



Christopher Boehm

Hierarchy **in the Forest**

The Evolution of Egalitarian Behavior

HIERARCHY IN THE FOREST

Hierarchy in the Forest

*The Evolution of
Egalitarian Behavior*

Christopher Boehm

HARVARD UNIVERSITY PRESS

Cambridge, Massachusetts

London, England

Copyright © 1999 by the President and Fellows of Harvard College
All rights reserved
Printed in the United States of America
Second printing, 2001

First Harvard University Press paperback edition, 2001

Library of Congress Cataloging-in-Publication Data

Boehm, Christopher.
Hierarchy in the forest : the evolution of egalitarian behavior
Christopher Boehm.

p. cm.

Includes bibliographical references and index.

ISBN 0-674-39031-8 (cloth)

ISBN 0-674-00691-7 (pbk.)

1. Human evolution. 2. Social evolution.
3. Hunting and gathering societies. 4. Primates—Evolution.
5. Social evolution in animals. 6. Political anthropology.

I. Title.

GN281.4.B64 1999

599.93'8—dc21 99-24035

For my father, Dwight Handforth Boehm

Preface

To one who is living one's life as a democrat, egalitarianism is a topic that affects not only the head, but the heart. My heart was in this book, not only in the research that underlies it, but in its writing. For egalitarianism, as opposed to actual equality, is intrinsic to the democracy that many people on this planet enjoy and often take for granted. We democrats live in societies that define us as political equals, and in spite of voter apathy and predatory lobbies we continue to wield our votes: the collective voice of the people continues to be, ultimately, powerful. It is this essential political leverage in the political decision-making process that keeps alive human freedom and human rights as we know them, and I shall argue that this type of political stance is quite ancient.

We participate in this type of political leverage because we want to keep a say in our own governance, but, more basically, we exert it because we are suspicious of all governance and wish to limit the powers of those who lead and may try therefore to rule. To a democrat the power of centralized government, be it national or local, is a perpetual threat to the personal autonomy of its citizens, and ultimately it is the potential for rebellion by the rank and file that keeps our personal autonomies intact. We knowingly make a sensible compromise between maximization of personal freedom and the needs of a nation that must keep law and order and prevent civil war. Having made this implicit compromise, we tend to be vigilant about our rights—with good reason.

Our earliest precursor, in this respect, may well have been an African ape living some 5 to 7 million years ago. This vanished ancestral hominoid was likely to have formed political coalitions that enabled the rank and file, those who otherwise would have been utterly subordinated, to whittle away

at the powers of alpha individuals whose regular practice it was to bully them. Our direct evolutionary precursor was a human physically just like ourselves, who lived in the Late Paleolithic and possessed an egalitarian ethos and an egalitarian political order similar to those of present-day hunting bands who have remained nomadic.

While this book mainly looks to the evolutionary origins of egalitarianism, and to its practice among extant foragers and the tribesmen who succeeded them, I have also included, in the next to last chapter, a more adventurous hypothesis about the natural selection of altruistic traits. This hypothesis would hold only if egalitarian society and the moral communities that made it possible were ancient, and if my speculations about selection mechanisms were credible. With respect to the possible (I think probable) evolution of genetic altruism in humans, I expect to raise considerable controversy among those who are biologically inclined. I can present no smoking gun, but rather a set of circumstances that could have favored a combination of enhanced group selection and effective suppression of free-riders. With respect to the overall evolution and phenotypic expression of political rebelliousness, I think I am on much firmer ground, and I present those hypotheses with confidence—even though I, like anyone else who tackles the Paleolithic, will of necessity be operating by means of triangulation when it comes to the social and political life of earlier humans.

This book is not just about politics, then, but about the human capacity for altruism and also about morality more generally, about the moral communities in which humans lived prehistorically and especially about the political side of morality. The idea of people living morally as political equals is a beautiful one, but in an important sense it seems to go against human nature—a nature that leads, quite naturally, to interpersonal domination and to the formation of social dominance hierarchies, with alpha individuals presiding over them. My main hypothesis is that in holding onto their personal autonomies, the collective weapon of the rank and file has been their ability to define their own social life in moral terms, and to back up their thoughts about political parity with pointed actions in the form of collectivized social sanctioning. Egalitarian society would never have appeared in the absence of moral communities, and it is possible that prehistorically they emerged at the same time.

In a sense, I am writing about the roots of democracy, and at times I shall depart from the historical-evolutionary context to comment on egalitarianism as it moved into larger societies: tribal republics, and both an-

cient and modern democracies. With respect to intentions, at least, the communist enterprises that have absorbed the world in this century are considered as experiments that were based on a tragically faulty assessment of human nature. But the main object of the book is to explain the political dynamics that make egalitarian societies possible at all levels, and to tie these dynamics to a human nature that definitely is in need of further definition and explanation.

My intellectual debts are many, and profound. In 1978 at Northwestern University, the late Donald T. Campbell suggested that he and I co-author a speculative paper that would explore possible biological bases for politically democratic behavior. The idea seemed fascinating, yet, to a cultural anthropologist, a bit far-fetched. Eventually I did pursue it, and increasingly I was able to conceive of political egalitarianism in an evolutionary context. That vision was strengthened when, in 1984, I began to study wild chimpanzees in the field. Without the chimpanzees, I would not have written this book about hierarchy in the forest, so in that context I must also thank Jane Goodall for permitting a cultural anthropologist to come to Gombe, and for generously training me in ethological field techniques and concepts.

In the summer of 1981, a fellowship from the National Endowment for the Humanities enabled me to spend some time thinking about why humans living in bands and tribes are so consistently egalitarian, and about the evolutionary forces that might have contributed to this pattern. At that time, I asked the Harry Frank Guggenheim Foundation for assistance in examining the vehement insistence of hunter-gatherers (and tribesmen) everywhere that they must live as political equals, and it was Guggenheim funding for a major ethnographic survey that enabled me, in 1982, to seriously begin an enterprise that now has spanned almost two decades. I thank the foundation, particularly Robin Fox and Lionel Tiger, who helped to orient its funding strategies, for taking a chance on a project that of necessity was to be based on slim ethnographic evidence. I also thank Christoph Antweiler of the German Anthropological Society for inviting me to a 1989 conference at which egalitarianism was an important part of the subject matter, and also the Department of Anthropology at Emory University for inviting me to its Mellon Foundation Symposium on Egalitarian Behavior, which took place in 1995 in Atlanta. Finally, the University of Southern California provided a sabbatical in 1998 that assisted in writing this book.

Many colleagues have contributed to the development of my thinking

about egalitarianism as it is expressed in the present work. First, I must thank Michael Fisher at Harvard University Press for invaluable feedback with respect to organization, scope, content, and style, and for his attentive encouragement. Barbara Smuts and Larry Arnhart carefully read the manuscript and provided suggestions that led to major transformations of organization and content. I am grateful to others who have read drafts of this book, or of other manuscripts of mine on the subject of egalitarianism, whose comments, critical or supportive, have fed into the book: Michael Boehm, Paul Bohannon, Donald E. Brown, Donald T. Campbell, Robin Fox, Bruce Knauff, Steve Lansing, Alexander Moore, Martin Muller, Pete Richerson, Gary Seaman, Craig Stanford, Frans de Waal, David Sloan Wilson, Edward O. Wilson, and Richard Wrangham. In addition, I should like to thank those who wrote commentaries on a pair of *Current Anthropology* articles I published (in 1993 and 1996) that were germane to egalitarian politics, and whose critical or supportive comments have assisted my thinking: Christoph Antweiler, Harold B. Barclay, Robert Knox Dentan, Marie-Claude Dupré, Irenäus Eibl-Eibesfeldt, Jonathan D. Hill, Susan Kent, Bruce M. Knauff, Steven Mithen, Keith Otterbein, Steve Rayner, Peter J. Richerson, and David Sloan Wilson.

In preparing the manuscript for publication, I am grateful to Susan Yewell and Deborah Boliver Boehm, and to editors Vivian Wheeler and Kate Brick at Harvard University Press, for their good advice and expert assistance. Finally, I have dedicated this book to my father, Dwight Handforth Boehm, who himself was a consummate political egalitarian.

Contents

1	The Question of Egalitarian Society	1
2	Hierarchy and Equality	16
3	Putting Down Aggressors	43
4	Equality and Its Causes	64
5	A Wider View of Egalitarianism	90
6	The Hominoid Political Spectrum	125
7	Ancestral Politics	149
8	The Evolution of Egalitarian Society	171
9	Paleolithic Politics and Natural Selection	197
10	Ambivalence and Compromise in Human Nature	225
	References	259
	Index	281

The Question of Egalitarian Society

In the early 1800s Alexis de Tocqueville traveled extensively through the United States of America, and some years later wrote the following: “Although the capacities of men are different, as the Creator intended they should be, the means that Americans find for putting them to use are equal The Anglo-Americans are the first nation who . . . have been happy enough to escape the dominion of absolute power. They have been allowed by their circumstances, their origin, their intelligence, and especially by their morals to establish and maintain the sovereignty of the people” (de Tocqueville [1835] 1994:52, 54). This astute Frenchman was quick to point out that our American obsession with equalization of status was pointedly *political*. What fascinated him was that social and economic nonequals could build a “society of equals” when it came to the enjoyment of individual autonomy, and that such a principle could dominate the overall political trajectory of a nation.

I write about political egalitarianism of the type Tocqueville described, specifically about its origins. But it was not Americans, two centuries ago, who invented this interesting political way of life; nor was it the Athenians of ancient Greece. The “democratic” origins I describe are not recent and historical, but evolutionary and ancient. They date from well back in the Paleolithic era, and were intimately involved with the development of human nature itself.

Are we by nature hierarchical or egalitarian? For humans this is a perplexing question. In considering other group-living primates, a field worker can easily determine ethologically whether they are essentially “despotic,” as opposed to “egalitarian.” For the species in question, one simply assesses the relative presence or absence of social dominance behaviors,

then places that species on the continuum between these two political poles (see Vehrencamp 1983).

These assessments depend on two main variables: first, the degree of competition in food acquisition or mating; second, the presence or absence of social hierarchies with alpha individuals, male or female, and the degree to which they exert domination. Such a typology readily applies to monkeys and apes, because these basic social and political behaviors tend to be phylogenetically fixed. Each species has its own rather flexible “political nature.” Another useful indicator, heavily emphasized in this book, is the presence or absence of political coalitions; these appear, optionally, only in despotic species—species that are naturally given to hierarchy.

For humans, even this relatively simple kind of classification leads to controversy. Indeed, the recent positions of cultural anthropologists, evolutionary biologists, ethologists, primatologists, and others concerned with human social and political nature have varied almost as sharply as did those of Locke, Rousseau, and Hobbes. Earlier contradictions can be found by comparing the positions of Sahlins (1959), Lorenz (1963), Ardrey (1966), Fried (1967), Alexander and Tinkle (1968), and Tiger and Fox (1971). Sociobiology, with its discontents, brought new controversies about human nature and politics (for example, E. O. Wilson 1978; de Waal 1982, 1989, 1996, 1997; Alexander 1987; Boehm 1989, 1993, 1997a; Masters 1989; Knauff 1991, 1994a; Erdal and Whiten 1994, 1996; Kelly 1995; Wrangham and Peterson 1996; Sober and Wilson 1998), and also controversies about the natural selection process itself (e.g., Alexander 1974 and E. O. Wilson 1975 versus Wilson and Sober 1994 and Boehm 1997b). I will be examining certain of these disagreements, but they exist not just because academicians make a profession of disagreeing. At issue is the formidable political flexibility of our own species.

As members of bands or tribes, humans can be quite egalitarian—particularly with respect to males. Yet we also develop degrees of despotism which, by mammalian standards, are truly staggering. This extreme range of behaviors can be bewildering. For a dwindling contingent of scholars, those who insist on unadulterated environmentalism, such disparities are taken to mean that our political nature is simply nonexistent. For many others, it remains a puzzle that must await the isolation of behavior genes in the laboratory. For still another contingent (including many of those mentioned above), it has been a subject of unresolved, philosophically oriented debate that seems to polarize the protagonists into Hobbesian hawks and Rousseauian doves.

As a contribution to this venerable and contentious tradition, my intent is to set forth an “ambivalence model” of human nature (see Campbell 1965; Boehm 1989; Masters 1989) and apply it to our political nature. This political ambivalence model is grounded in highly contradictory behavioral tendencies, which we share with many other primates, and I trust that that this focus on structural contradictions within human nature will lend some much-needed precision to the explanation of our species’ noteworthy lability in the political and social fields.

One highly unusual expression of this flexibility occurs in egalitarian societies (Boehm 1993). There individuals who otherwise would be subordinated are clever enough to form a large and united political coalition, and they do so for the express purpose of keeping the strong from dominating the weak. Because the united subordinates are constantly putting down the more assertive alpha types in their midst, egalitarianism is in effect a bizarre type of political hierarchy: the weak combine forces to actively dominate the strong. My thesis is that they must continue such domination if they are to remain autonomous and equal, and prehistorically we shall see that they appear to have done so very predictably as long as hunting bands remained mobile.

I also incorporate an important evolutionary twist. Rather than concentrating simply on the effects of human nature on political behavior, I also explore the reverse: the long-term effects of human political behavior on human nature. Along these lines I have proposed recently that the egalitarian political lifestyle of Upper Paleolithic hunter-gatherers could have profoundly affected our evolving social nature (Boehm 1997a, 1997b). By amplifying this hypothesis, I hope to substantially clarify the place of altruism in human nature and thereby make better sense of our current experience of moral life. To do so, I will need to develop a full behavioral portrait of the Common Ancestor of the four African-based hominoids.

The three African great apes, with whom we share this rather recent Common Ancestor, are notably hierarchical. Reproductively fortunate are the high-ranking males or females, while those relegated to the bottom of the hierarchy fare less well. The same can be said of most human political societies in the world today, starting about five thousand years ago. At that time, people were beginning to live increasingly in chiefdoms, societies with highly privileged individuals who occupied hereditary positions of political leadership and social paramountcy. From certain well-developed chiefdoms came the six early civilizations, with their powerful and often despotic leaders. But before twelve thousand years ago, humans basically

were egalitarian (Knauff 1991). They lived in what might be called societies of equals, with minimal political centralization and no social classes. Everyone participated in group decisions, and outside the family there were no dominators.

For more than five millennia now, the human trend has been toward hierarchy rather than equality. But the past several centuries have witnessed sporadic but highly successful attempts to reverse this trend—to reverse it as much as is feasible in large nations that require considerable political centralization. These efforts occurred in America and in Europe, and have taken place more recently in certain other areas, notably India and Latin America, as people emerged from colonialism. Marxian socialists as well have made a variety of unsuccessful attempts to create truly classless and coercion-free political societies at the national level.

It would appear, then, that some kind of fundamental tension exists between forces that make for equality and democracy, and those that make for hierarchy and coercive leadership. To a contemporary “democrat,” the upshot is not particularly comforting. Today, after a series of costly global conflicts that were rationalized in terms of “keeping the world safe for democracy,” we still are surrounded by more nations that are “non-democratic” than otherwise. The ambivalence model I develop for human nature will help to explain a tension that is evident, and potent, as nations with major political differences continue to collide ideologically.

Let us return to the origin of “democracy.” For scholars the favorite historical reference point continues to be ancient Greece, and it is true that certain males, Greeks who were full citizens, acted as equals. The fact that institutionalized slavery existed on a widespread basis in Athens—and that women were mere chattels—deterred historians very little from drawing this parallel. Another historical reference point, one that directly and significantly influenced both the framers of the American Constitution and, subsequently, American advocates of women’s suffrage, was the Iroquois Confederation (Weatherford 1988). In this matrilineally based tribal “nation,” women had quite a high status, sharing in the substantial degree of political and economic equality that prevailed among adults (Morgan 1877).

Still another potential reference point is the egalitarian society of mobile human hunter-gatherers who live in bands. Rather often the egalitarianism of hunter-gatherers pertains more to males than to females, but the women enjoy far more political potency than did the women of Athens, and these

mobile foragers keep no slaves. Their highly equalized version of political life goes far back into prehistory and, following Knauff (1991), I make the major assumption that humans were egalitarian for thousands of generations before hierarchical societies began to appear.

The Main Political Actors

My interest in writing this book was not in matters of gender. The subject is power in groups—how it is allocated and, especially, how it is regulated. The type of power I have in mind is straightforwardly conceived. In its raw form it is like the power we see exhibited in groups of chimpanzees (e.g., de Waal 1982; Goodall 1986). It is the dominant's power to intimidate and take something away from someone, or to force another to do something. It also is the power to control or lead through the subtler instrument of authority as conceived by Weber (1947); by my definition it is also the power to contribute to consensual decision-making processes in groups that are not dominated by alpha individuals. The entire group can be a locus of power and authority, and the group can use its power to regulate the power of individuals.

Although human political life essentially starts with the nuclear family, it comes into play chiefly at the level of bands, tribes, chiefdoms, and nations. In virtually all of these political units, the preponderant power (as defined above) seems to be in the hands of males. The male advantage can be extreme. For example, I lived for several years in a formerly tribal patrilineal Serbian community in southern Herzegovina and encountered there a clan exogamy pattern; women normally move to the neighborhood of their husband after marriage, sometimes into his father's house. When a group of brothers and patrilineal cousins stays put and women marry in from various other clans, it is not surprising that the position of the females is politically tenuous. In effect, they are merely "honorary" members of an all-male clan, and it is only toward the end of their lives that they begin to assume some authority.

When people live in tribes, this kind of extended brotherhood is a rather frequent social arrangement. It fits well with warfare, raiding, and feuding, which almost always are male activities (Thoden van Velzen and van Wetering 1960). The social ideology tends to be patrilineal, and this proclivity is reflected in social reality (for a rather extreme ethnographic example, see Boehm 1983).

Imagine now a mirror-image society. Clan names and property are transmitted matrilineally, and males must marry into exogamous clan communities where women stay in place. The man resides in the house of his wife's mother or nearby, and in effect he is marrying into a group of closely bonded "sisters." The Hopi Indians (Eggan 1936) are one of many examples: in a given clan the married males are basically "strangers," who have no claim to property there and have a relatively weak role in economic decision-making. So far, so good; but the mirror image is incomplete. Hopi males who have "married out" still have continuing economic influence back in their natal clan. This fact weakens the position of the women, even though they stay put, for their brothers continue to have a major say. An additional consideration is warfare: if present, it strengthens the political hand of males, not females.

The groups here are tribes, but the rule of male political primacy applies more generally (Brown 1991; Smuts 1995). There may be individual exceptions, but in tribes, chiefdoms, primitive kingdoms, early civilizations, and nations of various types, the group leaders are generally males (Service 1975). Mobile hunter-gatherers do not necessarily have designated group leaders, but even so, the people who step forward to help the band make its decisions are usually males. The pattern of male political ascendancy in determining the strategies of groups is widespread, to say the least.

Kelly (1995:297–302) surveys what is known about male-female relations in mobile, egalitarian hunter-gatherer societies, and he identifies several historical trends. Earlier reports tended to make women into chattels and slaves, but several decades ago, after the Man the Hunter conference, a strong interest arose in gender equality between man the hunter and woman the gatherer. Kelly (1995:297) believes that claims of equality were "more asserted than demonstrated through analysis." He cites the study of Hayden et al. (1986), which demonstrates that women's statuses vary greatly, along with Sanday's (1981) hypotheses about some of these differences. Kelly emphasizes the fuzziness of a concept such as status inequality and concentrates instead on inequalities of *authority* and *power* that fit well with the present analysis. Male-female authority inequalities appear to vary markedly in egalitarian bands, with small to large advantages usually going to the males, but this remains difficult to explain.

A substantial bias toward patrilocality does seem to exist (Ember 1978), but basically descent favors bilateral patterns. Resource unpredictability could be a factor favoring male power, while a near-male monopoly on

large-game hunting brings special reputational benefits (Kelly 1995). Large game is shared by the entire band, and the resulting prestige lends itself to political ascendancy. I shall be dealing with human nature, so I must emphasize that these patterned differences of authority are not necessarily “biological” in the sense that dimorphic behavior genes are helping to shape them. It is well known, however, that certain male-female differences in physiology are, in fact, set by genes. With respect to reproductive physiology, the advanced stages of pregnancy seriously circumscribe physical activity, and while in theory the care of infants could be culturally allocated to males after very early weaning, human foragers tend to nurse their infants for years. Another difference is sexual dimorphism in body size and muscularity. Males also are stronger because cultural tradition makes them the large-game hunters, and as such they experience special degrees of “athletic training.” These empirical patterns are subject to further consideration, for their interpretation lends itself to projective testing in terms of ethnographer bias. Nonetheless it appears that males have the advantage when it comes to authority, which is far easier to evaluate than status.

Smuts (1995) has shown that in nonhuman primates females often are able to neutralize male interest in control and coercion, whereas in humans male interest usually predominates. Smuts emphasizes that human females often move away from their own kin at marriage, and that females are less prone to form political alliances than males. She also believes that language brought gender ideologies into play, which reinforced tendencies to male authority among hunter-gatherers. In her view, it is basically the male use of physical force, often in order to control women’s reproductive potential, that leads to male dominance more generally.

These seem to be universal or extremely widespread features of forager life. When it comes to male concerns about women as breeding partners, Knauff (1991) has made it clear that competition for females is the leading cause of hunter-gatherer homicide. It is no surprise that some of this male competition is translated into direct control over females, and in this sense Smuts (1994) is correct in suggesting that males may be better *motivated* to control females than vice versa.

There is more to the gender and power story. When I surveyed hundreds of band-level and tribal societies that were egalitarian (Boehm 1993) to see what was done about upstarts who were hungry for power, the problem personalities were males—group leaders, shamans, proficient hunters, homicidal psychotics, or other men with unusual powers or strong tenden-

cies toward political ambition. This group included bullies intent on aggrandizing power—or on taking more than their share of women. It almost always seems to be males who try to dominate their peers.

Were contemporary world ethnography more complete, it surely would include some reports of female upstarts. If we knew the ethnography of all hunter-gatherers for the past fifty or one hundred millennia, we might even find a society in which women were the hunters and main politicians, and men the caretakers of offspring who did most of the gathering. This is not idle speculation. We are fortunate to have a thorough description of Agta hunter-gatherers of the Philippines, who hunt wild boar with dogs and kill their prey with arrows. The women go out in groups to take this dangerous forest mammal, just as the men do. The fact that dogs are used in hunting may well be what equalizes male and female economic roles in this respect.

What is interesting relative to the Agta is that women also have high status in the society in general, and they have a major say in decision-making (Peterson 1978; Barbosa 1985; Goodman 1985). This counterexample is very important. It suggests that human reproductive physiology, in combination with human nature, makes it possible for women to play a major political role in the band—if ecological and cultural arrangements are favorable. For hunter-gatherers in general, it also suggests that it may be primarily the hunting of large game that helps to boost the power of males beyond whatever they are gaining through sexual dimorphism and an exceptional motivation to control females.

Thus, the reasons for male political preeminence appear to vary according to whether we are speaking of the family or the band. Within the family, differences of size, strength, and motivation to control seem to make for male domination, along with dependency of females on males for meat. At the band level, it appears to be mainly hunting—and “warfare,” if present in some form—that places men in a position to wield more influence in decision-making.

In the analysis to come, I shall emphasize the political roles of women whenever these are important to the questions being explored. One area in which women seem to enjoy a far more equal footing politically, is in holding down the male upstarts of whom we have been speaking. My main hypothesis is that egalitarian societies are created and maintained by *moral communities*, and women participate quite fully in the moral life of their community. Both sexes are quick to judge the doings of others, comparing the behavior with idealized profiles of how people should behave. Both

sexes contribute to the process by which a group decides that an individual is socially deviant and in need of sanctioning. Both sexes engage in ridicule or other forms of direct social pressure—and in ostracism, for this work is done by a well-catalyzed group that must be in broad agreement if it is to act effectively. These are the sanctions that keep most potential upstarts in their places. If ultimate sanctions are called for, it is almost always the males who act as executioners—even though the women may contribute equally to making such dire decisions. If the entire group executes a moral offender, and this takes place infrequently, the women may take part along with the men, as we shall see in Chapter 8.

Despite the differences I have detailed, when small groups are egalitarian, the general notion that personal autonomy is important often tends to be extended to females. I refer here to how people treat one another in the band as a whole. Within the family, egalitarian principles are likely to operate more weakly, and sometimes very weakly indeed. What is consistent about egalitarian societies is that in the larger unit—the band or the tribe—the adult males always treat one another as equals. It is this phenomenon that I try to explain: I am interested in the political life of the local group, not of the family.

The scope of my inquiry can be defined quite precisely. In small local groups that are egalitarian, such as bands, I am interested in the “main political actors”—independently of gender. I define these as the individuals who actively participate when the entire group must arrive at important consensual decisions such as where to migrate, or decisions of war or peace (see Boehm 1993). They also include those who assume positions of influence or leadership. These are the people—usually adult heads of households—who potentially can turn into upstarts and subvert the egalitarian order. The main political actors also constitute the political rank and file who have the most to lose, politically, if one of their numbers begins to dominate the rest. This category always encompasses the fully adult males of a band, but only sometimes or partially the females—unless they are equal as hunters.

The Question of Antihierarchy

If this book is about egalitarianism and its natural history, one might ask about the title *Hierarchy in the Forest*. It suggests a work about domination, not equality. My thesis, however, is that egalitarianism does not result from

the mere absence of hierarchy, as is commonly assumed. Rather, egalitarianism involves a very special type of hierarchy, a curious type that is based on *antihierarchical* feelings.

This political hypothesis was put forward six years ago in an article in *Current Anthropology* (Boehm 1993). There I examined in detail the immediate mechanisms of social control that produce egalitarianism in both hunter-gatherers and tribesmen. The hypothesis, as stated earlier, was that egalitarian societies amount to hierarchies in which the flow of power has reversed direction quite radically. This position was immediately challenged by Erdal and Whiten (1994, 1996), who see egalitarian society in terms of hierarchy's merely being attenuated by counterdominant behavior. They cite the existence of leadership roles as evidence that hierarchy exists.

I believe that if a stable egalitarian hierarchy is to be achieved, the basic flow of power in society must be *reversed* definitively. I also believe that it takes considerable effort to maintain that condition. Our political nature favors the formation of orthodox hierarchies—hierarchies like those of chimpanzees or gorillas, or humans living in chiefdoms or states. In such societies a submissive but sometimes very resentful rank and file is controlled by one or more high-ranking individuals who reign dominantly at the top of the hierarchy. It is politically ambitious individuals, those with special learned or innate propensities to dominate, who are likely to become upstarts in egalitarian bands or tribes.

When the subordinates take charge to firmly suppress competition that leads to domination, it takes some effort to keep the political tables turned. For the most part, the mere threat of sanctions (including ostracism and execution) keeps such power seekers in their place. When upstartism does become active, so does the moral community: it unites against those who would usurp the egalitarian order, and usually does so preemptively and assertively. This domination by the rank and file is so strong that useful leadership roles can develop without subverting the system. The rank and file, watching leaders with special care, keep them from developing any serious degree of authority.

Thus, egalitarianism does not just happen. Even when the habit of equality and autonomy is well established, an egalitarian order meets with periodic challenges from upstarts. These can quickly lead to a political transformation, from the reversed hierarchy that is preferred originally to an orthodox one that is dominated by a powerful male (or female), or by a

power coalition. This scenario is true not only of hunting bands and egalitarian tribes, but also of ancient and modern democracies in which anti-authoritarian checks and balances become formally structured, and far more readily discernible. Egalitarian societies are vulnerable to takeovers.

America's most recent *serious* upstart arose fully four decades ago in the form of Senator Joseph McCarthy—a political bully who used his powers of intimidation cannily until finally he was toppled by his own peers. Richard Nixon lost his presidency through abuse of power, and the Reagan administration had similar problems that were scrutinized very publicly. Members of democratic societies are perennially suspicious in this area. When Alexander Haig appropriately tried to reassure the American people that someone, namely General Haig, was firmly in charge of the country during a presidential emergency, the reaction was one of widespread suspicion. Haig may have had no inclination to take over the American government, but the alarmed public response demonstrated the sensitivity of subordinates to possible increases in personal authority at the political center.

Another example of upstartism came in the 1990s when the career of conservative Congressman Newt Gingrich took off. As Gingrich began to wield some serious power, he exuded a certain air of dominance and his peers in Congress found ways to cut him down to size. At the same time, they managed to retain him as a useful leader and spokesman for his party. For Gingrich the reduction in power may have involved some *déjà vu*. This particular legislator was known to be fond of reading about the political behavior of a captive group of chimpanzees (de Waal 1982), in which subordinates were quite successful in curtailing the power of alpha males—even as they made use of their “services.”

