

experience. (Perhaps India is right in worrying about the impact in Britain of the Louis Malle series.) Television also has another fairly unrecognized power—that of reaching beyond leaders to the rank-and-file. In recent years both trade unionists and Roman Catholics have come to differ sharply with their leaders' views; Dr Blumler thinks television may be in part responsible.

Any serious student of sociology or mass communication will find Jeremy Tunstall's *Media Sociology* necessary for reading and reference. Others will find it heavy going. Featureless, voluminous, ill-assorted, it embraces everything from the sociology of bookshops to Soviet television news, yet it could well be a gold-mine for those struggling to keep up in a maddeningly amorphous field.

One humanist may succeed where a dozen sociologists fail. Mr T. C. Worsley, the television critic of the *Financial Times*, has produced a collection of his reviews over the past few years which tell more about the effect, intended and unintended, of British television than does a mountain of sociological prose. I praise him somewhat guiltily. My children accused me of hating Alf Garnett until I read in the *Financial Times* that he was Falstaffian. Yet on re-reading the original Worsley appraisal of "Till Death Us Do Part", how right I was to be persuaded. Alf Garnett, judged Mr Worsley.

"is everything most hateful about our national character—xenophobic, illiberal, racist, anti-semitic, toadying, authoritarian....

"How is it then, you may ask, if he is so despicable, that Mr Speight manages to make of him something so appealing as well as so funny? But isn't just this the peculiar virtue of the comic genius that it at the same time exposes vices to our laughter and allows us to love the creatures who embody those vices? Maddening though it must be for Mrs Whitehouse, the more cowardly, bragging and dishonourable Falstaff is, the more we love him. It is the same with Alf Garnett".

Mr Worsley casts the same intelligent, discerning, unsnobbish eye on a number of memorable television programmes; he sees them in terms of challenges to the medium as well as to the authors and performers. "Z-Cars" brought a flash of creative observation to a familiar set-up; Shakespeare is the most difficult of authors to get across on television, for his language is, initially, a device to bridge the gap between stage and audience and it is just this gap which television bridges anyhow. Jonathan Miller's "Monitor" never recovered from the impact of Miss Susan Sontag, the walking parody of the contemporary intellectual (American style).

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## SOCIAL GROUPINGS

### Social Behaviour in Birds and Mammals

Essays on the Social Ethology of Animals and Man. Edited by John H. Crook. Pp. xl+492. (Academic: London and New York, June 1970.) 140s.

MOST students of behaviour aim to relate their subject matter to events which precede it in time, and which may lie at a finer (physiological) level of analysis—in brief, to its causes. Recently the importance of relating behaviour to its consequences, particularly its adaptive consequences, has been emphasized by Tinbergen and others. This book, by a group of postgraduate workers from Bristol, represents yet another direction of gaze—towards more complex levels of organization. It is concerned in particular with the social bases and social consequences of individual behaviour and the behaviour of social groups in relation to their environment. In his editorial introduction Dr Crook argues that ethologists' concern over inter-individual relations and lower verte-

brates can lead to an emphasis on social structure and behaviour as fixed characters, changeable only through natural selection, which is at variance with the role of tradition found in recent studies of sub-human primates. This of course has considerable bearing on the naive extrapolations from animal to human behaviour by "some recent authors". Furthermore, Crook emphasizes the need to formulate the precise relationship between studies of individuals and studies of social organization, and to delineate the ways in which they can enlighten each other.

The first four essays are concerned with the relations between ecology and social organization in birds and primates. The two bird studies differ in their approach. Goss-Custard assesses the determinants of the dispersion of flocks of wading birds, using quantitative data to relate dispersion to behaviour and feeding efficiency. Simmons describes the behaviour of two fish eating birds, the brown booby and (in less detail) the great crested grebe, showing how their breeding biology and social organization are related to ecology. The latter follows the traditions set by Tinbergen and his colleagues for gulls, and Crook's own earlier work, based on extensive data on many weaver-bird species. It is unfortunate that such data are not available for sub-human primates. Moreover, as Aldrich-Blake's admirable chapter shows, much of the published information on primates is based on quite inadequate field methods. For this reason Crook's stimulating review of the socioecology of primates is valuable more as providing a programme for future research in this field than for the generalizations about relations between behaviour and ecology which it contains. Crook also discusses the role of the social environment in behavioural ontogeny, and the factors influencing stability and change in social structure, providing thereby a valuable review of many recent field studies.

The second section is concerned with certain aspects of social behaviour. Archer reviews data on the effects of population density on behaviour in rodents—sexual, maternal and exploratory as well as the more usually studied agonistic behaviour and physiology. Crook and Butterfield discuss the endocrine basis of aggressive behaviour in a weaver-bird. They then show how sex differences in aggressiveness may affect the sex ratio, and how this is related to the social structure and to the relatively severe "over-wintering" environment. Butterfield also presents a study of the pair-bond in zebra finches, relating its permanence to the species ecology and examining its basis in a series of laboratory studies. Finally, Vine reviews facial-visual communication in both human and sub-human species, demonstrating the complexity which underlies even something so apparently simple as "gazing".

The third section is concerned with problems of development. Kear provides an important review of parent-young interaction in waterfowl, relating its evolutionary radiation to other characters of behaviour, and thereby providing a link with the themes in section one. Cronhelm reports some experiments on stimuli eliciting pecking in young chicks, finding complex interaction effects between stimulus characteristics as more variables are introduced. She also demonstrates the potential importance of observational learning in affecting pecking rate in an operant situation. Finally, Dimond describes experiments showing that exposing hens' eggs to light before hatching affects diverse aspects of the chicks' post-hatching behaviour, queries current theories of imprinting and offers some speculations on the organization of perceptual-motor functions and the development of fear.

The essays thus range from reports of previously unpublished research to wide-ranging reviews. Though they are heterogeneous, each one is of merit, and Crook's introduction goes a considerable way towards welding them into a coherent whole.

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