

THE MODERN RISE OF POPULATION by Thomas McKeown
Edward Arnold, 1976, £7.95

A Review
by
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Professor McKeown is able to bring a great deal of previous experience to his treatment of eighteenth and nineteenth century population growth in **The Modern Rise of Population**. As far back as 1955, he co-authored the first of four articles on the subject to appear in the journal, **Population Studies**. Since that time he has also published in a similar vein elsewhere, and can legitimately claim to be one of the major figures in the long standing controversy that has surrounded the origins of population growth in pre-industrial and industrializing Europe. The debate has attracted many contributors from a variety of disciplines. The theories that have been proposed to explain why western population dramatically took off sometime in the eighteenth century have alternately emphasised an increase in fertility or a decrease in mortality as responsible for the growth, and a number of ways whereby each could have occurred have been suggested. For instance, the Industrial Revolution could have made marriage more feasible by raising living standards and hence fertility would have risen. On the other hand, any medical progress made in the eighteenth century in the treatment of such diseases as smallpox might have caused a decline in mortality sufficient to bring about population increase. Or, the whole increase could have been initiated by a giant stroke of luck in the form of the displacement of the plague-carrying black rat by his healthier relative, the brown.

The by now well known 'McKeown hypothesis' rejects all of these. Instead, this hypothesis states that the fall in mortality that was entirely responsible for the rise in population was itself due exclusively to a decline in fatalities from infectious diseases resulting predominantly from a rise in the level of nutrition. Secondly, contributions were made by the spread of personal hygiene practices, the adoption of public health measures, and a betterment of the standard of living generally. **The Modern Rise of Population** presents the evidence for this interpretation, and it is a plausible one. But in the end, the book is far from a convincing demonstration of the validity of the hypothesis. Furthermore, the book does not make the contribution it could and should have done given Dr. McKeown's expertise. Not only does the debate remain unresolved, it also remains constricted within the same shopworn analytical frame where the nation is used as the unit of analysis. And partly for this reason, the debate remains badly in need of an infusion of new data.

The hypothesis indicates that there are two critical assertions that have to be proven before the author is home free: 1. that it was mortality that fell and not fertility that rose to cause the population to grow; and, 2. that an improvement in percapita nutrition actually did occur. Sifting out the digressions into the fertility and morality experience of the birds, other animals and early man, such a progression of the argument can be discerned. A chapter apiece is devoted to the two demonstrations, one at either end of the volume. In between come four chapters of material related to the argument, but as it turns out, treated disproportionately relative to the former, crucial chapters. These middle chapters describe the specific diseases that declined and the alternative reasons to improved nutrition that could have accounted for their doing so: a change in the virulence of the disease, progress in medical treatment of the illness, and a decrease in exposure to the infection. Indeed, these chapters are important in the sense that, because McKeown finds each alternative wanting for the diseases that contributed most importantly to the mortality decline as a whole, he feels able to conclude, on the basis of this, negative evidence so to speak, that the remaining factor, nutrition, must have caused the growth in population. While such negative evidence is not inadmissible, and argument by exclusion of alternatives is reasonable, for absolute proof we eventually need to be presented with positive evidence at the critical junctures of the case. So it is to the two aforementioned flanking chapters that we must look for the success or failure of **The Modern Rise of Population**, and it is here where we find, unfortunately, that McKeown's interpretation, however smooth in presentation, is in fact substantially unsupported.

Although **The Modern Rise of Population** professes to include the entire world in its scope of explanation, by the second chapter all argument is based on evidence from only four European nations: France, England and Wales, Ireland and Sweden. And with regard to the eighteenth century, only vital data from Sweden, collection of which began in 1749, are used to establish that decreasing mortality rather than increasing fertility caused the population to expand. Presentation of a few time series of death rates and birth rates is not sufficient proof of this however. In addition to lack of any critical assessment of their accuracy and doubt about how far they are representative of Europe, let alone the world, there are two further criticisms that can be levelled. Firstly, it can be asked whether it is really legitimate to compare nations that undoubtedly differ in age and sex structure, by using measures as sensitive to these distorting effects as the crude birth and death rate. The answer is no. But this is less important than a second criticism. The use of the nation as the unit of analysis implies the assumption of a degree of homogeneity of mortality experience within the nation that is unwarranted even in this day and age of diminishing differentials. Within each of the nations used in this book's analysis there undoubtedly existed very localized levels and cause structures of mortality. To ignore these ignores the existence of localised economies and regional cultures which certainly could have had a strong influence on the prevailing mortality situation. Within early Victorian England, for example, death rates (corrected for age and sex) varied from near modern day levels in some southern rural districts, to