The argument here is that egalitarian societies constitute a very special type of hierarchy, one in which the rank and file avoid being subordinated by vigilantly keeping alpha-type group members under their collective thumbs. This “domination by the rank and file” hypothesis originally was developed by placing the sanctioning of upstarts under an ethnographic microscope (Boehm 1993). I demonstrated empirically that by acting as unified moral communities, the main political actors in bands and tribes were able to deal decisively with individuals who threatened their autonomy. The arguments were social and political, as opposed to biological and evolutionary. In this book I develop the hypothesis further, by analyzing the egalitarian political behavior of humans in a full natural-history context.

Ideologies are at the core of this analysis, for I believe that to definitively “equalize” a political society it is necessary for the rank and file to form a moral community, develop an egalitarian ethos, and deliberately take charge of their own fate. An important hypothesis, then, is that egalitarianism is the product of human intentionality. If tendencies to hierarchy are to remain decisively reversed, both hunter-gatherers and people living in modern democracies must consciously create, and carefully enforce, egalitarian plans or blueprints. We so-called moderns may formalize these blueprints via constitutions or bills of rights, while hunter-gatherers or tribesmen operate much more informally; but in either case my theory is that egalitarianism cannot last very long without insightful guidance and manipulation.

The Question of Human Nature

This book is about powerful forces that make for both hierarchy and antihierarchy, and therefore its subject is our evolved human nature. Basic aspects of our political nature (notably the tendency to form hierarchies) were formed far back in primate evolution. However, I believe that more recently our *social* nature received some very important finishing touches, in the crucible of Late Paleolithic hunting and gathering life. At the end of the book I explore the hypothesis that Paleolithic hunter-gatherers created long-term political conditions that were favorable to the natural selection of altruistic traits.

The capacity for genuine altruism in mammals has been denied on a widespread, often vehement basis. Eminent sociobiologists and evolutionary psychologists have taken the lead in so doing, but I suggest that our species (and our species alone) was given a unique chance to develop altruistic traits—precisely because social dominance hierarchies were definitively reversed for a long period of evolutionary time. The hypothesis is a complicated one, having to do with radical changes in phenotypic variation at different levels of selection, and at present it is difficult to corroborate. However, I believe it to be plausible—and worthy of further development.

Aside from this relatively recent refinement in favor of altruism, we will see that human nature consists of a mixture of ancient mammalian traits, general primate traits, and specific traits exhibited by hominoids—the great apes and humans. The African great apes are particularly crucial for reconstructing human social and political evolution.

In considering proxies for our ape ancestors I favor a chimpanzee model, even though in theory bonobos could be of equal importance. I do so for two reasons that are purely expedient. One is that the political behavior of chimpanzees is far better studied. The other is that I personally know this species and its political behavior; I have made six field trips to Africa. But there are other reasons as well. Like humans, chimpanzees are tool-using “generalists” who adapted to cope with a rather wide variety of environments. Bonobos are not extreme generalists, and it seems quite possible that they have diverged more from the Common Ancestor than have chimpanzees (Wrangham and Peterson 1996; see also Stanford 1998b).

Scope of the Book

A simian political portrait begins Chapter 2, and vividly depicts the degree of hierarchy that prevails today in many forests of central Africa, where chimpanzees hold to their ancient way of life against rapidly increasing odds of extinction. By proxy, the portrait also helps to provide some notion of the degree of hierarchy that prevailed for the never-to-be-known ape that was the ancestor of humans, bonobos, gorillas, and chimpanzees. Having introduced the chimpanzee as a decidedly hierarchical political animal, I turn to egalitarian humans and critique the diverse array of theories that try to explain their very different, muted hierarchies.

In the third and fourth chapters I turn to the political life of extant hunter-gatherers, who when they remain mobile are uniformly egalitarian. Understanding their political way of life is crucial to the human-nature arguments in this book, for such people can serve as rough proxies for the foragers in whose groups our genes evolved. In Chapter 5 I turn to the tribesmen who followed them. These people domesticated plants and animals and, most of them, remained egalitarian in a fashion similar to that of their foraging predecessors. Many ethnographic accounts imply that tribesmen are innately egalitarian, but I use world ethnography to show that their egalitarianism, like that of hunters, is a product of constant vigilance and sometimes very harsh sanctioning.

In Chapter 6, I place these egalitarians in the spectrum of hominoid political behavior. Included are the three African great apes, whose societies are decidedly hierarchical, and nonegalitarian humans, who live in similarly hierarchical societies such as chiefdoms, primitive kingdoms, or authoritarian modern states. I also include people who live in “compromise polities” (big-man societies or modern or ancient democracies), in

which egalitarian ideologies combine with noteworthy degrees of competition, hierarchy, and centralized authority. This brief excursion into political taxonomy anticipates the two chapters that look to the evolutionary origins of political egalitarianism.

In Chapter 7, the Common Ancestor of humans and the three African great apes is portrayed, primarily on the basis of behaviors observed in the wild. However, because our interest is in evolutionary preadaptations, the behavioral potential that emerges in ecologically and socially bizarre captive settings (see de Waal 1994) is also included. The composite sketch provides referential-modeling insights (see Tooby and DeVore 1987) into the type of hierarchy that prevailed in that distant ancestor, and this four-species cladistic model (see Wrangham 1987) will be taken as primary, while the use of a chimpanzee-based referential model will be secondary—but also very important. This behavioral reconstruction of the Common Ancestor goes far beyond any previously proposed, and it lays out the basis for the formation of both orthodox social dominance hierarchies and reverse dominance hierarchies.

In Chapter 8, I offer specific hypotheses about the invention of egalitarianism, which was made possible not only by the invention of lethal hunting weapons but also by the invention of unique moral communities of humans. Paleolithic cultural diffusion possibilities for egalitarianism are considered, taking into account unstable Pleistocene conditions that pushed our direct ancestors to frequent migrations. These and other specific hypotheses are put to work to place the origins of political egalitarianism in evolutionary time.

In Chapter 9, I discuss the impact of egalitarian political behavior on the natural selection of social traits: egoism, nepotism, and altruism. The hypothesis I offer is novel—and certain to generate controversy. I make the case that there exists a robust evolutionary basis for genuine altruism in our species, suggesting that when prehistoric hunter-gatherers became egalitarian this condition substantially modified the “balance of power” within natural selection. The result was an empowerment of selection taking place at the between-group level, a change that eventually had profound effects on human nature.

This argument follows Sober and Wilson (1998) in challenging certain basic tenets of evolutionary biology as practiced by sociobiologists (for example, Williams 1966; Trivers 1971; Alexander 1974, 1987; E. O. Wilson 1975, 1978) and their now quite varied academic descendants in evolution-

ary psychology. For several decades these scholars have been committed to a degree of methodological individualism that has made human nature appear to be exclusively selfish, or at best nepotistic. In effect, our tendencies to be generous have been reduced to a combination of nepotism, dissembled altruism that society forces on individuals, and selfishly oriented reciprocation that is so exact as to be highly unlikely. The hypothesis in Chapter 8 provides an alternative explanation, albeit one that applies only to our own species.

In the final chapter, human nature is described in its political and social aspects. Given what has just been said about the divergent behaviors of males and females of our species, it might actually make sense to discuss their “natures” separately. Our physical dimorphism, as briefly discussed above, is considerable, and there is no good reason to believe that behavior genes are not comparably dimorphic. Obviously, human nature is a complicated topic, and I shall suggest that its study be made still more complicated by looking at the interactions of genotypic dispositions as well as by simply cataloging them. In experimenting with such an approach, I will find it easier to average any sex differences that may exist, and to treat human nature as a single entity.

Here I depart sharply from the usual trait-by-trait type of analysis, to portray human nature as being highly contradictory and likely to produce specific types of ambivalence. The *political* ambivalences to be discussed stem from the fact that while dominance and submission are basic, and submitting sometimes has its own rewards, resentment also comes to the fore when individuals have to play the submissive role. The *social* ambivalences stem directly from the levels of selection that operated in the Paleolithic, making for our well-known individual selfishness and nepotism, but also for a long-denied altruistic component that is strongly reflected in moral codes and helps to shape social life.

Hierarchy and Equality

In 1984, under the tutelage of Dr. Jane Goodall, I traveled to the Gombe Stream Research Center in Tanzania to examine the political behavior of wild chimpanzees. As with the quasi-tribal Serbs I had lived with for several years in the mid-1960s, the behavior that interested me most was conflict resolution. To study such behavior one must first study conflict, and both Serbs and wild chimpanzees develop major “problems” because of male status rivalry. Needless to say, in both “cultures” I tried to investigate conflict essentially as an observer, rather than as a participant.

With the Serbs of Montenegro, once in a while (despite my best efforts) I did become involved with local political competition and controversy (Boehm 1986). In my first year at Gombe, however, I discovered that an uninvolved role was absolutely essential, for I could not rely on words to negotiate my way out of political predicaments with chimpanzees. Even with excellent advice, I had to learn the hard way that a frail human body is ill suited for the bruising that attends daily life with this physically powerful and frequently agonistic species.

One day, in a mood of experimentation, I inadvertently gave the alpha male of the study group the impression that I was competing with him politically. I painfully discovered that high-ranking male chimpanzees are preoccupied with dominance, jealous of their prerogatives, and quick to put down potential rivals. On other occasions I learned that their uses of power are highly sensitive; indeed, in the wild they exhibit well-nuanced strategies similar to those of the large captive group studied by de Waal (1982) at Arnhem Zoo in the Netherlands.

An Intimate View of Chimpanzee Hierarchy

It was after I learned my initial political lessons that I experienced my most interesting day in the field. It convinced me of the essentially hierarchical

nature of male chimpanzee life, and made me aware of some of its important variations. To preserve the immediacy of these observations, let me keep the narrative in the present tense.

Climbing the mountain rift high above Lake Tanganyika, I am looking for chimpanzees—the Kasakela study group that is followed daily by research teams of the Gombe Stream Research Center. Unpredictably, the entire community has made itself scarce for several days, and the best guess of experienced African field observers is that the animals are up on the side of the rift somewhere, feeding on *mbula*—a mealy yellow fruit that looks something like a plum but lacks a plum’s sweetness when ripe. My mission is one of random search, for the study group’s highland territory extends across several well-wooded miles. As I proceed up the mountain, the tropical forest begins to thin, but even so visibility continues to be limited.

As a second-year novice at the research center, I know that I might easily walk right past the apes if they are in a large group quietly feeding just out of sight. I am lucky. From a steep wooded slope just above me come the first vocalizations I have heard in three days. I enter a stand of scattered trees to see several females swollen in estrus with a large number of males attending. One female, Spray, is in a tree with a high-ranking male nearby. I settle in to watch, and take notes using a professional Walkman D-6C. Facing up the mountain, I duly note that a majority of the 50-member study group is present, and that the higher-ranking males seem to have primary access to the females even though there is no overt conflict with the “lesser” males who seem to be hanging around at a distance. There is little doubt that higher rank permits more frequent matings in this basically promiscuous species.

Soon I hear a few distant but excited vocalizations, and the males immediately stream down a steep slope to my right. As I hurry to follow, a cacophony of calls erupts below me and out of sight. There are intense screams, but also deeper barking calls and hoots that sound like the vocalizations one hears when hostile patrols meet or when the chimpanzees are hunting. As I plunge through the scattered trees and down into a steep, grassy clearing perhaps 40 yards across, to one side I see a mass of chimpanzees—at least half a dozen—all vocalizing excitedly as they appear to be engaging in a concerted attack on a single individual.

Being a novice, I come to the rash conclusion that they have found an intruder from another territorial community and are subjecting him to a

lethal mauling. I stay at a careful distance, and shortly the vocalizations become less intense and a male moves away in possession of what appears to be a piece of raw meat. Another follows. I half expect to see a corpse, but when the last “attacker” moves away, the chimpanzee who remains is a large adult male, perfectly healthy but visibly upset. He is not a stranger from another community but Jomeo—the largest adult male in the study group and one of the lowest ranking. Bleating out a thin, continuous, undulating scream and showing all his teeth in a fear-grimace, Jomeo cradles in his arms a small brown carcass, bereft of head and extremities, which I assume to be a baby bushpig. (I have never seen a bushpig before.)

At that moment, two men approach wearing the khaki of Jane Goodall’s Tanzanian research crew. Specialists in following baboons, they tell me quickly that their baboons have been hunting bushpig and that Jomeo has pirated their kill. Then they hurry off so as not to lose their group. The overall scenario is clear to me now, but I am puzzled. In other hunts I have seen alpha male Goblin commandeer captured prey from adolescent males, and I know that Jomeo ranks far below Goblin, who is present. Goblin and other high-ranking males such as Evered were part of the mob scene I had just witnessed, but in spite of being both outranked and outnumbered, Jomeo has retained the bulk of the carcass. I am still pondering this curious permutation of chimpanzee dominance behavior when the displays begin: meat excitement displays that I have heard about but never seen.

Suddenly all the big males except for Jomeo begin to race around on the ground, holding small portions of raw pigmeat in their jaws. This outburst adds to my perplexity, for normally it is alpha male Goblin who displays while all the others respectfully race for trees to climb. I know from my ongoing tutelage that normally the alpha male will not allow other males to display when he does, for their displays are—in chimpanzee political language—challenges to his high status. Jealous of this authority, he carefully dominates everyday group scenes by rushing around furiously while the display tendencies of others are heavily inhibited by fear of an immediate attack from him.

This is different. The scene I watch is a wonderful, exuberant, theatrical improvisation with Goblin, Evered, Mustard, Freud, and several males I have not yet identified all “going ape,” as it were, without any apparent political inhibition. Mustard, normally a politically unremarkable male

who ranks very low in the adult male hierarchy, displays mightily across a low tree limb right in front of me. When he comes to the end of the limb, he surprises me by leaping forward and up, into a dense, deep tangle of delicate hanging vines. He proceeds to “swim” through this tangle by making lightning-fast, hand-over-hand climbing motions, tearing away so hard at the thick lacework that he only gradually loses altitude and is just able to reach the limb of another tree. I am astonished at the novelty of this particular display, even though every display tends to be different and combines a variety of elements such as running, stamping, slapping the ground, swinging on vines, dragging branches, uprooting small trees, and scooping stones and large rocks into the air—all accomplished with an exaggerated display of aggressiveness. As Mustard swims through the vines, Goblin displays on the ground below without directing his aggression at any other male; but this exuberant group exhibition of “improv theater” suddenly develops ugly possibilities. When Mustard reaches his second tree, he begins to display across a very long, thin branch about 10 or 15 feet above the ground. Suddenly, he loses his footing as he races along the bough. He falls, arcing inexorably onto the back of Goblin, who is on the ground beneath him, displaying at full speed in the same direction. The excited alpha male does not see Mustard just above him, writhing and wriggling, knowing exactly where he is about to land. As I watch, the dance that Mustard performs in thin air suggests a free-falling acrobat trying to move his body sideways without any traction whatsoever—an aerial pantomime that would have been comical but for the potential consequences.

I brace myself mentally for the inevitable attack as Mustard, his face now distorted in a very wide fear-grimace, lands right on his leader’s back. This could have been a surprise attack by a rival, but Goblin, after an initial reaction of surprise and momentary hostility, seems to be taking it well; he does not direct a serious attack at Mustard, as I feared he might. Mustard’s big fear-grin and unaggressive evasive actions may be helping, and in all probability once he is recognized, his very low dominance status also is being taken into account. After a few seconds of observing Goblin’s reaction, I am relieved to see that Mustard is not to be seriously punished—or even mildly attacked.

This unexpected visit from above does seem to rile Goblin, however, for a moment later he races across the large clearing to catch the burly late-adolescent Freud in the midst of his own terrestrial display. When

Goblin singles him out, Freud's exuberance turns instantly to fear as his bristling hair sleeks down and he screams and fear-grins while assuming a cowed, submissive stance. Goblin attacks him for several long seconds, with Freud screaming and allowing himself to be pummeled and, briefly, cartwheeled. Goblin drags and kicks him vigorously, but he does no serious injury—except to Freud's enjoyment of the moment, and perhaps to his aspiration to group leadership.

That year I made a friendly bet with my mentor that Freud, when he reached adulthood, would take over the alpha position from Goblin. She predicted that it would be Frodo, Freud's very aggressive younger brother, with Freud backing him as their uncle, Faben, had backed his younger brother, Figan (see Goodall 1986). Frodo was quite young in 1985, but a burly late-adolescent Freud was already being treated by small-bodied Goblin as a potential serious rival.

As I watch Goblin begin to “trash” Freud on the ground, I am fearfully clutching a tree—a deliberate sign of submissiveness that I hope will keep my presence from being interpreted as a possible political challenge. Watching what is happening to Freud, I nervously check to see if the tree is climbable. It is not, so I circle my arm tightly around the trunk—both to show maximum respect and to anchor myself in case I might somehow be incorporated into the wild scene before me. The emotion of fear is part of human nature, of course, and I am experiencing it sharply every time one of the big bristling males races in my direction looking almost twice as large as life. Fortunately, they have something more important on their minds, namely, hedonistic self-expression. The displays wind down and meat-eating begins.

The ethologist's scientific term for the state of arousal I observed that day would be “meat-eating excitement” (Goodall 1986). To me, the spectacle was a theatrical production full of political puzzles, some of which I could figure out and some of which baffled me. My own vicarious excitement—and my nervousness about being assaulted like Freud—quickly abated as the displays ended. Some of the males, not carrying any meat that I could see, wandered down the hill and out of sight, while others settled down to eat their portions of pigmeat. Everything seemed relatively peaceful now, but another impressive surprise was in store for the novice.

Several minutes later I hear some distant vocalizations that I cannot identify, and the remaining males stream farther down the steep, open

slope and disappear into an area of dense brush that lies below. I follow Goblin as best I can, wriggling on my belly through several dozen yards of tangled vines and briars until I emerge in a very small clearing, no more than 30 feet across, with a single very small tree, in the center. There I stand, Professional Walkman in hand, to watch Goblin as he sits alone peering into the thick brush and emits several low, staccato barks. I can see nothing, but I suspect that Goblin is barking at the same baboons who have been hunting bushpig. Perhaps they have made another capture, and it is time for some more piracy. As a political anthropologist I am eager to observe it.

Presently Goblin disappears into the brush and starts a commotion, with other chimpanzees vocalizing out of sight. As I continue my verbal note-taking into the Walkman, Goblin emerges at full speed in my direction with something large and grayish no more than a foot behind him. At first I mistake it for a big male baboon, and stay in place taking notes on the reasonable assumption that a problem between a habituated chimpanzee and a habituated baboon should have no bearing on my safety. Then, just as I recognize the emerging figure to be porcine and much larger than a baboon, Goblin, who is leading it straight toward me, veers to one side. The enraged pig now has me as its target. In an instant I find myself standing on the one low branch of the minuscule tree, just high enough so that the pig, fortunately staying on all fours, bites several times at my feet, too low by several inches, then hurries back into the brush. Now, with my added height, I can see two other grayish hulks in the brush and I realize that I am smack in the middle of a chimpanzee pig hunt.

Goblin disappears into the brush again, and again there is a commotion with several chimpanzees giving excited-sounding, staccato barking calls. This time it appears that another chimpanzee has been the decoy, for Goblin emerges with a baby bushpig wriggling furiously in his mouth. He brings it over to where I remain treed, and directly under my slender bough he bites it decisively in the neck, splattering small drops of blood all around as I look down between my feet and take some pictures. The wriggling stops. Goblin moves quickly through the brush, away from where the pigs were, and climbs a large tree nearby to dismember his prey. He is quickly joined by Evered, the number three male of Gombe's Kasakela community.

As I marvel at my apparent equanimity, I balance myself on the tiny branch and open my camera to change the film. But I have opened the

camera without rewinding! The film, including the last three pictures of Goblin directly below me dispatching the little bushpig, has been exposed to the sun. As I realize what I have done, my mind returns to the powerful jaws that recently snapped at me. I decide to remain above ground, in my little tree, just in case. Then fear overtakes me retroactively, as I watch Goblin begin to share his kill with high-ranking Evered, who approaches him confidently. Other males are climbing the tree now, but their approaches are far less confident and they keep their distance as these two senior males begin to feast on pigmeat.

I have described this episode in detail because it is so instructive in matters of hierarchy and power. The previous summer I had read Goodall's *Chimpanzees of Gombe* in draft form, so I understood intellectually about dominance and submission in the wild, and about the resulting hierarchical behavior among males. I knew, as well, that while males operate ambitiously in political coalitions, the females are far less involved with status rivalry and dominance behavior. Still, it took the events of that day to bring home to me the fact that male chimpanzees are ultimate political animals. They deal daily with potentially lethal power, and do so at very close quarters. This fact is particularly apparent when they go hunting for bushpigs and work mere inches from such a dangerous animal as they practice strategies of decoy and capture. They also have to deal with one another on a daily basis in situations of serious political tension, and the males within a community do sometimes kill one another (Goodall 1992).

One thing I had realized, as I watched the theatrical displays, was that the dominance orders of chimpanzees are heavily improvised, and that even phylogenetically predictable displays can have very different meanings depending on the behavioral context. However, I remained puzzled by low-ranking Jomeo's basic retention of the kill he had pirated from the baboons. With subsequent counsel from a mentor who had been watching chimpanzees for fully a quarter of a century, I came to understand that dominance roles become reversed in certain situations—as when a low-ranking adult male hunter possesses prey he himself has caught, or when a male has taken a female on an extended consortship and a higher-ranking male tries to intrude (Goodall 1986).

The events related above persuaded me that chimpanzees understand one another's intentions. When a politically passive Mustard surprised Goblin by landing right on top of him, the alpha male's arousal was dis-

cernible but politically unexpressed. This arousal was soon redirected, however, at late-adolescent Freud, a youngster who definitely had ambitions of his own. (Freud did eventually become the alpha male at Gombe, and there is little doubt that Goblin was reading political intentions correctly when he all but ignored Mustard's gaffe and instead singled out Freud for intimidation.)

What about my bet with Jane Goodall that Freud, rather than Frodo, would succeed Goblin as alpha male? Neither of us won. An unlikely contender named Wilkie, five years later, wrested the alpha position from Goblin in a fierce fight over a female. Goblin, grievously wounded, fell to a rank low in the adult male hierarchy. Freud did take over several years later, from Wilkie, but we will never know whether Freud could have reversed his position with Goblin. Wilkie may well have been an easier opponent for Freud, because Goblin, in spite of his small body size, was a tenacious, astute, and effective "chimpanzee politician" (Goodall 1986). At this writing Frodo has taken over from elder brother Freud, and I know enough not to predict the identity of the next alpha male.

Completing the Portrait of a Despotic Society

I turn now from vivid anecdotes to a systematic political description that is based on field observation spanning tens of thousands of hours. This fieldwork was conducted by scholars such as Goodall and her Tanzanian field staff (Goodall 1986) and the Japanese primatologists at Mahale (Nishida 1979). There is no doubt that chimpanzees are innately very rivalrous. Their type of social system is based on sharp status rivalry and it depends on specific dispositions for *dominance* and *submission*. Various authors (Nishida 1979; de Waal 1982; Goodall 1986; Wrangham and Peterson 1996) have portrayed a species whose males seem intent on domination yet submit readily when it is necessary to do so. My most interesting day provided an excellent illustration of such behaviors.

Freud's ambitions were not exceptional. Every young male, as he approaches or reaches adolescence, becomes driven by political aspirations. First, he displays at low-ranking adult females until they begin to pant-grunt submissively when they greet him. Then he moves on to the more formidable females. Sometimes he suffers reverses along the way, particularly if the females have allies to help them. Eventually he will dominate all the females and begin to direct his displays at lower-ranking adult males

(Goodall 1986, 1990). If he is successful in that pursuit, he keeps working his way up the male hierarchy until he can go no further. At Gombe Mustard and Jomeo never made it very far, but even they were dominant to all the adult females.

A chimpanzee's basic political tools are threat and appeasement, and the signals provided by nature are quite varied. To dominate, an individual may stare, or bristle, or move toward another, or charge, or display, or actually begin an attack. Soft-cough vocalizations and arm-threats serve as moderately aggressive reminders to subordinates that they are provoking ire. The tools of submission are still more varied: the pant-grunt greeting can escalate to a pant-bark or a pant-scream; and a variety of submissive bodily signals include crouching, bobbing, presenting one's rump, sleeking the hair, and exhibiting a fear-grin. One may wonder why even a behaviorally flexible species would develop such an apparent plethora of overlapping or identical signals. However, it is important for the chimpanzee to make it perfectly clear that he or she (as subordinate) is not challenging anyone's status; a multiplicity of signals reduces the chances of misunderstanding.

Keep in mind that the typical way of communicating a political challenge is simply to ignore the display of a superior, and in a situation of low visibility a submissive crouching posture with sleeked hair may not be seen. A simultaneously emitted pant-grunt or an excited, fearful pant-scream *will* be heard, and therefore the political situation will not become ambiguous. Such signals are essential in avoiding an attack. Often several are used simultaneously, as when a subordinate greets the alpha male by crouching submissively and exhibiting a fear-grin even as he pant-grunts.

At the core of any social dominance hierarchy are the basics of domination and submission by means of appeasement. Evasion also plays a part in submissive behavior, but is costly in energy: it is far more efficient to exhibit a fear-grin and pant-grunt to appease a superior. Chimpanzee political behaviors go beyond dominance, submission, and flight. For example, a subordinate may request reassurance by proffering a hand, and a dominant may respond by touching the nervous subordinate, or may do so spontaneously (de Waal 1989). Grooming also plays a major role in political relations, particularly in the pursuit of coalition partners (Goodall 1986).

Wild chimpanzee communities usually number 50 to 100 animals, and the power structure can be rather complicated. Let us begin with the males. Basically, the adults are aligned in a simple, linear dominance hierarchy

with the alpha outranking everyone, the number two outranking all but the alpha, and so on down the line. But these same males regularly form male-male coalitions in order to advance themselves politically, and sometimes alpha males must deal regularly with pairs of rivals who are serious about challenging them. When an alpha is unseated, and often this feat is accomplished by a coalition, the hierarchy rearranges itself. Some coalitions are long-lasting, but the male rivalry among chimpanzees is basically individualistic and “fickle” (see de Waal 1982). After an alpha is displaced, one coalition partner becomes alpha, while the other either remains as his ally or forms a new arrangement to unseat his former partner.

The Machiavellian behaviors of de Waal’s large captive group are also evident in the wild (see Nishida 1979; Goodall 1986)—except that the females appear to participate far less in power plays. Males always team up with other males; female coalitions are much rarer. This is no accident, for in the wild females spend much less time together than do males.

At Gombe some females belong to a central clique, while others stay in peripheral areas. Many transfer while young to adjacent communities (Goodall 1986). The females do have a social dominance hierarchy (Goodall 1986; see also Baker and Smuts 1994; Pusey, Williams, and Goodall 1997), but in the wild they tend not to have a single individual who is the alpha. The structure of dominance relations is less linear, and the use of appeasement in greeting is much less regular. Female dominance comes into play in displacing subordinates at feeding sites, and sometimes, collectively, in threatening stranger females who migrate into the community (Goodall 1986). Females also may assume the control role to intervene in adult conflicts (Boehm 1994a), but they do so rarely.

In spite of the constant tensions involved with male status rivalry, and in spite of all the political alliances, life in chimpanzee communities is fairly well routinized; every male knows his place and stays there regardless of his ambitions. When an alpha male is well established, he can intimidate any hostile coalition or, for that matter, the entire community (Goodall 1986). He maintains this status by means of frequent displays, which are accompanied by a chorus of fearful screams and hostile *waa*-barks coming from those he intimidates. In a stable dominance situation (which can go on for years) these displays serve to reinforce the alpha male’s position. They rarely flare up into actual conflicts. At times, however, protracted periods of dominance instability occur, during which a subordinate male challenges a higher-ranking male and neither gives in.

