in marriage; romance and marriage are to some extent antagonistic. Neurotic tendencies are liable to lead to difficulties. People cannot say what attracts them to individual members of the opposite sex; research shows that, to a large extent, they pick those that resemble themselves. Although we have to some extent protected mankind against natural selection, sexual selection is intense. This, combined with control of parenthood, could influence the course of human evolution. We must not blame the voluntarily childless; no doubt they know best. We may safely leave people to be judges in their own case.

RECOMMENDATIONS

1. That biology, especially human biology, should be taught in all State schools, as a cultural subject.

2. That the general public should be made aware of the fundamental facts and theories regarding evolution, and of the part that every individual may play in the evolution of the human race.
3. That there should be further research into techniques of contraception, with a view to discovering methods which will be sure, harmless, foolproof and inoffensive.
4. That up-to-date knowledge on contraceptive techniques should be made freely available to the public. The management of birth-control clinics should be a public health service.
5. That people should be encouraged to have that number of children which each thinks best for himself. This would involve :—
   (*a*) Removal of present hindrances to early marriage ;
   (*b*) Removal of restrictions on marriage in certain occupations, e.g. teaching ;
   (*c*) Family allowances sufficiently substantial to reduce the financial hindrance to parenthood to relative ineffectiveness ;
   (*d*) Provision of suitable housing, labour-saving appliances in the home, nursery services, etc., etc. ;
   (*e*) Provision of equal educational opportunities for all.
6. That every occasion should be taken to foster public interest in these topics, particularly with a view to an examination of our current ethical and moral values in relation to parenthood and sex.
7. That there should be State-subsidized research into all such social, psychological and medical factors which in their private aspect are of significance to the happiness of the individual, and especially those which in their public aspect are of demographic importance.

EDUCATION AND THE BIRTH-RATE

By DR. GRACE LEYBOURNE-WHITE

DURING the nineteenth century, the hope of getting on in the world and of helping your children to get on emerged as a powerful social force. But at the same time as this general urge for self-improvement and movement from one social group into another above it, the century found a new insistence upon efficiency. It therefore became increasingly necessary for an individual to pass specific tests, especially written examinations, in order to prove his ability if he was to succeed in getting on in the world. The claims to positions of power and responsibility by the aristocracy and other members of the upper classes, were challenged by newcomers whose examination certificates established their claim to a greater efficiency. But if success in the world depended upon the passing of examinations and securing of proper degrees and certificates, then clearly formal education was essential to prepare for them. In fact, education was recognized as indispensable for rising to a higher place in society as well as for maintaining a certain status in the face of competition. The demand for education grew, and, like other political and economic privileges throughout the century, education was, in principle at least, made available to all. Schools and colleges were reformed and extended to meet the demand.

"Balance Sheet" Attitude Applied to Education

The privilege of education, however, had to be paid for. When substantial bills had to be met for years spent at school or college, even the relatively well-off would inevitably begin to apply to this new form of spending the "balance-sheet" attitude to which the rest of their financial undertakings were subject. Was the return worth the expenditure involved? As parents began to think of children more consciously in these "balance-sheet" terms, there can be little doubt that many of them decided to keep their families much smaller than their fathers had done before them. The recognized technique of the business world —to reduce costs in order to increase profits—when applied to the family, meant reducing the number of children upon whose education money would have to be invested, in order that, on a given income, a smaller number of children could be purchased a higher status in society.

Furthermore, as the century wore on, the desire to secure more education for children spread to the lower ranks of society. And then, in the last quarter of the century, the State stepped in and required even children of the working classes to be kept at school for a definite number of years. Among these groups, the actual outlay which had to be made for education might have been small, or nothing at all when it was merely

a case of sending children to the new board schools. But even then, the new education exacted its price. For if years were to be spent at school instead of occupied with earning, then naturally the family would be deprived of the wages which, in an earlier generation, those children would have brought into the family. The indirect "cost" of the new schooling thus rendered a large family no longer a source of financial profit, as it had been when the children began to work for money at very young ages. A considerable incentive for large families among these classes was removed.[1]

The Problem Today

The attitude to education as a means of social mobility, which had its birth during the last century, is today more than ever firmly established and widely shared. Few will disagree with the view that the general aspiration of parents for their children's education represents,

> "a perfectly legitimate and praiseworthy attempt on the part of the sensible citizen to endow his child with a good education as the best, perhaps the only, capital asset which he can hope to pass on to him."[2]

But these aspirations still argue against the large family. The exact responsibility of the costs of education for small families today is, of course, impossible to assess, just as it is impossible to assess the responsibility of any of the other factors which are known to be important. But there is little doubt that there are many parents who realize that the ability to meet all the "costs," direct and indirect, of education will depend upon the number of children they have to be educated. This realization, therefore, may constitute a primary reason for keeping their families small, when they are determined upon securing the education they covet for their children.

If this is so, and if, therefore, education because of its "cost" must bear some share of the responsibility for our producing families which are too small for us as a generation to reproduce ourselves, it is clearly essential to reform our educational system until it no longer imposes such a penalty upon the size of our families. But in considering what these reforms should be, we shall not want to knock at open doors. The Government has now provided for a radical re-casting of our educational system.[3] The task here, is therefore, to examine what the Government has now proposed in order to see how far that can be expected to remove

---

[1] For a fuller discussion of all these questions see *Education and the Birth-Rate*, Leybourne and White (1940).

[2] Lowndes, *The Silent Social Revolution* (1937), p. 128.

[3] A new Education Act is now on the Statute Book. The Government has also outlined the administrative changes which it proposes should accompany the legal changes provided for in the Act. The administrative changes were referred to in the White Paper on Educational Reconstruction (Cmd. 6458, 1943). Also important

any responsibility of education for our small families. We must examine the likely influence of the Government's measures in those directions where the "costs" of education have probably had their greatest effect in limiting the size of families. And where these measures seem to fall short of what is required, we must consider what more seems to be necessary.

Before we can properly examine the Government's proposals from this point of view, however, we must stop to consider the general criterion by which a demographically satisfactory system of education can be judged. Undoubtedly, the basic principle must be the provision of a genuine equality of educational opportunity for all children. Parents must be satisfied that all children, from whatever social group and whether from large families or small, will be fully trained in accordance with their abilities and interests, with no reliance upon mere privilege at any stage, nor hindrance from lack of privilege. Every field of education and training must be open to all. Parents and prospective parents must know that they can rely upon a child's receiving the best possible opportunity for developing his talents and for expressing his interests, irrespective of the parents' ability or inability to pay the "cost" of the education involved. Anything less than this, would mean that many parents with high ambitions for their children's education, but relatively small incomes, would still see the advantage of restricting their families in order to be in a position to pay for the education they covet. With this basic standard in mind, then, we may proceed to examine the new educational plans and what they promise us:

Reform in State Primary Schools

Mass production methods, especially large classes, and buildings often deplorably bad and out-of-date, have been very largely responsible for driving the parents of many young children away from the public elementary schools into the private schools. Pure snobbery has, of course, motivated some parents in choosing a private school, but, in recent years, there has been a greater readiness, especially among more intelligent parents, to send their children to a public elementary school, provided that the particular school which their child might attend could win their confidence. Unfortunately, all too often it could not; and parents could not be blamed for choosing to pay the charges of a private

---

for this discussion, are the recommendations of the three Committees which were appointed by the President of the Board of Education.

(*a*) The Norwood Committee's Report, "Curriculum and Examinations in Secondary Schools" (H.M.S.O., 1943); (*b*) The McNair Committee's Report, "Teachers and Youth Leaders" (H.M.S.O., 1944); (*c*) The Fleming Committee's Report, "The Public Schools and the General Educational System" (H.M.S.O., 1944).

school, even when their incomes were not large. But then, some such parents would realize that they could afford such spending on education only for a small family. Thus, a real transformation in our State primary schools (to use the new terminology which the Government now propose) is the first essential towards removing the necessity for parents to effect economies, financial and in the size of their families, in order to secure conditions and opportunities equal to the best they know for the first stage of normal schooling.

