

REVIEW ARTICLE

ON THE CHANGING CENTRE OF GRAVITY IN POPULATION STUDIES

DAVID S. KLEINMAN, *Human Adaptation and Population Growth: A Non-Malthusian Perspective*, Montclair: Allanheld Osmun 1980. xiii, 281 pp., Index. \$23.50.

The study of population has long been organized by the idea of limits. Nowadays these are generally considered to be of two kinds. The first are analytic and abstract, and comprise the study of the formal properties of populations as a species of mathematical regularity. The second are a set of supposed regular material relations between population and resources. The two are, however, more commonly united in a pattern of reasoning, part qualitative and part quantitative, in which the properties of social groups are identified with their aggregate properties. English and Continental writers had experimented with social arithmetics for many years before Malthus made this dual idea of limitation the centre-piece of his *Essay on Population*. Henceforth it has been accepted that the mathematical limits of population ultimately circumscribe social possibility. Debate has never ceased, however, over the processes which regulate the relative growth of populations and economies, and over whether the question of ultimate limits is of practical as well as analytical importance.

As Dr. Kleinman remarks, Malthus's theory was basically about mortality. Poverty, misery and vice act as 'checks' on the growth of populations, chiefly through infant mortality; to remove these limits is only to delay the time at which a much greater and more catastrophic limit, that of the capacity of land to feed people, comes into force.

At a certain level the idea of a carrying capacity expresses merely an arithmetic of common sense: if there is only so much food, then you can only feed so many people. What Malthus noted was that this trivial truth could be used to bring into systematic relation a great many aspects of society, including relations of labour and capital, marriage and family structure, poor law relief, morality, and the invisible hand of divine and economic rationality. His is a 'total' argument, in the Maussian sense, and its systematic properties owe largely to his ability to express political, moral, economic, religious, familial and other

values all in terms of a single mechanism: a set of functional¹ relations between delimited series of population and resources.

Thus, Malthus's contribution was to base his theory on an isomorphism of material and mathematical limits, and to base the application of this theory on mortality, as a way of describing society as a totality. Obviously not all social theory, even of the partly mathematical varieties, may be traced to Malthus. And yet the elements of his theory recurred in the course of the nineteenth century, in ways that plainly influenced the formation of sociology.

An example of this was the reinterpretation of the perennial theme of factors contributing to the relative life or death, health or illness of society. Debate over Malthus's theory was at the centre of the reform movements of the first half of the century; the condition and ultimate significance of the poor was first the object of poor law inquiry and reform, and later a problem of vital statistics and sanitary reform. Where mortality, as a check upon the increasing numbers of poor, was for Malthus a regrettable but inevitable check upon social decline, its measure in the hands of later political economists, physicians and vital statisticians became the index of collective health and a guide to social improvement. Mortality provided a coherent set of limits within which a broad range of social problems could be organized and described. Malthus's pattern of reasoning about mortality, numerical indices and society was kept, even while conclusions opposite to his were advocated. In the 1850's and 1860's the first English movement to adopt the label 'social science' represented a hotch-potch of interests, of which political economy and vital statistics were the most highly developed. It was a political economist sympathetic to Malthus's method, Mill, who forcibly called British attention to Comte's writings.

In the same period, Darwin and Spencer drew directly upon Malthus's quantitative ideas about the collective significance of mortality, and their interpretations were taken up, in turn, in Social Darwinism, eugenics and comparative history. Even at the end of the century, Durkheim's *oeuvre* begins with the political economists' central problem of the causes of the division of labour, in which population pressure acts as a critical limit. Fundamental distinctions laid down in the *Rules of the Sociological Method*, for example, that numerical averages provide the best method of distinguishing 'normal' and 'pathological' social states, or that all aspects of social life have both 'physiological' and 'morphological' (we would now probably refer to 'quantitative' and 'qualitative') properties, are later glosses on the role of mathematical-material isomorphisms according to a vital imagery of total social description.

¹ I have in mind here the mathematical concept, i.e. neither later sociological notions of function, nor any particular mathematical technique or formulaic expression of the concept.

