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Alan Macfarlane argues that the mortality revolution began not when death rates started a newly unbroken fall, as they did in England in the late eighteenth century. It began earlier with the escape of two largely agrarian societies, England and Japan, from the Malthusian trap. In the grasp of that trap, agrarian societies that had managed to promote economic growth found that such growth produced negative rather than positive effects. It led to earlier marriage and more conceptions, thus higher rates of both fertility and population growth. Soon the numbers of people pushed against the ceiling of resources. Mortality crises – wars, famines, and epidemics – followed. For agrarian societies caught in the Malthusian trap, economic growth could not be sustained.

In escaping the Malthusian trap, the author finds, Japan and England passed through certain exceptional phases. Their limited and largely unwitting control of mortality, achieved between about 1400 and 1750, challenged them with the problem of population growth. But seventeenth-century England and eighteenth-century Japan restrained fertility. This escape, propelled by a desire at the household level to enjoy more wealth per capita, led them to sustained economic growth, to industrial modernization, and to additional and more purposeful mortality control. The key point is that low mortality in England and Japan did not produce countervailing population growth while those societies were still agrarian.

Macfarlane e also advances a theory about how history works, expanding on an idea about chains of circumstances. He believes the English and the Japanese happened for a long time to do many things that reduced their exposure to disease for reasons unrelated to any such goal. They drank hot tea, brewed with boiled water, and thereby made water safe to drink well before the germ theory explained that harmful microorganisms might lurk in unboiled water. In that case both the English and the Japanese did the same helpful thing. More often, Macfarlane finds, these two peoples adopted useful habits of contrasting form. Each for their own reasons and in their own ways bathed more of themselves more often, wore cotton clothing, disposed of human waste by means that meliorated the risk of disease, and engaged in a host of practices that protected them from some of the mortality risks that their neighbors faced. Moreover, the Japanese practiced selective infanticide, and they compensated for the risk that the household line would not survive by adopting outside the bloodline. The English hired servants when they did not have enough children to work the family farm. In neither society did people try to insure themselves against failing to produce the number or gender combination of children they wanted by having as many children as they could. Instead both the Japanese and the English used positive restraints to reduce fertility in keeping with the lower mortality they were already beginning to achieve. Long causal chains – and Macfarlane believes that there were many of these – produced rich combinatorial possibilities. Moreover, such chains put the emphasis not so much on the causes of things as on effects.

These causal chains with their unintended effects amount to "a gigantic accident," "an enormous exception" (p.389). Thus Macfarlane advances a metahistory that takes a form akin to natural election, through which, by engaging in all manner of things, people stumble upon some that turn out to be useful. That so many useful things were stumbled upon in England and Japan he attributes to their "islandhood" which

protected them from invasion. But islandhood was not sufficient by itself. Ultimately the causes of English and Japanese exceptionalism seem to have been idiosyncratic.

This is not a history full of lessons. People in other societies could hardly mimic what the English and the Japanese had done that reduced mortality, when the English and the Japanese themselves understood so few of the causes and identified so few of the consequences. Thus human agency appeared here in the role first, of experimentation, which produced the myriad adaptations of which some worked unwittingly to promote lower mortality and fertility, and then in another role. That role came forth in the eighteenth century in England, and somewhat later in Japan, as people began to discriminate in useful ways about the efficacy of their habits and behaviors.

Several things about this book are novel. Macfarlane casts the problem of explaining the mortality decline not just as one of understanding why death rates have fallen so much since 1800, but also as a problem of understanding why mortality was uncommonly low in some regions much earlier. Whereas many scholars have focused on explaining high mortality, Macfarlane suggests that it is low mortality that we need to understand. The comparative approach is also productive. Since Japan and England show more contrasts than similarities, this approach underscores how varied were the means that might restrain mortality. Ranging widely over the multiplicity of human habits and behaviours practiced in these two societies, Macfarlane creates a kind of cultural epidemiologist; he identifies the health consequences of commonplace thing and studies diseases and their modes of transmission. Finally Macfarlane argues that particular diseases operate only in association with a complex set of demographic, environmental, and cultural factors. Thus measles is not the same disease in two different periods, even if the two periods are distinguished only by different population densities. In a low-density era measles may seep periodically through the population, causing many deaths among people of all ages. But a higher-density population may, by putting everyone at risk when they are children, turn measles into a benign childhood disease, one that young people can survive because they have highly effective immune systems. Thus epidemiological history is always in flux. There is much to admire in this study, and much to try to use in explaining the history of mortality.

Other parts of Macfarlane's argument fail to persuade. Too often the association of particular factors with disease and mortality remains unspecified or undeveloped. Japan's movable houses promoted ventilation and served the public health as effectively, albeit in much different ways, as England's rebuilt stone and brick housing. But if that is true, what specific diseases were avoided? Why was tuberculosis, an airborne disease of such great significance in Japan from the 1880s to 1940s, not evaded?

Too much hinges on Malthus and on England. Macfarlane attributes great insight to Malthus. War, famine, and epidemic disease often occurred in early modern Europe, as Malthus observed, but were they so clearly part of a Malthusian system of population control? In fact population grew in every European society in the early modern era, and in some, such as eighteenth-century France, quite dramatically. Yet France's secular mortality decline began, like England's, at the end of the eighteenth century, when France was still an agrarian society. Malthus, Macfarlane reminds us,

dismissed Jenner's smallpox vaccination and his idea of smallpox eradication as "mistaken" (p.14) on grounds that other diseases would step in to take smallpox's place. But they did not.

England's exceptional position appears, for Macfarlane, to lie in the ease with which its eighteenth-century scheme of mortality and fertility control led to industrial modernization. But Belgium began to industrialize at about the same time despite high mortality and fertility; eighteenth-century Sweden controlled mortality and fertility to roughly the same degree as England without either economic growth or industrialization. The comparison of England with Japan plays up the many ways by which mortality and fertility might be limited. But is its main contribution to isolate the habits and behaviors that could be adopted to control fertility and mortality before the modern era, or merely to isolate certain things that the English and the Japanese did right?

Too little is included about how the Japanese and the English learned to draw inferences about the efficacy of their habits and behaviors for better health. What new forces drove the eighteenth – and nineteenth-century effort to identify public health, medical, and cultural innovations that helped delay death?

Macfarlane has recast the problem of mortality control. He points away from the specialized study of the effects of a single practice or innovation in one country, which has been the dominant form of scholarship in the field. He points toward the generalized appraisal of demographic systems, to the study of the multiplicity of paths that might be followed to the same low-mortality outcome, and to the utility of making explicit comparisons before advancing a claim about how a particular factor contributed to lower mortality. The result is a book that takes the study of the history o mortality a significant step forward.

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