The concept of attention structure as an organizing principle in sub-human primate society has its sources in the sudden abundance of field data on primates which became available in the decade or so up to the mid-sixties and in the unease among many primatologists about the adequacy of existing formulations to accommodate these new facts. In particular the traditional conception of rank-order or dominance, both defined and measured as priority of access to scarce resources, seemed to be approaching the end of its explanatory usefulness. Chance's formulation of the concept of attention structure (1967) may be seen as an attempt to shift the focus of primate studies along several axes, not all of which may have been consciously recognized at the time, although some certainly were.

One impulse for change found expression in the attempt to break free from a constraining and often premature concern with functional explanation, in favour of an elaboration of the notion of structure in primate social organization. (Anthropologists are invited to recognize here a parallel, displaced in time, between the two disciplinary areas.) A second did so in a new attempt to eliminate from the description of non-human primate social life some of the more obvious human preconceptions built into the older formulations of dominance and status. A third sought to lay foundations for a systemic mode of description and explanation in primate ethology to parallel (we may read it) the Durkheimian position in human social science. A fourth addressed once more the problem of establishing a groundwork of continuity for arguments from animal to man, this being seen as part of that broader objective which Chance and many others conceive of as 'founding the study of human behaviour in biology'.

In the studies of attention structure which have succeeded Chance's original paper, progress along these axes has been uneven. While the attention structure model has proved valuable in a number of recent primate studies (e.g. Pitcairn 1976; Reynolds and Lascombe 1976; Waterhouse and Waterhouse 1976), attempts to apply it to man have generated, on the whole, banality and confusion. However the rather unsatisfactory outcome, to date, of attempts to bridge the animal-man gulf via the attention structure model is traceable not to the intrinsic inappropriateness of that model, but rather to our failure to carry out what should have been, logically and chronologically, the very first interdisciplinary task: the establishment of a common conceptual framework wherein anthropologists and ethologists alike could give recognition from the start to the linguistically and socially generated ambiguities written into the core notion of attention itself.

The collection The Social Structure of Attention (Chance and Larsen (Eds.) 1976) brings together a fair selection of recent work on the attention structure theme; and the volume as a whole offers an interesting case-history of what has gone well and what badly with interdisciplinary work in this field. The book falls into two parts, devoted to nonhuman primates and to man, with implications of a continuity of relevance across the two which presumably holds either at the level of 'observation' and data or at that of evolutionary process. The primatological papers are chiefly concerned with documentation and elaboration of the attention structure hypothesis and as such are relatively non-problematical (save at one or two points as I shall show). The human applications range in scale and focus from attempts to demonstrate the existence of an attention structure bearing a stable relationship to 'rank' in preschool children, to an essay on the relevance of attention theory to strategies of information control in the events surrounding the Vietnam protest movement. Chance himself has also sought recently (1975) to link his ideas on the 'agonistic' and 'hedonic' organization of attention to Bernstein's analysis of restricted
end elaborated verbal codes.

I want to pick out two cases where application of the attention structure modal to men seems to me to have failed; then, going beyond the shortcomings of individual projects, to refer the failure to a want of explicitness on everyone’s part about the ground-rules of the exercise itself. These ground-rules, insofar as they have been articulated at all, are contained in the first paragraph of Chance and Larsen’s Introduction to The Social Structure of Attention. Here the entire research field is pre-structured by criteria which are unself-critically empiricist:

A recent discovery has revealed that the organization of an individual’s attention is a feature of the social structure in which that individual lives. Ways of studying this have now been worked out and these are reported here both for sub-human primates and for groups of children and for adults. The concept therefore enables us not only to think from animal society to human society but also to observe the same features of both, and so to begin to distinguish the primate nature of the foundations upon which the unique qualities of human beings exist (1976:1).

It is surely a partial consequence of the unexamined aspects of this empiricist programme that some human ethologists seek via the concept of attention structure to establish a universal mode of social organisation among children incorporating second- or higher- order concepts without any proper examination of their appropriateness. In The Social Structure of Attention the paper by Omark and Edelman is a good example of this; its first paragraph states: ‘The basic social structure which will be examined is the dominance hierarchy ...’ From the first pegging-out of ground, then, the hierarchy is already firmly there, present and, of course, correct. A ‘selection’ argument is wheeled out to justify the transition from primate to infantile human structures, and it is then claimed that: ‘The phylogenetic similarities of dominance hierarchies in primates and children have important implications for the development of children’s logical, or cognitive structures’ (ibid: 122). Next: ‘With their 7-11 year olds’ coherent view of the dominance relations in their group, they do not have to fight with each member in order to know their own position in the hierarchy ...’ (ibid: 123). There follows an account of procedure in which paired children were asked questions such as ‘who’s toughest?’ We are to have no anxieties about language, culture, meaning or the performative content of putting the question itself, for (we are reassured) ‘Prior pilot work indicated that children meant by “toughest” the equivalent of what primatologists meant by “most dominant”: e.g. being strong, being good at fighting, and “being able to get others to do what they wanted them to do”’ (ibid: 124).