In the White Paper, the Government promises that the accommodation of these schools shall be improved,

> "in order that they may offer the space, facilities and amenities suitable for the full mental, social and physical development of young children."

This must mean the wide provision of lighter and more attractive buildings with modern sanitary and other amenities, and with open space and gardens.

They promise also,

> "a progressive reduction in the size of classes."

The important questions here, then, are how quickly these changes are made and how far they can go.

In these schools two other major reforms are necessary, however, for which we have not yet any definite provision from the Government. First, the methods of teaching which are used in the primary schools must be revitalized ; and second, the career of teaching in them must be raised on to a new plane of public respect.

The old attitude of education "for the poor," with its accompanying "payment by results," and in more recent years the pressure of the Special Place Examination, have inevitably imposed upon elementary schools routine and rigid methods of teaching. It is fortunate, therefore, that the competitive Special Place Examination is to disappear and selection for the appropriate type of secondary education is to be based upon record cards, intelligence tests and consultation with parents. It cannot be assumed, however, that after so long a period of domination by rigid systems, the methods of teaching in the junior schools will immediately or spontaneously be revitalized. Carefully planned stimulation and guidance will be needed. It is urgent that the Ministry of Education should recognize this need and provide for it.

The system has been to blame, not the teachers ; but by now, the teachers have fitted into the system and, more important still, are trained for it. New recruits must be given a new type of training, and those who are already in the schools, refresher courses on a liberal scale. Recommendations along this line are made to the Minister by his Committee on Teachers. That committee has urged also the great need for another

vital reform. Today, teaching in the elementary school is a career of low status which attracts few who are free to choose elsewhere. The salary marks the career out not merely as lower than any career outside teaching, but also as an inferior grade of teaching. Naturally, therefore, many of the teachers in these schools expect little of themselves and can give little to the children. The McNair Committee has been outspoken in condemning these conditions and has recommended that in future there should be only one type of teacher recognized by the Ministry of Education, the "qualified" teacher. The type of school in which a teacher works would then no longer define his status. They further recommend that the salary scale in the whole teaching profession should be raised so as to compare more favourably with other professions. The Burnham Committee on Teachers' Salaries, also, has recently made recommendations along similar lines. We have yet to learn how far the Government will accept and implement these recommendations, but without them it will never be possible for the State primary schools to compete with the best of the private schools for young children. Without them, therefore, we must expect some parents to economize so that they can afford to avoid the necessity of sending their children to the State schools.

Reform in State Secondary Schools

Still other parents among those who have not patronized the private schools, but who have nevertheless wanted through education to improve their children's social and economic prospects, have seen that this could be achieved, provided they could send them and keep them long enough at a State secondary school, instead of their merely passing from junior to senior elementary school. Even the direct costs in fees, uniforms, etc., were often quite considerable, especially in relation to family incomes. But in addition, these parents had to be prepared to sacrifice the wages which the child might have begun to earn, at age fourteen, often fifty pounds a year or more. Where there were younger children in the family, these wages sacrificed were undoubtedly counted among the "costs" of the secondary education for the older child.

Happily, the Government's proposals should now go far towards removing from families the need for restricting their own numbers in order to secure for children the advantages of a secondary education. This education is no longer to be reserved for a minority (about 12 per cent) who are selected by a competitive examination. The White Paper tells us that:—

> "the keynote of the new system will be that the child is the centre of education and that, so far as is humanly possible, all children should receive the type of education for which they are best adapted."

Three types of secondary education are to be provided for.[1] The grammar secondary schools will be the heirs of the existing secondary schools and will continue in the main to give "an academic training." Large numbers of technical secondary schools are to appear which will

> "hold out great opportunities for pupils with a practical bent (and will be the schools) from which the design and craftsmanship sides of industry are recruited."

Then there are to be the modern secondary schools which are,

> "to offer a general education for life, closely related to the interests and environment of the pupils and of a wide range embracing the literary as well as the practical, e.g. agricultural, sides."

Above all, it is insisted, as indeed it must be, that

> "conditions in the different types of secondary schools must be broadly equivalent"

if the grammar school is not to enjoy, as the secondary school did before it,

> "a prestige in the eyes of parents and the general public which completely overshadows all other types of school for children over eleven."

Finally, there are to be no fees charged in any of the secondary schools maintained by the local education authorities.

From the point of view of their contribution towards solving the population problem, there are two main causes for disquiet in these proposals. First, the question of maintenance allowances is not raised, although an extra year now, and in due course one further year, is to be added to the general school-leaving age. But, as the Youth Advisory Council has said,

> "any raising of the leaving-age without compulsory maintenance grants or allowances would be the equivalent of a tax on parents." [2]

Our population problem can ill-afford any further "tax" on parents. Moreover, even if the family allowances which have been foreshadowed by the Government are introduced, they would still not solve the problem of the relatively poor parent to whom the fifty pounds or so a year, which a child could begin to earn as soon as he leaves school, ranks as a very real "cost" of keeping him any longer at his studies. If the child is a member of a large family, that "cost" may be too heavy to be borne. Undoubtedly, if real equality of educational opportunity is to be achieved, and an advantage is not to remain with children whose parents can afford to bear all the "costs" of keeping them at a secondary school beyond the minimum age for leaving, maintenance allowances must, at any rate beyond the new school-leaving age, be available on a much more

---

[1] The three types may not always be provided in separate schools, as the White Paper points out. The main characteristics of the three types of secondary education will, however, best be described as though for separate schools.

[2] *Youth Service After the War* (1943). Ch. 1, para. 12.

generous scale than heretofore. So far, no more than about £6 to £10 a year has been allowed while children were between the ages of fourteen and sixteen, and this only when the parents' income was limited to some £4 10s. a week with one child in the family, or £5 with two children. After the age of sixteen the allowance was raised, but only by a few pounds. It was at no stage sufficient to compensate for the wages which the child might have been earning.

Prestige of the Grammar Schools

The second cause for disquiet about the new proposals looked at in population terms, arises because there cannot but be a doubt whether in practice the new system will seriously challenge the position of prestige held by grammar schools. Is there a real chance that the new technical and modern secondary schools will assume a status and prestige, in the eyes of parents and the public generally, which is equal to that in which the established secondary schools of today are held? Can we expect that respect will pass on as much to the technical and modern schools as to the grammar schools, or is it going to concentrate itself merely upon these last? If that were to happen, there would undoubtedly remain many parents who would not be satisfied for their children to be sent to a technical or a modern school. If the grammar school education were still the most to be desired, were still regarded as taking the best pupils; if the type of employment for which grammar school pupils are fitted, and to which a majority of them go, were still regarded by the community as superior, then securing such an education would naturally be a goal before large numbers of parents. They would then, if no way to this goal remained open by means of admittance as fee-payers to maintained grammar schools, go outside the maintained system altogether in order to buy that privilege. But that would call for still greater sacrifices, since the expenditure upon such an education would be normally much higher than that inside the State schools.

But why, it may be asked, is there reason for this fear, that the promised parity will not be achieved between the three types of secondary education? In the first place, there is the question which goes to the very roots of our society, concerning our attitude towards the more manual types of labour for which many pupils from the modern schools would naturally be most suited. Is this work "with the hands" due to be held in the same esteem as the "white-collar" work which has for so long been considered more genteel? But apart from this question which goes far beyond the changes in education itself, there is, unfortunately, strong ground for doubting the achievements of real parity between the three schools, so long as the school-leaving age is not raised above fifteen. While that is so, the modern, if not technical, secondary schools

would naturally lose the majority of their pupils at age fifteen ; whereas the grammar schools, which in the present secondary school tradition would certainly insist upon keeping their pupils at least until age sixteen, would probably expect to keep the majority even longer under the new system. But, as the Government admitted when it first set out its proposals for educational reconstruction, the longer school life offered to its pupils has been an important factor contributing to the prestige in which the "secondary" schools of the past (the "grammar" schools of tomorrow) have been held. There is no doubt, as a Member said in the Debate on the Bill, that :—

> "until the age is raised to sixteen, secondary education in the real sense of the word cannot be provided for the mass of the people of this country, whatever name we may give to the new secondary school."

