of primate society: centripetal and acentric. These societies are at least partially shaped by and are most easily recognized during predator attack.

A typical centripetal society as seen by Chance and Jolly is organized around the central "male cohort" which directs group activities and movements. Males of the cohort are rank-ordered and very aggressive. The predominant attention orientation of all group members is toward the male cohort, and especially toward the most dominant male. The more aggressive the dominant males, the tighter is the attention of the group bound to them. Intraspecific escape, the pattern of which is hypothesized to be a product of the reaction to predator attacks, is reflected back into the social group, with a threatened animal fleeing toward a dominant male (sometimes toward the threatening animal itself). During predator attack, the females and immatures of the group orient on the massed adult males, and the group maintains its integrity rather than dissolving into independently fleeing animals. Thus, even during times of maximum excitement, the attention orientation of the individual remains constant and the society stable.

Subhuman primates classed as centripetal include savannah and gelada baboons, Japanese, rhesus, and bonnet macaques, chimpanzees, and gorillas. The authors also suggest a centripetal organization for many segments of human societies, both modern and prehistoric.

In contrast, an acentric society is one in which the attention orientation undergoes a switch during periods of high excitement and the society fragments into dispersed components. For example, patas monkeys live in small groups containing one adult male. The adult male remains peripheral to the main body of the group and functions essentially as the group watchdog. Adult females typically initiate and determine the direction of group movements. During predator attack the attention orientation of the individual monkey switches from the adult male, who bounds away from the group in a diversionary display, to the physical environment. This is due to the fact that the animal will be dependent upon the environment for escape if the male's diversion fails.

The authors recognize three common subgroupings within the two types of society: female assemblies, juvenile clusters, and male cohorts. Taken together, these constitute the "stem structure" of subhuman primate society, "encompassing the social relations of the adults of both sexes, with the juvenile clusters forming a transitional stage in the growth from infancy to adulthood" (p. 160).

The use of theory and field data in support of the authors' arguments is generally logical and persuasive. Reflected escape within centripetal societies is accounted for in terms of arousal variation. A threatening animal initially produces a high level of arousal and withdrawal. After the arousal level has dropped, the same stimulus animal (no longer threatening) elicits approach. Attention orientation among the infrequently aggressive chimpanzees is explained as being organized in the *hedonic* mode, that is, based on attention-demanding displays.

At times, however, Chance and Jolly do seem to stretch a point. For example, it is obvious that savannah baboons (*Papio cynocephalus*) fit their definition of a centripetal society to perfection. Adult males of this species may indeed be the objects of predominant attention and the focus of the society. It is a bit more difficult, however, to classify the loosely organized chimpanzee as centripetal. Chimps occur in various types of social groups including heterosexual bands minus mothers with dependent young, bands of adult males, bands of mothers and young, and bands containing every possible age-sex combination. The authors' contention that the adult male bands are the core of the chimp population is unconvincing.

The book's main theme, that most catarrhine species are male-focal in their social structure, is not uncommon among students of the primates and probably stems from the fact that males of these species are typically much larger and more conspicuous than the females. Any action by an adult male immediately catches the eye of the observer. The question at hand, however, is whether or not the other group members as well as the observer orient to the males' behavior. Recent long-term studies of free-ranging rhesus macaques (one of Chance and Jolly's centripetal species) on Cayo Santiago, Puerto Rico, have revealed that, rather than being a male-focal society, rhesus monkeys are basically female-focal, being organized around the matriline. These studies (primarily by D. S. Sade) show that adult male rhesus monkeys play a minor role in dictating group activities. Chance and Jolly make no mention of these data that contradict their theories.

Only further study will determine whether male-focal societies or female-focal societies are more prevalent among Old World primates. In all probability, the situation will turn out to be much more complex than having a single form of social organization characteristic of all Catarrhini. It is disappointing, however, that the authors did not make this controversy known to the reader.

In a few places the book presents data which are simply not true. Contrary to statements by the authors, rhesus macaque adults occasionally engage in play behavior and rhesus infants begin grooming other monkeys when less than one year old. More important, it is incorrect that the rank order among females is unstable in all macaque species. The basis of rhesus monkey social organization is the remarkably stable rank order among the old females who head the matrilines.

Barring the criticisms given above, the book must be rated as a scholarly attempt at the analysis of primate social organization. Although I would argue with many of the authors' conclusions, their models of social structure are lucidly described and logically developed. Students of the primates will find this book extremely thought-provoking, and I recommend it to them with the reminder that, as the authors state in their introduction, at the present stage in the study of primates few if any generalizations can be taken as established.

JAMES LOY

1214 12th Loop,
Sandia Base, New Mexico

The Structuralist Position

Claude Lévi-Strauss. EDMUND LEACH. Viking, New York, 1970. xiv, 142 pp., illus. Cloth, $4.95; paper, $1.65. Modern Masters series.

Lévi-Strauss, perhaps more than any other contemporary thinker, resists summary treatment within the format of the short volume for the general reader. Not only has he made important contributions on a number of disparate topics ranging from kinship

systems and the structure of myth to the naming of racehorses, but he has chosen to present his ideas in an elegantly oracular style which sometimes obscures as much as it reveals. Considering the formidable nature of his task, Leach has done a brilliant job of presenting his subject.

