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0521400163 - The Egalitarians - Human and Chimpanzee: An Anthropological View of Social Organization

Margaret Power

Excerpt

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## PART

## 1

*Methods and prefatory explanations***Introduction**

Despite more than 30 years of study of free-living chimpanzees in their African habitat, there is no firm agreement as to the social organization of this species. Both 'naturalistic' (unobtrusive) and 'provisioning' (artificially feeding) methods of field study have been used, with sharply differing results. Independent field researchers, using various naturalistic methods report – quite separately but with striking unanimity – peaceful, open groups of nonaggressive chimpanzees without signs of any dominance hierarchy, enforced territoriality or single leaders.

At the long-established, permanent centers for the study of free chimpanzees in Gombe and Mahale National Parks, Tanzania, artificial feeding methods have been used. Researchers at both centers – also quite separately – report many strongly similar aspects of behavior and social organization of the provisioned apes that are opposite to reports from naturalistic studies. The artificially fed Gombe and Mahale apes are extremely aggressive, dominance seeking, directly competitive and fiercely territorial.

Habituating the apes to the presence of humans through provisioning facilitates excellent, lengthy observation opportunities, an intimate knowledge of the chimpanzees as interacting individuals, and a large pool of data. Naturalistic studies do not have these advantages. Consequently, not only are our current understandings of chimpanzee social behavior and organization based very largely on the Gombe and Mahale studies but also there is a tendency to assume that the noncontinuous naturalistic studies yield few or no data on the social

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behavior and organization of chimpanzees. Washburn (1980:258) expresses the view of many when he asserts that 'the beginning of reliable studies' on the natural behavior of chimpanzees may be marked by 'Jane Goodall's (1968) long-continued investigations' (my emphasis). The sharply different 'naturalistic' reports are assumed to stem 'from the conditions of the early field work and the human desires (for peace and harmony) of the 1960s.' Washburn also dismisses Goodall's first 8 years of field study, pointing out that the results of post-1968 Gombe studies are 'facts of an entirely different order' from earlier perceptions of 'the friendly chimpanzee.' I differ in that I find all of Dr Goodall's publications highly valuable because her pre- and post-1968 studies are, as Washburn suggests, facts of very different (social) orders. In this study, I rely heavily on both her naturalistic (pre-1968 (or, as I shall argue, pre-1965)) studies and her post-1965 provisioning studies.

The current consensus based on post-1965 Gombe (and post-1968 Mahale) studies, is that chimpanzee society normally and generally is organized around a core group of closely related males who aggressively restrict the access of others to their territory, its resources and the breeding females. The complete acceptance of aggression as a normal part of chimpanzee social life is testified to in Goodall's (1986b) carefully documented, important monograph, *The Chimpanzees of Gombe*. Goodall (1986b:3, 55) explains that, as much as is possible, her book is based on data collected 'since 1975,' because the data from earlier years presents a 'very different picture of the Gombe chimpanzees' as being 'far more peaceable than humans.' These early data give a wrong impression, Goodall believes, in that 'aggression is part of the complex network of social relationships within the chimpanzee community and, along with the other patterns of agonistic and friendly behavior, it plays its role in structuring chimpanzee society' (Goodall 1986b:353). She suggests that 'it is the interplay between those two opposing forces, aggressive hostility and punishment on the one side and close and enduring friendly bonds on the other, which has led to the unique social organization that we label a community' (Goodall 1986b:356). A main focus of my study is to show that the juxtaposition of hostile and friendly relations as 'equally powerful forces' (Goodall 1986b:356) now so evident among the long studied Gombe chimpanzees is not characteristic of the organization of chimpanzee groups generally, but a distortion caused by abnormal (human-imposed) stress.