Nor will the goal of equivalence between the three types of secondary education be reached, until, not only are salary scales adjusted to signify that teachers in the modern schools are held in the same esteem by authority as their counterparts in other secondary schools, i.e. until the teachers in the present elementary schools, senior as well as junior, are paid on the same basic salary scales as their colleagues in "secondary" schools,[1] but also parity of staffing standard is achieved in all schools for children over age eleven, i.e. for all the new "secondary" schools. The Government has promised that :—

> "conditions in the modern schools will be assimilated to those in the existing secondary schools, in such matters as standards of accommodation and the size of classes,"

but, so far, the new standards of staffing have not been laid down, nor the stages by which they are to be achieved.

As part of a population policy, however, something much more is necessary than even the utmost change within the State system of education itself. It is more urgent, ultimately, even than securing a parity of esteem between the various parts of a State secondary system, to have done with our two systems of education in this country, the one for the "masters" and the other for the "masses." As things are, very many parents undoubtedly aim at sending their sons and daughters to the "public" schools, because they know that, generally speaking, better conditions for the education of the adolescent can be found in these schools, than are offered by publicly provided secondary schools. They know that usually the former have the advantage in buildings better equipped for studies and for leisure, and set in pleasanter and more healthful surroundings. They know, too, that, apart altogether from boarding costs, the "public" schools spend considerably more each

[1] As mentioned above, the Burnham Committee has now reported in favour of just such basic salaries.

year on each pupil than is allotted in the maintained schools. Classes, therefore, are only half as large, and the advantages of smaller classes need no urging upon parents today. The headmasters of the "public" schools for boys have, in a recent statement, referred especially to their small classes, often with no more than twelve boys to a teacher. They emphasized that,

> "this makes it possible in many cases for the latter to provide a rich and varied range of teaching, and a close individual attention to the needs of each boy—a vital matter for mental and spiritual growth."

More generous financial resources also make it possible, not merely to have more teachers in relation to pupils, but also to pay higher salaries and hence to attract, for the most part, those who have themselves had a superior education or experience. As the headmasters of these schools also said,

> "the salary scales at an independent boarding school may range as much as 40 per cent above the Burnham scale,"

i.e. above the scale of salaries paid to teachers in the publicly provided secondary schools. Thus, Oxford and Cambridge graduates were very largely represented on the staffs of the boys' "public" schools—before this war, 39·3 per cent of their regular staffs came from Oxford, and 44·4 per cent from Cambridge; in contrast to only 7·7 per cent from Oxford and 8·7 per cent from Cambridge on the staffs of maintained secondary schools.[1] This difference is especially important for the parent with ambitions for his son to pass on to one of the ancient universities, especially if that will depend upon his winning a scholarship. Such a boy, also, is generally better off in the "public" schools, because at the advanced stages he can usually count upon being a member of a group working towards the same end, instead of working in isolation as the clever boy in the publicly provided secondary school so often must.

This whole problem of the particularly great handicap suffered by the intellectually minded boy in the State secondary school is one which the Government's scheme, as so far propounded, makes no provision for solving. An obvious solution, and one which has been supported by several educational bodies (including the Committee on Post-War University Education of the British Association for the Advancement of Science) would be the establishing of central grammar schools which would provide all that diversity of teaching staff, of libraries, and of scientific and other equipment, which the Sixth Form specialist may need. In areas of scattered population, such central schools would necessarily have to provide boarding facilities. It might be a better solution of the problem, however, if instead of special centrally situated

[1] See "Opportunity and the Older Universities," by David Glass, in *Political Arithmetic* (1938).

schools for the advanced specialist, the ordinary secondary schools in any neighbourhood were each to specialize on one field of study at the advanced stage. When children had decided upon specialization in a particular field, they could be transferred to the appropriate school, and they would in this way secure the fullest provision for their studies without losing, as they would in a central school for seniors alone, those opportunities of leadership which come to the older child in a normal school, with juniors as well as seniors. Whatever the best solution may be, one must be found which will give a real "equality of opportunity" at this crucial stage in the career of children who are passing on to the universities and professions.

But advantages which may be broadly described as "educational" do not alone, or even largely, distinguish the "public" schools from the secondary schools which are provided by the public authorities. It is the social prestige which attaches to them which constitutes a very considerable attraction. And much the same is true of girls', as of boys' "public" schools. In choosing a "public" school for their daughters, parents can find just the same combination of sound "educational" advantages and social distinction as they can for their sons. In these circumstances, therefore, it is no surprise that parents are often prepared for great sacrifices, in their family circles, as in other directions, in order to purchase for their children so fortuitous a combination of advantages.

Solution of the "Public" School Problem

In as far, however, as the "public" schools do give their pupils certain "educational" advantages (in contrast to those more particularly associated with social prestige)—smaller classes, higher qualifications or experience of teaching staff, better equipped and more spacious buildings, more adequate school grounds and sports fields, better provision for advanced pupils—these are likely to remain even when we have effected all those changes and improvements for which the Government has now provided in the new Education Act and in the accompanying plans for administrative action. If we assume, therefore, that we should not wish to "democratize" these schools by levelling down their "educational" standards to what the State schools may expect to achieve in the years immediately ahead of us, then the "public" school problem (a very real one when regarded from the population angle alone) admits of only one solution—to rid them of their social exclusiveness. Since concrete reasons for regarding these "public" schools as "superior" are likely to continue, it must no longer be possible for a parent to secure a place in them for his child, provided only that he can afford to pay the full cost. It would be no solution merely to admit a larger proportion of scholar-

ship pupils to fill the vacant places which are appearing in these schools, as a result of a lower birth-rate among the well-to-do. If no more change than that were made in the entry to these schools, all the children of the wealthier would still be found on their rolls, and they would in consequence continue to represent a system of education marked off by its social exclusiveness from that which the State provides. They would, therefore, continue to exercise an inevitable attraction for those with high ambitions, even if limited means. The solution can lie only in a real democratization, so that securing a place in these schools depends solely upon selection as a "suitable" pupil, suitability depending in no way whatever upon the parents' income and their ability themselves to meet the full "cost" for their child. If selection was strictly impartial as far as parents' means were concerned, but was judged by quite other standards, e.g. the need for special opportunities, whether of healthy surroundings, boarding facilities, or intellectual stimulus, then it would be natural to expect that some children of the wealthy would be denied the privilege of a place, just as that some children even of the very poor would be awarded a place. After such impartial selection, it might be deemed necessary to ask parents to contribute, in accordance with their means, towards the cost of the schooling. But the essential principle to establish, from the point of view of real equality in the opportunity for places in the schools, is that of selection without relation to financial means. Only when this is done, will there no longer be a reason for parents limiting their family in order to make sure of purchasing for their child the privilege of education in a "public" school.

The proposals of the Fleming Committee unfortunately fail to satisfy this basic requirement. The Committee's terms of reference were,

> "to consider means whereby the association between the Public Schools and the general educational system of the country could be developed and extended."