The organization and style of the book are admirably suited to its purpose. Leach ignores the chronological sequence of Lévi-Strauss's works in his exposition, which he divides into a series of discussions of major topics and ideas in Lévi-Strauss's work. These are arranged so as to provide a coherent introduction to the basic tenets of the structuralist position. The emphasis of the earlier chapters is upon common themes that underlie Lévi-Strauss's work as a whole, and the later chapters concentrate upon specific topics such as kinship or myth. This arrangement is well suited to the needs of a beginner, but specialists will also find new and useful insights in the early chapters: for example, Leach's demonstration that the Jacobsonian concept of the vocalic triangle as the fundamental element of the sound structure of language is the model for many of Lévi-Strauss's analyses in the areas of kinship and primitive classification. Much of the exposition of Lévi-Straussian theories is achieved by means of ingenious examples, such as the tongue-in-cheek analysis of traffic lights as a minimal binary system (red/green) mediated by a third intermediate element (yellow) which takes up much of the introductory chapter and serves as Leach's paradigm of Lévi-Straussian analysis. Some of these examples, such as Leach's analysis of Greek legendary family cycles in his chapter on Lévi-Strauss's analysis of myth, are in fact creative extensions of Lévi-Strauss's ideas and are significant contributions in their own right.

Leach's style is informal, conversational, at times blunt, and always lively. The book is easy to read and makes Lévi-Strauss's basic ideas easily accessible to the beginner. But the style also serves an important critical aim: that of demystifying, and at times of debunking. Leach pulls no critical punches, and makes clear that he is often in sharp disagreement with Lévi-Strauss. Taken altogether, in fact, this book, in its deceptively casual way, comprises the most comprehensive and penetrating critique of Lévi-Strauss's work yet published. Leach's criticisms, moreover, are far harder to brush off than those of many former critics, who were often vulnerable to the charge of having failed to understand what Lévi-Strauss really meant, or were handicapped by a lack of knowledge of many of the technical anthropological issues involved. Leach finds fault with Lévi-Strauss on a number of fundamental theoretical, methodological, and ethnographic points. He points out that the basic assumptions and theoretical conclusions of Lévi-Strauss's work on kinship do not stand scrutiny and are in many instances controverted by ethnographic fact. He objects at many points that Lévi-Strauss's analyses are unfalsifiable and therefore unverifiable, that often they depend upon "verbal sleight-of-hand" and are based upon tendentiously selected or otherwise inadequate data. Perhaps most important, he asserts that Lévi-Strauss's conception of structure itself is inadequate to account for the complexity of the structures of human cultural and social systems, and that the linguistic model upon which it is based is in some respects out of date.

Leach has for more than ten years been the most versatile and creative, if not the most doctrinaire and consistent, advocate of Lévi-Strauss's ideas in the English-speaking anthropological world. Hence this book may have a special significance in marking a turning point in his own intellectual career, and following him that of a considerable segment of the English-speaking anthropological community. Leach has never before been so sharply critical of the master, and his complaints about Lévi-Strauss's increasing dogmatism and tendency to resort to casuistry in the face of contrary evidence seem to indicate a certain disillusionment. The nub of the matter is expressed, perhaps, by Leach's comment on Lévi-Strauss's assertion that social anthropology is "a branch of semiology" and therefore is essentially concerned with the internal logical structure of the meaning of sets of symbols: "My disagreement here is basic . . . for me the real subject matter of social anthropology always remains the actual social behavior of human beings" (p. 105).

It is a measure of the skill and care that have gone into the writing of this book that Leach has managed to convey, at the same time as his own reservations, enough of the substance of Lévi-Strauss's ideas for the reader to be able to come to an independent judgment and moreover to get a feeling for the fascination and excitement of Lévi-Strauss's thought. It is thus quite possible that the net effect of Leach's relatively unsympathetic presentation of Lévi-Strauss's ideas will be their becoming more widely applied than ever before. They will certainly be more widely understood.

TERENCE S. TURNER
Department of Anthropology,
University of Chicago,
Chicago, Illinois

Theory and Therapy

Principles of Behavior Modification. ALBERT BANDURA. Holt, Rinehart and Winston, New York, 1969. x, 678 pp., illus. $9.95.

Learning Foundations of Behavior Therapy. FREDERICK H. KANFER and JEANNE S. PHILLIPS. Wiley, New York, 1970. xiv, 642 pp., illus. $10.95.

Behavior Therapy. Appraisal and Status. CYRIL M. FRANKS, Ed. McGraw-Hill, New York, 1970. xxviii, 730 pp., illus. $15.50.

The history of psychology has been marked by alternating preoccupations, on the one hand with the determining effects of immediate influences impinging on the organism, on the other with effects of what the organism brings to situations. The first of these two orientations is associated with the development of research and theory on learning and with the various behavioristic movements; the second has been associated with the personologists and psychoanalysts. Searching for more rigorous formulations and for abstractions and simplifications suitable for controlled laboratory experimentation, behavioristically oriented psychologists have discarded those aspects of human behavior and experience that were not visible to an independent observer, for example imaginative processes (as distinguished from products), thinking, and fantasying. The other genre of psychologist has been unwilling to purchase rigor by giving up curiosity about