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The Mahale and Gombe observers recognize that the years of artificial feeding have caused some changes in the behavior and social organization of the fed groups; but the consensus of scholarly opinion seems to be that any changes resulting from provisioning are minor, and quantitative not qualitative. It is assumed that the behavior of the fed apes is somewhat more aggressive than would be typical in a natural feeding situation; and that, while provisioning does induce some frustration because all apes are not able to obtain some of the small ration of bait foods, the recent research results accurately reflect the intrinsic qualities and behavior of chimpanzees in general. However, Maier's (1961) hypothesis is that frustration causes a distinct behavioral change in the condition of an organism; that the normal, constructive, problem-solving (positive) processes are replaced by a different set of nonconstructive or destructive (negative) behavior mechanisms.

For these reasons, one goal of this book is to show, through the use of published evidence from both naturalistic and provisioning field studies, that (quite without such intent) the artificial feeding used at both the Gombe and Mahale Research Centers deeply frustrated the chimpanzees, which precipitated extensive, qualitative change in their behavior and organization. Hence, those using naturalistic and provisioning methods *are* viewing a different kind of evidence. If we wish to understand the full social potential of chimpanzees, *neither set of evidence can be ignored*. Moreover, if early Gombe facts are not the same as recent Gombe facts, it would not do to assume that the same theoretical model will equally well explain both sets of evidence; or if a trusted, long relied on paradigm fails to explain both, then on that basis, one or the other set of evidence is poor, weak or erroneous. It may be that different structural models are required, for what are widely differing sets of evidence. These are the presumptions on which this study proceeded.

Quite unexpectedly, a third theme interjected itself, early in the course of my research. On the basis of studies of six small, still existing, gathering-hunting (foraging) peoples, Dr James Woodburn (1982) has produced an anthropological model of a very simple, highly egalitarian foraging system that he refers to as the 'immediate-return' system. Very suddenly, I realized that despite their not being human, undisturbed (wild) chimpanzee groups meet all of Woodburn's criteria for being foraging societies living by the immediate-return system. This concurrence suggested that the model of *mutual*

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*dependence* organization, which I was in the process of developing through a restudy of the publications from naturalistic field studies of chimpanzees, might also be used to further our understanding of the fundamental principles underlying the social organization of these human foragers; and anthropological understandings regarding these human societies might further our understanding of chimpanzee social organization. What is the most simple full form of human organization, Woodburn's immediate-return foraging system, is more broadly a primate model.

Hinde (1986:413) warns that drawing direct parallels in behavior between human and nonhuman primate species is dangerous, because doing so 'could produce a very different perspective.' It does do so, but there is much direct evidence from the naturalistic field studies to support the new view. At the same time, I wish to make it abundantly clear that it is not suggested that their sharing the same socioecological adaptation to the problems of a foraging way of life implies any blurring of the two species, *Homo sapiens* and *Pan troglodytes*. *Neither is a semi-human species*. All that I suggest is that these two species of primates arrived at the same organizational solution to similar socioecological problems.

Quite correctly, Reynolds (1970) warns that we must be very careful in extending human-based concepts to a nonhuman species, because seemingly similar behavior patterns can have very different functions in the lives of the two species. They do not necessarily imply identical underlying causes or motivations. However, I write of a fully developed *system* of social organization which both chimpanzee and human foragers follow, an adapted way of life in which positive social relations form the social structure. While we cannot know if the motivation is the same, patterns that are part of this form of social organization should function similarly in the societies of both species. The nature of this type of social organization itself generates the necessity of certain behaviors, constraints and principles in any group so organized. Many aspects of social behavior, interactions, roles and relationships have become essential functional and structural parts of the social organization. Accordingly, the fundamental social behavior of species living by the 'immediate-return' foraging system will be the same, be the actors human or nonhuman. (The immediate-return system is explained in Part 2).

Hinde and Stevenson-Hinde (1976) suggest judicious use of many fundamental, human-based concepts and principles to do with

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relationships, from many disciplines, may be enlightening in understanding nonhuman primate behavior and organization, and also that some animal studies may provide a testing ground for concepts useful for study of the more complex human case. Following this suggestion, I draw on a number of human-based theories regarding affiliation, competition, leadership, dependence and so on, and find them illuminating toward understanding chimpanzee behavior and relationships. In developing the argument in this volume, the general understanding that humans and chimpanzees share the same basic emotive spectrum, used in the same way, is highly important. Certain human-based psychological theories are found to be useful tools.