Domination brings with it definite privileges in chimpanzee communi-

ties—which are composed of constantly recombining parties of various sizes that collectively defend a fairly precise piece of real estate. For both sexes, a dominant position leads to better access to food resources, and for the typically promiscuous males, high rank confers better mating opportunities. Yet the seemingly tyrannical behavior of a strong chimpanzee alpha male hardly approaches the despotism of a Hitler or a Saddam Hussein, or even the far more limited political power of an American president who can call in the National Guard. Goblin can *take* virtually anything he wants, with only a few exceptions (as when Jomeo had personally acquired the baby bushpig). He can attack other group members individually, if necessary, to keep them intimidated. But there are few contexts in which he actually controls the group, acting as its “governor.” Every chimpanzee decides autonomously where to forage, and whether or not to join in a hunt or go on patrol.

In human terms, then, Goblin is far more a bully than a despotic ruler or even a reasonably strong governor who possesses some decisive authority. This is the case even though he sometimes regulates conflicts between group members. Such fights are inevitable, for younger males are always trying to move up the hierarchy and often engage in attacks on females, while occasionally pairs of females also get into serious quarrels. Not infrequently at Gombe the alpha male assumes a “control role” (see Erhardt and Bernstein 1994) to stop significant fights that break out (Boehm 1994a). Usually he displays at the protagonists and scatters them; then, sitting down between them, he inhibits resumption of the quarrel. This peace-making behavior surely has an innate basis, for in chimpanzee groups high-ranking individuals regularly pacify the fights of others (Boehm 1992, 1994a). They do so in a variety of environments, including artificial ones created by humans (de Waal 1982).

At Gombe almost all of the alpha-male conflict interventions result in pacification, which makes for “good government.” While this conflict resolution may be innately based, it would appear also to involve flexible decisions about strategies and tactics (Boehm 1991a). During Goblin’s tenure his predominant pattern was to display straight at the protagonists to disperse them—but his actions were always adjusted to logistical possibilities. One videotaped sequence showed him feeding in a tree when two nearby females began a serious fight, grappling at close quarters. Goblin swung across several branches and essentially propelled the females down the tree. Their rapid descent obliged them to disengage in order to break

their falls, after which Goblin chased one of them back up the tree and forced the other onto the ground away from the tree. A potentially severe fight was ended in just a few seconds with no damage to either female, both of whom were unrelated to Goblin.

On what was probably my second most interesting day at Gombe Stream Research Center, I watched two adolescent males begin a serious fight and observed yet another tactical variety of peacemaking intervention by a dominant. Goblin was not with the subgroup in question, but the number two male, Satan, was. He charged right at the protagonists, but they were so involved in their conflict, grappling and trying to bite, that his approach had no effect. Satan, an unusually large male, first thrust late-juvenile Frodo aside because he was standing nearby and might have entered the conflict. Then he put his great arms between the bodies of the two combatants and literally pried them apart, which took him a full four seconds. When I asked Goodall and her field assistants about this variation, they said that it had never been observed over the quarter-century they had been watching chimpanzees. However, de Waal (1982) reports the frequent occurrence of such “prying-apart” behavior at the Arnhem colony (see also Boehm 1994a).

When dyadic conflicts begin, it is obvious that the alpha can exert definitive control over such behavior if he chooses to, and that his actions amount to “governance” with *authority*. But when it comes to controlling the behavior of larger groups, the alpha’s possibilities are limited to merely *influencing* the group decisions when indecision prevails. Thus, while high rank involves some civic responsibilities as well as extensive bullying privileges, the alpha can only impose his will on the entire group momentarily and temporarily, by terrorizing its members with his displays. In human terms, although he may be something of a tyrant, he is far from being a dictator who firmly controls the destinies of others.

This is an important distinction. In human egalitarian society leaders are not allowed to bully, and they can lead only very subtly, through influence. Goblin similarly has little coercive power as group leader, but he can at least help his community to make decisions in certain contexts. Two videotaped sequences at Gombe show him appearing to manipulate emergency situations involving external threats. In one he definitely *influences* a patrol’s decision. In the other, he reinforces his group’s tendency to harass a large python.

The latter sequence begins with Goblin and Evered hearing alarm calls

several hundred yards away. The two senior males travel deliberately toward a subgroup that has encountered and surrounded a python 5 yards long, staying well out of reach of its head. Goblin moves slowly through rustling leaves, stopping occasionally to listen. When he arrives at the scene, he engages in a dramatic tree-drumming display that is not emulated by his companion, Evered. The chimpanzees as a group continue to harass the python, giving alarm calls every time it begins to move, and eventually some of the males engage in dramatic “branching displays” up in trees. Goblin assumes no noticeable role of leadership aside from his initial intimidation display, but it is likely that his behavior emboldens the others. Unable to hunt, the python eventually leaves the scene at a high rate of speed.

In the patrol footage, Goblin’s leadership is more apparent (Boehm 1991a). The patrol is a rather small one, and like others it involves cautious silence, scanning, and some scouting, with the senior males taking turns in leading. As the Kasakela patrol approaches the no-man’s-land between their community’s territory and that of a large neighboring community to the south, its members remain quite silent. They sit along a ridge, feeding in desultory fashion. Apparently they are spotted first by their neighbors, who happen to be patrolling at the same time. Hostile vocalizations begin in the distance, and the Kasakela males immediately become attentive. Normally, when groups of equal size meet they vocalize menacingly at each other for a time and then gradually withdraw into their respective territories, for chimpanzees attack strangers only when they outnumber them decisively. In this case, Evered after a slight delay begins to return the vocalization—but he quickly chokes it off, looking around behind him in Goblin’s direction.

As Goblin rushes forward to reconnoiter, Mustard approaches him with a large fear-grin and tries to embrace him for reassurance. Goblin moves forward quickly to a vantage spot to peer across the valley, and Mustard now emulates him. As Goblin (alpha), Satan (number two), and Evered (number three) scan the valley, they break off several times to look at one another quickly. After nearly 60 seconds Goblin suddenly makes his decision, and begins to vocalize and display. The entire group, which includes adolescents Freud and Beethoven, immediately follows suit, and the result is the usual one: both groups vocalize and display ferociously, then slowly retreat into their home ranges.

Although we cannot interview him about his motives and strategies,

Goblin's considerable influence in this decision process is not difficult to discern (Boehm 1991a). Still, had the other group members decided to desert him when he began his display, he would have had no way of making them return to the front, nor of punishing them for dereliction of duty. His "army," like the war groups of egalitarian tribesmen who allow no leader to dominate them, is made up of volunteers. His political role, as bully and sometime governor, is merely influential when it comes to collaborative decisions of strategy.

Triangulating to Human Nature

Although my focus in this volume is on human political nature, I have opened with a treatment of the politics of the well-studied chimpanzee. Introducing some human standards into my evaluation, I have emphasized the limitations on the despotic role. Members of chimpanzee communities essentially move about on their own: they exert such freedom of action in order to maximize their food intake in the face of dispersed resources, and usually are able to cope individually with predators. For reasons of sociability, community members do often travel together, but adults and adolescents of both sexes come and go as they please, constantly joining new subgroups whose size is adjusted to the food quest. While the rank and file are regularly bullied and dominated, they are little governed—except when they get into fights. And if the costs of being bullied become higher than the rewards of sociability, individuals can seek refuge in peripheral areas (which unfortunately are close to enemy territory) and thereby remain undominated. In fact, a sexually available female can transfer to an adjacent community. A male really cannot do so, for he is apt to be killed on sight (Nishida 1979; Goodall 1986).

Consider now the very different political life of human beings who live in strong chiefdoms or modern nations. They are subject to control from above in many spheres of their lives. Also in opposition to the chimpanzee, a silverback mountain gorilla exerts far more control over his harem (see Fried 1967), the members of which stay together all day because their food is more concentrated than that of chimpanzees (see also Fossey 1983; Watts 1996). The gorilla not only protects his harem against predators, he also determines the direction of travel and thereby dictates foraging strategies for the entire group. He also defends his females against intruding males—which curtails the females' freedom even though they sometimes manage

to transfer. He also acts in a control role as an alpha chimpanzee does, to stop conflicts. His power, as “ruler,” is considerable.

It is not difficult to rate gorillas, bonobos, and chimpanzees on Vehrencamp’s (1983) scale, for all can be placed well toward the despotic end of the continuum. With humans, it is far more difficult to locate our behavioral dispositions with respect to “despotic” as opposed to “egalitarian.” In different circumstances we practice both types of political behavior. The human animal can exhibit far more tyranny than any despotic African great ape, but it also can be more egalitarian than even the bonobo, an innately hierarchical ape whose males find their power being strongly counterbalanced by coalitions of females (Kano 1992).

The nature of human political dispositions remains in question. Are we innately so flexible that human behavior can be reshaped “at will” by environmental forces, or do some serious problems exist with regard to our definitions and the perceptions of our own political nature?

Prior to the next three chapters, in which I closely examine nonliterate egalitarian society, I must introduce extant hunter-gatherers. Their small foraging bands typify egalitarianism for most observers, and I will examine the causal explanations that ethnographers have given for their strikingly low levels of social and political hierarchy.

Anthropologists on Egalitarians

With the help of Morgan (1877), scientific anthropology emerged in the nineteenth century as a robust but tiny discipline that faced the enormous task of explaining nonliterate cultures and their natural history to a world of urban literates. If the people in question were mobile nomadic foragers—people who gathered and hunted—usually their groups were called bands. This term continues to be useful today (see Kelly 1995). Yet most of the people studied early on had domesticated plants and animals, and their groups were called tribes—a term that continues to be used and is confusing in spite of serious attempts to remedy the situation (see Sahlins 1961, 1968; Fried 1975; Service 1971).

Both bands and tribes elicited a predictable political reaction when they were discovered by early explorers or ethnographers. These small local groups had no leaders with any real authority; in contrast to the societies of their discoverers, every individual seemed to come and go just as he or she pleased. It became clear that when people live in small, locally autonomous

groups, they are almost always “equalitarian.” Modern anthropology therefore faced a dilemma. Politically equalized bands and tribes had been found on every continent, so this anomaly could not be explained as some kind of local historical development. They were found in a bewildering array of ecological niches, so environmental influences did not seem to be a major determinant: egalitarians foraged, farmed, and herded animals. They also used many different residence and descent rules and a variety of kin terms.

There were also some constants. Their smallish groups had local political autonomy. Strict equality was practiced with respect to political relations among adult males. Leaders were weak and merely assisted a consensus-seeking process when the group needed to make decisions (Knauff 1991). A political regularity that prevails in the face of so much variation in environment, subsistence pattern, and social organization demands a single causal explanation. The band, in particular, warranted explanation because of its evolutionary importance.

Surveying the continent of Africa, the British social anthropologists Fortes and Evans-Pritchard (1940) made an attempt. They identified three types of political society, most of their African sample being politically centralized chiefdoms or kingdoms having “governmental” institutions, or else “stateless societies” that fell into the tribal category. A few African hunter-gatherers did live in bands, “those very small societies . . . in which even the largest political unit embraces a group of people all of whom are united to one another by ties of kinship, so that political relations are coterminous with kinship relations and the political structure and kinship organization are completely fused” (pp. 6–7).

In effect, the band was depicted as no more than a human family writ somewhat larger. Fortes and Evans-Pritchard had in mind the “bushmen” of southern Africa (Middleton and Tait 1958:1), and their characterization was accurate to a degree. Kalahari foragers and others living in bands do appear to take a rather familial approach to social life, often calling nonrelatives by kin terms, and bands share large-game meat just as families share all foods. In terms of accurate taxonomizing, however, their position presents several problems. For one thing, typical hunting bands (including those same Kalahari foragers) contain unrelated households. For another, the nature of authority in the family differs significantly from that in the band as a whole.

The band level of political organization was mentioned only in passing

by Fortes and Evans-Pritchard, but their errors reveal an important discrepancy. All humans have nuclear families, and these minimal social units are scarcely devoid of hierarchy or authority, for children are always controlled decisively by parents, and women and younger adults may be controlled by their elders (Service 1962). By contrast, at the band level the main political actors behave as equals.

The same is true of tribes. In 1958 the British social anthropologists Middleton and Tait (1958) focused squarely on egalitarian politics as they labeled a series of small African groups “acephalous.” The studies focused specifically on political leadership, and the ethnographers took interest in the apparent anomaly mentioned above, that no headmen or chiefs with any real political authority seemed to exist in African tribes. The situation held true even though clusters of local units could combine and act together politically against other coalitions of tribes. Although the studies in the Middleton and Tait volume provided excellent political descriptions of egalitarian tribes and their predictably weak leadership, little attempt was made to explain this power vacuum at the top in terms of uniform causes, let alone of natural history.

Anthropologists continued to face a behavioral aberration that raised profound questions about human nature itself, and attempts to classify egalitarian politics continued. For example, Sharp (1958) described a forager group as “people without politics,” and Barclay (1970, 1993) went so far as to suggest that such people were living in a state of anarchy. Others took a more balanced approach. In the 1960s the cultural anthropologists Service (1962, see also 1975) and Fried (1967) widened the focus beyond subsistence, leadership, and governmental functions, to consider also matters of ranking and social stratification. They repudiated the Rousseauian claim that acephalous bands and tribes were totally lacking in hierarchy or authority, for such societies frequently demonstrated competition, and muted status differences tended to be present among the males. But in their view egalitarian societies remained quite distinctive, in comparison with hierarchical chiefdoms, primitive kingdoms, and civilizations.

Fried, in particular, tried very hard to find a single causal explanation for this widespread political anomaly. In my opinion, he faced a problem that required evolutionary analysis, with a focus on determining the role of innate dispositions. In spite of the broad training many of us receive in graduate school, cultural anthropologists have been mysteriously hesitant to engage with human nature. Even today the cultural branch of our disci-

pline is trying to recover from the powerful antievolutionary biases that Boas inspired—even though a few earlier scholars such as Kroeber (1948) and White (1959) explored “evolutionary” interests along the way, and Count (1958) took on the problem of human nature directly, along with Tiger and Fox (1971).

Fried and Service saw themselves as cultural evolutionists, and their work focused mainly on clarifying processes that encourage political transitions from band to tribe to chiefdom and, in Service’s case, to primitive kingdoms and civilizations. At the lower end of this sequence, they identified an important type of political society that was given the name “egalitarian” (Service 1962:114, 141; Fried 1967). Placing it in a broad comparative context, they attempted to identify the causal factors that either kept it in place or eventually led to its transformation into a more hierarchical type of society.

Service (1975:50–53) was particularly interested in the “self-effacing” behavior of the headman, whose role invariably was that of facilitator as opposed to governor or ruler. While headmen as informal leaders were likely to possess admirable self-assertive skills in hunting or warfare, these qualities were combined with “generosity, kindness, and freedom from bad temper, such that the person becomes highly respected and his opinions [carried] more weight than other, still older men.” In effect, these leaders were sharing their ideas with the group in the form of suggestions, without asserting any authority.

In the above quotation, Service was referring to Radcliffe-Brown’s (1922) description of Andaman Island Negritos, and he also cites Thomas’s (1959) work on South African !Kung-speaking foragers—the same Kalahari hunter-gatherers that Fortes and Evans-Pritchard had tried to analyze. Service (1975) made the point that a respected band leader would go out of his way to avoid prominence, giving away virtually everything he came to possess. He also emphasized the leader’s ability to sense public opinion. His conclusion (see also Service 1962) was that the foraging band’s leader was a mere *primus inter pares*, a first among equals. These ideas may be considered seminal, as may Service’s early and influential use of the term “egalitarian” with respect to tribesmen.

It was Fried, more than Service, who tried to pick apart egalitarian society in its social, economic, and political workings, to give it a precise definition, to examine it in relation to the societies of other primates, and to find a cause for this political phenomenon. He began by carefully dis-

tancing himself from previous ethnographic reactions that overperceived the social equality in egalitarian societies. Focusing on males as the more obvious political actors, Fried pointed to significant individual differences of strength, skill, prestige, influence, and authority, and demonstrated ethnographically that up to a certain point such differences were appreciated and accepted. What was absent, he insisted, was the cultural habit of summing these advantages in such a way as to “establish an order of dominance and paramountcy” (Fried 1967:33).

Fried was interested in finding both immediate and ultimate explanations for this interesting state of political affairs. From sociology he brought in the notion of “leveling mechanisms” to explain on an immediate basis the lack of pronounced or formal hierarchy. For example, he emphasized that among various hunter-gatherers certain social customs arbitrarily spread around the credit for bringing meat into camp and thereby kept the best hunters from lording it over others in the band.

Fried also tried to probe more deeply, to explore the underlying question of human nature. He looked to field descriptions of other primates, to see if pronounced social hierarchy seemed to be integral to being a primate. In focusing on great apes as the primates most closely related to humans, Fried chose to challenge a generalization of the pioneer primatologist Carpenter, that competition and dominance behavior were associated with *all* monkeys and apes.

Carpenter (1942:191–192) defined dominance in terms of priority of access to food, mating, and position in the group while traveling, along with superiority in aggressiveness or group control—a definition that holds today. On the basis of data available in 1967, Fried found gorillas to be behaviorally closer to this model than chimpanzees, our closest phylogenetic cousin. Goodall (1979) and Nishida (1979) had not yet published on the dramatic territorial behaviors of chimpanzees, or established the fact that chimpanzees had all but linear male dominance hierarchies. Fried was on the wrong path. As we saw earlier, every adult (male or female) must salute any higher-ranking adult male with a submissive greeting, while a predictable dominance order provides top males with privileged access to food, mating opportunities, and power. Actually, chimpanzees fit Carpenter’s profile quite nicely.

As a result of incomplete data and some erroneous conclusions based on the available facts, Fried (1967) characterized leadership among other primates as primarily a matter of setting the direction of travel. He dismissed anecdotal reports about group leaders intervening in conflicts, and explic-

itly denied the existence of anything like human dispute settlement. In that I have studied the management of conflict in both humans and chimpanzees (Boehm 1986, 1994a) as well as in other primates (Boehm 1981), I could assure Fried, were he living, that when dominant chimpanzees intervene in conflicts and then watchfully stay nearby to intervene again if necessary, they appear to know exactly what they are doing—just as human leaders do when they implement their own techniques of intervention. They are using whatever authority or power they possess, to govern the behavior of those below them.

In spite of these difficulties in identifying ultimate causes, Fried set the tone for the interpretation of egalitarian societies over the next several decades. A thesis of this book is that he thereby seriously underestimated one aspect of human political nature: the propensity to compete socially and to engage in domination behavior. All the same, Fried's surface reading of political dynamics was very close to the mark. In comparing humans to other animals, he wrote:

Do conflicts break out in simple societies as a manifestation of a competitive drive for power? The evidence is largely negative . . . Rather than being structured hierarchically such societies have as many people of paramount prestige as can display the qualities necessary. There is, however, one source of conflict in the way this kind of situation usually develops. While men in these societies do not seem to display any drive for universal dominance within their groups, they do display a considerable drive to achieve parity, or at least to establish a status that announces "don't fool with me." Among other things, this attitude helps make understandable the violence that can develop over . . . adulterous situations. (Fried 1967:79)

This characterization is accurate, and the implication that there could be something like an innate drive to parity may be astute. But in terms of social dynamics Fried fails to notice that if all the males in a group hold a "don't fool with me" attitude, the result can be a far more powerful "don't fool with *us*."

"Environmental" Explanations of Egalitarianism

One of my immediate missions is to bring some cohesion and order to the larger theoretical framework in which egalitarian politics are analyzed. A distinctively egalitarian political style is highly predictable wherever people

live in small, locally autonomous social and economic groups, and in my opinion this situation is likely to have a single causal explanation. I am not alone in this belief. Referring to Gardner's (1991) survey of the diverse explanations of egalitarianism formulated by students of forager behavior, Guenther (1991:563) says of these theorists: "Each one of them has—like the proverbial cat around the hot porridge bowl—talked around the matter of hunter-gatherer individualism or personal autonomy, each from its own theoretical and ethnographic perspective, sensing but leaving inchoate an overall theoretical framework."

A near-absence of any reference to human nature is one factor that has kept this overall theoretical framework vague, but another is the tendency to look for mechanical variables as the causes of egalitarianism—instead of scrutinizing the foragers themselves as political strategizers who may be deliberately shaping their own social order.

In effect, Guenther is talking about the tendency of ethnographers who study hunter-gatherers to explain egalitarian behavior, on a local basis. The great majority of these environmental explanations are logical and empirically well founded, and I include not only theories that look to the natural environment and subsistence pattern, but those that look to self-organizing aspects of the band's social environment. Let me begin by critiquing this social-environmental brand of explanation.

Sharp (1958:5–6) and also Tonkinson (1978:151) have suggested that in effect several Australian Aboriginal groups block the emergence of hierarchy at the group level because they have complex, ego-based dominance-submission networks. If every male is subordinate to one network of males in his life but dominant to another, and each person's ego-centered network is different, then there is no way that any one individual will be in a position to dominate everyone in his band. This theory makes excellent sense, but it is limited to just a few groups that set up their social life in this interesting way.

Knauff (1987:466, 477) suggests that witchcraft-type killing among recently sedentary Gebusi foragers in New Guinea acts as a sanction that facilitates an equitable distribution of goods to females. The theory applies nicely to foragers who indulge in witchcraft executions, but sorcery and witchcraft are far from universal among hunter-gatherers.

Other suggestions have wider applicability. Turnbull (1965:228) suggests for Mbuti Pygmies that a constantly changing composition of the band has a negative effect on the development of authority and control. If this

demographic theory were powerful enough to explain egalitarianism, it certainly would have wide applicability. I say this because, as social entities, mobile hunter-gatherer bands are relatively unstable in their long-term membership (Palmer, Fredrickson, and Tilley 1998; see also Brunton 1989).

Gluckman (1965:4–5) suggests that nonspecialized economic production acts as a brake on the development of hierarchy. This theory too would appear to have wide applicability because (setting aside gender differences) nomadic foragers tend to be jacks of all trades. Again, the question is whether this hypothesis is causally sufficient to explain the absence of strong group leadership as a widespread political phenomenon.

Taking a different tack, Fried (1967:33–34) and Woodburn (1982:440) both emphasize uncentralized redistribution systems for large-game meat, which certainly are a prominent and widespread aspect of mobile forager life. The problem is to establish whether any of these social or socioeconomic factors are fundamental causes of an egalitarian band's political ways of operating, or are more apt to be an *effect* of such political traditions.

Let us turn to the physical environment and its effect on subsistence and social life. For two geographically and culturally disparate groups, Slobodin (1969:194) and Cashdan (1980:116) make the obvious argument that nomadic subsistence limits material accumulation, and that this lifestyle is likely to level people. This excellent point tends to hold universally, but egalitarianism goes far beyond leveling differences of material accumulation: egalitarianism levels the power of individuals to make decisions in a number of spheres, and it also levels the ability of one person to physically or psychologically dominate another.

Salzman (1979) points out that culturally prized “objects” can be mental, as well as physical, as with individuals who are exceptional at remembering myths. With respect to the environment, he brings in the effects of scattered and unpredictable resources, while Layton (1986:24–28) discusses a highly dispersed food supply, along with territorial behavior. Yet such conditions are quite variable among extant foragers (Kelly 1995), and surely they were still more variable prehistorically. Foragers then often had their pick of the world's environments under conditions of stability, and they also suffered mass dislocations as their climates fluctuated (Potts 1996).

We now have an impressive list of probable causes for egalitarian behav-

ior in particular groups or particular ecological circumstances, and to these might be added the analyses in Flanagan and Rayner (1988). Still, the few hypotheses that have applicability to all foragers do not seem sufficient to explain the very mitigated kind of hierarchy that accompanies egalitarianism. There is little doubt that demographic instability, nomadic restraints on material accumulation, absence of economic specialization outside the family, and uncentralized redistribution systems for meat are important, for they are widespread or universal. They unquestionably contribute to an egalitarian way of life, for they provide conditions friendly to the maintenance of egalitarian polities. But as leveling mechanisms, even in combination, they do not explain the totally predictable egalitarian ways of these mobile nomads—especially if we entertain the possibility that humans are “naturally” hierarchical.

There is a further problem, a serious one. These forager-specific hypotheses do not help at all in explaining the fact that many other nonliterate, people who live in permanent, settled groups that accumulate food surpluses through agriculture, are quite similar politically. As will be seen in Chapter 5, these tribesmen lack strong leadership and domination among the adult males, they make their group decisions by consensus, and they too exhibit an egalitarian ideology. This is the case even though (1) they are not nomadic; (2) they do not necessarily share meat or other food beyond the family; (3) they are in a favorable position to accumulate material goods; (4) their group composition can be highly stable; and (5) some exhibit a degree of economic specialization.

The fact that tribesmen are ecologically and socially quite different from foragers, but remain similarly egalitarian, requires a more general type of explanation. The question is one of ultimate causality: a single cause or set of causes is needed to explain a widespread political phenomenon.

The Need for Leveling Mechanisms

Fried's special interest was in social ranking and in leveling mechanisms. His great contribution was to point out that egalitarian societies did not assign a single slot for “group leader,” or “best hunter,” or “head shaman”; rather, the group could accord high-status positions to as many people as were qualified. In short, status rivalry was not culturally channeled into a zero-sum game, the result of which was likely to be an alpha-male type of group leader. Fried focused squarely on the disposition of power. Even

though we have seen that a universal drive to dominance was arbitrarily ruled out, he did in passing suggest that there seemed to be a universal drive to parity. This raises a compelling question. If human political nature amounts to a blank slate, or if there exist human dispositions to parity but not to dominance, why did Fried have to become so interested in leveling mechanisms when he tried to find a cause for egalitarianism?

The obvious and straightforward answer is that humans naturally form hierarchies when they live in groups, and that leveling mechanisms are needed to curtail such innate tendencies. We have seen that Fried rejected this possibility out of hand, denying human nature any involvement with dominance tendencies. His successors, equally intent on identifying leveling mechanisms, have been slow to address the fundamental problem of why such explanations are needed at all. A few have explicitly denied the existence of social dominance tendencies in humans, and presently I shall be obliged to disagree with them.

Let us return to Fried and his problems with chimpanzees. Even at the time he wrote, it was known that a chimpanzee raised alone would exhibit bits and pieces of the dominance and submission behaviors that take place in normal social interactions (Menzel 1964). These traits could come only from “chimpanzee nature.” We now know that dominance and submission, along with flight, are behaviors that come naturally to younger chimpanzees as they engage in play and learn how to live in groups (Goodall 1986). As for adults, I have described in some detail the status rivalry and drive to dominate among Gombe males, and I emphasize that the resulting political portrait is quite consistent with Carpenter’s earlier judgment—the one that Fried rejected.

I suggested earlier in this chapter that the “authority” of top male chimpanzees has everything to do with a greedy, bullying style of domination, and much less to do with the centralized political authority we associate with human governance. Weber (1947) defines such authority in terms of an ability to control the behavior of others through threat or application of coercive force, and we all know from dealing with the state highway patrol and tax collectors that such authority is pervasive in modern nations. By contrast, an individual adult chimpanzee is basically on its own, as is an individual hunter in a human band.

In meaningful ways hunter-gatherers are strikingly similar to chimpanzees. Both species depend on foraging and live in flexible local groupings, with families or individuals moving about at will. In both species a leader

cannot force a personally chosen strategy on the entire group, yet the rank and file can be quite responsive to leadership in certain contexts. Both species harbor a propensity to intervene in conflicts, even though hunter-gatherers do so as a group, gently manipulating conflicts that are brewing, whereas chimpanzees intervene decisively and dominantly as individuals. In both species the males are somewhat larger than females and are in a position to dominate them physically—a power that wild chimpanzees exploit to an extreme.

In other ways chimpanzees and human hunter-gatherers are quite different. Male foragers do not exhibit frequent competitive displays aimed at decisive political domination of other males; they do not live in well-developed dominance hierarchies, as chimpanzees do; and access to females and natural resources is not decided routinely on the basis of threats backed by the possibility of attack. In pondering this lack of hierarchy, cultural anthropologists have remained perplexed. The possibility of species-specific tendencies to status rivalry or dominance behavior has been raised from time to time in a variety of contexts (see, for example, Sahlins 1959; Dumont 1970; Tiger and Fox 1971; Boehm 1982b, 1984a; Cohen 1985; Mitchell 1988; Zvebil 1991; Kelly 1995; Wiessner 1996), but so far the question has remained unanswered—and mostly unexplored.

Not long ago I went on record with a formal hypothesis in this area, one specific to the general problem of egalitarianism among foragers and tribesmen. I proposed that leveling mechanisms may be necessary because, as with chimpanzees, underlying dominance and submission tendencies facilitate competition among individuals and constitute a powerful force for hierarchy in group life (Boehm 1993, 1994b; see also Tiger and Fox 1971; Boehm 1982b, 1984a).