And lest any doubts linger: ‘Basic to our methodology is the use of simple words, part of the vocabulary of all English-speaking children, with clear equivalents in other languages (e.g. Swiss-German and Amharic)’ (ibid: 127). By this point (and we are still in the introductory discussion) expectations are firmly structured well in advance of any data, so that the results themselves are almost superfluous. The scheme allows no room for the discovery – even the ‘observation’ – that children can perceive others as influential but non- ‘tough’; or indeed that they can have entirely different ways of perceiving their social world. It is ironic that Omark and Edelman should claim credit, by including children’s descriptions of their own social relations, for liberation from what they see as a constraining behaviourism in human ethology. The would-be liberating move letting the children ‘speak for themselves’ is at once cancelled by the circumscription of what the authors are willing to let them say.
My second example of failure concerns the topic of 'advertence': an extension of the attention structure concept which formed the basis of an inter-disciplinary project in which I was involved with Chance between 1968 and 1970. In my own thinking on the relations between 'attention' and 'advertence' I had conceived of the latter essentially as a human elaboration of the former: a conceptual recognition of the transformation of 'attention' as found in 'nature' and its re-emergence in a cultural world of performance and meaning where it can be owed, withheld, paid, acknowledged and honoured (Callan, Chance and Pitcairn 1973; Callan 1976). Thus, I disagree with Chance when, in his contribution to Biosocial Anthropology, he suggests that:

Advertence was the name we gave to the process by which individuals advertise their presence and their willingness to become part of the social activity .... advertence ... is used as a means of establishing group acceptance of an individual by manipulating the attention of the group ... (Chance 1975: 109, 110).

Here, perhaps, the failure is one of communication; but once again it has roots in the unexamined features of an empiricist paradigm. For Chance, as he expresses himself in this passage, advertence can be nothing other than a new kind of display, belonging with other sorts of 'display behaviour', in a class of phenomena which one can observe, label and afterwards claim to have 'discovered'. Once this assimilation takes place, the term loses its value as a way of rendering explicit the ambiguity between domains of reference already inherent in such concepts as 'attention', 'response' and 'behaviour' (see Ardener 1973).

My general position is that behavioural scientists have something to gain by taking more serious account than has usually been the case of anthropological insights and approaches in their efforts to develop a biologically grounded, integrated human science. The failure to examine the interpretation of objectivity written into the paradigm which the bridge-builders have taken over from traditional behavioural science has seriously hindered attempts to integrate animal and human application of the attention structure concept - this despite the virtues of the original insight. It is significant that the more successful papers in the 'human' department of The Social Structure of Attention are ones which, escaping tacitly from the straitjacket of vulgar empiricism, assign an undistorted and unreduced role - and above all one of equal theoretical weight - to socioc anthropological formulations which themselves have a legitimate provenance within social theory. Examples include Larsen's use of the attention structure concept in a commentary on Weber and charisma and Chisholm's stimulating use of Barth's generative model to speculate about the connection between attention structure, reciprocity, value and the evolution of rules in human life. The latter may in turn be compared with a 'straight' ethologist's conception of what it is to have rules:

The mechanism which all rank ordered animals have in common is that of social control. This is the establishment of rule structures within a group, to which an individual matches its behaviour in a particular situation and produces an appropriate response (Pitcairn 1976: 75).

In Pitcairn's account it seems that an entire dimension of anthropological awareness is missing from the conceptual equipment with which a behavioural scientist has been taught to work; a moment's reflection on his use of the terms 'situation' and 'appropriate' as well as 'rule' and 'social control' reveals this.
The problem has not been that behavioural scientists have been unreceptive to contributions from anthropology; rather they have used these contributions at the wrong stages of the enquiry, when the ground-rules and criteria of relevance are already firmly written in and no longer easily brought to awareness. They have taken for granted the procedural and logical primacy of the behavioural science paradigm for an integrated account of biological and social reality. This, in the case of attention, has blocked awareness of what should have been clear from the beginning: the core concept of 'attention' is itself ambiguously located in at least three domains - as an operational device equivalent to measures of gaze direction and bodily orientation; as a necessary component of an organism's equipment for selective perception and decision; and finally (as in Chisholm's interpretation of reciprocal value and my approach to advertisement) as a social resource which can become a cultural one. The Social Structure of Attention in fact contains explorations of 'attention' in all these spheres, but the linkages remain implicit and unworked because of the initial assumption that the concept itself is elemental and non-problematic. This assumption in turn is intimately bound up with the difficulty of achieving a critical focus on the objectivist, empiricist paradigm which underlies the whole.

It is notoriously hard to push the bus one is riding in; and we may have every sympathy for the ethologists who, armed with a good idea such as that of attention structure, strive to grapple with a challenging human reality. Yet social anthropologists are, by their very conditions of work, forced into an awareness of the problematical aspects of 'mere' observation (see e.g. Ardener 1978). Surely some of the problems exhibited in the debate on attention structure could have been averted, or at least more sensitively explored, had there taken place at the start a more tough-minded conversation between ethologists and social anthropologists about the paradigms under which observation is conducted - including the one which sets up the 'observation' of 'behaviour' as itself a straightforward possibility.

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NOTES

1. Perhaps I should confess also to some personal distaste for this sort of work. It seems to me to violate one of the more worthwhile of the ground-rules which social anthropology and ethology have traditionally shared: namely a certain respect for the creature as it is, stickleback, ape or child.

2. The term 'paradigm' is used here in a Kuhnian way to include both the procedural ground-rules of a given mode of inquiry and its spoken and unspoken criteria of relevance.
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