This eclectic work offers a new theoretical approach to old problems of interdependence, attraction to the group, leader and follower status and roles, and so on. The intent is to make clear a new perspective to a wide variety of readers. It would be unwise to assume that the reader, encountering a new argument that is opposite to established and popular current views, would be willing to leap from one peak idea to the next. This is unfamiliar territory, and, to know it, we must explore it thoroughly.

Because of the new perspective proposed in this study, some explanations thought necessary to make clear my methods are offered in Part 1. Part 2 enlarges on Woodburn's concept of an immediate-return system, and outlines anthropological understandings regarding human foraging (gathering-hunting) societies who live by the immediate-return system.

In Part 3, chimpanzee behavior as reported by naturalistic and provisioning researchers is compared, and an attempt is made to establish a chronological history of the social change that has taken place among the Gombe and Mahale apes since artificial feeding was begun. By considering the Gombe and Mahale findings and the reports from the naturalistic studies in terms of frustration-aggression, competition and foraging theories, it is argued in Part 4 that the artificial feeding is a catalyst for a high degree of qualitative, negative social change among the provisioned groups, which spread in ripple fashion to distort all aspects of the adapted social order.

The form and structure chimpanzee society takes under normal conditions is the subject of Parts 5 and 6. A close reading of the publications from naturalistic studies reveals that there is sufficient evidence from which to construct a preliminary theoretical model of an egalitarian form of social organization based on *mutual dependence*,

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which is opposite in character (nature, or quality) to current understanding. In the final section of this volume, Part 7, it is tentatively suggested that the adapted form of social organization of chimpanzees is a dominance hierarchy, but that according to ecological circumstances (ideal or crisis) the hierarchy may be, in form, an almost invisible, seeming unstructured 'correlational' type or a more visible, authoritarian, structured rank order.

This is a library study, a synthesis, based on many others' years of difficult field work. The contribution of the field researchers is enormous, and my debt to them all is equally immense. While in this volume the post-1965 Gombe and post-1968 Mahale data are rejected as being representative of the customary behavior and organization of wild chimpanzees, this specific rejection does not imply discard of these important data. To the contrary, these data are of the *utmost* importance. They are detailed, long-term, utterly invaluable records of the spread of social change in two wild groups, unintentionally set in motion by restrictive provisioning methods. As a perceptive scientist suggested to Kuhn (1970:85), introducing a new paradigm does not necessarily involve discard of the established model; sometimes it is a matter of 'picking up the other end of the stick, . . . of handling the same bundle of data as before, but placing them in a new system of relations with one another by giving them a different framework.' This is very much the case, in two senses, in my suggestion of this new view of chimpanzee social organization. The first, as suggested, is a reinterpretation of published analyses of Gombe and Mahale data. But another way of picking up the other end of the stick is by using the neglected, very different reports from naturalistic field studies of wild (not artificially fed) chimpanzees. Only together do the two very different sets of evidence reveal the possible social polarity of chimpanzee behavior and organization. Both offer understandings of enormous value to our own, increasingly stressed, human species.

I hope that the proffered model of a system of *mutual dependence* will be critically appraised firstly on the basis of the coherence and logical consistency of the argument, and only secondarily on its data base. The *mutual dependence* model is offered as a *preliminary* model of one previously unrecognized form of primate organization, a starting place for further studies and development. Clearly, a great deal more work must be done before we can reach any firm conclusions. At the same time, our need to understand the adapted social organization of



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our nearest nonhuman relation, the chimpanzee, is urgent. We must therefore work with what we have and then, through further research, verify – or disprove – the resulting hypotheses.

*Attributes shared by humans and chimpanzees*

Chimpanzee social behavior is the most plastic and humanlike among that of existing nonhuman primates. Recent research makes it increasingly evident that the chimpanzees have close genetic, morphological, physiological and behavioral affinities to humans.