levels more than twice as high in some of the northern industrial areas. And even within such categories as urban and rural, death rates could vary for reasons that had to do with the nature of the specific locality.. The national average death rate, that used by McKeown, accurately reflected the experience of only a comparatively small proportion of the districts within the country. So the question is then, given the environmental explanation for population growth that McKeown is trying to support, how much more complete and accurate would the picture have been if a regional, or indeed smaller level of aggregation had been adopted as the unit of analysis? In answering this point, the author would probably concur, but would argue as he does in his introduction, that such an approach would make any results on the national level a long time in coming, and that therefore aren't we better off opting for the broad, general picture at this, an "early stage" (p. 11) of the research on this question. But the point is, is the question resolvable at this high a level of aggregation; or even profitably approachable? As long as the methodological approach of **The Modern Rise of Population** is used, research on the question will never get beyond the "early stages."

To be fair, it must be said that those working on the eighteenth and early nineteenth centuries are not presented with enormous amounts of immediately useful demographic data. But McKeown, who reminds us of this state of affairs throughout the book, can be faulted for not using some information he could have had. Information, however, that might have countered his case. In assessing the role of fertility in the eighteenth century expansion, for example, the author contends that a rise in fertility could not have occurred simply because fertility behaviour was already unrestricted and had always been so, and that therefore birth rates were at their maximum and could rise no further. The evidence for mortality's pre-eminent role in the growth of population is therefore directed towards showing that fertility was indeed unrestricted in all those previous centuries. Again, a slightly backdoor approach, not made less unpalatable by the use of late nineteenth and twentieth century data to assess the situation, as the author does when discussing change in proportions married as a factor affecting the fertility levels shown by a nation. But more regrettable is his reliance on a single 1936 publication by Kuczynski as proof of the absence of deliberate family limitation in pre-industrial England and, by implication, Europe. One is left to wonder how McKeown deals with the much more recent and equally respected findings of Wrigley, for Colyton, and Henry, for the Genevan bourgeoisie. These and other authors who have found evidence contrary to the assertion that no birth control was practised pre-industrially are not mentioned. Instances like this are disturbing, as is inconsistency in the use of other data. Griffith, for example, is first dismissed for his use of arbitrary inflation factors to deal with the under-reporting of vital events, only to be cited later on in support of the case being made regarding eighteenth century English marriage rates. A data source that is not used at all in the analysis is that which can be gleaned from the parish registers. This is unfortunate, as the registers, with their potential for new data at the local level must be considered the only avenue that will eventually lead to an unambiguous answer to the controversy McKeown fails to settle. Despite

its acknowledged problems, the information these books can provide is not beyond profitable use, as is being demonstrated at the Cambridge Group.

By the time chapter seven is reached, where the evidence for a nutrition-mortality causal link is to be presented, the world scope has long since been abandoned, and only England and Wales is under discussion. Here, in the climax chapter of the book from the point of view of the argument, McKeown plunges into another debate in trying to settle the one at issue. He has to show that a percapita improvement in nutrition occurred in England and Wales in the eighteenth and early nineteenth centuries, and that this improvement in turn caused mortality to decline. Now the questions as to whether the standard of living, of which nutrition is one dimension, rose at all, by how much, for how long, and in what ways are contentious ones amongst economic historians. The issue is dynamic and it is complex. And McKeown, unfortunately, does not shed any light on the answers. He states again repeatedly, that an increase in food production took place, and that the population of the country trebled in the period 1700 to 1850. From this we are to make the inference that the former was responsible for the latter. But for all the hard evidence we are shown, the reverse is just as easy to argue and equally as plausible. In essence, we are left to assume that because farm output rose, individual diets improved and, as a result, mortality fell. These are leaps that are too great to be required to make. We have to be told the answers to several important questions before we can fill in the gaps and draw the conclusions that McKeown would like us to. For a start, what was the size and composition in a dietary sense of this increase in food production that he alleges took place? Just as important, were the benefits of this increase evenly distributed among the majority? And to get a little further back to reality, what quantity and quality of food intake, present among the mass of the population, would have been needed first to initiate a fall in mortality and then to sustain it? Perhaps these are problems that are impossible to deal with, but to ignore them and thereby effectively pretend that they don't exist, misrepresents the complexity of the issue at hand.

There are, therefore, large problems with this book. It is conceptually simplistic, empirically inadequate and as a piece of supposedly important research, poorly documented. Indeed, the footnotes are perfunctory and a bibliography has not been included. In addition, it is written in an unscholarly way, where the repeated assertion of a contentious item takes the place of evidence, and a "best of a bad lot" attitude is conveyed. In short, the idea that this book represents the choice between "the best answer that can be given and none at all" (p. 5) is, to say the least, untrue.