I have taken this very quick and partial dip into the history of social and economic science because I think the appearance of 'non-Malthusian' in Dr. Kleinman's title is not to be taken lightly. As yet we know little about the changing language and procedures by means of which the 'society' of the beginning of the nineteenth century was turned into the 'social', the 'sociological' and the 'social scientific' of its end. The close association and increasing importance of numerical representations and vital metaphors, to which Malthus gave the most provocative prod in this country, played a major role in this process. The *Essay on Population* is as good an early demarcation of the sociological period of our culture as we could wish.

The partly mathematical way of investigating society is, of course, a notion peculiar to the West. Scepticism of this approach has been a minority view for the better part of this century, and since the 1939-45 war has become a minority view in studies of non-Western societies. Even now active concern about the consequences of this ever-growing influence is due mostly to a small number of demographers and economists. They have been quick to point out the opportunity for a dialogue with anthropologists, which is now at last beginning.

Kleinman's book gives ample evidence of this. There are anthropological references, sometimes in profusion, in nearly every chapter. He is unable, however, to draw from anthropology a framework with which to organize his study. Thus, 'non-Malthusian' is a bit like 'post-structural': there is a fairly clear picture of the idea of structure we would like to modify, but the alternatives are as yet pretty sketchy.

'Non-Malthusian' nonetheless raises several aspects of the general malaise over structure in the social and human sciences, and (at least for anthropology) in a helpfully non-sectarian way. First, it makes clear the need for a historical perspective; there is little option but to return to the formation of an explicitly *social* science if we are to understand both our peculiar obsession with structure, and the peculiarity of the structures with which we have become obsessed. The neo-Durkheimian phase which has characterized recent social anthropology has, in this respect, proved no more satisfactory than the recent neo-Malthusian phase in population studies.

The second aspect is the centrality to the study of society of the isomorphism (or unexamined collapsing together) of material and mathematical regularities. This refers as much to the recent attempts of anthropologists to apply formal techniques to their typically ideological materials, as to the rather ideal measurement of the facts of life promoted by demographers. The ontology of the object is unimportant: it is the nature of practice of method that is at issue here.

The process of reasoning using both verbal categories and arithmetical regularities has, of course, many precursors, but was inscribed in the basis of social inquiry in the early nineteenth century. Later writers in that century such as Farr, Galton, Quetelet, Jevons and Durkheim did a great deal to fix

a certain idea of this process on social uses of mathematics. It is only recently that the extremely narrow band of mathematics actually applied to society has been recognized as such, and that exploration of alternatives has begun. The language which accompanies applied symbolic logics, particularly its semantic and rhetorical aspects, has been much slower to receive critical attention. This may have something to do with why formal experimentation is still rather disappointing. Whether the current recreation of various symbolic logics for sociological purposes need be or is best undertaken within the formal and statistical idea of analytical method is far from clear. A genuinely non-Malthusian theory would, it appears, at some stage have to contemplate this problem.

A third gain of a non-Malthusian perspective is that it calls attention to the effects of reading sets of analytical limits willy-nilly over a diversity of problems and cultures. The rapid expansion of socio-demographic programmes and research in the Third World (almost all cast in a neo-Malthusian mould) should provide many good examples. Some major cases stand out: the widespread attempt to measure population changes in terms of 'ideal family size'; the rebirth of the Victorian idea that the life table is an adequate evaluator of social medicine; the conflicting and confusing results of multivariate analyses; and tales of the conduct of censuses in rural areas. The influence of the results of such research on government policy and programmes is an issue likely to be as telling as it is as yet inaccessible.

The fourth aspect is the search for other organizing metaphors, hopefully ones which will accommodate the undoubtedly useful and powerful limit devices of existing approaches, without being completely reducible to them. Plainly, this activity must go hand in hand with analytical reconstruction, as it is largely in processes like metaphor that analytical intuition is based.