The fundamental emotions are an innate aspect of human nature which is assumed to be not only transcultural, but also trans-specific (Izard 1972). Hebb (1946) suggests that not only may the same processes be used to recognize emotions in chimpanzees and humans, but that our recognition may be more accurate in viewing the apes. Their expression of emotion is usually more direct and uninhibited. We humans more often wear a mask.

In 1972 and 1973, Gallup carried out experiments with chimpanzees' responses to their mirror images which demonstrated that chimpanzees share with humans self-awareness, a perception of self. To be self-aware is to share a fundamental psychology with humans, Shafton (1976) suggests, not the same mental powers, but the same basic emotive nature and mental processes. Cognitively, of course, humans and apes are worlds apart. At the same time, as a result of his close study and intimate knowledge of the social behavior of the chimpanzees in The Burger's Zoo, Arnhem, The Netherlands, Dr Frans de Waal (1982:42) suggests that we tend to underestimate the sophistication (in terms of lack of lower animal instinctiveness) of the emotion-based responses of chimpanzees. De Waal (1982:51) is convinced that the ability of these animals to use reason and rational thought (defined as being terms used to describe 'the ability to make new combinations of past experiences in order to achieve a goal') is socially almost equal to that of humans, though technically greatly inferior.

*Positive and negative behavior and emotive tone*

The bipolar nature of emotions is widely recognized. Scientists find it useful to classify emotions as either positive (pleasurable), or negative (unpleasurable), on the basis of their sensory/experiential characteristics. The emotions, or subjective feeling-states known by individuals in their daily lives, may be thought of in terms of the emotive 'tone'

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subjectively experienced. The *emotional tone* of a society is usually defined as being the product of the separate behavioral responses of large numbers of the population in coping with their social environment.

Izard and Tomkins (1966) suggest that there is a strong connection between affect or emotion, and behavior. 'Phenomenologically positive affect has inherent characteristics that tend to enhance one's sense of well-being and to instigate and sustain approach toward and constructive relations with the object' (Izard and Tomkins 1966:87).

Positive emotive feeling, according to Selye (1974:75), 'can best be described as "love" in its broadest sense.' It includes such qualities as gratitude, respect, trust, admiration, goodwill, friendship and so on – to use Selye's examples. Negative feelings (in the broadest sense, hatred) include anger, distrust, disdain, hostility, jealousy, and the urge for revenge – in short, every quality 'likely to endanger your security by inciting aggressiveness in others who are afraid you might harm them,' Selye adds. Negative feelings disturb and distress, and involve retreat from, or destructive relations with, the involved object.

Scientists do not usually attempt to understand primate societies in terms of the emotive tone of social interactions, behaviors and relationships. However, the terms positive and negative are used throughout this work, to classify and point up the differences in the behavior and emotive tone of the artificially fed Gombe (and Mahale), and the (relatively) undisturbed wild chimpanzee groups. As used in this book, *positive* behaviors, interactions and relationships are those based on positive affect which reinforce (are in accord with) the statuses and roles that are the organizing phenomena of the normal social order. *Negative* behaviors are those which are disruptive or disorganizing, in opposition to the smooth functioning of the adapted social order. In other words, negative behaviors, interactions and relationships act to change a social structure. Positive behaviors act to maintain it. Sharing the same spectrum of emotions and range of emotional expression as humans, chimpanzees can be expected to be peaceful (a positive sensory/experiential characteristic) in some conditions, and aggressive (a negative sensory/experiential characteristic) in others.

### *The mutual dependence system: a model*

Because the concept of a social system of mutual dependence is new, it might be helpful to outline it at this point. (It is developed as fully as possible from the evidence available, as Part 5). The main principles



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which compose the structure of a mutual dependence order are as follows:

- 1 The pattern of fission and fusion, operating at subgroup, local group and larger society levels.
- 2 Open groups ranging familiar, undefended, typically overlapping home ranges, which are local units of a larger interacting, interbreeding population.
- 3 Indirect competition.
- 4 A fluid and typically interchanging charismatic leader-dependent follower role relationship, which is one of noninterference mutualism (NIM), i.e. beneficial to the participants without cost to others (Wrangham 1982).
- 5 Mobile and sedentary forms of subgroups.
- 6 Individual autonomy or self-direction as a property of the social system.
- 7 A social system which is extraordinarily egalitarian.

