BOOK REVIEWS

Human Children as Animals

An Ethological Study of Children's Behaviour. By W. C. McGrew. Pp. xiv+257. (Academic: New York and London, March 1972.) $10.50.

THIS book is an expression of an emerging trend to look at human behaviour in much the same way as ethologists of the early 'thirties began to look at animal behaviour. In particular, it is a step in the process of constructing an "ethogram" of our own species; the step characterized by pinpointing, in the seemingly bewildering variety of movements that constitute "behaviour", a core of relatively simple "elements" which can be seen with fair regularity and constancy in all individuals of a species or population. To discern such more or less constant elements is particularly difficult in one's own species where familiarity suppresses curiosity, and where variety is more conspicuous than constancy. It is even more difficult to communicate, in an unambiguous way, what the elements look like.

When one approaches human behaviour from this angle, one soon finds oneself faced with two additional tasks: how to allocate one's method its proper place in the wide spectrum of already existing disciplines of human behaviour; and what to do with one's observations; how to make scientific sense out of one's data; how to manipulate them so that they can help solve particular problems.

Dr McGrew's book falls roughly into three parts which reflect these considerations. The first chapter, called "Historical Review", attempts to define the relations between ethology and some other human sciences: developmental psychology, social and clinical psychology, and anthropology and sociology; it also has a section on aggression and one on nonhuman primate studies. The second part contains reports on some specific, original work done by the author. The third part, which is a substantial inventory or catalogue of the "elements" recorded by the author, is placed in Chapter 4, following a statement of his research problem and his method.

As could hardly be expected otherwise (because each of the disciplines mentioned is so different from the others), the historical review does little more than highlight the confused, searching state of the various fields, and point out the need for straightforward descriptions of behaviour.

The most valuable part of the book seems to me Chapter 4, which contains descriptions and some illustrations of the well over 100 elements that students of children's behaviour have begun to single out and characterize. Although, as the author points out, there is considerable correspondence with comparable catalogues given, for instance, by Blurton Jones and Grant, the classification is still being developed. It is to be hoped that this kind of work will in the not too distant future lead to an agreed-on detailed inventory, in which the "elements" will be carefully described and above all very clearly illustrated, for no description can convey what one carefully selected picture can. For this, close collaboration with, for example, Eibl-Eibesfeldt will be essential.

In the more factual part of the book Dr McGrew reports on some specific studies which are based in essence on counting out the occurrence of a number of elements in nursery school children observed in different circumstances. Presumably these five factual reports are intended as examples of the applicability of this type of data-recording. Apart from the fact that this section contains much that has already been published elsewhere in much the same form, I find it rather disappointing. The use made of the method is very limited. Since the author has shrugged off rather contemptuously and indiscriminately practically everything that animal ethologists have tried to contribute to our understanding of human behaviour—dismissing Lorenz's writings as no more than speculative extrapolation, and Morris's books as "pop ethology"—one would have expected him to present something more substantial and more imaginative than this section contains. For example, neither the grouping of elements into more comprehensive systems of either causal or functional affinity, nor the comparisons with nonhuman primates, nor the placing of the elements and their changes with time in the context of social integration really comes off the ground; what we get is little more than some rather restricted raw material. This would not matter in a series of single, factual research reports which ultimately lead up to some kind of synthesis, but to suggest, as both the book's title and its thoretical chapters do, that this type of work represents the essence of "the" ethological method is surely misleading — ethology, even where it refrains from premature explanation, interpretation and speculation, is more exciting than these rather pedestrian results of conscientious counting. In a book carrying this title one could have expected a more problem-oriented historical introduction, a clearer statement of the author's ultimate aims, and more penetrating discussions of the sense of what is described. Perhaps this is asking too much from such an early attempt; but one has a right to find something more nourishing in a book of xiv+257 pages, published by Academic Press. While the book does contain some interesting facts and thoughts, it disappoints by its lack of coherence, of discipline, of clarity, and also of humility. N. TINBERGEN

Practical Astrodynamics

Fundamentals of Astro-dynamics. By Roger R. Bate, Donald D. Mueller and Jerry E. White. Pp. xii+455. (Dover Publications: New York; Constable: London, January 1972.) £2.25.

THE end-product of evolution in a rather unusual environment, such as the marine iguana of the Galapagos, often proves to be interesting. This book records the course in astrodynamics that has evolved over the years at the United States Air Force Academy, and it is interesting to see how an academic subject has been modified by practical imperatives. The departures from the norm, which turn out to be quite exten-