The word "association" might have meant that full integration described above and resulting from a full application of the principle of equality of opportunity. The Committee interpreted it to mean merely the admission of some children from the State system into the "public" schools, while otherwise leaving these schools much as they are today. Thus, in their Scheme B which refers, in the main, to the Independent Boarding Schools, they suggest that these schools should be invited to reserve not less than 25 per cent of their total places for boys and girls holding bursaries awarded by the Board of Education. For these bursars, who would be pupils who had been

> "previously educated for at least two years at a grant-aided Primary School,"

the State would pay all the costs of education, including clothing, pocket

money and all other incidentals. Apart from these bursars and apart, also from the relatively small numbers to whom the schools themselves might afford some relief from fees or give some other degree of help,[1] the other places in these schools would be filled, as they are now, by children whose parents could afford to pay for them. All the children of the wealthy would therefore be found within these schools and the social prestige which today attaches to "the old school tie" would not be undermined. Moreover, since that prestige could still be bought at a price, there would still remain every encouragement for many parents to make sure that their families were small enough to purchase that prestige for their one or two children. The Committee expressed the hope that the percentage of these bursaries would in time be increased,

> "with a view to the progressive application of the principle that schools should be equally accessible to all pupils and that no child otherwise qualified shall be excluded solely owing to lack of means."

But the situation would not be fundamentally changed until, as argued above, selection for places in these schools is wholly unrelated to the financial means of parents. To put the door into these schools somewhat more ajar, may help to solve problems of dwindling numbers which have beset many of the schools themselves, but it does not lead us to a real or full equality of opportunity.

"Public Day" Schools

The Committee also proposed a separate scheme to apply to those "public" schools which receive grants of public money towards their maintenance—primarily "public day" schools. For these, the Committee suggest that fees should either be completely abolished or else regulated in accordance with parents' incomes. The acceptability of this scheme, also, when viewed from the angle of the population problem, hinges upon the method by which places in these schools (apart from those places earmarked and filled by the local education authorities) would be filled. By the same argument applied above to the "public boarding" schools, it would be acceptable only if all places were filled by unprejudiced selection of the most "suitable" pupils and none by the mere nomination of those whose parents could afford to meet all the fees and other costs. The Report, however, is not explicit about how these places should be filled.

University and Professional Education

If we turn from the schools to university and professional education, the criterion must still be the provision of a completely equal opportunity

[1] How small these numbers have been, was shown by Leybourne and White, ibid. Chap. III.

for all young men and women, from whatever income group or size of family. Higher education in all its branches must, like the "public" schools, no longer be virtually open to all whose means are sufficient to pay for it; while many who may be just as able are denied the advantages which higher education can confer, because they cannot meet the costs and can find no assistance towards that end. As the Government itself laid down in the White Paper,

> "the aim of a national policy must be to ensure that high ability is not handicapped by the accident of place of residence or lack of means in securing a university education."

It is essential that here also there should be no reason whatever for parents to effect their own individual economies in order to ensure higher education for children who may be suitable for it. Many parents of the professional classes have undoubtedly argued in that way in the past, and they have kept their families suitably small as a result. There must be agreed criteria of suitability for university education; but once agreed, these criteria should be impartially applied so that all students are chosen in accordance with them and with no reference whatever in the first place to their own, or their parents' financial resources. But what should constitute these criteria? The Norwood Committee referred to this question and urged that:—

> "it is essential that high standards should be preserved throughout the universities, but we would not limit these standards to intellectual promise or achievement, but include also such qualities as leadership, sense of responsibility, initiative—in short qualities of character."

The Committee of the British Association on Post-War University Education expressed a similar opinion. There is every need for a full examination of this problem and also of the associated, and all-important question of the adequacy of the number of university places which are now available. Moreover, if the goal of full equality of opportunity is to be kept in view, the question of accessibility to Oxford and Cambridge calls for special consideration. Their position in relation to the other universities is parallel to that of the "public," in relation to the State, schools. It would seem, therefore, that there should here also be applied the same principle of impartial selection of those who are to occupy these educationally and socially more desirable and sought-after places. In making that selection, the same criteria, based upon suitability alone, should be applied to all candidates. Only when a selection had been made, should there be raised the question whether the individual student or his family could afford to pay some part of the costs of his education.

Then, provision must be made for financial assistance to those who want to acquire professional training apart from that in the universities. For that, there is virtually no provision today. The Norwood Committee

have indeed suggested that awards made to students by the local education authorities (but not apparently the State Scholarships awarded by the Board of Education) should be available for advanced training other than university work. But more than this is necessary if the rich man's son is not to continue to enjoy a privilege denied to the poor man's son.

Finally, very important when viewed from the angle of the population problem, is the question whether students should be permitted to marry while receiving assistance from public funds. That may be necessary, if professional men are to be enabled to marry and begin their families earlier than at present. In any case, the question calls for examination.

Need for Immediate Action

In short, then, when the new proposals for reform in education (the legislative changes now provided for in the new Education Act and the accompanying administrative changes proposed in the White Paper on Educational Reconstruction; and the recommendations of the three committees which were set up by the Government and which have now reported) are looked at with the population problem in mind, it is seen that they do propose a considerable advance towards establishing that all-round equality of opportunity which is the essential need for solving this problem, in as far as education can be said to be responsible for it. Certain of the proposals are cause for concern and there are striking omissions. But perhaps the crucial thing at this moment is that the Government should convince parents and potential parents that it really means business in executing those measures for which it has now actually provided. Our population problem is so urgent that it calls for measures *now* and not a generation hence. Married folk who are establishing families today should be made to feel a confidence about the education of any child they might contemplate having.

SUMMARY

Basically, a demographically satisfactory system of education must secure a genuine equality of opportunity for all children. Since the Government has now issued a plan for educational reform, this plan is examined in order to see how far it is satisfactory from the particular point of view here under discussion. Proposals concerning the State primary schools, State secondary schools, "public" schools, universities and professional education are separately considered. It is then seen that the new proposals taken together do propose a considerable advance, judged in population, no less than in purely educational terms. There remain, however, certain gaps in the proposals and some criticisms must be made. But it is finally emphasized that for dealing with the population problem—for which measures are needed now and not a generation hence—it is above

all important that the Government should convince the public that it means business in effecting those changes to which it has already committed itself.

RECOMMENDATIONS

1. *State primary schools* must be radically improved. The promises which the Government made on this matter in its White Paper on Educational Reconstruction must be implemented to the full and with the least possible delay. Lighter and more attractive buildings with modern sanitary and other amenities and with open space and gardens must be widely provided. The size of classes must everywhere be drastically reduced. In addition, two major reforms are essential, but for which the Government has not yet made any definite provision.
   (*a*) The methods of teaching in the junior elementary schools must be re-vitalized.
   (*b*) The career of teaching in these schools must be raised on to a new plane of public respect.
2. *State secondary schools.* The Government's promise of free "secondary education for all" must become a reality. That will not be possible, however, until three major conditions are fulfilled over and above those for which the Government has so far provided.
   (*a*) Maintenance allowances must be made on a much more generous scale than in the past.
   (*b*) The school-leaving age must be raised to sixteen without delay.
   (*c*) Standards of staffing must be laid down which are common to all branches of secondary education.
3. "*Public*" *schools.* More than radical reform in the State system of education is needed as part of a population policy. We must no longer tolerate two separate systems of education—one for the "masses" and one for the "masters." The "public" schools should be preserved for what is good in them, but they should be freed from all social exclusiveness. Places in these schools should be equally open to children of all social classes, selection for places being made quite impartially in accordance with children's needs, e.g. the need for special opportunities, whether of healthy surroundings, boarding facilities, or intellectual stimulus—and with no relation to a parent's income.
4. *University and Professional Education.* Close adherence is needed in both of these fields to the principle of completely equal opportunity for all young men and women, i.e. there should be impartial selection for higher education, without reference to the applicant's financial resources.

