The least satisfactory contributions are those dealing with thymic anatomy. The paper of Smith contains only scanty information, and that of Clark, although interesting, deals only with electron microscopy. The morphogenesis of the thymus is described in an excellent account by Auerback. A number of contributions deal with the function and behaviour of the lymphocytes of the thymus. An account of the population dynamics of lymphoid cells is given by Sainte-Marie and Leblond, apparently mainly as a reproduction of their well-known studies. An elegant study by Gowans describes the migration of lymphocytes into lymphoid tissue and reports the finding that migration of lymphocytes does not occur into the adult thymus. Fichtelius presents evidence derived from DNA labelling of thymic cells that thymocyte DNA may be re-utilized by epidermal cells and by cells of regenerating liver and intestinal epithelium. This provides some confirmation of the study of Craddock *et al.* on the transfer of labelled DNA from thymocytes to the cells of regenerating liver.

A large part of this book consists of papers on the immunological significance of the thymus and the bursa of Fabricius. A complete account by Miller of the consequences of neonatal thymectomy is amplified by the papers of Martinez *et al.* on homograft reactions in thymectomized mice and Delmaso *et al.* on the loss of immunological capacity of lymphocytes from the spleen and lymph nodes in similarly treated animals. The closely related topic of the relationship of the bursa of Fabricius to the development of immunological capacity in the chicken is discussed by Glich, Mueller *et al.*, and Aspinall and Meyer, with the interesting finding that a disassociation of immunological function exists between the bursa and the chicken thymus, the bursa being apparently involved in the development of classical immune responses and the thymus in the homograft reaction. Two papers on the 'wasting syndrome' associated with thymectomy by Parrot and East, and Sherman and Dameshek, are probably now outdated, as no reference is made to the influence of a germ-free environment on this condition. A short account of the role of the thymus in virus-induced leukaemia is given by Furth *et al.* and is of value to the non-specialist reader in condensing a large number of scattered publications.

The remainder of the book is occupied by papers on the relationship of the thymus to disease in man. This consists of two papers, by Good on the clinical syndromes associated with thymic abnormality, and by Fisher on the pathology of the thymus in similar conditions. This highly complex field and its possible relationship to auto-immune disease in man is well described and the small existing knowledge on the subject is covered in these two papers.

This book is excellently produced, with numerous photomicrographs, and can be recommended as the best existing account of this new field of biology and medicine.

A. H. E. MARSHALL

ALL THERE IN THEORY

Political and Sociological Theory and its Applications

By George E. G. Catlin. Pp. viii+118. (Ann Arbor: University of Michigan Press; London: The Cresset Press, Ltd., 1964.) 3.95 dollars; 25s. net.

THE reader whose appetite is whetted by the title of *Political and Sociological Theory and its Applications* may well find the five chapters, sandwiched together rather inconsequentially, to be somewhat less meaty and satisfying than he anticipates.

Prof. Catlin urges his colleagues to concern themselves with the major issues confronting mankind, and especially with establishing the causes of war and the means by which a stable peace may be ensured. He suggests that political and sociological theory can now be said to demonstrate that 'the days of the national powers are over and the day

of the super power alone has arrived'. Peace, he asserts, is dependent on a world authority backed by force which it is not afraid to use. Let there be no illusions. The guarantee of the enduring peace 'must be such a concentration of actual power that opponents will have their necks broken'. This means, among other things, that 'such atavistic political theses as those of Gaullism' must be exploded with 'the ruthlessness of a Richelieu'—there is no room for 'romantic optimism about easy co-operation', nor for 'intransigent assertion of sovereignty and *la gloire*'. It is easier to accept this as one valid point of view than to admit it on the terms in which Prof. Catlin offers it, however, for he states that this argument is 'not put forward merely as private prejudice or inspiration but . . . as a professional conclusion'. The work of the theorists, he says, and not least his own, all points in the same direction. But not much evidence is adduced to support this claim. Throughout the book, indeed, Prof. Catlin is inclined to explain that he has not sufficient space, and to invite the reader to take him on trust. If the reader remains sceptical, there is the implication that he may refer to other studies by the author in which, apparently, all is made plain.

This general criticism apart, it should be said that there are some interesting ideas to commend the book. In Chapter 2, Prof. Catlin discusses the theme of 'Political Science and Democracy'. He suggests a need for greater participation by citizens in the conduct of their affairs. Political leaders in Britain should not be allowed to get away with the *carte blanche* which they at present assume from a general election decided on only a few issues, and perhaps in the absence of any concrete issues at all. The reader may be less sanguine than the author about the merits of opinion polls as expressions of the will of the public, and as guidelines for governmental action. But there will be much support for his warning about the tendencies of political parties to manipulate the people whom they avowedly exist to serve—'even the use of the master card of the date . . . when a general election may be called reminds us more of the technique of poker players than of the business of statesmanship'. In asking searching questions about the nature of democracy, Prof. Catlin gives a forceful reminder that in political affairs just as much as in others the consumer should be enabled not only to express his wants articulately, but also to formulate his wants on the basis of sound information and with an awareness of the best means by which they may be satisfied.

In Chapter 3, a discussion of issues in political philosophy is hinged around the First Amendment to the Constitution of the United States (that 'Congress shall make no law respecting an establishment of religion, or prohibiting the exercise thereof; or abridging the freedom of speech or of the Press; or the right of the people peaceably to assemble and to petition the Government for a redress of grievances'). Chapter 4 is concerned with the role of the social sciences in education. After putting a few 'sacred cows' out to grass—the contention that 'more means worse' so far as higher education is concerned is dismissed as fallacious and irrelevant—Prof. Catlin argues that university faculties of social sciences could effectively counter the intellectually false dichotomy between the culture of the humanities and that of the natural and physical sciences.

In the final chapter, Prof. Catlin calls on his colleagues to be true above all unto themselves—and to disband their political science associations if they do not in fact view their subject as a science. He then summarizes his approach to the study of society, and tries to establish the balance between the political producer and the political consumer. He asks 'by what techniques can men best be induced to pay the costs of their own mandates to the producers, e.g. to produce a stable peace?' Prof. Catlin thus returns to themes which he considered in his first chapter, though now in a more appropriately questioning mood.

M. P. CARTER