In his recent comprehensive work on forager behavior, Kelly (1995:330) denies that humans possess any dominance tendencies—even though he believes that human tendencies to “compete” exist in a Darwinian sense. This rather mixed message is of sufficient interest that I quote it verbatim: “We are still far from an understanding of what conditions engender egalitarianism or hierarchy, but it is certain that though egalitarianism is not a natural condition of humanity, neither is hierarchy. An evolutionary perspective sees inequality as arising from innate attributes of humans trying to maximize fitness, rather than innate attributes of dominance.”

Thus, in humans Kelly seems to be ruling out dominance dispositions as a cause of inequality. Elsewhere he is more explicit in setting aside the

entire issue of human nature (Kelly 1995:336; see Kent 1993 for a similar opinion)—which he apparently believes can be separated from human maximization of fitness.

The problem with Kelly's reasoning is that when Darwinian competition becomes direct and face to face, as it tends to be in highly social animals such as humans, chimpanzees, wild dogs, or scores of other species, it is precisely dispositions to dominance (producing threat and attack) and submission (producing appeasement or flight) that are retained by natural selection as useful behavioral strategies. Like almost any other behavior trait, these reproductively selfish political dispositions are maintained through individual maximization of inclusive fitness. Their existence, however, results in *direct* social and political competition among individuals in the same group, rather than in indirect genetic competition of the classical Darwinian type. Accordingly, I claim that human political nature (including propensities to dominate and submit interpersonally) is inextricably involved with maximization of fitness and cannot be set aside. Kelly had a great deal more relevant information than Fried on which to base his conclusion, and I believe Kelly's position to be untenable. Indeed, I shall argue that *both* egalitarianism and hierarchy are "natural conditions of humanity."

Within forager studies, so-called domination theory has been criticized from another quarter as well. Sharp (1994) believes that theorists such as Lorenz and Ardrey have overdrawn their portrayals of domination in human society, to the degree that females are excluded from the analysis. He is correct that it is very often the males who have obvious access to coercive power. In Sharp's essay, entitled "The Power of Weakness," he carefully documents ways in which the vulnerability of Chippewa Indian women redounds to their political benefit and power. He pursues this argument as an antidote to outside biases (academic and lay) that have tended to overportray male dominance in Chippewa culture, but he unwittingly makes human nature itself the new victim. Ardrey's widely criticized "overportrayals" are no justification for throwing out a very healthy infant with the bathwater.

Human Nature

In spite of the obvious importance to the human condition of both the natural environment and human nature, many anthropologists continue to

all but ignore the human-nature side of the equation when they try to explain social organization or explore human ecology. Flagrant biases of this type have not been uncommon in cultural anthropology. Decades ago it was fashionable to neglect the natural environment as a key explanatory variable—until cultural ecologists (for instance, Steward 1955) created an environmentally oriented brand of “evolutionism” that most anthropologists could live with and develop further. I believe that human nature deserves similar consideration, and there is no better arena for testing this proposition than the field of politics.

I acknowledge up front that the study of human nature poses serious problems. Behavioral dispositions rightly strike anthropologists as being difficult to explain in comparison with the more readily measurable environmental constraints that ecologically oriented anthropologists, and particularly human behavioral ecologists, address so successfully. However, our potential for teasing out the effects of human nature has been increasing over the past several decades, and much of the resistance comes from long-standing, inadequately examined biases of cultural anthropologists.

In my view, these attitudes derive from a subtly (or not-so-subtly) politicized tradition in many graduate training programs, a tradition that stems from humanistic biases about “evolutionism.” My position is that, as members of a democracy, we should have the courage to explore our explanatory possibilities, whatever these may be. Ideas should have free play, both in anthropology and in everyday life, and guilt by association should be avoided. Humanism obviously flourishes in democracies, and these same democracies must be strong enough to allow for the exploration and development of ideas about genes and heritability—in spite of past excesses and future perils.

Putting Down Aggressors

On their list of serious moral transgressions, hunter-gatherers regularly proscribe the enactment of behavior that is politically overbearing. They are aiming at upstarts who threaten the autonomy of other group members, and upstartism takes various forms. An upstart may act the bully simply because he is disposed to dominate others, or he may become selfishly greedy when it is time to share meat, or he may want to make off with another man's wife by threat or use of force. He (or sometimes she) may also be a respected leader who suddenly begins to issue direct orders, or a shaman who selfishly uses supernatural connections to manipulate and exploit others for material or sexual gain—or maliciously to cause them serious damage. An upstart may simply take on airs of superiority, or may aggressively put others down and thereby violate the group's idea of how its main political actors should be treating one another. An upstart can also be a recidivist murderer or a homicidal psychotic. In any of these instances the upstart violates a set of values in which people believe deeply.

These values constitute what anthropologists call an egalitarian *ethos* (Cashdan 1980; see also Gardner 1991), a set of focal values that guide hunter-gatherers when they act on behalf of the band to keep its likely political deviants from transgressing unduly. Bands are moral communities that agree on their values and, as a latent but potent political coalition, are always poised to manipulate or suppress individual deviants.

Control of Upstarts

From the moral community's perspective, it pays to engage in social control. From the deviant's perspective, the very predictability of sanctioning tends to modify the antisocial behavior. Hunter-gatherers prone to upstar-

tism know what to expect from their peers, who in most instances will quickly and assertively make it clear that they do not like being bullied, or even bossed for their own good. The result, with most hunter-gatherers most of the time, is a low-key personal approach to social relations in the band. This is particularly true in situations that may lead to competition; people are careful about extolling their own success.

When the group turns on a deviant to engage actively in what Trivers (1971) calls moralistic aggression, the ethnographer has no difficulty tracking either social control or the deviance that provokes it. If an upstart is ridiculed or directly criticized or ostracized, the anthropologist will pick up on it. Because much of social control is preemptive and quite subtle, however, it can remain ethnographically obscure. Potential deviants gingerly test group reactions, and groups are vigilant in watching for likely “dominators,” but much of the time these would-be aggressors conform to group standards sufficiently to avoid overt sanctioning. The political portrait of an acculturating Utku household head, delineated later in this chapter, provides an excellent example.

In many forager groups, ethnographic reports suggest a fairly smooth political equilibrium over a typical field stay of one or two years. There may be tensions about sharing, and a few interpersonal quarrels, but basically no one tries seriously to bully anyone else, nor does anyone try to extend into manipulative power the respect and influence associated with being a successful hunter. Yet such short-term reports can be misleading.

Over time, much forager conflict is between men, over women, resulting in a high per-capita rate of homicides (see Knauff 1991). This is so even though in studying a very small band an anthropologist often will not actually see such behavior. The same is true of major instances of upstartism. Several hundred forager ethnographies disclose only a few cases in which an obvious group political crisis arises and the conflict is described in detail. Lesser conflicts appear more frequently in the literature, but they too may be missed. One must keep in mind that most anthropologists go to the field to study behavior other than politics, that their language skills are usually limited, and that they will be recording only a small portion of a group’s total oral tradition—which includes past political crises. And some earlier anthropologists wore rose-colored glasses: they may not have asked the right questions.

Foraging bands are not all the same. With certain groups, such as the Hadza of Tanzania, rather serious political tensions seem to manifest

themselves openly and routinely (Blurton-Jones 1984; see also Peterson 1993). Kalahari foragers such as the !Kung are an excellent example of a people who make their political intentions so clear to one another, and do it so frequently and so overtly, that it is relatively easy for a visiting ethnographer to discern the underlying tensions in their small bands. The !Kung approach to curbing upstartism is assertively preemptive, even though to a large extent their moralistic aggression is cloaked in humor.

Lee (1979:244–246) provides vivid details in the words of an informant:

Say that a man has been hunting. He must not come home and announce like a braggart, “I have killed a big one in the bush!” He must first sit down in silence until I or someone else comes up to his fire and asks, “What did you see today?” He replies quietly, “Ah, I’m no good for hunting. I saw nothing at all . . . maybe just a tiny one.” Then I smile to myself because I now know he has killed something big.

A proud hunter’s heavy use of denial and euphemism demonstrates the degree to which the group is able to intimidate its more prominent achievers. And even after his show of modesty, other band members preemptively take pains to put down the hunter. When they go to carry in the kill they express their “disappointment” boisterously.

You mean to say you have dragged us all the way out here to make us cart home your pile of bones? Oh, if I had known it was this thin I wouldn’t have come. People, to think I gave up a nice day in the shade for this. At home we may be hungry but at least we have nice cool water to drink.

The actual feelings of the critics, who simultaneously are joking and deadly serious, is revealed in the words of a culture member:

When a young man kills much meat, he comes to think of himself as a chief or a big man, and he thinks of the rest of us as his servants or inferiors. We can’t accept this. We refuse one who boasts, for someday his pride will make him kill somebody. So we always speak of his meat as worthless. In this way we cool his heart and make him gentle.

The speaker is a famous healer and, obviously, an eloquent indigenous political philosopher. He is a student of human nature as well, and an astute one. He seems to be saying that legitimate male accomplishments may lead to inflated self-opinion and tendencies to dominate, and that with these proclivities men are likely to engage in homicide. Let us take

these principles as a working hypothesis for any group of humans whose males are hunters.

As with other forager groups (see Kelly 1995), hunting prowess brings great respect among the !Kung because large-game meat is shared by all households within the band. As tabulated by Lee (1976:244), there is great variability among men as to who is responsible for the kills. They use two principal mechanisms to keep the best hunters from dominating the politics of the camp and monopolizing the women. We have seen that they preemptively cut down those who might become arrogantly boastful. They also share all large-game meat, helping those who are incapacitated or down on their luck, and these customs are enhanced by some very practical cultural rules.

Credit for the kill goes to the owner of the first arrow to hit the game. This man (who may not even have been present) has to distribute the meat formally to all household heads in the band—a task associated with not only prestige, but tension. Because the !Kung trade arrows often (Wiessner 1996), the responsibility of owning the meat while it is distributed is randomized, thereby preventing the more successful hunters from presiding over their own accomplishments. In effect, it is a way of removing the temptation to dominate. The fact that the best hunters speak so modestly, and frequently swap arrows to avoid envy, is a monument to the efficacy of ridicule as an instrument of social control. But as we shall see, if they are faced with serious upstartism people like the !Kung will go far beyond ridicule.

Lee's is one of the richest descriptions we have of how hunter-gatherers preemptively put down potential upstarts in their midst. Such behavior is not reported to be regularly directed at women, who forage for plant foods that are often just for family use and capture only small animals that normally are not shared with the entire band. With less prestige attached to their daily work, the women are not in danger of trying to turn proficiency at food production into political power. The same applies to men when they gather plants or capture rodents.

Sharing of meat is by no means solely a political or social act. Kelly (1995) has discussed the widespread practice of sharing large-game meat as a means of reducing variation of protein intake at the family level, and it appears that even the better hunters' intakes might be sporadic without this practice. Precisely because this actuarially sophisticated system of sharing could lead certain men to feel superior to others, a variety of practices and

customs has been created to “cool their hearts,” in the words of the !Kung. It is worth noting that hunter-gatherers on other continents have invented similar practices to randomize the ownership of large-game kills (Wiessner 1996), surely from similar motives. A very successful hunter potentially poses a political danger to the band, and the band takes steps to reduce such problems even as cooperative sharing is facilitated.

In surveying a substantial portion of world ethnography in search of reliable reports of social control directed at potential or active political upstarts, I found extreme variability in the quality of these descriptions. Sometimes the ethnographer merely sums up a pattern of behavior or cites a single instance as an example. Truly rich descriptions like those of Lee are rare; in most instances the details are sparse—as when it is simply reported that Netsilik Eskimos once executed a shaman who began to dominate them (Balikci 1970).

To prepare the reader for my survey, I begin with two unusually detailed accounts in which the anthropologists themselves run afoul of egalitarian moral communities by inadvertently behaving as pushy political deviants. In the first case, I was the anthropologist; my own field notes and memory provide details about my ethnographically suicidal deviance and the response it engendered. The second case utilizes the painfully autobiographical ethnography of the anthropologist Jean Briggs (1970), who lived as an adoptive daughter with one of the last truly nomadic Eskimo bands in central Canada. To a significant extent she was being treated as a member of an Utku band at the time she transgressed, and her account of being “morally aggressed,” Utku style, is unique and vivid.

Anthropologist as Minor Upstart

In 1961, early in my graduate career, I spent a summer bouncing in a pickup truck over rutted roads and arroyos in New Mexico and Arizona. I was conducting fieldwork on Navajo beliefs, with the help of an able interpreter who spoke fluent English as well as his native Navajo. As part of a large research project, I was receiving my introduction to the study of nonliterate society, and the society in question was highly egalitarian. My mission, for three short months, was to interview traditional medicine men and obtain their views on the etiology of mental illness. A particular interest was in “moth craziness,” which was believed to be associated with incest.

Helping me to interview medicine men on these subjects was Howard McKinley, Jr., a remarkable young man nineteen years of age. Junior McKinley was the son of a member of the Navajo Tribal Council. He was unusually well educated in the formal sense, having attended a prep school on the East Coast. He also had spent considerable time as a child with his maternal grandmother at her homestead, herding sheep like a traditional Navajo.

Working closely together, Junior and I sought to interview medicine men in the Lukachukai and Fort Defiance areas, and whenever possible we worked through his maternal relatives, one of whom was his mother's mother, Lillian Benally, a hand trembler or folk diagnostician who had some limited knowledge about mental illness. With a trust seldom encountered on that reservation (because of my close association with Junior), I was admitted quite abruptly into certain aspects of Navajo life.

I knew the Navajos had little reason to trust me. My culture had defeated theirs militarily, subjected them to privation, taken away their best land, and in 1878 had forbidden them their usual way of life, which was foraging and raiding as aggressive, band-dwelling nomads whose victims included the Hopi. Furthermore, we Anglos subsequently invaded their reservation as missionaries intent on undermining or destroying the Navajo religion.

Today the Navajos are peaceful pastoralists who customarily move around with their sheep, but who also grow gardens near the permanent homesteads that serve as their base. Even though the core of their subsistence has changed from foraging to chiefly pastoralism, they continue to live in small, locally autonomous groups about the size of typical hunter-gatherer bands, and they continue to be politically egalitarian: their leaders keep a low political profile, and in general aggressiveness is not condoned.

My behavior in the field was steered by perhaps the ultimate cultural coach. The younger McKinley was not only intelligent, he was shrewd about people. (He aspired to be a writer.) Junior made it clear to me, up front, that rural Navajos expected white people who sought them out on their own turf to be either missionaries or spies. Because we were approaching back-country traditionalist informants without advance notice, I was advised to keep a low profile and let him manage the show. At the end of several weeks Junior paid me a high compliment: his people were reacting favorably to my presence.

Whenever Junior took me to meet with a potential informant, I tried to behave as he did. You never got down to business in a hurry; rather, you

were likely to squat on your heels for twenty minutes or half an hour while a few pleasantries were exchanged. The interactions were taking place in the Navajo language, of course, for many of the older people in the reservation outback spoke little or no English at that time. I seldom took part in these preliminary interactions, so whatever I was doing successfully via body language was largely unconscious on my part. I was emulating Junior's friendly reticence and easygoing postures as best I could, and I learned to squat endlessly on my heels—a skill for which I had little use in my own culture.

Junior McKinley's "Uncle Joe" was a respected traditional medicine man who seemed prepared to share some of his lore with us that summer, crucial lore that Junior thought might open an avenue of information inaccessible through other medicine men. In Junior's opinion, mental illness seemed likely to be involved with witchcraft, and that would automatically present a problem. To say that Navajos do not readily speak about witchcraft is a profound understatement, for to have any knowledge of this dangerous subject suggests that you may be a witch. As in the past (see Kluckhohn 1944), the community's *inclination* is still to execute such people. Seeking interviews about Navajo traditional curing, I did have one advantage: the medicine men worried that younger men were no longer attracted to their specialization, and that their knowledge would be lost unless it was written down. But witchcraft was a perilous topic.

After our first interview, Uncle Joe had agreed to a return visit when he had more time, and informed Junior that he was going to tell us about "Mountain Wise." We were elated, for Junior believed that Mountain Wise would be directly connected with witchcraft. I was more than excited about this impending breakthrough, for I had only a few months in which to work on what was proving to be a daunting research assignment. In previous interviews with otherwise very cooperative medicine men (not relatives of Junior's), an air of evasiveness about our topic had come through even in translation.

As the date of our next meeting with Uncle Joe approached, I stopped in Gallup and purchased, at Junior's suggestion, a fine watermelon—an esteemed delicacy on the hot New Mexico desert. We arrived at Uncle Joe's remote homestead and settled down to exchange the usual pleasantries. About ten minutes later, I suddenly remembered the watermelon in my pickup truck. I sprang up to get it and presented it to Uncle Joe with a little speech that I thought was properly low key. Junior translated. The pleas-

antries continued. But even with adjustments I had learned to make for the slow pace of Navajo social intercourse, these informal exchanges seemed to be continuing for much longer than usual. Then, to my consternation, Junior announced that it was time for us to go. I had no idea what was wrong.

As we rode away in the jolting pickup truck, my fatal mistake was explained. I had behaved very aggressively, as Navajos would see it, by proffering the gift almost immediately when we arrived. In due time the watermelon would have been greatly appreciated, but I had utterly botched it. I asked if the damage was irreparable, and Junior told me it was serious. In fact, we returned to Uncle Joe's homestead several times after that and Uncle Joe was always away somewhere, with an indeterminate time of return. I never learned the secret of Mountain Wise, for other medicine men we interviewed professed to know nothing about it.

I recognized that my problem was a major one of etiquette: by Navajo standards I had been far too aggressive. Today I would say that I had run afoul of an egalitarian ethos, but in 1961 anthropologists had not yet given it that name. When I returned from the reservation after this three-month stint, my reaction to such extreme cultural differences was rather inchoate. I did remain favorably impressed with the Navajo way of doing business socially, and with the demeanor of the people—which was unobtrusive, gentle, humorous, and sincere. At the same time I was mystified by the severity of Uncle Joe's reaction. Service (1962) and especially Fried (1967) were about to focus on and define egalitarian society, and certain aspects of my experience would fall into place when I read Service's book.

Only five years later did I really begin to understand the political dynamics in which I had been involved. In 1966 I had the good fortune to discuss Navajo psychological ways with Jean Briggs, a colleague in graduate school who had just returned from living with a group of nomadic Eskimos in northern Canada, near Back River. Although they had recently been "missionized," the Utku were still living a fully nomadic life devoted to hunting and gathering. Our conversations began just as Morton Fried was preparing to publish his 1967 book on political evolution. As I learned more about the Utku and their all-but-obsessive intolerance for displays of anger, aggression, or dominance, I began to comprehend more fully my experiences with the Navajos and the wider implications of my faux pas.

My continuing mystification about the low-key emotional style of social interaction I had briefly encountered resonated with Briggs's in-depth ex-

periences of a similar culture, in which she lived for about two years. To provide further qualitative flesh to this preliminary glimpse of egalitarianism, I shall expound on one of her more difficult experiences in considerable depth. I do not recount the experience as I remember it from our conversations puzzling over similarities between Navajos and Eskimos; rather, it is drawn from the sensitive and thorough final treatment that appears in her book *Never in Anger* (Briggs 1970; see also Briggs 1982).

Anthropologist as Serious Upstart

Briggs's liberal inclusion of her personal feelings and reactions in her published ethnography was both radical methodologically and prescient in terms of certain recent trends in ethnography. As I write, many cultural anthropologists have created for themselves a much-discussed "identity crisis," based in part on the assumption that before they came along, their predecessors essentially were ignoring their own roles in the research equation. Over the past several decades a great deal of debate has taken place about the validity of leaving out the ethnographer as a culturally biased instrument of description. Yet from this debate have come only modest substantive advances in the anthropological capacity to fulfill our most basic obligation as a humanistic and scientific discipline. That mission is to accurately record, and explain, the varieties of humanity and its natural history.

Briggs, instead of mainly talking about this problem, went ahead and resolved it quite brilliantly. Indeed, if one wishes to see a full, honest, and relatively uncontrolled account of how an anthropologist interacts with and reacts to a native culture while trying to describe it, hers is probably the most candid and *effective* portrayal in the ethnographic literature. One reason her book is so effective ethnographically is that it portrays Utku political culture so well from the standpoint of political psychology.

Briggs lived continuously with a small Utku band near Back River for long enough to know the language well, and in 1965 she came back to Cambridge just as I was returning from doctoral fieldwork with Montenegrin Serbs in southern Herzegovina. The Utkuhikhalingmiut Eskimos live above the Arctic Circle, and Jean studied a group of fewer than three dozen nomadic hunters who had been Christianized several decades before her arrival. Because of her formal adoption into an Eskimo family, her vantage point as ethnographic observer was particularly intimate. Indeed, her inte-

gration into the indigenous social life proceeded to a degree that few anthropologists experience.

Eventually, as adoptive daughter and band member, Briggs was literally ostracized. For three long months she was obliged to live at the social periphery of the band that had adopted her. The reason for her social isolation is directly relevant to our exploration of antiauthoritarian sanctioning. To understand what happened to Briggs, we must take up her fascinating and ultimately painful story at the beginning (Briggs 1970:41).

I had been camped at the Rapids for a week when the caribou hunters returned—first Nilak's family, then, two days later, Inuttiaq's. And within another day or two Inuttiaq had adopted me. Inuttiaq was to become the most significant figure, both personally and anthropologically, in my life at Back River. When I think of him now, my feelings are a complex blend of admiration, affectionate gratitude, and a helpless desire to compensate him somehow for the difficulties that my un-Eskimo behavior created for him and his family. At the time, however, my predominant feeling toward him was, all too frequently, irritation. Inuttiaq was not a typical Utku: he was more assertive than most, and from the outset I came into conflict with this quality in him.

Anthropologists seldom reveal so much of their feelings, but Briggs (1970:41–42) goes further, painting a miniature portrait of Eskimo attitudes about the expression of emotion:

It was from Inuttiaq that I learned most about the ways in which the Utku express their feelings toward one another. It was partly his very atypicality that made it possible for me to learn from him what the proper patterns are. Most other Utku were so well controlled that my untutored eye could not detect their emotions. But Inuttiaq was, if I have read him correctly, an unusually intense person. He, too, kept strict control of his feelings, but in his case one was aware that something was being controlled. The effort of his control was caught in the flash of an eye, quickly subdued, in the careful length of a pause, or the painstaking neutrality of a reply. Occasionally, when he failed to stay within acceptable bounds of expression, I learned from the disapproval of others what behavior constitutes a lapse and how disapproval is expressed. Living in Inuttiaq's own dwellings, as I did for two winters, I watched him with others: as father and husband, as host to his neighbors, and as religious leader of the commu-

nity. The turbulence of my own relationship with him also gave me many opportunities to observe his efforts at control.

Briggs (1970:42–44) places these personal reactions in cultural perspective:

In a society in which people seem to blend harmoniously with the brown tundra, Inuttiaq stood out. In a different society he might have been a leader, but Utku society allows little scope for would-be leaders. The Utku, like other Eskimo bands, have no formal leaders whose authority transcends that of the separate householders. Moreover, cherishing independence of thought and action as a natural prerogative, people tend to look askance at anyone who seems to aspire to tell them what to do. . . . There was nothing mild about him. Even in photographs his personality is so vividly communicated that people who have never seen Eskimos single him out of a group, asking who he is. . . . I thought him haughty and hostile in appearance, very un-Eskimo in both feature and expression. He did not smile; he looked hard at me in the few moments before we were introduced, making no move. He did smile as we shook hands, but I could not read in the smile either the warm friendliness or the gentle shyness that I had come to expect from unknown Eskimos.

Briggs (1970:46) says that Inuttiaq proved to be something of a clown, but also a showoff who dramatized himself in ways that were politically controversial in his own culture.

Nevertheless, Inuttiaq was considered a fine person. It seemed to me curious that it should be so in a society that places a high value on mildness and gentleness. Perhaps it was partly that people enjoyed watching Inuttiaq play a role that they themselves would have liked to play. Very important, too, I think, was the fact that control of temper is a cardinal virtue among Eskimos, and Inuttiaq never lost his temper.

This forbearance applies to people, but not to the dogs on which Eskimos rely so strongly. They beat their dogs, and Inuttiaq did so with a fury that was unusual. Even his fantasies were particularly violent, “full of stab-bings, whippings, and murders.” Briggs (1970:47–48) goes on to say:

Other people seemed to have a sense, similar to mine, of Inuttiaq’s inner intensity. They feared him for the very reason they admired him: because he never lost his temper. They said that a man who never lost his temper could kill if he ever did become angry; so, I was told, people took care not

to cross him, and I had the impression that Allaq, his wife, ran more quickly than other wives to do her husband's bidding.

Looking back, I wonder if Inuttiaq might have been partially aware of people's fear of him. It occurs to me that a desire to reassure people, in addition to the obvious desire to attract attention, might have been one of the motives behind his joking. One day when he was teasing a fourteen-year-old by grabbing for his penis—a favorite game of his, and his alone—he said to me: "I'm joking; people joke a great deal. People who joke are not frightening. . . ."

The feeling Inuttiaq was expressing is one that is very characteristic of Eskimos: a fear of people who do not openly demonstrate their good-will by happy behavior, by smiling, laughing, and joking. Unhappiness is often equated with hostility in the Eskimo view. A moody person may be planning to knife you in the back when you are out fishing with him, claiming on return that you drowned. In the old days he might have been plotting to abscond with your wife—a common occurrence prior to the introduction of Christ and the Royal Canadian Mounted Police. Even without harboring specific evil designs an unhappy person may harm one, merely by the power of his moody thoughts. It is believed that strong thoughts (*ihumaquqtuuq*) can kill or cause illness; and people take great pains to satisfy others' wishes so that resentment will not accumulate in the mind. A happy person, on the other hand, is a safe person. I wondered whether Inuttiaq felt an exceptionally strong need to show himself a happy person because he was not.

Briggs originally traveled to the Arctic to study Utku shamanism. She was shocked to discover that in spite of their traditional pattern of nomadic subsistence the Utku had been converted to Christianity and professed no further interest in shamanism. While Inuttiaq was the religious leader of his group, having occupied a vacancy left by a member of a different family, he did not fill the bill as a traditional band leader by dint of exceptional hunting ability or knowledge of environmental conditions relevant to subsistence. The traditional man of informal influence was one with a "reputation for wisdom, for skill in hunting or in other matters." He was "an *ihumataaq* (one who has wisdom) and his views may weigh more than other men's, when plans are being made." Inuttiaq was merely average in this respect (Briggs 1970:42–43).

Briggs (1970:55–58) tells us in detail how religious services were con-

ducted in *iglus* and how Inuttiaq (in the role of religious coordinator) tried at certain points to get his tiny congregation to stand. The community initially conformed, but then more and more people began to disregard his orders until the majority were ignoring him. At that point, he simply stopped trying to command them. Briggs likens this attempt of Inuttiaq to introduce an item of etiquette, one that allowed him to manipulate his fellows, to the machinations of traditional shamans who manipulated a belief system to augment their own power. She also points out that the Anglican ministers who trained lay leaders like Inuttiaq were prone to act in the same way.

When we evaluate Inuttiaq's relations with others in a tiny band of fewer than thirty, it is evident that he could not subtly manipulate the group as a whole. The members would simply ignore him and thereby defeat his culturally illegitimate aspirations through disobedience. Obviously, individual fear of this man was not sufficient to inhibit such expressions of social control when the group was in a position to act as a unit, and as a result he was unable to increase his power. I suggested earlier that much egalitarian control is preemptive, and here we have an excellent example. My assumption is that there was little actual threat in being commanded to stand or sit during the church service; for members of the band, the issue was where such boldness might lead. Keep in mind that Inuttiaq could legitimately give orders to his wife and to younger male kinsmen—that was none of the band's business.

Although Inuttiaq's treatment of his wife and dogs may have been unusually assertive, basically he walked a proper line in his little moral community. Briggs's psychological profile makes it clear that although by dint of personality he was prone to push his prerogatives, he also was aware of probable group reactions. As a person the group recognized as a potential upstart, he never came close to being ostracized, let alone being dealt with physically. If he went too far in trying to regiment the group's church services, Inuttiaq managed to hold onto his position of respect in the community by not pressing the issue when his manipulations were ignored. While others were subject to ostracism, Inuttiaq managed to steer a safe course in spite of his personality.