SPIRITUAL FOUNDATIONS OF THE FAMILY

By THE RIGHT REVEREND E. J. HAGAN

THOUGH the Family is one of the oldest and most fundamental of our institutions, there are manifest signs that it is now exposed to the danger of disintegration. The declining birth-rate, the decay of parental control, the increase of juvenile delinquency, and the growing prevalence of divorce are ominous indications of a widespread revolt against the restraints, sacrifices and duties of family life. For this revolt many explanations have been adduced. The destruction of the economical unity of the family by the operations of modern industry, the conditions of housing in our great cities, the emancipation of women and their consequent economic independence, and finally, the incidence of two great wars which have tended to relax all moral restraint, have undoubtedly been operative factors. But it is more than probable that the strongest factor of all is spiritual in character and is to be found in the excessive individualism which has marked the thought and practice of the past half century. The unbalanced assertion of the rights of the individual to live his own life and to express his own personality, reinforcing the egoism of the natural man, has contributed much to the relaxation of the marriage bond and the dissolution of family life. It is evident, therefore, that the foundations of marriage and the family are ultimately spiritual and are to be found in a right understanding of man, his nature and his life.

In endeavouring to reach such a right understanding of man, we must counter the extreme assertions of individualism and assert as an evident truth that the self-sufficient and self-contained individual does not exist. No man does live or can live unto himself. From the cradle to the grave he must live in society. It is in the common life of society that the individual finds himself, develops himself, and truly becomes himself. Only by the give and take of a life shared with others can he attain to the fulness of his own personality. Of all the societies into which men are grouped none is as primitive or fundamental as is the family. For every individual owes his existence to two other individuals, the father who begat him and the mother who bore him. This triad, father, mother and child, constitutes a society, which at the deepest level of human experience, is, in fact, permanent and indissoluble. The individual can never have another father than the father that begat him. Nor can he ever have another mother than the mother that bore him. Nor can the father or the mother ever annul the fact or any of its consequences that by their union they have brought into the world another being, who, in body,

mind, and soul is sprung from them both. They may part from one another, they may each go their separate way, they may form other associations, but the fact remains that through the existence of this child they are tied to one another and to the child. Does not this fact suggest the truth that in essence the marriage relationship is indissoluble and the family a permanent society?

This truth is further confirmed when we consider the sex relationship between man and woman. For the union of the sexes in the sexual act, if it is to be consummated on the human as distinct from the animal level, must be inspired by natural love. A union not so inspired by natural love is sub-human, for in it each partner uses the other not as a human personality but as a thing. Is it not of the very essence of genuine natural love to be single-minded and exclusive? The lover desires to possess the beloved for himself and by himself, and the entry of a third party is felt as an intolerable intrusion. It is not denied that the polygamous instinct does exist, nor that alongside the desire for exclusive possession there exists also an impulse towards variety and change. But this desire for change becomes operative not through the strength, but through the weakness of love. It is the mark of genuine natural love between man and woman to resist change and intrusion, and to insist that the tie between them be exclusive and permanent. In view of these two facts, first that the family is part of the permanent pattern of existence for every individual, and that the sex-union of man and woman insists on its own permanence and exclusiveness, is it not evident that in the order of nature marriage is a permanent and exclusive ordinance and the family a permanent institution?

Love and Faithfulness in Marriage

The significance of this conclusion is forcibly enhanced, when we hold, as does the Christian believer, that the order of nature is in reality the order of creation, i.e. the order in which the will of Him who made all things is disclosed and declared to be binding on all his creatures. It is to this order of creation that Jesus appeals in his teaching concerning marriage. "He which made them at the beginning made them male and female." But though the obligations of marriage are enhanced by being considered as imposed by the will of God, the Creator, they are equally applicable to all human creatures as conditions of the welfare of individuals and society. If marriage is to achieve its own purpose as an exclusive ordinance, two conditions must be fulfilled by the contracting parties. In the first place, there must be a genuine natural love between them. This condition is often overlooked both from material and from spiritual motives. But it has been imposed as an essential part of marriage by the Creator Himself. True marriage is always the act of two human beings

who are drawn together by the mysterious power of love so mightily that they desire wholly to unite their lives and to belong to each other alone. But if marriage is to be founded on love, it cannot be founded on love alone. For no lover can be certain that his love will be permanent or that it will always be given to one and the same person. This romantic individualism, which bases marriage on love alone, has been largely responsible for the crisis with which marriage is faced today. There is a second condition which must be fulfilled by the contracting parties. There must be a sincere decision of the will on the part of both to be faithful to one another in the covenant of marriage. The only guarantee of the permanence of marriage is mutual fidelity. Fidelity is the moral element which consecrates natural love and makes what would otherwise be a natural occurrence, a personal act. By the exchange of vows of fidelity, love is taken up into the region of the personal will, and on these conditions the parties are justified in undertaking the venture of a life-long union. A real marriage, therefore, is a covenant voluntarily made by a man and a woman who sincerely love one another and have sincerely bound themselves to be faithful the one to the other till their lives end.

Beneficent Purpose of Marriage

If the institution of marriage be inherent in the order of nature or (as the Christian believer would say) be established by the will of God, the Creator, it must have some beneficent purpose to fulfil in relation to the welfare of individuals and of society. The Marriage Service of the Anglican Prayer Book declares that marriage was ordained "for the increase of mankind according to the will of God," and after that "for the mutual society, help, and comfort that the one ought to have of the other both in prosperity and adversity." The Westminster Confession, however, inverts the order and asserts that marriage was ordained for the mutual help of husband and wife and for the increase of mankind with a legitimate issue. While it is agreed that normally the purpose of marriage is the procreation of children, it must be recognized that there are marriages which are unavoidably childless, but must nevertheless be considered true marriages. We hold, therefore, that one of the main purposes of marriage is the greater happiness of the husband and wife. They are joined together in the most intense and intimate form of human fellowship. As constrained by love they seek one another's good, they must continually exercise forethought, self-denial, and a generous imagination, which are among the noblest and also the most difficult of moral qualities. The exercise of such qualities, practised faithfully throughout the years amid all the inevitable vicissitudes of life, not only develops character, but enriches the personality, and produces individuals truly fitted to live in society and to serve it.

Normally, however, the full purpose of marriage is only attained by the procreation of children. It is indeed natural that in the early days of married life husband and wife should be preoccupied with one another and with all the experiences and adjustments involved in their new relationship. But soon to these there is added the experience of parenthood, providing both further enrichment of their mutual love and new occasions for the practice of self-denial and mutual responsibility. To them is entrusted the care of new lives, born of their loving union, from their helpless infancy to the stage of independence. For the fulfilment of this trust love is the wisest of counsellors. It is true that traditionally it was the authority of the parent that was emphasized. Indeed, to this day, the law regards the father as the head of the family. But the wise parent will never claim an authority that is merely arbitrary or compulsive. He will make it plain that the authority he wields is inspired and at the same time limited by unselfish love. So it will appeal to, and be recognized by, the love of the child. Further, as the years pass, he will be careful to adapt his parental authority to the growth of the child. As infancy passes into childhood and childhood into adolescence, and adolescence into maturity, he will reduce the compulsive elements in his authority until it becomes a recognition of equal rights and individual personality. But the full benefits of the life of the family are not to be obtained if it offers relations only between the parents and the child. The one-child family falls short of the ideal, for the only child suffers inevitably both from the possessiveness of his parents and from lack of contact and collision with other children within the home. As a school of character the family with several children in it and those of both sexes is quite unequalled and irreplaceable. The self-control which is demanded of all the children of such a family if the clash of differing temperaments, wills, and sexes is to be reconciled, and the family atmosphere of love maintained, is an invaluable discipline for life in society thereafter. That such a home best fulfils the idea of the family is further confirmed by the fact that it is there that children are as a rule most happy.