It is in the third and fourth of these areas that the contribution of Kleinman's work lies. The early chapters give many examples of population theories, a few (alas!) due to anthropologists, which propel narrow material forces supposed to cause or be caused by population growth (e.g. changes in protein levels, agricultural monoculture) into explanations of large-scale catastrophes (war, pestilence, famine). Later chapters include references to demographic trends in this century that preferred methods of projection have tended to obscure, and also to some short-lived orthodoxies of the family planning area. As Kleinman points out, radical limit arguments have been proposed in a more or less mechanical way, they are more like caricatures than theories. We might add that they are almost invariably less subtle and interesting than Malthus's own formulations. It is both to counter the pattern of hasty generalization, and to provide a means of reorganizing the field which has a coherence of the same level of sophistication as Malthus's theory, that Kleinman proposes that we think again about the idea of adaptation.

Without doubt the most important features of *Human Adaptation and Population Growth* are its scope and deliberately moderate tone. Among Kleinman's major allies are recent works in social and demographic history, and anthropology; he has tried to set the often too technical debate over population growth in a broad historical and cross-cultural framework. The result is a more balanced perspective than one usually gets of this immense field, and the most thoughtful introduction to it anthropologists could hope to find.

The stage is set in the opening chapter by a brief resumé of Malthus's limit thesis, and Kleinman cites some more recent, trendy, computerized versions to illustrate the continuing vogue of mechanistic arguments. The balance is immediately drawn in the second chapter, which relates how different social structures mediate resource and population changes. Much of this chapter is a sensible application of social anthropology to the problem: resources in goods and people are socially defined, that is, they reflect not so much brute material scarcity or surplus as local questions of status, power and prestige; different family systems have a considerable capacity to adjust to short term economic problems; archaeological evidence and the population dynamics of contemporary primitive groups do not support the thesis of a natural human condition of uniformly high fertility checked by high morality. Indeed, Kleinman's concluding remark that 'the problems of people in coping with their environment were small compared to the problems of coping with each other' neatly states the basic anthropological view of the matter.

In the next three chapters Kleinman uses this perspective to show how three of the demons usually invoked in arguments about the pressures of population upon resources - war, famine and pestilence - result in explanations either too simple or inconsistent. He uses his early chapters to gradually draw out a set of linked themes about the nature of adaptation, which seem to me to form the basic theses of his book. At the risk of over-simplification, these may be summarized:

1. What are called 'population problems' are basically problems of the unequal distribution of goods, not utter dearth or superfluity.
2. It appears, therefore, that rural peoples face even greater difficulties than are usually recognized. On the one hand, they are subject to the production demands of the landlord, the neo-colonial regime, and to the considerable vagaries of a market economy. On the other hand, they must somehow maintain their families and communities - with all the internal dissension such forms imply - with what is left over.
3. There are a variety of solutions to this dilemma, but it is in the end the economic implications of family organization and local values that comprise rural peoples' capacity to adapt. Fertility, as a key determinant of the size of the labour force and of consumption, and as the

source of children and the many functions they perform, is one of the principal means of this adaptation.

The human context Kleinman has in mind appears to be a kind of socio-demographer's view of life in Hardy's Wessex.

The core of the book, then, consists of the two middle chapters on the logic and consequences of low levels of subsistence. Kleinman notes in particular that there are good reasons, from the peasants' point of view, for not increasing production, and these lie in the continuing fact that the peasant himself is the least likely to benefit from it. Attention is given as well to some of the troubling concomitants of this situation: soil depletion and deforestation; and the physiological effects of low subsistence on human growth, maturation, mentation and reproductive capacity.

The remaining two-fifths of the text take up the theme of fertility as a principal adaptive mechanism in this social and economic context. Fertility research, however, has become a simply immense and complicated field; the chief problem on any issue has become how to see through the dense (and, as Kleinman notes, generally ethnocentric) sociological, demographic, economic and psychological literature. The main attribute of this literature is that it is very inconclusive. Kleinman's procedure is, in effect, to turn the usual approaches around and say, 'so what have we learned that fertility is *not*?'. He proceeds by setting the various models, theories, cases and so forth against each other, and they for the most part duly cancel each other out.