At first, Briggs's understanding of ostracism was secondhand via a socially inept woman named Niqi. Her emotionally unruly family was kept at a distance by the rest of the band even though the members were not wholly excluded from group social life and sharing of food. Niqi herself

was known for regularly becoming irritated in ways that adult Inuit normally manage to mask; in compensation she smiled much too broadly (Briggs 1970:218). One problem, then, was that her personal style was too volatile for a people who were averse to exhibitions of strong emotion, and of anger in particular. In addition, Niqi's small family tended not to share food as much as other families in the band, and stayed socially separate in a number of ways.

Band members were resentful of her family as would-be free riders who were deemed stingy and jealous, and also as people who did not keep their emotions under control. Briggs (1970:214–223) details the quiet grumbling and factional hostility that developed out of these tensions, and notes that very direct hints were made that Niqi should participate in the camp women's tasks, such as cooking fish heads for everybody. At length, these well-masked but hostile signals drew Niqi away from her own family's subsistence activities, if only briefly, to make a contribution to group subsistence. But she quickly went back to her former ways, and the social distancing of her family continued. The tensions rose and fell, and Niqi's social status vacillated between grudging acceptance and semiostracism. The rest of the group distanced Niqi's family mainly because of Niqi's bad temper, stinginess, and failure to help, and the family tended to camp away from the core group.

The problem with Niqi had little to do with her trying to control or belittle other people or aggrandize herself, so basically antiauthoritarian values were not involved. However, one of the features advocated by an egalitarian ethos is sharing, and Niqi did not share very well. Furthermore, she aroused the group's sensitivity to people who did not control angry feelings, and this trait too is pertinent to egalitarian sanctioning. Any individual who combines anger with a tendency to dominate becomes dangerous socially, and with the Utku *all* expressions of anger were troublesome.

As an American, Briggs was similarly unable to control what to her were minor hostile feelings, or to hide her seriously upsetting disappointments and frustrations. Because of what were to them culturally bizarre, volatile emotional reactions, the Utku first perceived Briggs as a curiosity, then as a recalcitrant child, and finally as a serious irritant and a potential threat. Jean was living far from home under primitive circumstances, a situation that tended to make her touchy and prone to tears. She also had difficulty being generous with prized trade goods she had brought along, in that everyone competed for them. In addition, at times she showed an inappro-

priate willingness to come into conflict with her adoptive father. She later learned that the Utku were actually afraid of her because she dealt with her emotions in an open, "American" way.

Problems were inevitable for a person who had formally been adopted as a family member yet constantly had to be transcribing field notes, and Briggs often failed to understand subtle Eskimo hints about how she might fit in better. She continued to be emotional and—in her hosts' eyes—aggressively willful. Eventually, a pointed religious sermon (directed at the entire group) expounded on the evils of getting angry. This she certainly did understand.

The pressures of life in the Arctic made self-control difficult, however. Once when slush fell from the top of the iglu into her typewriter, Briggs in a fit of pique picked up a knife and threw it vigorously into a pile of fish on the floor in front of company. The iglu emptied immediately. Another time she made the mistake of conveying in strong terms her hatred of the frozen fish that was a staple in her diet; she did so simply because she was having difficulty removing the scales. What were temporary flare-ups for the American were, for the Utku, long-remembered signs of potential trouble.

Eskimos worry about even small expressions of anger because they see all anger as deep, long-lasting, and dangerous (Briggs 1970:261), and any lack of self-control as personally threatening. As time went on, Briggs as "*Kapluna* Daughter" realized she was a social irritant—someone who would never be able to maintain the equanimity of a proper Utku for very long. She was not semiostracized like Niqi, but relations periodically became rather strained. Then an episode took place that brought a far more ominous reaction.

Several sportsmen who had flown in by seaplane were borrowing the Utku's two rather fragile, irreplaceable canoes for fishing. The Utku approach to such exploitation, which they resented in spite of some trading with the whites, was to acquiesce to every request. Having been told in private about their resentment, Briggs made the mistake of actively intervening after the whites ruined one of the Utku canoes and still wanted to use the last one. She explained heatedly that the Utku depended on the canoes, and the guide replied that if the canoe's owner did not choose to lend the boat they would do without it. Inuttiaq, put on the spot by Briggs, agreed to let the sportsmen use this last boat for fishing. Briggs could not hide her anger at both parties. She strode away from the scene to weep in her tent, unaware that her behavior had been the last straw.

Happening to read a letter in transit, she learned that the band was fed up with her anger and scolding and wished she would leave. At first, their disenchantment was far from obvious. After the incident people continued to behave cordially and generously toward their turbulent visitor when she approached them—but she noticed that they were coming to visit her far less often, and stayed only briefly. Before long they began in subtle ways to discourage her own visits. It became evident that she was being ostracized like Niqi—but during the period of estrangement it also emerged that the Utku were willing to let her rehabilitate herself. Indeed, whenever she was able to control her feelings and avoid emotionalized negativity for a time, they began to respond positively. The problem was that Briggs could not maintain the flawless equanimity that the situation seemed to demand. She was being distanced, it hurt, and when she broke down and showed her frustration, she was distanced even more.

The kind of overt hostility that had triggered the ostracism was scrupulously avoided by the Utku in applying their sanction. Briggs was basically left alone in her tent with very few callers, and even their visits became perfunctory compared to her earlier rich social life. People were not outwardly impolite, they simply set up a great deal of social distance. By good luck, after some months of this treatment a third party provided the Utku with some insight into why Briggs had tried to deny the canoe to the whites. Once they understood that her anger had been on their behalf and against unscrupulous men who cared nothing for their welfare, they eventually relaxed the social barriers they had so carefully erected and maintained.

Briggs has developed the following psychodynamic interpretation of the facts (and surely she is correct). This ostracism was atypical, because it involved two cultures with very different standards of what is proper in emotional self-expression (see Briggs 1970:274–307), and also because the group's grievance was based in part on a substantive misunderstanding. It was typical, though, in that a reduction in social interaction became a tool of the community against someone whose inappropriate and frightening aggressiveness was suggestive of upstartism. For more than a year the Utku, willing to make concessions about cultural differences, had put up with displays of anger and frustration from Briggs that they would not have accepted from other Utku without engaging in moralistic aggression. But finally their adoptive daughter went too far.

As a political anthropologist, I might add that it was when Briggs tried to

assert herself in the role of spokesman for the group (she thought she was implementing the band's intentions, but they failed to understand this) that the ostracism process began in earnest. In effect, the foreign visitor *arbitrarily tried to make a decision that involved the entire group*. My reading of the boat situation is more "political," whereas Briggs's is more "psychological"; but the two interpretations in no way conflict. Both her interference in the decision process and the "un-Eskimo" emotions that came into play had a severe negative impact. This political interpretation of mine is borne out by one further fact (see Briggs 1970:302). After the social isolation had ended and Briggs was once again a regular member of the society, Inuttiaq once said to her out of the blue, "I think you're a leader in your own country."

In the cross-cultural survey to follow shortly, we shall encounter a similar theme having to do with aggressive anger and its effect on self-control, chiefly with respect to leaders. There we shall be focusing on reactions to hunters who, as leaders or in other capacities, try to dominate or control their peers—the other adult men (and women) in their groups. We shall see that sanctions harsher than the social distancing Briggs experienced can and do come into play, even though the more passive type of resistance that Inuttiaq met with in the church service also is employed.

For Briggs, the consequences could have been worse. She could have been *severely* ostracized by her adoptive group—shunned, instead of merely becoming something of a nonperson. If a forager is seriously ostracized (in the sense that no one will speak to him, literally, or cooperate with him economically), his very means of livelihood may be threatened. A still more grave form of social distancing is to expel him from the group, and of course the ultimate distancing is execution. Unlike Inuttiaq, some individuals are so insensitive to the group's collective commitment to egalitarianism that they leave their peers no other recourse.

The "up" side of Briggs's desperate story is that she always had the option of being reintegrated into her Eskimo band if only she could curb her anger. Social control tends to be about more than mere elimination of social threats by means of punishment: often it is about prosocially oriented manipulation of deviants so that they can once more contribute usefully to group life. Briggs managed to leave the Utku on reasonably favorable terms: they were socializing almost as cordially as they had before the ostracism incident by the time she returned to the comforts—and the welcome psychological tolerance—of Harvard Square.

Egalitarian Social Control

These ethnographic tales of woe provide an intimate qualitative glimpse of egalitarianism at work. Intuitively, they help to support my position that political dynamics are at least as important as environmental variables and social structure, in terms of keeping social and political life leveled. They also support the larger hypothesis that the immediate cause of egalitarianism is conscious, and that deliberate social control is directed at preventing the expression of hierarchical tendencies (Boehm 1993).

It is interesting that people living in egalitarian societies must work so aggressively to keep their political order in place. Earlier ethnographic tendencies “beautified” such societies by exaggerating their overall harmony. With more reliable reporting, it is evident that egalitarians regularly have to cope with upstarts, and the willingness of such people to push their own prerogatives against known resistance raises some interesting questions about human nature.

There appear to be two components of this kind of egalitarian social control. One is a small moral community incorporating strong forces for social conformity. Long ago, Maine (1861), Westermarck (1894), and Durkheim (1933) recognized this universal feature of locally autonomous groups of foragers and tribesmen. The other ingredient is the deliberate use of social sanctioning to enforce political equality among fully adult males (see Service 1962, 1975; Fried 1967; Lee 1979; Boehm 1982b; Woodburn 1982).

In the qualitative ethnographic survey that follows in Chapter 4, the general hypothesis is that egalitarian bands amount to “intentional societies” (see Boehm 1993). Band members regularly create and maintain egalitarian blueprints for social behavior, “plans” that are implicit or (in part) explicit in the ethos and well understood by the rank and file who implement them. The political notions and dynamics involved are not restricted to mobile foragers, for tribesmen all over the world are similarly egalitarian. Wilson and Sober (1994) have discussed the very similar egalitarian arrangements of modern Mennonites, emphasizing their militant concern for avoiding any development of individual authority or other individual advantage within the group. Their antihierarchical political dynamics are much like those experienced by Utku foragers, and by Navajos as tribal pastoralists.

The dynamics of egalitarian politics are well described by Richard B. Lee,

whose accounts of proficient hunters being ridiculed were quoted earlier. Lee has spent a great deal of time with nomadic foragers in the Kalahari Desert, and he explains these dynamics as follows:

Egalitarianism is not simply the *absence* of a headman and other authority figures, but a positive insistence on the essential equality of all people and a refusal to bow to the authority of others, a sentiment expressed in the statement: "Of course we have headmen . . . each of us is headman over himself." Leaders do exist, but their influence is subtle and indirect. They never order or make demands of others, and their accumulation of material goods is never more, and often much less, than the average accumulation of the other households in their camp. (Lee 1979:457)

Lee makes it clear that it is fear of group opinion—and fear of active group sanctions—that keeps the more accomplished men at this level of humility. In effect, the group is dominating its would-be alphas, and among these !Kung-speaking Kalahari foragers arrogance amounts to a crime. Stinginess is also viewed as a serious form of deviance, but it is the arrogant person who is potentially dangerous.

The political focus is on males, and the !Kung's own words are of interest: "Each of us is headman over himself." This credo is a response to interrogation by an anthropologist who (I assume) was curious about the low levels of leadership visible among the !Kung. The informant's response is not unique among egalitarian hunter-gatherers; they long ago began to encounter outsiders who assumed that "power positions" were natural to every human group.

In the nineteenth century, Europeans increasingly began to encounter nonliterate people living in very small nomadic bands, people who exclusively foraged for a living and changed their place of residence at least several times a year. These hierarchical strangers usually wanted something from the "natives," and for that reason regularly asked to speak with the "chief." Given their own political backgrounds in nations where figures of authority were abundant, it was perfectly natural to ask for the person in charge. The absence of any individualized authority at the group level led sometimes to practical frustration, and often to political wonder—or amazement.

Accounts abound of explorers meeting egalitarians, but only rarely have indigenous counterreactions to these so-called civilized reactions been published. I provide one further illustration, to complement that offered

by Lee and also to raise the issue of female equality in egalitarian bands. This episode was recounted by an Englishman who worked in Tierra del Fuego (at the southern extremity of South America) with nomadic Ona foragers. Missionary Bridges (1948) writes:

The Ona had no hereditary or elected chiefs, but men of outstanding ability almost always became the unacknowledged leaders of their groups. Yet one man might seem leader today and another man tomorrow, according to whoever was eager to embark upon some enterprise. Social rank among the Ona was best defined by the jovial Kankoat in later years. A certain scientist visited our part of the world and, in answer to his inquiries on this matter, I told him that the Ona had no chieftains, as we understand the word. Seeing that he did not believe me, I summoned Kankoat, who by that time spoke some Spanish. When the visitor repeated his question, Kankoat, too polite to answer in the negative, said: "Yes, señor, we, the Ona, have many chiefs. The men are all captains and all the women are sailors."

This answer echoes that of Lee's informant, and it offers more than an interesting cross-cultural dialogue in which visiting scientist and acculturated forager are trying to cope with mutually exotic political systems. The old man's reply specifies or implies two postulates that hold true generally in nomadic foraging bands. One is that egalitarianism and the attendant lack of authoritative leaders pertain to relations among the band's main political actors, in this case male household heads, while within the family the authority of one person over another is much more free to develop (see Fried 1967). The other factor, discussed in Chapter 1, is the apparent widespread tendency for male hunters to actively dominate their mates within the domestic unit (see Lee 1982; Kelly 1995).

Kelly (1995:262–292) believes that because males almost always do the large-game hunting and because such food is shared by the entire group, they tend to gain political clout. I agree. Certainly it is the men who bring in meat in the largest quantities, and forager groups regularly praise and respect their proficient hunters. Men also bring home more calories overall than women (Ember 1978). This special productivity tends to give males higher prestige than females, but the degree to which women are dominated by their husbands seems to be quite variable when bands are compared across continents.

Gender is important, obviously; but egalitarian social control is not

necessarily based on gender. It is merely a mobile hunting band's way of keeping any one individual from gaining too much sway, and it is directed at the group's main political actors, whoever they may be. Empirically, social control does seem to be focused on the adult males of the band. Males are physically stronger than females, it is they who account for almost all the homicides, and because they hunt it is they who may try to control the distribution of meat—unless the group divests them of this prerogative. If a female were to pursue a power position, say by employing special supernatural gifts, she would be equally a target of a group whose households are jealous of their autonomy and wish to be intimidated by no one. As Jean Briggs discovered, a hunting band will use social control against any adult who begins to be assertive in an objectionable way.

Equality and Its Causes

A few years after Lee chronicled his graphic illustrations and astute political interpretations, the argument about egalitarianism was broadened (Boehm 1982b; Woodburn 1982). Woodburn focused on subsistence economics in characterizing as “immediate-return” foragers those who did not engage in significant storage of food and instead shared their large-game meat pervasively. He cited six societies, three of them African, and in considering egalitarianism as a wider phenomenon, he explicitly reemphasized Lee’s point that this kind of political order was intentional: because foragers prized their individual autonomy, they went out of their way to maintain the status quo.

My argument also followed Lee’s insights, but in an evolutionary direction. The premise was that humans are innately disposed to form social dominance hierarchies similar to those of the African great apes, but that prehistoric hunter-gatherers, acting as moral communities, were largely able to neutralize such tendencies—just as extant hunter-gatherers do. The ethnographic basis for that hypothesis was that present-day foragers apply techniques of social control in suppressing both dominant leadership and undue competitiveness. In effect, Woodburn and I were working with similar general hypotheses about intentionality, a line of explanation that I have continued to develop (Boehm 1984a, 1993, 1994b, 1997a, 1997b).

In 1981–82 I was engaged in a major research project at the Tozzer Library of Harvard University surveying hundreds of egalitarian societies of various types. The original stimulus was my fieldwork with the Navajo Indians plus the tantalizing comparative discussions with Jean Briggs about the Utku. Lee’s and then Woodburn’s field reports led me to feel I was on the right track. The research project, funded by the H. F. Guggenheim Foundation, was not limited to foragers, however. The hypothesis I had

submitted was that egalitarianism is the product of any small nonliterate community's vigilant insistence on autonomy for its household heads, and this hypothesis was directed at both hunter-gatherers and tribesmen such as the Montenegrin Serbs I had studied from 1963 to 1966.

With respect to egalitarian society and its evolutionary status, a significant subsequent development was Knauff's (1991) lucid identification of a major puzzle in human evolution. He compared the quite hierarchical nature of extant great apes with hunter-gatherers of the simpler type characterized by Woodburn, suggesting that with respect to political hierarchy human evolution had followed a U-shaped trajectory. The curve began with strong degrees of despotism, as this term was defined ethologically in Chapter 1, then dipped to represent a protracted period of hunter-gatherer egalitarianism. Not too long after the domestication of plants and animals, the curve climbed steeply to encompass not only hierarchical chiefdoms, but eventually civilizations and nations. In effect, Knauff was posing an evolutionary riddle: how could a species apparently lose its innate tendencies to hierarchy for possibly millions of years, then suddenly regain them so forcefully?

The mystery pertained to the egalitarians in the middle, who exhibited a noteworthy absence of hierarchy. In 1993 I published the principal results of my continuing survey of forager and tribal egalitarians. With respect to both the hunter-gatherers and the tribesmen in my sample, the hypothesis was straightforward: such people are guided by a love of personal freedom. For that reason they manage to make egalitarianism happen, and do so in spite of human competitiveness—and in spite of innate human tendencies to dominance and submission that easily lead to the formation of social dominance hierarchies. People can arrest this process by reacting collectively, often preemptively, to curb individuals who show signs of wanting to dominate their fellows. Their reactions involve fear (of domination), angry defiance, and a *collective* commitment to dominate, which is based on a fear of being *individually* dominated. As potential subordinates, they are able to express dominance because they find collective security in a large, group-wide political coalition. They choose this option rather than reacting individually to would-be dominators on the basis of fearful, submissive impulses.

This hypothesis provided a curious answer to Knauff's riddle, for I was arguing that the same quite definite and "hierarchical" human political nature could have been supporting not only despotic societies of recent

humans and ancestral apes, but also the egalitarian societies of humans. In despotic social dominance hierarchies the pyramid of power is pointed upward, with one or a few individuals (usually male) at the top exerting authority over a submissive rank and file. In egalitarian hierarchies the pyramid of power is turned upside down, with a politically united rank and file decisively dominating the alpha-male types.

I have mentioned already that Erdal and Whiten (1994) found my use of the term “reverse dominance hierarchy” controversial (see also de Waal 1996:128). My 1993 article also provoked criticism in other areas (for example, Barclay 1993; Kent 1993; Knauff 1993; Dentan 1993). I shall address some of those comments, but first it will be useful to see the results of my survey of foragers and tribesmen. I examined a substantial portion of the world ethnographic literature in search of instances of a rank and file’s attempt to use sanctions to prevent manipulation or outright domination from above. To keep myself honest, I also was watching for instances of small-scale societies being dominated by individuals wielding substantial authority. To state the mission less technically, I was interested in seeing whether all small-scale societies were egalitarian, in seeing whether the egalitarianism I found could be laid at the doorstep of social control, and in seeing how effective such control was in the face of individual tendencies to gain political ascendancy.

Because data on egalitarian behavior are relatively scarce, I did not undertake a typical cross-cultural survey with careful reliance on sampling techniques. Rather, I looked for any source that provided useful information on the above topics. My 1993 paper gives the methodological details, and also a tabulated summary of my findings on mobile foragers and tribesmen. Many of the same data are presented in this chapter and the next, in a more qualitative form, but here the sample has been expanded somewhat.

Introducing the Egalitarian Ethos

A significant goal of the survey was to collect information that helped to describe the egalitarian ethos. An ethos (Kroeber 1948:292–295) is a constellation of *values* that define what is important to a given people. Cashdan (1980) has aptly applied this notion to foragers, and there do seem to be certain elements that all foraging nomads treasure when it comes to defining ethically how people should behave with one another socially and politically (see also Gardner 1991).

The ethos is of critical importance if one is to understand egalitarian societies as intentional groups. Foragers use social control to keep their societies equalized rather than hierarchical, and they do so quite effectively. But they could not accomplish this feat if they did not have an unambiguous political objective. It is the values inherent in the egalitarian ethos that focus people efficiently in this respect: certain attitudes and behaviors are praised, while others are condemned and punished.

There was a time in the history of anthropology when “values” were not taken very seriously as a theoretical variable. In looking at band-level society as a true pioneer, Steward (1955) relegated values to a causally passive, all-but-derivative category that he termed ideology. However, the egalitarian ethos is far more than a reflection of other more basic environmental and social forces in human life. For the indigenous moral community, it provides a realistic focus for action as people try to regulate social life within the group. Because such attempts tend to be successful, it is proper to call the egalitarian ethos a guidance mechanism—an intentional one. The agenda involves a specific behavioral strategy, and it has an influential and sometimes highly determinative effect on behavior, as intended.

Prominent in this hunter-gatherer behavioral blueprint is an ethic of sharing that selectively extends to the entire group the cooperation and altruism found within the family. It does so rather successfully with respect to meat sharing, and to the sharing of decision-making power at the band level. This principle of sharing *power* applies to many aspects of band life, for the personal autonomy of the band’s main political actors is of paramount concern—*unless their behavior threatens the autonomy of others and thereby becomes deviant*. A particularly disvalued form of deviancy arises when one of the main political actors belittles, bullies, or otherwise tries to control another (see Boehm 1993). This overall political orientation could be called antiauthoritarian (Gardner 1991), but it goes further, to the point that the ethos is, in certain contexts, highly anticompetitive. Lee’s wise informant made this point very clear.

Before we examine some specific manifestations of this ethos, I must emphasize that foragers have no need of constitutional conventions in order to define and institutionalize their mode of self-governance. A few surviving foragers, after contact and assimilation, have been taught to utilize this formal mechanism (for instance, Tonkinson 1984; Conn 1985). But the principles underlying a pristine egalitarian order tend to remain rather intuitive—unless an anthropologist asks just the right questions of an articulate subject, as Lee did.

An astute ethnographer listens as people express approval or disapproval of different kinds of behavior, then from these conversations builds a composite picture of the local ethos. Speaking on behalf of the Alaskan Eskimo group he studied, Jenness (1922:93–94) tells us: “Every man in his eyes has the same rights and the same privileges as every other man in the community. One may be a better hunter, or a more skillful dancer, or have greater control over the spiritual world, but this does not make him more than one member of a group in which all are free and theoretically equal.”

Implicit in this description is the *primus inter pares* political stance discussed by Fried (1967). Foragers are not intent on true and absolute equality, but on a kind of mutual respect that leaves individual autonomy intact. There are various ways of expressing this theme, and they can be fairly indirect. For example, foragers may say that a respected leader should be generous and even-tempered, or they may express the same thing negatively, saying that a respected leader is not stingy or prone to fits of anger. In either case, they mean that he should not use his influential position to exploit others economically or to dominate them personally.

At stake is individual autonomy, and Gardner’s (1991) survey demonstrates that foragers are predictably concerned with their autonomy and work to preserve it. As one example, the traditional Pintupi Aborigines in Australia placed a high value on personal autonomy (Myers 1980:313) and were able to express this position quite eloquently. In my opinion, nomadic foragers are universally—and all but obsessively—concerned with being free from the authority of others. That is the basic thrust of their political ethos, which applies equally to all the main political actors.

An ethos is fascinating because it is not necessarily a statement about an actual state of affairs, but a set of strongly held moralistic positions about how life *should* be. Hunter-gatherers may speak abstractly about personal freedom, but often they prefer to deal in specifics, as when they detail desirable or undesirable traits in leaders. Their political blueprint is highly practical, and the adverse political forces they face—forces that make for an increase in hierarchy and a decrease in personal autonomy—can become formidable. A potential bully always seems to be waiting in the wings, and people are prepared by their ethos to deal with such a threat summarily. Bullying—outside the family—is highly unethical.

Ethical values stem from a people’s sense of the social problems they habitually face: for example, if murder did not exist there would be no “Thou shalt not kill.” There appears to be a universal short list of values

that all cultures share: negative ones that proscribe killing, seriously deceptive lying, or theft within the group, and positive ones that call for altruism and cooperation for the benefit of the whole community (Campbell 1975). However, the *political* values found in an egalitarian ethos are far from being universal. In some larger societies, like chiefdoms, both hierarchy and strong political authority are readily countenanced by public opinion, and statements implying that “firsts” must also be “equals” are never heard. A handful of sedentary foragers also lack the egalitarian ethos and support a hierarchical order. Yet the *primus inter pares* approach to political life is widespread. Indeed, this egalitarian approach appears to be universal for foragers who live in small bands that remain *nomadic*, suggesting considerable antiquity for political egalitarianism.

Leadership as a Special Political Problem

A foraging band may have a formal leader who is referred to as the headman or some such title, or it may have an informal leader who steps forward to help in decision-making as long as the band welcomes him in doing so. Some bands merely have a series of functional leaders who come forward when their particular expertise is needed. In every case, such a person is respected, and the danger exists that he (or she) may try to take advantage of this position and selfishly parlay it into something more. While there are many types of potential upstarts, a leader is likely to be watched quite vigilantly by his egalitarian peers—the other main political actors whose personal autonomies will be at stake if he tries to become bossy or otherwise aggrandize his prerogatives. He may be “first,” but everyone else has to be “equal.”

With respect to Kalahari foragers, Lee provides exceptional and welcome details about !Kung leadership and the actual personalities who fill this role. Leaders are sometimes women but usually men, and they are helped in reaching this position by being the oldest person in a large family, by being the titular owner of local resources or being married to such a person, or by having the right personal qualities—those defined in the ethos. Preferred qualities in leaders often are expressed negatively: an *absence* of arrogance, overbearingness, boastfulness, and personal aloofness. Lee (1979:345) says: “In !Kung terms these traits absolutely disqualify a person as a leader and may engender even stronger forms of ostracism.” Kent (1993) has commented similarly. At the same time, Lee demonstrates

that a wide variety of personality types can become leaders as long as they avoid the negative criteria.

Specifics of the Forager Ethos

Lee emphasized the absence of overaggressive traits, but let me stress that an ethos is composed of both proscriptions, which are aimed at curbing antisocial behaviors, and prescriptions, which promote prosocial behavior. For example, generosity is frequently mentioned as a positive trait, one that is particularly desirable in band leaders, and this emphasis is hardly surprising. *Politically* egalitarian foragers are also, to a significant degree, *materially* egalitarian: those who have more are expected to share when scarcity exists. Thus the issue of generosity is salient. In detailing the results of my survey of hunter-gatherer ethoses, I shall italicize items that are concerned specifically with stinginess or generosity.

Among the Coeur d'Alene, wisdom, *generosity*, and honesty were valued (Teit 1930:152–153). A Mescalero Apache chief was good at talking and thinking, *generous*, and respectful (Basehart 1970:99), while Godwin says of the Apache that a chief should be capable as a warrior and hunter and successful economically, but also *generous*, impartial, patient, and in control of his temper (see Basso 1971:14). Denig (1930:449) says of the Assiniboin that *parsimony*, along with exceptional meanness, was criticized—and in fact the chief tended to be the poorest man in camp. Arapaho leaders were expected to be brave, trustworthy, *willing to share food unselfishly*, and to have good sense and judgment (Hilger 1952:190). Jenness (1935:2) delineates how an Ojibwa chief would *provide for a needy family from his own resources*, or arrange contributions from other band members. For the Australian Pintupi, Myers (1980) makes the case that a primary role of chiefs and elders was to *take care of* other Aborigines. For the Kalahari !Kung, Marshall (1967:38) says that headmanship is not much desired and that the leader has to be *generous* and careful not to stand out. This last characterization displays the close relation between material and political criteria for successful leadership, as defined in a local ethos.

Impartiality, being careful not to surpass one's peers, lack of hostile feelings, and emotional self-control were mentioned, so obviously it takes more than nurturant generosity for a person to qualify as a politically nonthreatening headman or chief. Further mentions of emotional self-control occur relative to other foragers (for instance, Flannery 1953; Basso

1971), but as a practical matter one must be capable of leading as well as avoiding the pitfalls of overaggressiveness. Slobodin (1969:66) described the ethos of Kutchin hunters of the American Northeast as follows: “The Kutchin have clearly conceptualized the qualities requisite to leadership in their society. A *sine qua non* for leadership is above-average competence in economic pursuits. In addition, a proper balance of ‘hard’ and ‘soft’ qualities is necessary. ‘Hard’ qualities may be designated as shrewdness, drive, and a touch of ruthlessness; the ‘soft’ qualities are *generosity* and concern for the common weal as defined in Kutchin culture.”