Marriage a Permanent Ordinance

Since marriage is a permanent ordinance, whether regarded as inherent in the order of nature or imposed by the will of God, the Creator, and since the family, which is the offspring of marriage, is so essential to the welfare of society, it is inevitable that both society and the State, which is the legal organ of society, should take cognizance of marriage. Both are deeply concerned to protect its permanence. It is the duty, therefore, of society to defend the ordinance of marriage by the pressure of social custom. It ought to mark with its open disapproval the practice of promiscuity or of conjugal infidelity, and everything which would imperil the

permanence of the marriage bond. The fear of public opinion is not a motive of a high order, but it may effectively deter a feeble individual in a moment of temptation or folly. The dangers of such social pressure are indeed evident. It may produce the most unwholesome pruderies and hypocrisies, but these dangers are less than those involved in a general condonation of laxity in sexual relationships. In protecting the permanence of marriage, society is protecting its own existence. It is the duty of the State also, as the legal organ of society, to protect the permanence of marriage by its laws. All modern States do regard the marriage covenant as being of public as well as individual concern and surrounds it with legal conditions so designed to assure its permanence. But if through human frailty and sin the physical and spiritual bases of marriage be destroyed, what is the State to do? Is it to permit the dissolution of the legal tie and the formation of new unions? On this point opinion, and especially Christian opinion, is divided. There are some Churches which hold that marriage is inherently indissoluble. Other Churches, however, including most of those sprung from the Reformation, hold with the Sermon on the Mount that a marriage may be dissolved for certain causes, and thus allow divorce, while regarding it as a moral and spiritual tragedy.

Duty of the State to Marriage

The State, as representing a society of mixed beliefs, may decide that, in view of the impossibility of compelling people to lead a normal married life, and of the probability that new unions outside the sphere of its laws would be formed, it is expedient on certain grounds to grant divorce. But it will surround these grounds of divorce with strict definitions and safeguards, lest the normal stability of the marriage covenant be generally shaken. But the duty of the State to marriage is not exhausted by giving it a legal status. It must also deal with those social conditions which today menace its stability. Two of these have already been mentioned, viz., the housing provided for the worker in our great cities, and the conditions of employment in modern industry. Surely it is incumbent on the State so to house the workers that it will be possible for them to live an honourable family life, and counteract those economic forces which have often disrupted the workers' homes. It has been suggested that, as the State by prolonging the period of education has withdrawn from the family purse the contributions formerly earned by the labour of the children, it should offer compensation for this loss by a system of family allowances. In fine, it is the duty of the State to remember in all its legislation and administration that the unit of human existence is not the isolated individual but the family.

Hitherto, this argument has been addressed to the natural conscience, which is present and active in all men. It is from the deliverances of

this conscience illumined by natural love, that we have drawn the proofs that marriage in its idea and essence is a permanent covenant and that the family is a permanent society. These truths and the duties arising from them are applicable to all men, whatever their religious beliefs may be. But it would be disingenuous to conceal the conviction that so high are the demands of true marriage and so egotistical is our human nature that to fulfil all duties and to achieve the highest happiness in marriage calls for the exercise of the Christian Faith. It would be foolish to say there are no happy marriages among those who profess no religious belief, but it would be equally foolish to deny that marriage has a peculiar sacredness to those who profess the Christian Faith, and that consequently the chances of its permanence and its happiness are greater. Is not that natural love, which is one of the bases of marriage, more likely to endure if it is regarded not merely as a biological instinct, but as a good gift of God to his children? And is not that fidelity, which is the other basis of marriage, more likely to persist if it is regarded not merely as an individual resolve, but as the Will of God, binding permanently on those who believe in Him? And who is so equipped as the Christian to meet the duties, the needs, the problems, the disappointments, and the annoyances of life with others? From his own experience of the forgiveness of God in Christ, he knows that no human relationship can be preserved intact unless by the constant practice of forgiveness. Hence, he is ready, if he is in the wrong, to ask forgiveness, and if he is the wronged one, he is ready to forgive. Of all those forces which disrupt a home, the minor ones, such as clashes of will and temper, are healed by the Christian, while the major ones, such as infidelity, are not likely to arise. It is no accident that among active members of Christian congregations the instances of divorce are much smaller than in the general community. Hence the surest foundation of marriage is a common faith in the Lord Jesus Christ. The marriage that is concluded under His Lordship is true marriage, and the home that is filled with His Spirit is a real home.

INFLUENCE OF WAR ON FAMILY LIFE

By SIR ARTHUR S. MACNALTY

ALL wars inevitably affect family life. Richard Burton draws a tragic picture of the effects of war in past ages at a time when the ravages of the Wars of the Roses were comparatively recent history.

> "Infinite treasures consumed, towns burned, flourishing cities sacked and ruinated, *quodque animus meminisse horret*, goodly countries depopulated and left desolate, old inhabitants expelled, trade and traffick decayed, maids deflowered." [1]

The devastation and famine brought about by the Thirty Years War took generations to obliterate. Whole nations in former times were destroyed by ruthless conquerors or lost their identity by being merged into the victorious peoples through slavery and intermarriage. The destruction of the Carthaginians—*Delenda est Carthago*—is a well-known example of this tragic fate. It is one which Hitler is believed to have intended for the British nation if he had won the Battle of Britain, and which the Germans have partially wreaked on the unfortunate inhabitants of Poland by mass executions and wholesale transfers of population.

Adverse Effects of War

Apart from these barbarities, and pestilences and famine, which follow in the train of campaigns and accentuate their bitterness, all wars affect families and the population through the grim toll they take of the manhood of a nation. Modern warfare, by conscription and the *levée en masse*, increases this toll. Many potential fathers, the best specimens of physical manhood from a eugenic standpoint, perish on the battlefield or subsequently die of wounds and disease. Not infrequently, too, these victims are endowed with intellectual gifts: "Hands, that the rod of Empire might have swayed, or waked to ecstasy the living lyre," all, all sacrificed to the god of battles. Many instances of such valuable lives cut short might be cited from the records of our wars—Sir Philip Sidney dying at Zutphen, Rupert Brooke, Raymond Asquith, Neil Primrose and countless others.

Although from statistical evidence it would seem that Nature struggles to replace a nation's loss of manhood by causing an increased number of males to be born in war-time,[2] it takes generations to replace the vigorous male stocks destroyed through extensive wars. France is still suffering from the loss of the flower of her manhood in the Napoleonic wars, the

[1] *The Anatomy of Melancholy*, Vol. I, p. 60. London, G. Bell & Sons Ltd., 1923.
[2] See Tables in *Encyc. Britannica*, Vol. 20, 419b, 14th Edn. 1929.

Franco-German War of 1870-1871, and the first World War. In the latter war she sustained losses of nearly 1,500,000 men killed and great devastation of lands, factories and other buildings. These calamities are partly responsible for her declining population and adversely affect her birth-rate. The evils of war, like old sins, cast long shadows.

War also shatters family life by inflicting sorrow and economic distress upon it. The removal of the breadwinner by death, or reduction to the condition of a hopeless invalid, throws an extra burden upon the wife and mother and deprives children of health and other advantages which a father's work might have obtained for them.

In this connection, the influence of a father on the bringing up of his children may be mentioned. Maternal care is often all-sufficient, but a father's control and advice are of great advantage, especially for his sons. Then there is the restriction in the size and number of families brought about by the father's death or invalidity. Many war marriages are childless or produce only one or two children. It was said with some pardonable exaggeration that France would have to fight the present war "with only sons." In this way war aids the decline in the birth-rate, and is inimical to the growth of a strong and healthy population.

The political economists and the financial experts state that no nation derives benefit from war under modern conditions. This was well illustrated by the world-wide unrest, unemployment and financial depression that followed on the last war. Victors and vanquished alike feel war's dire effects, and straitened circumstances and penury limit the increase of contented and happy families.

Disruption of Family Life in Present War

Thus far we have considered the prejudicial results of war generally on family life, results which are common to all wars. When we turn to the present war, it soon becomes apparent that it has caused the most profound disruption of family life that Great Britain has ever experienced.