The result is a very reasoned review of the development and present state of the field. The statistical approach in social psychology, for example, has yet to account adequately for fertility changes, even in the rather untypical case of the United States, for which it was designed. The attempt to describe social behaviour in terms of models of capital accumulation has turned out to be even more unrealistic. The basic organizing framework for the study of social fertility, the demographic transition, needs major adjustments if it is to account adequately for national and ethnic variations in European demographic history. As it was designed originally for the European case, its exportation to the Third World, as a means of accounting for population changes there, seems even more tenuous.

The last six chapters deal chiefly with non-industrialized areas. Here Kleinman is concerned principally to illustrate a plurality of adaptive responses. The idea that industrialization and modernization are everywhere prerequisites of fertility decline is discounted, for example, by recent declines in some areas which have been much more rapid than the Western experience, and which are not confined to industrial areas or to elites. Although facts of family structure are plainly important in these cases, no clear and recurring relation between family form and demographic change has yet emerged. People appear to adapt, for example to economic problems, before such problems are expressed in generally recognized collective representations, and before there are regular attitudes of the kind measured in

surveys. Sociological reasoning is as yet not very suitable for conceptualizing these changes.

Kleinman appears to side with some recent studies² which have tried to reverse the usual approach to the timing of population changes; since little success has been met in the attempt to account for the onset of fertility declines by correlating them with the influence of standard variables (education, female labour-force participation, income, etc.), the question is turned around: close examination of the timing, it is hoped, will reveal a configuration of influences. Such influences will of necessity be defined locally, and hence the priority of anthropological considerations in exploring adaptive processes is clear.

Kleinman finds in anthropology something like the beginnings of an approach; for example in Douglas's idea that questions of reproduction take their place in a more general concern about whatever social resources are defined as scarce in a given society.³ There is a considerable body of circumstantial evidence that birth limitation is practised in many societies, not only in response to problems of subsistence. What Kleinman has noticed is that one consequence of considering scarcity as socially defined is that the idea of relative limits is subsumed thereby in relations of equality and inequality. The apparent superfluity of people in any given instance is then an issue of unequal distribution, in which questions of marriage, prestige, inheritance, and reproduction all take part. 'Adaptation' thus suggests itself as a kind of bridge which enables us to combine simple formal representations of relative inequalities, such as sets of rates or matrices, with the less formal but still abstract ways in which anthropologists limit their objects of study in order to portray them systematically.

'Adaptation' may thus prove a useful organizing idea. It has, however, one liability at present, which is implicit in Kleinman's procedure of allowing arguments over population to cancel each other out. The 'victory' of 'adaptation' is not, as it were, that of a conquering idea, which provides a programme for the methods and concepts of future generations. It is, rather, snatched from a muddle of competing notions, a mixture of the long-standing plausibility of an alternative approach (Smith and Godwin are among those cited as precursors) and the apparent malaise of the neo-Malthusian schools. For the 'perspective' which Kleinman advocates to grow into a theory, 'adaptation' will have to prove as fruitful in shifting the metaphorical or isomorphic grounds of analysis as it appears to be in relocating the idea of vital limits within a plurality of value systems.

² J.C. Caldwell, 'A Theory of Fertility: from high plateau to destabilization', *Population and Development Review* 4 (1978), pp. 553-578.

³ M. Douglas, 'Population Control in Primitive Groups', *British Journal of Sociology* 17 (1966), pp. 263-273.

Given the difficulty of this task, however, the clarity gained already in *Human Adaptation and Population Growth* is all the more to be prized.

Current trends in the population area, of which this book gives evidence, have important implications for social anthropology. Anthropologists could find themselves, effortlessly, in the forefront of the attempt to reinterpret the notion of structure as applied in socio-demographic and economic studies of non-Western peoples. This would be due to processes largely independent of anthropology; chiefly the fact that Western models and ways of thinking about society are not completely general, representing as they do a particular historical experience. The direct prod behind this convergence, at least thus far, has been the substantive difficulties experienced by population and development programmes. In the amalgam of approaches which is emerging, some quintessentially Western modes of thought such as demography and basic ideas of political economy will doubtless remain. But they may very well be recast as part of a more fundamental framework of social and cultural variation. Are anthropologists ready and willing to have their perspectives taken so seriously, and to take on the responsibilities this implies?

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