This description suggests that when foragers are looking for someone to lead them in a particular enterprise—or as a long-term group leader—they may find themselves facing a dilemma. It makes sense to choose their most successful, forceful personality to fulfill this role, precisely because the entire group wishes to be successful like him. On the other hand, it is politically less threatening to select someone who is reasonably wise but not likely to become greedy—or to think about dominating others as his influence grows. In this context, generosity may compensate for assertiveness.

Few accounts of a forager political ethos came close to being ethnographically complete, but a sampling of the better normative descriptions that are available reveals some common threads with respect to leadership. A desirable leader is likely to be of high social standing, generous, wise, experienced, successful in what he does, and self-assertive in general. It also helps if he is fair-minded, tactful, reliable, morally upright, apt at resolving disputes, and a competent speaker (Boehm 1993). One might expect foragers to be enthusiastic about such a person, but their sensitivity to the tendencies of others to grasp at authority is such that some of the stronger qualities that make for effective leadership also create ambivalence.

Egalitarian leaders are widely reported to act with modesty and lack of aggressiveness, traits that reflect the sensitivity of leaders themselves to the ambivalence that is predictable whenever a person moves into a position to build authority. Elkin (1940:251) reports that Arapaho mounted hunters in North America expected their chiefs to be strong with respect to whites but humble at home, whereas the chiefs hated their own unassuming role.

We now have some notion of how the leadership role tends to be delineated in the ethos, but we must keep in mind that the average nomadic band has only half a dozen or so adult hunters or people who are otherwise likely to be chosen as leaders, and that human personalities vary significantly.

Real-life choices surely are compromises much of the time, and individuals who neatly fulfill all the local criteria are likely to be scarce. Still, every member of the band is aware of the local ethos; a precise blueprint exists for how to behave if one wishes to be chosen—and uncontroversially retained—as leader.

Thus, the widespread reports of leaders acting in an unassuming way, and of leaders being so generous that they themselves “had nothing,” do not necessarily mean that bands are choosing as leaders unaggressive individuals who just naturally tend to give away all of their resources. In this type of small society, in which the ethos is shared so uniformly, politically sensitive leaders know exactly how to comport themselves if they wish to lead without creating tension. Appropriate ways to assuage the apprehensions of watchful peers are to never give orders, to be generous to a fault, and to remain emotionally tranquil, particularly with respect to anger as a predictable component of dominance. Basically, one needs to avoid any sign of assertive self-aggrandizement.

If otherwise capable individuals are irascible, arrogant, stingy, or mean-spirited, and do not manage to control these tendencies, they have little chance of gaining or maintaining the leadership role. Although ethnographic reports focus on leaders, the same negative criteria apply to the other main political actors in the group as well. Every forager is *expected* to be cooperative, generous, unarrogant, and unbossy. Nonetheless, we shall see that some individuals (including leaders) do fail to restrain themselves.

Antiauthoritarian Sanctions

Social control among foragers is often unobtrusive. Small bands of people, a fair number of whom are closely related, usually manage to get along rather well and basically accept social limits without testing them too often. While bands normally contain families that are unrelated, there tends to be a familial ideology in terms of everyone’s helping everyone else—within limits. Many reports tell of ready cooperation and pleasant social relations. If aroused, however, a band becomes a formidable aggressive force for social control. Morally outraged hunters are capable of taking dire measures against people to whom they are closely bonded—if they feel such people have become seriously deviant.

For a moral nonconformist, living with other people in a band often is quite literally the only way to stay alive. Most foragers have alternative

bands they can join, but the number is very limited. If the individual runs out of bands, in some environments he and his family are likely to perish without the cooperation and sharing that are advantageous in making a living. In the Arctic, where solitary existence meant all but certain death, fugitive deviants sometimes managed to establish colonies of outcasts—murderers or men who had stolen other men's wives and had to flee (Freuchen 1961; see also Balikci 1970). Inuit speakers in these deviant colonies survived by working together just as people in normal bands did.

Social control involves far more than an outraged group's suddenly deciding to employ dramatic sanctions. In any small group anywhere, people keep track of one another's behavior and try to read the underlying motives (e.g., Haviland 1977). Types of deviance that all human groups watch for, gossip about, and react to, include murder within the group, heavily self-interested verbal deception, theft, and stinginess or failure to cooperate when this is appropriate. On the positive side, foragers talk about generosity, cooperativeness, honesty, and other prosocial behaviors that involve good will. In effect, the band keeps a dossier on every individual, noting positive and negative points. Group members exercise the right to take action if a deviant begins to intimidate other group members individually—or threatens the social equilibrium of the group or its very ability to function. When people move from small private discussions to group consensus and aggressive public action, the result is active social control.

Most social control involves implementing manipulative sanctions on a highly deliberate basis. Gossiping, however, a stealthy activity by which other people's moral dossiers are constantly reviewed, is not *intended* to be manipulative. It amounts to a covert exercise in information processing—as well as a satisfying and recurrent social activity. In spite of the secrecy, everyone knows that gossiping is constantly taking place; anyone can be a target. This knowledge serves as a deterrent, for most foragers worry about the opinion of their peers and try to exert self-control accordingly. In some cases they may be working against strong temptations, one of which is to dominate one's fellow group members. In other cases they may be unusually thick-skinned, and not care what people are saying as long as they can have their way.

When sanctioning becomes active, a cool manner of greeting can be an ominous signal, one that can quickly lead to direct criticism or even ridicule. Being made fun of by peers is particularly hurtful if one is bound to live forever in a very small cluster of bands and is unable to escape one's

reputation. Some potential upstarts are easily put in their place by ridicule, but others may be less sensitive—or more driven. The grievous or habitual offender is likely to meet with harsher sanctions: he may be ostracized, as we saw with the Utku—by silence or active shunning—or he may be expelled from the group (Gruter and Masters 1986). If an upstart becomes dangerous to the life or liberty of others and is not susceptible to lesser sanctions, we also shall see that fearful or morally outraged foragers go for the ultimate form of social distancing: execution.

A cardinal act of political deviance is to attempt to set oneself above another person in a way that is belittling, or, worse, to try to give direct orders to one's peers. The available sanctions run from criticism to ridicule to execution. When it is a leader who oversteps, special sanctions are available. These include pointed disobedience, desertion of the leader by moving to a different band, or formally deposing the person from the group-leadership role (assuming that it exists).

To document such patterns of political control, I now survey the specifics of sanctioning on four continents: Australia, North America, Africa, and Asia. In general, I shall discuss foragers who continue to live in fully nomadic bands, although sometimes data were obtained after these people settled around missions. I emphasize in advance that much egalitarian sanctioning is relatively subtle and preemptive, and therefore seriously underreported. But the tip of this iceberg sometimes becomes obvious, and for that reason we do have some unambiguous reports of political crises in which upstarts seriously challenge their peers and the latter react.

Public Opinion, Criticism, and Ridicule

An anecdote from Australia illustrates the relationship between gossiping, public opinion, and the movement of foragers to criticize political upstarts to their faces. For the recently settled Pintupi Aborigines, Myers (1986:224) mentions that in the old days “putting oneself forward and taking responsibility became traditionally important dimensions of an older man's identity,” but at the same time he emphasizes that “the possibility of asserting oneself too much is fraught with danger.” He tells of a leader of one little community who came to be perceived as thinking he was better than the rest and who inappropriately made decisions on his own. First public opinion went against him, then serious direct criticisms were made. When he died in the middle of a ceremony, it was assumed that his untoward

behavior had invited sorcery. Myers finishes the anecdote by saying, "One should assert one's autonomy only in ways that do not threaten the equality and autonomy of others."

When criticism becomes both public and very aggressive, a visitor can readily observe aroused public opinion in action. On the Kalahari Desert the foragers studied by Cashdan (1980:116) deliberately cut down braggarts, just as the !Kung do and the Mbuti Forest Pygmies do (Turnbull 1965:180) when a leading hunter becomes overassertive. Criticism is a direct way of expressing displeasure and giving the deviant cues as to what needs to be corrected.

Ridicule is a form of criticism that has a special sting. Its use is reported for the Paliyans of India studied by Gardner (1969:157): when men trying to exert leadership in a crisis were manipulatively invoking the gods, the rank and file mocked both the leaders and the gods they invoked. Ridicule also is applied to leading men among the Mbuti Pygmies (Turnbull 1965:180, 183), and it is reported for the acculturating Ngukurr Aborigines in Australia (Bern 1987:218). Lee (1982:45) says that !Kung men who put on airs may be called Big Chief just to take them down a peg. Among the Hadza of Tanzania, Woodburn (1982) relates that when a would-be chief tried to persuade other Hadza to work for him, they made it clear that his efforts amused them. These examples illustrate general mechanisms of social control that are predictably found in hunting bands. They are applied to anyone who begins to behave as an upstart, including leaders.

Disobeying Leaders Who Try to Command

Absolutely critical to the welfare or survival of people living in hunting bands are the migration decisions they make, and these are arrived at by forming a consensus (see Mithen 1990; Knauff 1991; Boehm 1996). Such decisions may be needed half a dozen times a year or more, and many of them are routine. Migration is logical when resources within easy range of the current camp have been harvested or when predictable seasonal changes shift the distribution of food resources, as with Eskimos who every year move from sealing on the winter ice to inland lake fishing to caribou hunting. Even these routine decisions have to be adjusted every season for microecological variations. Another reason to migrate is a drought or some other major perturbation, including a political threat from another group. The foragers' dilemma is to make use of the wisest heads available, yet

prevent these gifted people from gaining undue political influence or power.

One preventive measure is to keep the authority to decide with the group as a whole, and consensus-seeking does just that. Typically, all the adults are free to participate, and in a protracted discussion various opinions are weighed by the group. Silberbauer (1982) provides an astute assessment of Kalahari G/wi hunters and their decision process. Unlike tribes, whose members all tend to assemble for a decision meeting, the G/wi discuss their alternatives in small subgroups, sometimes privately and sometimes publicly, looking to arrive at a consensus. This type of political process seems to be widespread (Knauff 1991). At the end—as group opinion begins to emerge—strong social pressure can be exerted on those holding a minority opinion to agree to the majority strategy (for well-documented tribal examples, see Boehm 1996). The reason for such pressure is obvious to foragers and anthropologists alike. A divided band will fission, and the smaller social segments will profit less from the cooperation and sharing that reduces variance in food intake. The members also will lose an aspect of social life they treasure.

Bands do divide temporarily, for hunter-gatherers have to be realists (Kelly 1995). During a season when resources predictably become widely dispersed, individual households or small clusters of households may spread out. As soon as they can, they join again in a band of 30 to 50 or more persons. If just their immediate area is suffering a serious drought, the constituent households may atomize and move to different bands in more favored locations where they have in-laws or relatives or trading partners (for example, Wiessner 1982, 1996). Whenever they are able to do so, however, foragers will migrate as an entire band.

Because these decision-making junctures can be crucial to reproductive success, band members look to their most able personalities for guidance. In this context individual tendencies to dominate or control can easily be stimulated, particularly if the group has chosen to designate one of its members as permanent band leader (as opposed to utilizing a series of functional decision-leaders). In effect, influence can whet the appetite for power, and the rank and file keep this in mind.

We have seen that ridicule can be one effective instrument of control, in that it keeps a gifted leader's tendencies to gain authority in check at the same time that his services continue to be exploited by the group. Another check is simply to ignore any orders given by such a person—that is,

disobey him. We have seen already how the Utku in their acculturating band used passive disobedience to put Inuttiaq in his place. In North America the Arapaho, having lost respect for a leader, let him remain titularly their chief but pointedly ignored him whenever he tried to assert himself (Hilger 1952:189). Among the Bihor of India, members of a hunting party simply ignored the lead taken by an influential shaman who knew little about hunting (Williams 1969:149). In South America, Holmberg (1950:149) reports a chief's being ignored when he insisted on sharing a number of small game brought in by men in his band.

Stronger Social Distancing

Criticism, ridicule, and disobedience, in conjunction with customs that tend to equalize prestige from hunting, will not always do the job. Ostracism (taken in a restricted sense as the silent treatment) is one way of putting a deviant on notice, and at the same time of gaining enough distance so that others can be insulated from the aberrant behaviors. We have seen that mild ostracism can allow a political upstart to stay with the group, hopefully to experience some behavioral modifications and gain social reentry. Permanent expulsion from the group, or the group's quietly moving away, carries the distancing still further and suggests that redemption possibilities have been set aside.

The fact that all the women and men in the group disapprove of an individual is as devastating to that forager as it was to Jean Briggs. Unanimity is what gives ostracism its sting: it really hurts when one's entire social world is a few dozen people and they act in concert to ignore the trespasser. Aside from Briggs's detailed description of the problems of Niqi and her family, specific ostracism episodes are not chronicled frequently or in detail—at least, in a political context. However, a case of ostracism within the band is reported for the Mbuti Forest Pygmies (Turnbull 1965:228), and not infrequently ostracism is listed as a moral sanction in forager ethnographies (e.g., Balikci 1970; Wiessner 1996). It is probably safe to say that among foragers this type of social distancing is widespread, probably universal. A specifically political case reported for the Aranda in Australia by Strehlow (1947:168) involved an older Aborigine who arrogantly tried to usurp the ritual rights of others and was sent away from the group for several weeks. Because the exile was temporary, I would classify this case as a strong instance of ostracism rather than expulsion.

Silberbauer (1982) discusses G/wi ostracism, and while there is no example of its being applied to a political upstart, it is worth noting that this measure can be applied to any deviant who fails to mend his ways. Band members will antagonize the miscreant by pretending not to hear him, by supposedly misunderstanding what he says, or by frustrating him in other ways. If protracted, such treatment can cause the deviant to join some other band that will have him. Otherwise he may have to migrate several times a year, from one band to another. Such ostracism goes well beyond what Briggs reported for the Utku, which was relatively unaggressive. Eskimos do rather frequently execute deviants, though, and it seems likely that they are capable of stronger types of ostracism that more closely approach shunning.

A sanctioning measure that effects actual removal of a miscreant with a minimum of confrontation is desertion. Rather than trying to expel a possibly dangerous group member who is too strong as leader, the band may find it easier to move away. For example, when Geronimo's irrepressible political policies became so heroic that they were all but suicidal, his Apache followers simply refused to follow him any longer and went their own way (Clastres 1977:178). In Malaysia, the Batek similarly moved away from men who were too belligerent (Endicott 1988:122). Among the Andaman Islanders in Asia, a disenchanting minority would go to a different group if they disagreed with their leader (Man 1882:109). Among the Apache, people also would join other bands if their chief was dishonest, unreliable, or a liar (Basehart 1970:101), and the same is true of the Southern Ute at the level of dissatisfied families (Opler 1940:169).

Another measure, one that involves the group as a whole, is to allow an undesirable leader to stay in the band but to depose him as leader and choose another. In North America, this procedure was reported for the Coeur d'Alene (Teit 1930:153); similarly, among the Assiniboin, noteworthy meanness or parsimony could result in overthrow (Denig 1930:449). Among the California Yokuts, largely sedentary foragers who were rather hierarchical but retained an egalitarian ethos, a weak "hereditary" chief who made unfair decisions or was suspected of too much self-aggrandizement was not formally deposed—but he was ignored in favor of another chief (Gayton 1930:410–411). Obviously, not all deposing of leaders was tied to arrogance, bossiness, or some other failure in honoring the egalitarian ethos. Among the Alaskan Eskimos, the *umiak* leader, who coordinated hunts for big sea mammals using a large boat, would be deposed if his

leadership made for a season without a kill (Riches 1982:139). But often deposition involved egalitarian ire, rather than dissatisfaction with the strategic quality of leadership.

In egalitarian societies, the overstepping leader is basically vulnerable: he does not *personally* control local natural resources, nor is he usually able to physically coerce followers to retain him. He is disposable, desertable, and generally dispensable, even though his strategic value to the group weighs into the equation. If he becomes a serious political problem, it usually is feasible to expel him from the group or desert him. If he is too intimidating, his peers may wish to pursue a different course.

Elimination of Upstarts

Regularly, but not frequently, critical domination episodes with feared individuals occur, in which hunters are too cowed to use criticism, ridicule, disobedience, ostracism, deposition, desertion, or expulsion as a way of resolving their political predicament. The tactical problem is obvious: whoever speaks up first may be putting his life in danger. The danger may involve a physical attack, or in bands that have shamans it may also incorporate sorcery.

When a severe domination episode is ongoing, the band's social dominance hierarchy is tipped 180 degrees: it has assumed an orthodox, despotic form, with an alpha individual at the top of the power pyramid and the formerly "in-control" rank and file at the bottom. If such domination were to continue to the end of the dominator's lifetime, and if the same power role were to be transmitted to a successor, with parallel adjustment of the ethos, a reverse dominance hierarchy would have given way to an orthodox hierarchy. Among mobile foragers we do have a number of reports of temporary domination episodes on various continents. Nowhere are these foragers hierarchical, as opposed to egalitarian. As long as they remain nomadic rather than sedentary, hunter-gatherers have been able to take care of political business, even when the threat to their egalitarian order is dire—and personally threatening.

When a menacing personality enters the political scene, I have suggested that people may not dare to exercise social control because they are too intimidated. This is particularly true of recidivist murderers, or of very powerful shamans who can "kill" through supernatural attacks. If lesser sanctions do not come into play, the upstart may feel confident enough to

intimidate his entire band, just as an alpha male chimpanzee does. His political tool is not vigorous domination displays, but a frightening reputation based on past aggressive attitudes and actions. Where a personality given to dominance is allowed such latitude, it is likely that the dominance will move in the direction of despotism. Execution is an obvious answer, but there are attendant difficulties. A practical problem is the fear of setting off a chain of killings, for an angry relative of the deviant may feel compelled to exact revenge. Another practical problem is the potential killing of the executioner as he attempts assassination. Furthermore, foragers basically codify any killing within the group as a serious act of deviance.

Before we examine some cases of execution of tyrants, it will be useful to examine the role that homicide plays in forager life generally (see Knauff 1991). Even among the simpler kinds of foragers, who once were thought to be peaceable, homicide is quite frequent. The threat looms in spite of the fact that hunter-gatherers living in bands are strongly oriented toward peaceful cooperation and resolution of conflict. Actually, resolution of smoldering controversies can be quite efficient; it is the heated conflicts that foragers handle clumsily (Knauff 1991; see also von Fürer-Haimendorf 1967). One reason is the absence of any formalized authority, such as a strong chief or an egalitarian council of elders that is culturally empowered to deal with serious deviancy. As a result, once a conflict heats up, there is no truly effective means of intervention. In fact, would-be peacemakers themselves have been killed (for instance, Lee 1979).

Four broad varieties of hunter-gatherer homicide seem to exist within the band. One is based on a specific grievance, such as discovered adultery that triggers a jealous rage. For the group, that problem is ephemeral: it involves only two men, and usually the killer quickly leaves his band to avoid being killed by his victim's relatives. The episode also seems to be largely situational, in that a man who kills another in a jealous rage is not necessarily a type who seeks to dominate his peers in other contexts.

A second type of killing takes place when a person's close relative has been killed and he seeks to retaliate. Usually such killings are averted by the original killer's moving to a different band. When they do take place, again the revenge killer is simply caught in special circumstances; he is not necessarily a bully or would-be tyrant.

The third type of internecine homicide involves a bullying recidivist killer, possibly a psychotic, who in effect intimidates his group and is in a position to continue the pattern. This type of homicide begets yet a fourth

type, which we may count as a version of capital punishment. While it is sometimes referred to as assassination, the entire group decides on this measure, often delegating to a relative of the deviant the role of executioner and thereby obviating the possibility of subsequent revenge killing.

I should also mention homicide that takes place between bands (see Daly and Wilson 1988). The majority of foragers engage in either feuding (so-called internal warfare) or larger-scale fighting between groups (Ember 1978), and of these well over half engage in fighting at least once every two years. Within the group, retaliation is a function of angry needs for revenge and accessibility of opponents. Between groups, revenge killing becomes more complicated. Intergroup political rivalry and political domination are involved, with long-term political considerations that affect an entire group. That is, to leave such a killing unavenged can invite further victimization (Balikci 1970; Daly and Wilson 1988).

It is killings within the band that concern us here. Such homicides are headed off early if possible, and when they are imminent, feeble efforts may be made to intervene. Once they have taken place, these intragroup homicides, caused by situations of jealousy or revenge, do not usually trigger moralistic sanctioning by the entire group—even though killing is strongly disapproved. The aggressor simply leaves his band. Such a step can be perilous in terms of subsistence, but usually a nearby band will accept him.

Another permutation is the singular deviant colonies mentioned earlier. Peter Freuchen, an anthropologist who married an Eskimo, personally knew some of the men in such a colony. It seems plausible that a colony of refugee deviants would have more than its share of aggressors, and in a modernizing context Freuchen (1961) relates how one such man acted successfully as a despotic bully. First, he took away the wife of another colonist and proceeded to taunt the man. Then he took a second man's wife and forbade him even to speak with her. Eventually, the tyrant was assassinated by one of these victims and another man.

In pre-contact times, lethal sanctions were applied to recidivist murderers in Eskimo bands (Hoebel 1954:88–92). Carefully selected individuals seem to have actually dispatched the offenders, usually male kinsmen of the target, but it was the entire group that conspired to eliminate them. The same is reported of others, like the Comanche (Hoebel 1940), and the Copper Eskimo (Damas 1972). In Arnhem Land, Australian Aborigines traditionally eliminated aggressive men who tried to dominate them

(Berndt and Berndt 1964:289), whereas after European contact it seems likely that such executions were inhibited because of colonial interference. Woodburn (1982:436) points out that because Hadza men in Africa are armed with lethal weapons used to hunt large game, they can easily assassinate someone they fear—in the victim's sleep, or by ambush. A Hadza hunter need only be sure that the surprise killing is executed efficiently, and his risk is low. Lee (1979) tells about an intimidating !Kung recidivist killer in the Kalahari who (on an impromptu basis) was executed so inefficiently that others became casualties as well—and this took place in broad daylight.

Draper (1978:80) states that the !Kung execute incorrigible offenders, much as the Eskimo collectively kill recidivist murderers. Lee agrees with this generalization (1982:47), saying that a !Kung community may execute “extremely aggressive men” by agreement of the entire band. Any execution of an overaggressive individual that is agreed on by the local moral community fits the category of antiauthoritarian sanctioning and qualifies informally as legitimized capital punishment.

That executions by band members were collective is not always specified in detail, but usually is strongly implied. It was explicit with Alaskan Eskimos (Weyer 1932), where communities put individuals to death for three types of malfeasance (see also Rasmussen 1931:236). One was witchcraft, a reputation for which could lead to intimidation and tyranny; another was a brutal temperament, which led to bullying; the third was a penchant for adultery, which probably had fewer political ramifications than the other two.

Colonial interference (or the threat thereof) is a factor that may help to account for the relatively few ethnographic accounts of domination episodes terminated by assassination. However, there are other pertinent reports for Australia. Spencer and Gillen (1976:263) recount that the Iliaura got rid of a man who was “very quarrelsome and strong in magic” by handing him over to an Arunta vengeance party, an indirect type of capital punishment that is paralleled at the tribal level (Boehm 1985). The idea is to get rid of a troublemaker by making it clear to a different group, which is seeking revenge against one's own group, that if it wreaks vengeance on the individual in question no further retaliation will take place.

Thus, reports of execution of individuals who behave too aggressively are available for Eskimos, North American Indians, Australian Aborigines, and African foragers. Because there are relatively few behaviorally rich

ethnographic reports from Asia and South America, my suspicion is that the pattern may be generalized to nomadic foragers in general. The fact that men are hunters of large game, and often engage in some form of warfare, makes them experts at killing. The typical domination episode involves a male who seriously intimidates people at the level of lethal threat, then is dispatched by his own male kinsman with the approval of the group.

That shamans are able to violate the autonomy of others is richly illustrated by Balikci's (1970:233) account of the Netsilik Eskimos. In one instance, when people were asking a shaman to stop a violent snowstorm, he brought personal interests into his public practice, as it were. He said that his tutelary spirit, through him, needed to have sexual intercourse with two girls. The father of one girl agreed, but the husband of the second girl refused, pointing out that tutelary spirits cannot copulate with mortals. More generally, Balikci's informants agreed that a shaman who desired a woman was likely to threaten her with illness, in order to take advantage of her sexually. Shamans were expected to be healers and helpers of the community, so this approach clearly constituted an abuse of power.

Not all hunter-gatherer bands have shamans or sorcerers. But Eskimos who became candidates for antiauthoritarian execution were often fine hunters and shamans, strong men who turned domineering. It was dangerous to cross such persons, because they could use sorcery on their opponents. From Greenland came short-term reports by early Scandinavian explorers of men who committed murder in Eskimo bands and were not sanctioned by their peers (see Mirsky 1937). One physically powerful shaman became a recidivist killer in his group, whose intimidated members simply treated him with great "respect." In this well-reported domination episode a man was seriously intimidating others in his band, yet execution had not been used as an ultimate sanction. (This single example of unresolved abuse of power is of interest in considering the falsification of the hypotheses with which I am working, and I shall return to it later.)

In connection with Arctic sorcery, Balikci (1970) reports a case in central Canada of an old woman believed to have engaged in sorcery to hurt a man who had rejected her. When he died, she and her sons were assassinated for having engaged in such practices. For the mainly foraging Gebusi of New Guinea, Knauff (1987:475–476) reports executions of witches, who tend to be individuals viewed as unusually aggressive. I hesitate to include this type of assassination with those motivated by an egalitarian ethos, because

witchcraft executions are not usually rationalized in political terms (Boehm 1993). In the other cases, when normal individuals tyrannize entire groups and are executed, it is reasonable to assume that the assassination is due to a conscious dislike of being dominated.

With witchcraft it is necessary to deal with motives that are less than conscious, a difficult enough feat in one's own culture. All the same, it is worth noting that in most cultures in which witchcraft executions take place, the witches are apt to be people who are stingy or overly aggressive (see Kluckhohn 1944). Both of these qualities clash strongly with an egalitarian ethos.

The Effect of Egalitarian Sanctions

Service (1975:48–49), discussing deviance and conflict, says that “in a small primitive society, much of social life is smoothly regulated by these codes, rules, expectations, habits, and customs that are related to etiquette, ethic, and role. And because these are not explicit, nor revealed by frequent breaches, the society might give the impression of freedom and lack of conflict, as Rousseau would have it.” It seems to be characteristic of forager bands that most of the time social life proceeds harmoniously, even though once in a while serious problems erupt (Knauff 1987, 1991).

I had to examine scores of forager ethnographies to find a few dozen usable reports of egalitarian sanctioning, and I believe that the sensitivity of most hunter-gatherers to subtle social cues is a factor in this relatively modest level of reported political conflict. With respect to deviance, bands tend to be highly conformist societies—in spite of the heavy emphasis on personal autonomy. Anthropologists visiting a culture for a year or two therefore may be impressed by an apparent lack of competition and conflict. But even as I worked with a small number of detailed cases, it became apparent that political processes everywhere were similar, and that the sanctioning methods I identified were likely to be widely distributed.

To summarize, the specific antiauthoritarian sanctions I encountered followed a continuum from moderate (criticism, ridicule, or disobedience) to strong (ostracism or expulsion, deposition or desertion) to ultimate (execution). The number of reliable ethnographic citations is too small to use a statistical sampling approach, too small to attempt a regional analysis, and also too small to analyze various subtypes of foragers. My justification for drawing the conclusions I have is that this is the only evidence available to investigate an extremely important question.

Had I employed cross-cultural sampling techniques, my results would have been statistically invalid, woefully so. The alternative I followed was to set aside sampling methods and search for at least a large handful of ethnographic reports that contained rich or adequate data—wherever they might be found. Although I like to work with qualitative analysis, I recognize that generalizations based on such an approach raise special issues with respect to “falsifiability” (Popper 1959).

One empirical generalization difficult to deny is that in Africa, Asia, Australia, South America, and North America are clear-cut instances of upstarts being dealt with intentionally by their peers. It is more difficult to assert that the *entire range of political sanctions* can be found on every continent where hunter-gatherers have been studied. However, execution is reported on three, desertion on two. It is my belief that the overall pattern I have described is universal, or certainly very widespread, among mobile hunter-gatherers. Is this empirical conclusion testable?