For long our insular situation and the protection of the Navy enabled the inhabitants of Britain to regard war as a time when the bulk of the people could pursue their normal avocations unmolested, while fleets and armies decided the issues at stake on the seas or in other lands. Public opinion divorced war from the civil activities of everyday life. With the invention of the internal combustion engine and its offspring, the aeroplane, this enviable dichotomy no longer prevails. War has become totalitarian, and scientific discoveries, misused and debased, have increased its horrors to such an extent that civilization itself is threatened. The courtesy of the old warfare has given place to ruthless aerial attacks upon the civilian population with the object of frightening a nation into capitulation. Totalitarian war, it may be remarked, incidentally, is a reversion to barbaric

times. In the earlier epochs, the whole civilian population was mobilized for defence, as, for instance, in the days of the Greek City States. For if the invader conquered, a whole nation might be sold into slavery, or men, women and children dragged at the heels of a triumphal progress, as when "Heraclius rode back from the wrack of Ispahan."

Consequences of Totalitarian War

Because the R.A.F. won the Battle of Britain in 1940, and because the Royal Navy guarded the coasts, the inhabitants of this country have not experienced invasion and the complete horrors of totalitarian warfare as practised by the Germans. Towns and villages have not been totally destroyed, wholesale massacres of the inhabitants have not occurred, and large sections of the population have not been drafted into Germany for slave labour. All these wrongs have been inflicted by the Germans on the invaded and occupied countries of Europe and, as a consequence, countless families have been wiped out or dispersed. Although a merciful Providence has preserved the British people from these barbarities, the consequences of totalitarian war have been far-reaching in their effects on family life, in addition to the general effects of war previously mentioned. These effects may be grouped into the following categories : —

1. The transfer of large sections of the population from one part of the country to another, either by official and voluntary evacuation or for industrial reasons.
2. The destruction of members of a family and of homes by enemy action.
3. The industrial mobilization of men and women.
4. War-time marriages without provision for future home life.
5. Removal of parental control, which leads in some instances to relaxation of moral standards.

These effects may now be considered in more detail.

Official and Voluntary Evacuation

In preparing for the threat of total warfare, the Government had to make provision for the evacuation of certain classes of the community from urban to rural areas, in order to space out the risks of aerial bombardment over as wide an area as possible. The pre-arranged plans for evacuation made by the Ministry of Health and the Board of Education concerned school children, younger children with their mothers, expectant mothers, and some other priority classes of the population. Plans were made for the evacuation of 3,000,000 persons ; some 1,230,000 took advantage of the offer. The success of the scheme was due to the whole-hearted co-operation of local and education authorities, medical officers of health, school medical officers, school-teachers and the general public.

Throughout the course of this war, evacuation has continued. It was intensified under the threat of sea-borne invasion in 1940, when the native population of certain coastal areas was reduced by an organized evacuation of school-children and of non-essential residents. A certain number of children from Britain were also sent to Canada and the United States, where they were received with much kindness and hospitality by their transatlantic hosts. Sporadic raiding accentuated evacuation, and still more the heavy bombing which began in September, 1940. Free travel vouchers and billeting certificates were made available for privately arranged evacuation, for mothers with children of school age or under, for expectant mothers at all stages of pregnancy, and for aged, infirm, blind or invalid persons.

During the battle of the flying bombs in the summer of 1944, which menaced London and Greater London, apart from those who went at their own expense, there went out from London 818,000 people—228,000 mothers and expectant mothers, 537,000 children, and 53,000 old, invalid and blind persons.

In addition there was a large amount of voluntary evacuation from London and other congested areas. Families moved into the country or, more frequently, sent their children to friends or relatives in more sheltered areas. Special arrangements were made in reception areas. Residential nurseries, emergency maternity homes, hostels for children needing special care and supervision, hostels for families who could not readily be billeted, were provided, and some thirty camps were occupied by handicapped children (deaf, cripples, heart cases and mental defectives), who could not reasonably be billeted in ordinary homes. Much additional work in the provision of sanitary and health services was done by the local health and education authorities ; and praise should be given to householders, many of them already employed on war work, who cheerfully shouldered the extra burden of receiving the evacuees into their homes.

The evacuation scheme will always rank as one of the greatest health and social experiments designed by a Government to protect children and others, as far as possible, from the horrors of aerial bombardment. It is obvious, nevertheless, that evacuation, dictated by the events of war, was a grave deterrent to the maintenance of family life which is so dear to the British people. The urge for family reunion is a fundamental social fact, and in devising the highly necessary scheme of evacuation, Government interference, inevitably, had to combat human nature, as was shown by the trickle back of evacuated persons to their homes at the first available opportunity. Whenever there was a lull in the bombing attacks, a certain proportion of children, despite reiterated official dissuasion, were brought back to the towns by their parents. This continued towards the end of the war, for when the flying bomb menace abated, the London termini

were blocked by crowds of returning evacuees. Some found their homes destroyed by enemy action, but the paramount urge was towards family reunion.

The herd instinct came, also, into consideration. Many urban dwellers did not take kindly to the country. Its peace and quiet troubled them. They missed the roar of traffic, the cinemas, the public houses and the association with neighbours and friends.

Another effect of evacuation was seen in families whose members had been separated from one another for several years. The parents had remained in the city, while the children grew up in the country. The latter had acquired new friends and interests. It became a problem then to restore the continuity of family life.

The Destruction of Members of a Family and of Homes by Enemy Action

In many instances children have lost one or both parents through enemy action, and not infrequently families wholly or in part have been killed by bombardment in their own homes. These unfortunate orphans of war are brought up by relations or friends, or are being reared in public or voluntary residential homes of various types. However kindly treated, these orphans have been deprived of their own family life and the war has taken from them something for which there is no adequate substitute. About 80,000 children—not all war orphans, but children who for one reason or another are temporarily or permanently deprived of a normal home life—are now being brought up in some 1,400 public or voluntary institutions. In a recent letter to *The Times*, Lady Allen of Hurtwood suggested that a certain proportion of them are "isolated from the main stream of life and education," and that "few of them know the comfort and security of individual affection." This, indeed, it is difficult for institutions to supply. The problem is complex and might be met in various ways.[1] An investigation of institutional conditions, such as will be made by the Nuffield Trust, is one way, but, as *The Times* points out, this might be supplemented by seeing how far children's allowances, a home-help service, other forms of social provision and adoption of children, could diminish the number of those for whom such institutions are needed.

The war has deprived many of these children of their rightful heritage —a happy family life with parental care and affection. They have become wards of the community and their path in life should be made as smooth as is possible.

The destruction of houses by enemy action has seriously affected family life, and has added to the shortage of houses which has prevailed through-

[1] See *The Times* leading article on "Homeless Children" of July 31, 1944. The Government have recently announced their intention to set up a Committee of inquiry covering all types of homes for children.

out the war by reason of the ban on the building of new ones. Taking London alone, Lord Woolton, Minister of Reconstruction, on September 15, 1944, stated the magnitude of the London housing problem caused by air raids (including flying bomb attacks). In all, 107,000 houses have been destroyed; 170,000 houses have been seriously damaged and are in need of repair; 700,000 houses have received first-aid repairs, but need further work to make them reasonably comfortable.

Emergency arrangements were being made to house 10,000 people in requisitioned and re-conditioned houses, and many more in 10,000 huts. Bombed-out members of a family have had to find homes in other people's houses, and often the continuity of family life has been difficult to maintain.

Inasmuch as this is a totalitarian war, men and women are employed throughout the country for industrial and defence purposes on a scale unparalleled in previous wars. While men of military age were called up for the fighting services, women also joined the W.R.N.S., the A.T.S. and the W.A.A.F. to a much greater extent than in the last war. Many of these women were adolescents, and were removed from parental supervision at an important period of life, when character is being formed and matured. The Services by discipline and training took every care of them, but, inevitably, this war necessity was another blow to family life.

The needs of war industry also led to the transfer of industrial workers to other parts of the country and the breaking up of united families.

Many men and women were also employed in the Civil Service and in the Civil Defence Services, either wholly or part-time. The children of some of these war workers had to find homes with relations or friends, or were accommodated in day nurseries while their mothers were at work. Family life was seriously affected by these war necessities, but the picture must not be painted in too gloomy colours. Throughout, there was a struggle on the part of parents and children to retain a semblance of home life, and to maintain home ties with the absent members of the family, who were serving their country at home or overseas. No praise is too high for the housewives of Great Britain, who kept their homes, cared for their men folk and children, stood in queues for food rations, took charge of evacuees and often made time to do some war service as well.