The principle of charismatic leader-dependent follower status/roles permeates all levels of society. This very fluid relationship operates between individuals, charismatic and dependent, mobile and sedentary subgroups, groups and local groups. Group composition changes constantly. Particularly among chimpanzees it would be most unusual and uncharacteristic for exactly the same subgroup to reform.

Because the pattern is for the subgroups to change personnel very frequently and because there are no permanent leaders, foraging and traveling subgroups appear to form randomly, on the basis of mutual congeniality. Although exceedingly fluid in composition, the subgroups are not without structure. Each small, very temporary subgroup is composed of at least one, or perhaps several confident, charismatic individuals – of either sex – and one or usually several, more nervous or less assured, hence more dependent, individuals, also of either sex, who are attracted by the charisma of some confident member of the group whom they choose to follow, for a time. Thus, *the composition of the subgroups constantly changes, but the structural form remains the same* (see Figures 1 and 2).

One important result of this egalitarian mutual dependence system is a high level of peaceful sociality within and between groups. It is argued in Part 4 that the above form of organization is optimal in terms of foraging strategy, in the type of natural habitat to which the common chimpanzee is adapted.

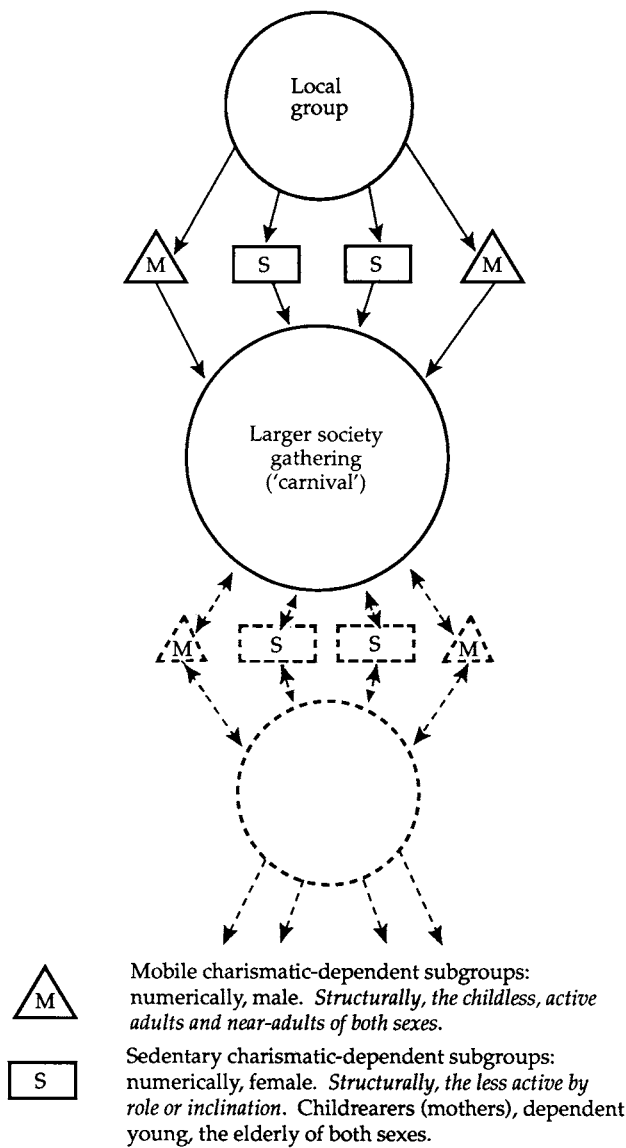


Figure 1. Structures movement and grouping pattern: the mutual dependence system. Movement in any type of group is two-directional.