If one moves from sanctioning of political upstarts to social sanctioning in general (for incest, thievery, ritual violations, cheating, and so on), I believe that most of the sanctions I have discussed could be found on the same continents. A complete survey of the world ethnographic literature to this end would be costly, but it would provide an indirect means of testing the empirical claims I am making about *political* sanctioning. My assumption is that if forager gossiping, ridicule, criticism, ostracism, expulsion from the group, and execution could be shown to be universal, one might assume that these same sanctions were applicable to acts of deviancy that were specifically political.

My own survey has covered perhaps half of the ethnography available in English or French, but it was expediently designed to favor the better ethnographies. A superior methodology would be to survey not only the available ethnographies but also the field notes of hunter-gatherer ethnographers, and to query living scholars directly. It is possible that my basic hypotheses would stand, albeit with regional or other variations. The claim I make is that basically hunter-gatherers everywhere use the same means to keep their bands equalized that they use to curb deviancy in general.

What about potential falsification of the larger hypothesis that egalitarianism is caused by political intentions and political dynamics, rather than by environmental constraints or social structure? I published this hypothesis in 1993, and no one has attempted to demonstrate the existence of any other single cause sufficient to reverse human dominance hierarchies. Because ethnographers who study foragers usually provide abundant infor-

mation about social structure, subsistence activities, and the natural environment, the information necessary for falsification of my universal hypothesis, or for support of competing hypotheses, would seem to be available.

A more fundamental hypothesis (Boehm 1993, 1994b, 1997b) is that human nature makes people prone to compete politically and dominate one another. At least one ethnographer who has studied nomadic foragers seems to agree (Wiessner 1996:185). While I shall develop this hypothesis further in the pages that follow, it may be difficult to falsify—particularly if one insists on waiting to see the genes responsible. Criteria of relative plausibility can, however, be applied.

A complementary hypothesis is that sanctioning which is antiauthoritarian (Gardner 1991) or counterdominant (Erdal and Whiten 1994) is extremely effective in fulfilling the egalitarian ethos. This thesis could be partially falsified if numerous instances were found of domination episodes that were successful in converting a reverse dominance hierarchy into an orthodox one. The closest we have come is the physically powerful Greenland Eskimo shaman who was a recidivist-murderer, for he had not yet been executed when ethnographic observation ended. I know of no Eskimo or other nomadic band in which such an intimidator ruled or dominated for his entire lifetime, or passed such political power to a successor. For that reason, I surmise that the man in question was eventually dealt with—or that for some reason the Greenland Eskimos were exceptional.

It is conceivable that a total search of world ethnography would unearth the kind of counterexample I describe, and I confess I would be happy to see my own hypothesis about the total efficacy of mobile egalitarian bands falsified—at least, in its absolute form. A single instance of a band's permanently succumbing to an upstart would provide a possible explanation for how a handful of relatively sedentary foragers, people like the Kwakiutl of America's Northwest Coast and the Calusa of Florida (see Kelly 1995), became hierarchical as opposed to egalitarian.

Reverse Dominance Hierarchy

Hunter-gatherers in their bands may seem bereft of government as we know it, particularly if one looks to political structure—to the existence of offices or roles involving unambiguous lines of personal authority. Outside

the family, there is very little delegated, legitimate, *effective* authority—although military activities may call for it temporarily in specific circumstances. Yet on a *collective* basis these people do manipulate and control their social and political life to a substantial degree, by acting as a moral community. One way they govern themselves is by imposing an egalitarian blueprint on their social and political life; the main political actors are able to do this cooperatively, behaving as one large and somewhat amorphous political authority that makes its decisions by consensus.

The result is nothing like anarchy—a term overly evocative of romantic (or pejorative) sentiment. Anarchy suggests an absence of power and control, but the band as a cohesive group of adults is in a position to speak with collective authority—and to behave dominantly in governing the behavior of individual deviants. As Service indicated, this power usually remains latent. But it is always there, assuming that the band remains in agreement about its moral issues—and avoids serious political factions by fissioning. Bands are normally in a position to act as well-unified moral communities.

As practical political philosophers, foragers perceive quite correctly that self-aggrandizement and individual authority are threats to personal autonomy. When upstarts try to make inroads against an egalitarian social order, they will be quickly recognized and, in many cases, quickly curbed on a preemptive basis. One reason for this sensitivity is that the oral tradition of a band (which includes knowledge from adjacent bands) will preserve stories about serious domination episodes. There is little doubt that many of the ethnographic reports of executions in my survey were based on such traditions, as opposed to direct ethnographic observation.

An important additional factor is that authority tends to be present, legitimate, and relatively unrestrained within the household. Dominant control is directed at children, and often at wives, so acts of interpersonal domination are witnessed constantly. Band members are kept aware of the danger of letting individuals develop authority that extends beyond the family. In many bands, men in particular must carefully shift gears when they move from a family-head role, in which a strong, paternal authority style may be socially acceptable, to a band-member role, in which it is not. We saw that Inuttiaq did this kind of shifting very competently.

Hunter-gatherers understand human nature, as well as specific personalities. They seem to realize that if a little authority is permitted to develop, then a normal human leader is likely to want more. He may want more

authority because he enjoys bossing people around, or he may simply wish to make his job as leader less complicated. But as a political human being capable of status rivalry and domination, he is not about to receive the benefit of the doubt from his peers.

Individual hunter-gatherers also comprehend that the safest way to neutralize the growth of authority is to act preemptively. Lee's detailed account of how the !Kung use ridicule made that obvious. When the other main political actors are afraid to exert such pressure, as with a malevolent shaman or a recidivist killer, they open themselves to stressful domination episodes and eventually must resort to assassination if they are to reclaim their individual autonomy.

Gardner (1991) and Erdal and Whiten (1994, 1996) have helped to characterize the nature of this struggle, which if not resolved on a preemptive basis can lead to bloody executions. It is primarily on the basis of vigilance that hunter-gatherers have kept their societies egalitarian in spite of individual tendencies that could lead to despotism. Over the long term, the result is a reverse social dominance hierarchy (Boehm 1993) with the subordinates firmly in charge.

The Evolutionary Position of Egalitarian Foragers

One of the great mysteries of social evolution is the transition from egalitarian society to hierarchical society. Extant foragers seem to be invariably egalitarian, as long as they remain basically nomadic. As foragers become sedentary and collect in larger groups that continue to depend on foraging, a hierarchical lifestyle sometimes will arise, with leadership that is relatively strong. With such change comes a major adjustment of the ethos: band members begin to accept competition, social stratification, and authority at the group level. This shift took place among certain hunter-gatherer groups in North America: people lived in year-round villages, stored food, had social classes and leaders with real authority—and no egalitarian ethos was reported (Kelly 1995; see also Rosman and Rubel 1986).

Thus, a hunting and gathering way of life in itself does not guarantee a decisively egalitarian political orientation; nomadism and absence of food storage (see Woodburn 1982) also seem to be needed. Nomadism in itself does not guarantee egalitarianism either, for after domestication of animals some pastoral nomads were egalitarian but others became hierarchical (Salzman 1979; *L'Equipe écologie* 1979). Nor does becoming sedentary and

storing food spell the end of an egalitarian ethos and political way of life. Neighbors of the Kwakiutl such as the Tolowa and Coastal Yurok also lived in year-round villages with food storage (Gould 1982), but they kept their leaders weak and were politically egalitarian.

We shall see in the next chapter that tribal egalitarianism is very similar to that of the hunter-gatherers we have been discussing. Half a century ago thousands of these tribal societies existed; so it is logical to conclude that as they began to domesticate plants and animals, the vast majority of egalitarian hunter-gatherers made a direct political transition to being egalitarian tribesmen. Let us look now at tribesmen, with their similarly “equalizing” approach to politics.

A Wider View of Egalitarianism

Tribesmen (see Sahlins 1968) are different from foragers by ecological definition: they do not exclusively hunt and gather for their livelihood. They may be nomadic, for many tribesmen are pastoralists who move very frequently and others are horticulturalists who may move from one garden spot to another every several years. The difference from foragers is simply that tribesmen have domesticated plants and animals. What is interesting politically is that they have continued the political approach of hunter-gatherers under radically different ecological circumstances.

It is also noteworthy that tribesmen have been able to stay egalitarian even when their functioning political units became quite large. A forager grouping may exceed a few hundred people when bands collect at certain favorable junctures to hunt or engage in rituals (Kelly 1995); but when a number of tribes combine forces, to go to war offensively or defensively, the number on one side can reach several thousand warriors or higher. Usually such confederations are ephemeral, but occasionally they stay together and a permanent egalitarian tribal confederation comes into being. This outcome is unheard of with hunter-gatherers.

The political arrangements of foraging communities can be either egalitarian or nonegalitarian, but the mobile groups we call bands are always egalitarian, ideologically speaking. They also are egalitarian in fact, except when they are experiencing a domination episode. “Tribes” are seen by Service (1962) and Fried (1967) as being egalitarian *by definition*; they are taken to represent a stage of political evolution that is intermediate between egalitarian bands and hierarchical chiefdoms. In the interest of clarifying a term that has been assigned far too many meanings, it makes sense here to specify what I mean by “tribe” and “tribesmen.” Tribesmen, for my

purposes, are nonliterate people who have domesticated plants or animals; have an egalitarian ethos; live in small, locally autonomous social groups; and refuse to permit strong authority to develop in the context of everyday group leadership. They are prone to raiding, feuding, and territorial warfare, and they often play “balance of power” games by forming intertribal coalitions (Boehm 1994a). But in theory a tribe could be entirely peaceful.

Curiously, the radical subsistence changes that came with the Neolithic era did not alter group political life very much. In spite of a major ecological transition, reverse dominance hierarchies continued in force through similar mechanisms of social control. However, with the advent of chiefdoms the political ethos became hierarchical: the ascendancy of leaders and their extended families was acknowledged and made morally legitimate (Service 1975).

It is safe to say that with the advent of the Neolithic era, most foragers became tribesmen. However, by no means did tribal societies always turn into chiefdoms. Indeed, the bulk of ethnographic descriptions on record today are of tribal societies whose egalitarianism extends back to the acquisition of domestication, and farther back into the Paleolithic era.

Tribal Segmentation

Like wild chimpanzees (see Goodall 1986), mobile hunter-gatherers live in groups that often tend to act in a proprietary way about the resources they use (see Kelly 1995). Furthermore, both types of society seem to refrain from all-out, intensive warfare, in which all the males of two groups are willing to have it out and mutually inflict massive casualties (see Manson and Wrangham 1991; Boehm 1992). Further, both foragers and chimpanzees fail to temporarily combine their territorial groups in order to defend against or attack other such “confederations” (Boehm 1992).

The vast majority of tribesmen do engage in intergroup hostilities, but these activities often defy precise description. They may be divided roughly into feuding, raiding, and intensive warfare (Boehm 1986). Their feuding is reminiscent of the revenge killings discussed for foragers, while their raiding is reminiscent of chimpanzee actions on patrol, which can include cooption of females from a neighboring group, killing its males one or two at a time, or moving briefly into enemy territory to utilize natural resources (Goodall 1986).

Intensive warfare is the distinct province of tribesmen, and warlike tribes

also form coalitions to balance power. In this context Durkheim (1933) coined the term “segmental societies.” He took care to specify that each segment was egalitarian internally and that the segments also were equal politically. Thus, when two or more tribes came together for the purpose of uniting against a common enemy, one member of the coalition could not dominate another. In my terminology, each local group can be considered a corporate “main political actor,” one that gives up none of its essential political autonomy by agreeing to a cooperative endeavor.

On the basis of Durkheim’s principles, Evans-Pritchard (1940) and Bohannan (1954) have characterized the Nuer and Tiv societies in Africa as being “segmentary.” Hart (1976) has described the Berbers of Morocco similarly, and Sahlins (1968) has discussed political segmentation more generally (see also Sahlins 1961). Segmentary tribal societies range from those like the Yanomamo, in which alliances between small groups are constantly shifting, to the Iroquois, whose stable confederation of half a dozen large tribes endured for centuries.

Yanomamo Warriors

The Yanomamo of Ecuador and Brazil are a large group of tribes that until recently retained full local autonomy. Some of them, living in a relatively well-populated core area, engage in frequent warfare (Chagnon 1988). The Yanomamo are shifting cultivators who like to hunt, and their lives are firmly governed by political considerations. In fact, they are ethnographically famous for their so-called warfare. Still, like many tribal peoples they do not go forth as communities of warriors and systematically meet similar communities on battlefields, to fight on a numerically equal basis as Western nations have done so often. Usually the Yanomamo merely go raiding in small parties, with the aim of killing one or two enemies without suffering any casualties themselves. Less frequently, they go out in force, with the men of one or more villages participating. The aggressors try to take enemy villages by surprise—with intentions that are genocidal toward the males and sometimes also the children (Biocca 1970). The women they prefer to capture, rape, and take as wives (Chagnon 1983; Biocca 1970). This behavior is readily classified as intensive warfare, for the attacks are made in force and often the enemy try to defend themselves in force.

The Yanomamo do not permit any man to gain much political authority in his “village,” which translates as “sovereign political unit” or “tribe.” Thus they are egalitarian. An effective warrior may have enormous prestige

and may be chosen as chief of his village, but he cannot boss another man. This is well illustrated by Chagnon (1983), who tells of one village that was to host another for a feast. Its chief, to ensure that the central area was tidy, went out and began to rake it himself. Others saw him and began to follow his example, at which point he retired to let them finish the job. He was obliged to lead by example.

Yanomamo villages typically comprise perhaps a hundred persons. Although they can approach two hundred, they are prone to fission for two reasons. One is that the Yanomamo are organized into patrilineal clans, and within a village these clans tend to compete; the other is that there is no strong central authority figure to step in and stop fights that lead to homicide. When a male of one clan kills a male of another clan in the same village, by Yanomamo ideology vengeance is necessary. Rather than engage in what might escalate to intensive bilateral attacks at close quarters, the Yanomamo have enough sense to go their separate ways. They may try for revenge later, when it will not be so costly to both sides.

The village headman walks a difficult political line, for he wants to act in the best interest of the village. He must resolve conflicts and thereby keep the village large so that it can better resist its enemies, and also intimidate those enemies so that they will not raid frequently. He cannot control the serious, village-splitting conflicts—homicidal conflicts between men of different clans—because he operates in an egalitarian society that does not allow him the requisite authority.

Male authority certainly is not absent in this society. The Yanomamo beat their wives severely, particularly when they suspect them of adultery. Any man has this prerogative, for the egalitarian rules do not pertain to intrafamilial use of authority. On one occasion, though, when a man was beating his wife so brutally that he was likely to kill her, a chief did intervene physically (Chagnon 1983). This narrowly averted homicide would have set two large clans against each other, so he probably averted fission of the village by moving close to the line and exerting some authority coupled with physical force. Had the individuals fighting been two men, in all likelihood he could not have acted so dominantly.

Like foragers, the Yanomamo have ingenious ways of heading off most conflicts before they become homicidal. Forms of “dueling” include side slapping, chest thumping, fighting with poles or axes, and even the use of certain types of arrows when hostilities begin to escalate seriously. When their more lethal arrows are brought out, containment of conflict is no longer on their minds. These social devices are largely effective, but when a

village becomes very large the potential for homicidal conflict increases and the factionalized village eventually divides.

Each Yanomamo village has a few specific allies and enemies, but according to Chagnon the overall political situation tends to be quite unstable. A given village will have a number of former enemies or nonallies whom it is trying to turn into allies; at the same time its allies today may become its enemies tomorrow. For example, if a village fissions because of a homicide, the aggrieved clan—now on its own as a separate village that is much smaller and therefore more vulnerable—is likely to seek alliance with a former enemy. This union will help in raiding the clan that inflicted the homicide, which itself is now a separate village, looking for its own allies.

The immediacies of operating in such a system of politically fickle units generate certain strategies. Villages try to stay as large as possible; they intimidate enemy villages as much as possible, so that their women will not be raided; and they work constantly to gain more allies than enemies. The political game can be nearly zero-sum, reproductively speaking, for a vulnerable village can be seriously decimated and driven from its site, after which it will be dependent on allies who are sure to take away most of its women.

With the sedentary Yanomamo, the consequences of intergroup hostility go far beyond what is usual for foragers—unless they are sedentary. Sedentary foragers do seem to fight (Kelly 1995), not only for revenge but about natural resources. The Yanomamo do not fight over land used for horticulture, and Chagnon (1983) has rejected suggestions that they may fight over hunting territory. Apparently what they are fighting about is women, whom they make scarce by practicing preferential female infanticide, and about revenge. This pattern of raiding, vengeance, and warfare eliminates about a quarter of the adult males (Chagnon 1988), causes frequent transfers of females from one group to another, and sometimes involves killing the children of enemy groups. The endemic violence has many ramifications, but essentially the Yanomamo remain just as egalitarian as nomadic hunter-gatherers.

Some General Questions about Warfare

Keeley (1996) has taken a hard look at the prehistoric evidence for intensive genocidal conflict of this type, which is not uncommon among tribal

people. The really first solid evidence for extensive “massacres” comes with the Neolithic era, after the advent of tribes and sedentary foragers on our planet. Extant hunter-gatherer nomads show no very noteworthy tendency to exterminate competing groups, even though they may engage in strings of revenge killings. Such strings sometimes mount up statistically (Lee 1979), and do so in ways that tend to be archaeologically unobvious, so Keeley’s negative assessment is far from conclusive (see also Daly and Wilson 1988). I believe that Service (1971) was correct in saying that hunter-gatherers formerly expressed their intergroup hostility more freely. It is plausible that during the Paleolithic era their conflicts periodically were intensified when they became crowded and contested prime natural resources or they were dislocated due to climatic changes discussed by Potts (1996). Elsewhere (Boehm 1999b) I have discussed this problem at length. But to date no archaeological sites before the Neolithic have been located, at which firm evidence of large massacres can be found.

We can be far more definitive in evaluating the long-isolated sedentary horticulturalist tribesmen of Highland New Guinea. This vast area was opened to civilization only recently, and some of its tribes were studied while traditional warfare was continuing or in the process of being suppressed. Thus, informants were well aware of the overall pattern and many pristine patterns of conflict were well recorded (as in Meggitt 1977). Soltis, Boyd, and Richerson (1995) surveyed the reports and found rather high rates of group extinction among these New Guinea tribesmen. Keeley’s (1996) findings suggest that, prehistorically, many tribesmen were comparably warlike.

The transition to “warrior societies” raises a cogent question with respect to egalitarianism. Hunter-gatherer egalitarianism involves extensive and efficient suppression of competition among males in general, particularly in their role as successful hunters. At the same time, effective hunters are richly rewarded by favorable social standing, for the group praises those who provide it with fresh meat, and there may be other rewards as well (see Kaplan and Hill 1985). A typical warfare society has to stimulate male competition still more strongly, for warfare is far more dangerous than hunting. From childhood a tribe socializes its males to go out and fight for the group, it gives them accolades as adults for performing well on the battlefield, and it tends to accept the fact that heroes will engage in some disruptive status rivalry at home. People know that warriors are motivated to take risks because they have learned to prize their personal honor, and

men who are concerned about honor readily come to blows with their fellows (see Peristiany 1966). Egalitarian tribesmen stimulate male competition more than foragers do, which exacerbates problems of keeping all the main political actors at parity.

How does egalitarianism hold out against such forces for competition and domination? The answer seems to be, quite nicely—but not without conflict. Brave warriors are likely to exchange insults that mutually impugn honor, and they get into misunderstandings about women (Boehm 1986). The cost of this system is that warriors are prone to homicide. But as Fried (1967) pointed out, the status game within a tribe is not zero-sum. The tribe has room for as many heroes as can perform heroically, and the more the better. Furthermore, tribesmen have developed a special way of dealing with internecine homicides.

The human tendency to lethal retaliation appears to be powerful. Even among foragers who preach in favor of peace and engage in little warfare or raiding, men are prone to retaliate lethally against killers of their relatives. Such feuding is not elaborate, for often a single revenge killing is enough to resolve the conflict. By contrast, tribal warriors with their heightened sense of honor often feel they must strike back again after the first revenge killing (Thoden van Velzen and van Wetering 1960). Many tribal societies have strict rules about feuding, which permit two clans within the same tribe to enter into a protracted homicidal conflict without having to engage in intensive warfare (Boehm 1986). There are likely to be rules that dictate only one killing at a time; often there are rules that exempt women from feuds; frequently there are rules for creating truces (so that the two clans can fight together if their tribe is attacked from outside). There also are highly predictable rules for eventually settling feuds through material and psychological compensation.

Tribal patterns of blood revenge are variable. Some tribes, such as the Yanomamo, are extremely prone to vengeance after a homicide against a kinsman (see Chagnon 1988)—yet they have not arrived at the highly systematic rules for feuding and pacification that many other tribesmen exhibit. That is why Yanomamo villages remain small, whereas in rule-bound feuding societies the tribal units can grow larger (Evans-Pritchard 1940; Bohannan 1954; Boehm 1986) because they are able to exchange homicides internally without having to fission.

In either case, egalitarianism flourishes at the expense of authoritative

centralized control. The Yanomamo have no leaders with real authority, and the same is true of tribal societies that feud according to well-defined rules. The latter may have panels of elders who attempt to resolve feuds (Boehm 1986), but any such resolution is totally voluntary for the parties concerned. There is no centralized coercive power to stop internecine conflict, just as there is no centralized power to make decisions of war or peace.

With no one really in charge, an entire tribe makes its decisions by consensus (Boehm 1996). Meggitt (1977) has given an excellent description of how tribesmen make such decisions before they go to war (see also Sackschewsky et al. 1970). The Mae Enga of Highland New Guinea meet and discuss their military options at length, with every man having a voice if he wishes to contribute to the discussion. Meanwhile, the leaders who preside over such meetings keep a low profile. As group opinion sorts itself out, the leaders can see where the consensus is heading, or if agreement is likely. Only then will they exert the limited influence they are allowed and try to catalyze the consensus. The process is time-consuming, but if a consensus is reached, the group is primed to cooperate.

Because of its commitment to egalitarianism and consensus-seeking, any tribe that engages in intensive warfare has a predictable problem on the battlefield. There decisive leadership by the most sagacious warrior would be useful, for in the thick of combat it is difficult for the entire group to talk over its next move. When two or more tribal segments temporarily merge to fight a common enemy, the need for centralized authority becomes greater still.

One might think that the consensus-seeking process that works effectively for smaller tribal segments would prove unwieldy as the number of warriors grew. However, the basic military strategies are readily determined prior to the battle by having the allied tribal segments meet as one big tribe (Boehm 1983). The fact that all the warriors come to a common strategic agreement in advance helps to guarantee their collaboration in battle, and makes it easier for a “supreme chieftain” with limited authority to coordinate their efforts.

We have little knowledge of exactly how early tribal societies formed the chiefdoms that sometimes became pristine civilizations (Service 1975; Earle 1991). However, the Serbs of Montenegro do provide a well-documented historical example of *secondary* state formation (Djilas 1966), including the transition from tribal confederation to chiefdom to kingdom.

Tribes that form political coalitions vary greatly in the degree and constancy with which they combine to form larger segments. We have seen that the Yanomamo form coalitions that are relatively ephemeral and subject to change, as they engage in internecine combat without having to deal with external threats or opportunities. The Nuer (Evans-Pritchard 1940; Kelly 1985) organize themselves to raid their neighbors the Dinka, and succeed quite effectively by means of gradual conquest. Even though they put thousands of warriors into the field, the Nuer have nothing that resembles permanent leadership at the level of larger political segments, and they feud among themselves when they are not engaged in warfare with the Dinka. The Nuer are adept at confederating ephemerally; but when their war is over, whatever system of “command and control” they have developed for that purpose disappears until the advent of the next war. They do not form anything resembling a permanent confederation.

Several “tribal republics” in North America (Moore 1992) did set up permanent governments that remained egalitarian in spite of having centralized functions and even, in some cases, specialized “policemen.” However, the ultimate in *stable* segmentary systems was the Iroquois Confederation (Morgan 1877), which developed democratic types of checks and balances and a rather elaborate governmental structure (see also Weatherford 1988). It accomplished this without ever relinquishing the egalitarian ethos, and without allowing individuals to assume any great degree of authority. The Iroquois constituted a tribal nation that endured for centuries without being racked by internecine feuding, and because it was politically so well unified it could expand its territory at the expense of its neighbors. Lying somewhere between the Nuer and the Iroquois were the eighteenth-century tribal Serbs, with whose descendants I lived in southern Herzegovina.

A Serbian Tribal Confederation

In the seventeenth century, a dozen or so egalitarian Serbian tribes in Christian Montenegro were able to create large, effective armies numbering in the thousands to resist external domination by a powerful civilized Islamic empire (Boehm 1983). These Serbs had a geographic fortress to help them, and they were adept in fighting individualistically as guerrillas; at the same time, they were able to coordinate their movements effectively to compensate for severe numerical disadvantage. Against Ottoman armies

sent to pacify, tax, and sometimes annihilate them, they seem to have won more often than they lost.

By the early eighteenth century, Montenegrin Serbs were able to put as many as eight thousand warriors in the field (Boehm 1983). However, their unity was always fragile, for internal clan feuds could divide tribes, as could feuds between tribes, which often numbered several thousand people or more. Sometimes the feuding was so ruinous that only a few of the tribes were in a position to collaborate. In such cases the Montenegrins had to pay heavy tribute—but were able to keep their arms and their local political autonomy because the Ottomans knew that any attempt to remove them would quickly reunify the tribal system.

Unlike the Nuer and the Iroquois, who used warfare to defend and expand their territory, the Montenegrins used warfare to avoid being incorporated into an Islamic empire that levied heavy taxes and controlled people's lives in many other ways. In their remote and rugged mountains, these Serbian tribes had initially remained passive after the Ottoman conquest of the Balkans in the 1500s. But by the seventeenth century the tribes were beginning to combine forces under the leadership of their *vladika*, or Orthodox bishop. Words can be confusing. These “bishops” were leading warriors and were popularly elected. As warriors they headed the confederation's army, while as ecclesiastics they worked tirelessly to pacify feuds. Their goal was to keep the confederation of Christian tribes politically viable, tribute free, and poised to create a wider Christian rebellion.

During this period the Montenegrins chose each *vladika* from a different tribe, which guaranteed that no tribe would be in a position to establish hegemony over the others. Election decisions were made by a central assembly of all the tribesmen, which was called the *opsti zbor*—or “debate-meeting of all the tribesmen.” There they replicated the tribal consensus process on a much larger scale. The *zbor* made decisions of war and peace and specified military strategies before a battle. The *vladika* was merely another main political actor at these decision meetings, although as a man of God and a leader of men his social status was exceptional.

These canny egalitarians were wise to choose their leaders from different tribes. At the turn of the eighteenth century, *Vladika Danilo Petrović* led the tribal army to signal victories in which many “Turkish” heads were taken, and this very popular war leader was allowed to name his successor. The leadership role suddenly became hereditary, and a chiefdom began to replace the tribal republic. This was the case even though the egalitarian

ethos continued in force, and the opsti zbor continued to make the significant decisions. Eventually a draconic, well-centralized state was formed, but the process took fully a century and a half. It was heavily influenced by Russian foreign aid, which enabled Montenegro's last vladika to have in his pay a corps of bodyguards. This retinue gave him some limited coercive power, as he worked tirelessly to subvert the tribal egalitarian tradition.

Egalitarian society does not easily coexist with hereditary leadership, which concentrates political power in one family or clan and tends to elevate that clan's social status in ways that egalitarians are not likely to tolerate. Eventually, and particularly after 1830, the tribesmen themselves became divided about what kind of political order they wanted (Djilas 1966). Some agreed with the claims of their final vladika, that he should have the power to tax and to punish "murderers"—men who enacted the politically disruptive blood revenge killings that by tribal tradition were honorable, right, and morally necessary. Others considered him to be merely their equal, in spite of the small palace he had built himself with Russian gold. They were proud of him, as New Guinea tribesmen are proud of their "Big Men," but they were not willing to be ruled. In the 1840s Bishop Rade Petrović began to pay salaries to the tribal leaders; as a result, the opsti zbor met less frequently. In the final analysis, however, this extremely influential bishop was unable to break the backbone of the tribal system, with its commitment to local autonomy of tribes and personal autonomy of warriors. Most still refused to pay his taxes.

In 1849, after a century and a half of Petrović bishops, the egalitarian tribes remained intransigent. In spite of his bodyguard, and in spite of his practice of secret assassinations of those who opposed him, Bishop Rade remained a respected and increasingly feared "chief"—but not really a *ruler*. Attempts at taxation, which would have allowed him the coercive force he needed in order to really rule, led to stubborn tax revolts. A poet whose works were widely translated, this last military bishop inspired his fellow tribesmen to revile their Muslim oppressors and resist political domination, but he could not inspire the majority to give up their egalitarian ways and become a nation with centralized authority (Djilas 1966).