War-time Marriages without Provision for Future Home-life

This war has adversely affected family life as regards the young men and women of marriageable age. In normal times, as a rule, marriages are made with an eye to the future. The bride goes from the parental home to a house provided by her husband, and in due time they hope to have children. In war-time prudential considerations are disregarded, under the stress of patriotic emotion. Marriages take place in a hurry, usually because the man is going on active service, and sometimes only after

a few days' or even a few hours' acquaintance. After the wedding the bridegroom, if a Service man, rejoins his unit and the bride goes back to her war work. They may meet at intervals for periods of short leave, or they may not see one another until the end of the war. In the meantime, both partners have been exposed to trials and temptations. They have often little thought or planning for their future life together. Many of these hasty marriages will be happy and successful; others will inevitably come to shipwreck.

Lord Elton, speaking in the House of Lords on December 9, 1943, took a gloomy view of the matter. He said that as the result of the war, "Families had been broken up, divorce flourished and bigamy was almost a national institution." These evils have certainly occurred; on the other hand, many examples could be cited of war-time marriages which promise well for the future.

The rise in the marriage-rate, which always occurs in war, was conspicuous in the first years of the present conflict. The number of marriages in 1939 rose to 439,694, compared with 361,768 in 1938, and to 470,549 in 1940. In 1941 the figure fell to 388,921; in 1942 to 368,252; and in 1943 to 295,414.[1] In 1943 the highest birth-rate was recorded since 1928. The number of births that year was 682,654, compared with 654,039 in 1942, 587,228 in 1941, 607,029 in 1940, and 619,532 in 1939.

These increases in the marriage-rates and birth-rates may be regarded as compensatory effects of war.

The general observation may be made that as a result of war, men and women are marrying at much younger ages than in peace time, but with much less sense of future responsibility.

Removal of Parental Control

The lack of parental control through the absence of the father on military service, or because he has been killed in action, has already been mentioned as one of the general effects of war. It has also been shown that in the present war, either through evacuation or because the mother is engaged wholly or part-time on war service, children may be deprived of maternal care and supervision. This has led sometimes to an increase in juvenile delinquency; and, in the older children, to a relaxation of moral standards, the harmful results of which are discussed in the section on "Health and the Family."

War favours irregular unions and thus strikes another blow at Christian family life. The Registrar-General reporting on the year 1943 states:

[1] The decline in the marriage-rate in the later years of the war is explained by the increase in the male population serving in the armed Services overseas, and also by the depletion in marriageable stocks, which has resulted from the high rate in preceding years.

"The illegitimacy rate among live births was 16 per 1,000 above the average for the preceding five years, but this must not be regarded as necessarily implying a corresponding increase in extra-marital conceptions, as past experience shows that pre-maritally conceived legitimate births have declined during the war."

Shelter life has upset the routine of the home and has sometimes had harmful effects on young people. Another deleterious effect is the bad influence of increased crowding brought about by war conditions. There are the difficulties of separating the sexes for sleeping and all the other consequences, physical and psychological, of crowding in living rooms.

Conclusion

Enough has been said to indicate the disastrous effect of wars generally and of this war in particular on family life, "the indispensable basis of civilization and of every Christian State." We can fully endorse Lord Elton's statement that "the family was the first and most tragic casualty of the war."

The problem of the family's reconstitution after the war presents many difficulties. Homes have to be found for the people and jobs have to be found for them. To quote Lord Elton once more: "The end in view is to restore a land in which families can live together in happiness and contentment in a sense of security." The Government is alive to the importance of this task. It has appointed a Minister of Reconstruction, who will co-ordinate the activities of the different Government departments concerned. It has made known the details of a scheme for such demobilization as may be possible at the end of the war in Europe; and the Reinstatement in Civil Employment Act gives ex-Service men and women the right to return to their old jobs when their war service is finished.

Proposals for a new and comprehensive system of social insurance dealing with unemployment and health insurance, pensions, family allowances and a new scheme of workmen's compensation have been announced. The Minister of Health has plans for the earliest possible provision of good houses and flats, homes of good standard, good design and good location in the largest possible number. Most of the estimates for the number of new houses required range between the 4,000,000 and 5,000,000 figures.

Then there is the individual problem, the difficulty which demobilized men and women will have in settling into routine civilian life again. Many will be restless and unsettled. It is a problem which individual men and women will have to face and solve for themselves. Others again during the war have had their lives so directed and controlled that they will find it hard to plan and think for themselves. Connected with this is a problem

discussed in the Report of the Social and Industrial Commission of the Church of England, "The Church and the Planning of Britain." It emphasizes the need for community life. The population is tending to become too "mobile"; large business concerns, banks and multiple shops move their employees about, and the fluctuations of trade require that labour should have a certain "fluidity." In a highly industrialized country, individuals tend to have no roots, no local attachments and sometimes no normal family life. This in turn affects their mental and spiritual outlook.

The transition period from war to peace will be fraught with many such problems. Family life and the future population will bear for long the scars of the war. But Great Britain is a nation of families. The good stock of the nation look forward to reunion with their families and to making a home of their own after the war.

It is in the home and in family life that the future prosperity and happiness of this country rest.

SUMMARY

The general effects of war on family life. Many potential fathers, the best specimens of physical manhood, perish on the battlefield or subsequently die of wounds and disease. It takes generations to replace the vigorous male stocks destroyed through extensive wars. Deprivation of a father's control and advice. Poverty following on war limits the increase of contented and happy families. The present war has caused a profound disruption of family life. Totalitarian war a reversion to barbarism. Special adverse features of the war; transfer of large sections of the population from one part of the country to another; destruction of members of a family or homes by enemy action; industrial mobilization of men and women; wartime marriages without a future home life; irregular unions. Consideration of the family's reconstitution after the war.

RECOMMENDATIONS

1. The encouragement in every possible way on spiritual, moral and eugenic grounds of the reconstitution of family life after the war.
2. Homes and jobs for the people, together with national security.
3. National support for the Government's measures of reconstruction, including housing schemes—temporary and permanent, such demobilization as may be possible after the end of the war in Europe, the Reinstatement in Civil Employment Act, a new and comprehensive system of social insurance dealing with unemployment and health insurance pensions, family allowances and workmen's compensations.
4. Help and advice for citizens in their individual problems should be given by the churches, philanthropic agencies, citizens' advice bureaux, etc.

Printed by Odhams (Watford) Ltd., Watford

(continued from inside front cover)

Sir Arthur S. MacNalty, K.C.B., M.A., M.D., F.R.C.P., F.R.C.S., *Editor-in-Chief of the Official Medical History of the Present War. Formerly Chief Medical Officer of the Ministry of Health and Board of Education.*

Margaret Hadley Jackson, M.B., B.S., D.R.C.O.G., J.P., *Medical Officer to Devon Family Planning Association Clinics; Obstetric Consultant to Devon County Council.*

Eliot Slater, M.A., M.D., M.R.C.P., D.P.M., *Medical Officer, Maudsley Hospital; Clinical Director, Sutton Emergency Hospital; Acting Assistant Psychiatrist, St. George's Hospital.*

Grace Leybourne-White, M.A., B.Sc., Ph.D., *Lecturer and Research Fellow, Education Department, Manchester University. Formerly one of His Majesty's Inspectors of Schools, Board of Education.*

The Right Rev. E. J. Hagan, O.B.E., D.D., *Moderator of the Church of Scotland.*

Sir James Marchant, K.B.E., LL.D., F.R.S.Ed., Editor. *Formerly Secretary National Birth-rate Commission; Committee on Prevention of Venereal Disease; Cinema Commission of Enquiry. Editor: The Whitehall Series: Great Departments of State, etc.*