Danilo Petrović, Bishop Rade's nephew and successor, was a ruthless, domination-prone individual. Intent on uniting the Montenegrins permanently and suppressing the divisive tendencies to feud, he asked the opsti zbor if he could be a secular leader because he wished to marry the daugh-

ter of a Venetian merchant. His request was granted, and within a year “Duke” Danilo had broken the backbone of a still highly recalcitrant tribal system. He accomplished this feat by getting several loyal tribes to serve as his army, and by putting down a tax rebellion in the large and intransigent Kuči tribe. More than two hundred human heads were cut in a single day, and from that time forward the dozen or so tribes of Old Montenegro accepted centralized authority. A tiny despotic “tribal nation” came into being almost overnight.

The principality (and later kingdom) of Montenegro deserves brief further mention because of its place in history. The greater political unity that was now possible led to the permanent incorporation of seven large Herzegovinian tribes (including the one I studied) and resulted in more decisive military aggression against the Ottomans. In 1875 Montenegro doubled its territory. Then, as the Ottoman empire weakened, in 1911 Danilo’s successor, King Nikola Petrović, attacked Turkish Albania. This was the First Balkan War, which led directly to several other wars and then to the assassination at Sarajevo that started World War I.

The Montenegrins’ situation relative to the Ottoman empire was unusual, insofar as most tribal peoples who meet with empires become subjugated and lose the local autonomy that enables them to carry on an egalitarian way of life. There have been a few other noteworthy “tribal holdouts” of this type (Boehm 1983, 1984b), such as the Apache Indians of the American Southwest and the Kurds, who as I write continue to cause serious problems for at least two civilized nations. Surely the Afghans have been the most significant segmentary society in modern world history, for they helped to bring down the Soviet empire.

Basically, the tribal era of world political history is over. The great majority of egalitarian foragers and tribesmen who survived into the twentieth century have lost their local autonomy, one way or another. Yet a troubled planet may hear again from its few remaining tribal refuges.

How Tribes Remain Egalitarian

I mentioned earlier that only a few of the ethnographers who study tribes have directly addressed political egalitarianism as a research topic. I shall showcase two of these treatments, as a way of determining whether tribal egalitarianism should be considered different from the much-discussed egalitarianism of hunter-gatherers.

Wape Egalitarianism in the Face of Cultural Contact

In assessing leveling mechanisms among the acculturating Wape of New Guinea, Mitchell (1978:5–6) says:

Many egalitarian societies have been reported in Melanesia, but so thoroughgoing is the absence of theoretical interest in them that they are rarely identified in general discussions of socio-political organization . . . or even in similar discussions limited to Melanesia.

. . . The prototypical egalitarian society now established in the ethnological literature is the nomadic hunting and gathering society. Egalitarian horticultural societies are generally ignored.

Mitchell defines egalitarianism as involving status equivalency among the decision-makers of a group, a definition that agrees with mine. He asserts that in the western section of the Sepik River Basin are some extremely egalitarian groups, including the Wape, who are sedentary horticulturists. In the 1920s the isolated Wape came into contact with modern Australian culture when they began to work as migrants far from home. The first missions were established later, in 1947.

The Wape have weak leaders and use consensus to reach group decisions, just as nomadic foragers do. Precontact leveling mechanisms discerned by Mitchell include bridewealth donations that constantly redistributed wealth, and curing festival exchanges organized so as to promote male equality. The traditional exchange system was based on an egalitarian ethos, so in the absence of Big Men the political picture is very similar to that established for nomadic foragers. The egalitarian ethos serves as a focus for antiauthoritarian feelings, which coalesce at the group level and favor customs that level material differences—economic differences which if not leveled might stimulate individuals to engage in political self-aggrandizement or become overbearing.

Mitchell documents what happened when men began to migrate as laborers and accumulate individual wealth—an obvious threat to such a system. The Wape, firmly retaining their egalitarian ethos, began to develop new leveling mechanisms. One was the giving of gifts, which quickly tended to redistribute the new wealth among a man's relatives. A more general leveling mechanism was gambling—a true innovation, and a very effective leveling mechanism which, as the Wape use it, tends to redistribute wealth randomly. In theory, gambling offers the possibility of big win-

ners, but Mitchell (1978:12) says that among the Wape “a man will not tolerate a situation where a neighbor has more than he has. A man should not possess either goods or power to the disadvantage of others.” The Wape regulate gambling by their own special rules: a big winner cannot leave a *satu* (dice) game until it is over. He also is expected to play at the next game. Basically, no one can quit a winner. It is the egalitarian ethos that keeps this rule in place, and inspires the social pressure that enforces it.

Even though Wape migrants cope with hierarchical societies, at home their egalitarianism continues strongly. One man became an accomplished trader with outsiders and individualistically kept most of his wealth. This trait stirred public resentment and eventually caused his removal from the elective office he held. In actuality, his behavior was similar to that of culturally legitimated Big Men in many other New Guinea societies, which manage to retain an egalitarian ethos but accept large status differences because the trading achievements of certain individuals reflect favorably on the entire group (Godelier 1986). The Wape, who never developed such a system, were quick to cut down this particular upstart.

In the Wape we see an egalitarian society that is resisting, rather than adapting to, an external hierarchical society with which it has considerable contact. Mitchell (1978) tells of the impact of this egalitarian ideology and lifestyle on his own work as ethnographer. The “rich anthropologist” ran into difficulty hiring Wape people to take care of his house and run errands, for the community insisted that every job be done in constant rotation—rather than letting one person fill the position and learn to do the job well. This system was perfectly consistent with their careful regulation of social and economic rewards, which was geared to suppress personal ascendancy.

It is interesting that, when Mitchell wishes to indicate how strongly egalitarian the Wape are, he compares them not with other tribesmen but with foragers living in nomadic bands. It is safe to say that forager egalitarianism has become a theoretical topic unto itself; for this reason, nomadic bands provide a “gold standard” for judging the degree of egalitarianism in other types of society.

Schneider’s Theory of Pastoralist Egalitarianism

Schneider’s (1979) explanation of egalitarianism among a large number of East African groups pertains to pastoralist tribes whose behavior is unlikely

to have changed with recent culture contact—but whose egalitarianism may have been intensified by the presence of hierarchical societies nearby in the form of chiefdoms or kingdoms. Like Mitchell, Schneider is much interested in the predictably egalitarian way of life of these pastoral nomads, who inhabit a very large area. He seeks to explain why they remained egalitarian while engaged in such contact, and devotes an entire book to the question of pastoralist leveling mechanisms.

Looking at East Africa as a whole, the economic anthropologist Schneider (1979:209) sees a general correlation between political egalitarianism and dependence on cattle for subsistence. The “leveling mechanism” he favors is ecologically based: it is the inherent instability of cattle herds. For this reason, while Big Men with some political influence may arise, none can establish himself as a hereditary chief. Power derives from the number of cattle owned, not from birth position, and the number of cattle fluctuates radically. Today’s Big Man may be tomorrow’s poor man.

To tie his analysis to a theoretical model, Schneider turns to the economist Milton Friedman, who posits that where the distribution of wealth is dynamically variable over time, structural inequalities have more trouble establishing themselves than where the distribution is fixed over time (Schneider 1979:228). In applying this theory to East Africa, Schneider finds that whereas pastoral nomads experience radical changes of herd size owing to natural exigencies (including disease and localized drought), in areas favorable to agriculture, socially stratified, strongly led chiefdoms predictably arise because land ownership stabilizes material differences among households. He suggests in effect that it is more difficult to centralize cows than agriculture, and that a poor pastoralist has enough economic opportunities that he need not submit to a rich man.

Whereas Mitchell portrays the social and political equalization that prevailed among the Wape as resulting from vigilant application of the egalitarian ethos, Schneider’s basic position is reminiscent of the various environmental-ecological arguments used earlier to explain hunter-gatherer egalitarianism: in effect, leveling is effected by natural conditions of subsistence. The focus is on economics, but politics are not ignored. Schneider points out that an egalitarian ethos does help to limit the amount of hegemony a Big Man can establish—even if economics are on his side. He also comes very close to dealing directly with human nature. Discussing differences between hereditary, nonegalitarian chiefdoms and egalitarian societies that tolerate big men, Schneider says (1979:210): “All men seek to

rule, but if they cannot rule they prefer to be equal. Those [big men] who have wealth are unable to institutionalize it and legitimize their attempts to control others, any attempts to do so resulting in scornful and sometimes violent reaction by others against whom the wealthy are unable to retaliate sufficiently to establish authority.”

What I take to be the human-nature side of the picture is spelled out nicely, if somewhat by implication. Even though individuals may be attracted personally to a dominant role, they make a common pact which says that each main political actor will give up his modest chances of becoming alpha in order to be certain that no one will ever be alpha over him. To repeat Schneider’s words, “All men seek to rule, but if they cannot rule they prefer to be equal.” This adage parsimoniously explains the political attitude that keeps an egalitarian ethos in place, be it forager or tribal.

Schneider devotes an entire chapter to “The Causes of Egalitarianism” and, like Mitchell, feels he must justify singling out this topic. He points out that while concern over hierarchy and egalitarianism is pervasive in the social sciences, the focus usually is on explaining the origins of extremely hierarchical states—whereas “egalitarian systems have been considered to be somewhat primitive, an early, inferior condition of human development” (Schneider 1979:212).

Schneider follows others who have tried to explain egalitarianism primarily through environmental variables, and like many of them is well aware of the egalitarian ethos and the social force it generates through sanctioning. Identifying a negative attitude toward authority in East African stateless societies, he brings in the noteworthy individualism of the Masai and the Nuer, and extends this characterization to the entire Nilotic pastoral area, quoting Butt (1952:41):

All who have come into contact with the Nilotes have remarked on the proud, individualistic and truculent behavior which they display towards each other and particularly towards foreigners. They consider their country the best in the world and everyone inferior to themselves. For this reason they despise clothing, scorn European and Arab cultures, and are contemptuous and reserved with foreigners, so that it is difficult to get to know them. Their attitude towards any authority that would coerce them is one of touchiness, pride, and reckless disobedience. Each determines to go his own way as much as possible, has a hatred of submission, and is ready to defend himself and his property from the inroads of others.

They are thus self-reliant, brave fighters, turbulent and aggressive, and are extremely conservative in their aversion to innovation and interference.

This political portrait of northeastern African pastoralists jibes with descriptions of tribal warrior societies elsewhere, including the Yanomamo and the traditional Montenegrin Serbs. Even as an egalitarian ethos keys such men to insist on equality within the group, it apparently also makes them insist on equality when they are dealing with outsiders. Indeed, the existence of hierarchical indigenous chiefdoms and kingdoms nearby, combined with knowledge of Arab civilization and its trading empire, may well have reinforced the very different model of political life held by these pastoralists.

Schneider's analysis is logical and in accordance with the facts. But like the students of forager egalitarianism surveyed in Chapter 3, basically he focuses on a single ecologically based leveling mechanism to explain his particular egalitarian society. He does so even though he fully recognizes the existence of the egalitarian ethos and the immediate effects of egalitarian sanctioning. At the level of ultimate causality, his economic-ecological model is fairly persuasive.

Problems arise, however, with attempts to generalize the model. For example, one must ask immediately why it is that so many other pastoral nomads, whose cattle also are susceptible to disease and drought, are hierarchical rather than egalitarian (see *L'Equipe écologie* 1979). I suggest that the answer lies in political dynamics—even though environmental causation and ecology obviously play their part.

The Tribal Ethos

If we turn from single societies to tribesmen in general to examine available descriptions of the egalitarian ethos, a pattern becomes discernible. We have explored the ideology of East African pastoralists, and I shall continue with Africa (both pastoralists and horticulturalists) before turning to other continents. As with hunter-gatherers, I shall highlight references to generosity.

Wagner (1940:230–236) examines the Kiavirondo Bantu speakers, who have a weakly developed political authority, and he identifies routes to individual prominence that are useful in gaining leadership: one must have means sufficient to show *warm hospitality*, one must be proficient at the

verbal skills needed to mediate disputes, one must have a solid warrior reputation, and one must be possessed of moral virtues. According to Wagner (1940:233–234), “He must be known for his kindness and honesty; he must be past the age of sexual desire, and he must be someone ‘*who can feed the people*’; in short he must be a person . . . without any failures and blemishes in the record of his past and present life” (italics added). He also must be of mature age, which is accompanied by wisdom, gentleness, and freedom from greed and jealousy, and also by a certain supernatural power (through curses) that adds to his authority.

Such attributes made a person a leading elder, but this role also had aspects pertaining to the life cycle. A man who was a leader in war while young became a dispute mediator and performer of ritual sacrifices with age; there was no institutionalized role of chieftain. Specifically egalitarian are the themes of kindness, gentleness, and in particular *generosity*, combined with freedom from greed and jealousy. These characteristics amount to a lack of competitive aggressiveness, and a thematic similarity with foragers is obvious.

In Zambia, Tuden (1966:276) reports that Ila leaders live in unassuming social surroundings and that they must be *generous* in dispensing property, skilled at mediation, and—again—lacking in jealousy and envy. As did foragers, the group uses a consensus approach to making decisions and settling conflicts, and the leader is far more a respected facilitator than an authority figure. Similarly, Turner (1957:200) says of the Ndembu that to become a headman one must show some aggressiveness in the form of ambition, but it must be balanced by tact, *generosity*, and ability to serve as a mediator of conflicts: basically, a headman should keep his behavior low in profile yet be firm as well, and *be very ready to share his material possessions*.

To return to northeast Africa, Lewis (1961:205) refers to the Somali pastoralist “sultans” as *primus inter pares* types of leaders, and points to their vital function in mediating between rival lineages of their large clans. He quotes a Somali adage: “Three things bring the downfall of Sultans; biased judgment (in the settlement of disputes), dry-handedness (meanness), and indecision.” Meanness would seem to be associated with aggressiveness, which always is ruled out by egalitarians. Of course, biased judgment and excess indecisiveness are qualities disliked in leaders universally, including in hierarchical societies.

If we stop to consider this small but representative sampling from Africa,

it is apparent that the forager ethos has not changed a great deal in adapting to domestication and larger group size, along with (often) a clan-based social structure and intensive warfare. Generosity and lack of envy are still held up as attributes that contrast with aggressive status rivalry, while personal equanimity and ability to work with people are present as well. In cultures that practice raiding or warfare, the ability to lead military expeditions is valued. Emphasized far more, however, is the ability to mediate disputes. This preference may exist because domestication brings with it a stronger connection to specific pieces of real estate, and therefore greater dislocation if a dispute causes a group to fission. At the same time, dispute resolution keeps local units larger, which is useful where a warfare pattern prevails.

For Aboriginal North and South America, Lowie (1973) surveyed patterns of leadership and found strong centralized authority to be rare (see also Clastres 1977). Among the few foragers he found chieftainship, if present, to be merely titular, and the same is true of many agricultural groups: chiefs are without authority or power, but they do have meaningful functions in dispute management or leadership in war. In Lowie's (1949:286) words, "The typical American chief may enjoy social standing, but he lacks sovereignty."

Lowie emphasizes that men whose aggressions are stirred by participation in warfare sometimes are deliberately avoided as chiefs, whereas if a chief is allowed to fulfill both functions, his battlefield authority disappears immediately at home. Lowie points out that even the aforementioned Iroquois Confederation, which involved a long-lasting set of alliances among half a dozen very large tribes and created special needs for centralized governance, limited the powers of its supreme chiefs to a strictly nondictatorial role.

The typical egalitarian ethos for these tribes is implicit in the following description, and the generosity theme continues:

Besides being a skillful peacemaker, the ideal chief was a paragon of munificence. This may hold more often in North than in South America, but . . . a Nambikuara headman constantly shares with his tribesmen whatever surplus of goods he may have acquired: "Generosity is the quality . . . which is expected of a new chief" . . . A third attribute of civil leadership is the gift of oratory, normally to be exercised on behalf of tribal harmony and the good old traditional ways. (Lowie 1973:287–288)

Lowie also mentions a limited authority role among the Apinaye of South America, who appoint officials to retaliate forcibly where people break rules pertaining to harvesting. He points out that as mounted hunters, certain Plains Indians have “policemen,” who use strong physical sanctions to ensure that the entire group does not suffer from individualistic hunting practices (see also Hoebel 1954). This egalitarian type of policing developed too among certain woodland foragers, to prevent overhasty gathering of vegetable foods.

As with warfare, a group activity critical to group interests here is being regulated by means of strong authority, yet the chosen officials are allowed no other special powers. Egalitarians understand very well that it is human to aggrandize authority, and that if power is delegated it must be carefully circumscribed. In North America one of the most interesting leveling mechanisms is the splitting of leadership functions between war chiefs and peace chiefs (see Lowie 1973). Although it is difficult to demonstrate that this division of labor was a deliberate invention intended to accomplish leveling, given the egalitarian penchant for creating detailed political blueprints this goal seems quite likely. The effect was to keep men given temporal authority on the battlefield from extending such dominance to other areas.

In this context, let us return to the Yanomamo. Chagnon (1983:136–137) gives us a nice political portrait of Kaobawa, leader of a Yanomamo village in Ecuador, whose behavior makes the ethos apparent. He is “unobtrusive, calm, modest, and perceptive,” and as headman he sometimes is expected (on a temporary, situation-specific basis) to exert a certain authority—as exemplified by his intervening physically when wife-beating was carried too far, or by his unforcibly manipulating a men’s club-fight so that it did not escalate. We have seen that if he wishes to guide an activity, he simply sets an example—which his people follow if (and only if) it pleases them. Kaobawa’s *generosity* is, typically, material (see Chagnon 1983:70). It also can be counted in terms of risk: it is he who does the dangerous reconnoitering around the village if the presence of raiders is suspected.

If we move to the Busama of New Guinea, Hogbin believes that men are actually reluctant to step into a leadership role. The same is widely reported for other culture areas. As inferred from the ethos, such reluctance is itself a desirable trait: egalitarians are innately suspicious of power-hungry individuals. A respected Busama chief should also be *generous* and have an even

disposition and pleasant manners; men whose moods are unpredictable or who fly into rages should not be given such authority. According to Hogbin (1951:153–154), “What is wanted is amiability—deference for elders, joviality for contemporaries, and firmness tempered with consideration for juniors.” He continues, “To these qualifications I would add courage, self-assurance, organizing ability, tact in personal relations, a fair degree of eloquence in public speaking, and perhaps a disinclination to commit breaches of the moral code.”

Hogbin (1951:145) tells of two headmen who behaved differently:

One or two . . . are said to have become filled with their own importance and behaved as though they were masters of their people. Yomsa', for example, committed adultery a number of times, was always demanding pigs, and carried out sorcery against all who opposed him. A conspiracy was ultimately formed against leaders of this sort, and they were removed. The story goes that the family of Yomsa' enticed him to a lonely part of the beach and there stabbed him in the throat. With such close kinsmen involved, reprisals were out of the question, and the man who had actually handled the knife lived in honour for many years. Matap, a headman from Lae, was put out of the way in similar fashion, though this time the whole village took part.

Tribesmen, like foragers, have to be careful about revenge killing when they decide to eliminate an upstart. The man's own relative can do him in, or the entire community can actively participate. In either case it is impossible to target an individual for revenge.

We shall deal with the question of sanctions shortly, but with respect to the ethos, the “higher crimes and misdemeanors” of Hogbin's upstart include competing with other men for their women's sexual favors, being greedy rather than *generous*, and engaging in rivalrous behavior through supernatural power. Whether an individual or the group accomplishes the assassinations, the moral community unambiguously is of one opinion with respect to cutting down arrogance that defies the ethos.

To return to the Wape, Mitchell does not provide a succinct summary of the ethos, but he does quote a Wape intellectual, a university student, who says: “Everyone is on equal terms with each other. The idea of giving things away freely to relatives and friends is to win a place in the society. Not necessarily an important or prestigious place, but just to fit in with every-

body else. It is just a general attitude seen here, where what is done by everybody is good for everybody” (Mitchell 1978:15).

Read, who studied the Gahuku-Gama, outlines a range of male personalities. There is the very weak man, who is unwarlike and prefers the company of women. Then there is the strongly assertive and aggressive warrior who is quick to take offense, slow to defer to others, and likely to act precipitately. The latter “expects obedience, is motivated by a desire to dominate and cannot abide opposition. He is an individual who easily feels threatened by the quality of ‘strength’ in others. Such a man may be admired for his abilities. He will ‘earn a name,’ even attract adherents; but he is unlikely to achieve generalized authority or lasting influence” (Read 1959:430).

Read goes on to say that the man who achieves lasting influence is not someone whose positive aggression stems from an inner compulsion, but one who is sensitive about the issue of parity: people want the right kind of strong man to lead them. In an interesting point with respect to qualities of manly aggressiveness and leadership potential, Read says that groups are delighted to have the aggressive man as a warrior, for he fights well and commands well in battle. However:

the precipitate, compulsive individual may be a constant source of irritation or disruption in his own group, where the use of force or the threat to use force is proscribed under the ideal of group consensus. In other words, it seems that the character structure of the really “big” or “strong” man is not fitted for the subtleties of generalized authority. Among other things, successful leadership requires a fine feeling for the opinions of others. I think we might also say that it necessitates some detachment, the ability to see many different points of view at the same time, or, if you like, a breadth of vision and a degree of self-control. (Read 1959:435)

This is an unusually nuanced explication of an egalitarian ethos as it governs leadership qualities.

Also in the New Guinea highlands, Pospisil (1963) studied the Kapauku and noted that other Europeans claim that such tribesmen have no leaders—only a *tonowi* (rich one) who is a *primus inter pares*. Pospisil suggests that Westerners perceive leadership as involving compulsion, and formality in announcing policy, but that the Kapauku have a different arrangement. As with many foragers and most tribesmen, within the family or extended family certain individuals are vested with formal authority—these tend to

be dominant males in the role of father or husband. Larger groups have only a *tonowi* as a kind of informal authority. Such a person is distinguished by characteristics defined in the ethos: wealth, *generosity*, eloquence and verbal courage, physical fitness, bravery in war, and shamanism. Only the first three are basic and indispensable, and men possessing these traits are not born into their positions. They gain them by being successful pig breeders and traders; but wealth in itself is not enough. Indeed, the Kapauku reprimand and ostracize wealthy men who show failings in the area of generosity, and are known to execute them. Such executions are not individual acts of jealous rivals, but capital punishment decided by the entire group—with members of the individual's own clan or family participating. If two or three men in the same group achieve the appropriate status, the group can have multiple headmen. This concept fits perfectly with Fried's (1967) description of an egalitarian state of affairs: status rivalry does not result in a zero-sum game.

As with foragers, and in spite of ethnographic reporting that lacks standardization, the egalitarian ethos seems to be quite similar when sampled on four different continents that have numerous tribal societies. Because these people are a mix of a few pastoralists and many farmers, in most cases Schneider's economic hypothesis does not apply. *Generosity* continues to be crucial as a trait that keeps the leader in a position of helping others and at the same time levels the distribution of material items. Implicit is an indigenous recognition that control of economic resources can lead to political as well as material self-aggrandizement. We can see a similarity to hunter-gatherers, and tribesmen also share the emphasis on emotional equanimity, and absence of tendencies to act too dominantly while trying to lead. However, military virtues are valued by tribesmen, and these correlate with a substantially higher average rate of feuding, raiding, and warfare (see, for example, Soltis, Boyd, and Richerson 1995). I have already suggested that success in warfare seems to breed male tendencies to self-assertion and self-aggrandizement that can generate resentment. The groups we are examining take preemptive steps to head off the growth of personal domination and authority, and do so quite effectively.

Antiauthoritarian Sanctioning

We have seen that for foragers, while social sanctioning functioned powerfully as a causal force for leveling, actual sanctioning episodes were re-

ported rather rarely. The same is true of tribesmen: people know the cultural limits, and remember well the more dramatic sanctions that have been applied. Usually tribesmen are guided by subtle cues an ethnographer may miss, but once in a while someone miscalculates, or his tendencies to self-aggrandizement become "compulsive." Then active and severe sanctioning comes into play.

Tribal Public Opinion

Sanctioning depends on public opinion. As with foragers, such opinion is shaped either by the gossip of small groups or by more public discussions that involve an entire localized group. If the group moralistically arrives at a negative judgment about someone's behavior, often in the person's absence, this constitutes a fearsome threat. Most individuals dread an adverse opinion on the parts of their fellows, but also fear the active sanctioning they know can grow out of negative judgment. Not all individuals are socially sensitive, but for the majority who are, the mere existence of gossiping and public opinion serves as a major deterrent to misbehavior.

Clastres (1977:28) generalizes that throughout South America chiefs are controlled by public opinion, and Lowie's survey indicates that among the Cayapo and Canela "a common check . . . appears in the assembly of adult men" (Lowie 1949:342). The typical tribal unit in the Americas and elsewhere is a local group that meets to make decisions, with everyone (in theory) having an equal say. These assemblies gather in one place because the localized segments tend to be much larger than bands, which may arrive at a consensus more informally (see Silberbauer 1982). Most tribes have a chosen leader, generally a male, who formally presides over the meeting. He keeps a low profile at first and begins to speak up only when a consensus is emerging. This scenario is particularly well documented for New Guinea (Sackschewsky, Gruenhagen, and Ingebritson 1970; Meggitt 1977), but a consensus-seeking style of public meeting seems to prevail everywhere (for instance, Richards and Kuper 1971; Bloch 1975).

An exercised public opinion leads to decisions of various types. We have seen that foragers make ecological decisions about where they will migrate next, and that they also make social-control decisions, stimulated by individual deviance, that can be as extreme as execution. Tribesmen are similar, although subsistence-related decisions tend to be made on a household basis if the tribesmen are sedentary. Ethnographically, the best-described

decisions are those involving councils of war (Boehm 1996). While the more detailed accounts do not relate directly to moral sanctioning, they do demonstrate how public opinion operates on a practical basis in a society that is too egalitarian to delegate decision powers to a leader.

Consensus-seeking is an integral part of any egalitarian political arrangement, and the rich ethnographic details of Meggitt's (1977) work in New Guinea exemplify how it operates. Even small Mae Enga raiding parties of ten or fewer men must make their decisions in concert with the rest of their clan, for they need that backing. As egalitarian main political actors, they are free in theory to do anything they please. But in actuality, individual decision-making is largely overridden by group decisions, through conscious manipulation of minorities by the majority.

Only the men meet, out of need for secrecy, and it is taken for granted that all will participate. Pooling of information is important to development of public opinion (Meggitt 1977:77–78):

The men who initiated the conference, or their spokesman, briefly indicate their view of the clan's position and the action they favor. Thus, they may argue that now is the time to launch a full-scale attack on the neighboring clan with the aim of occupying a specific section of its territory. The major Big Man then solicits responses from the audience. Ideally, everyone present has a voice and, being among his own clansmen, can speak with complete freedom. Moreover, anyone who possesses pertinent information has a moral obligation to contribute so that the group may reach the best possible decision in the circumstances. Most men . . . are ready to make their points at length and with elaborate oratorical flourishes. Only young bachelors and some very old men are likely to hold back and say little unless directly questioned. The task of the Big Man at this stage is to ensure that all have a chance to offer their opinions and facts in full, and . . . [to make] no attempt to cut off any but obviously irrelevant speeches.

Only in this way, it is believed, can each clansman truly ascertain the thoughts of his fellows and the evidence behind them. So instructed, he can cleave to or modify his own ideas, and his reactions in turn affect those of others. Naturally, the Big Men and fight leaders have their own opinions of an appropriate outcome of the discussion; but none of them, especially in the early sessions, reveals much of his hand or tries patently to push for the acceptance of his suggestions. Not until hours of argu-

ment have clarified the issues and carefully dissected the facts are these men likely to signal unequivocally their own positions, and even then those, including the major Big Man, who perceive that tide running strongly against them may well go along with the emerging majority view. Thus, step by step the slow process of constant feedback inches toward the possibility of general agreement on a correct course of action. Then, when the Big Man believes that consensus is close at hand and that further talk will add nothing of value, he incisively summarizes the main arguments, indicates which have been rejected, and finally announces the decision reached by the clan.

Although these warfare decisions sometimes end in disagreement, the emergency nature of the problems militates toward a consensus (p. 80):

I should emphasize that such deep and irreconcilable divisions of opinion do not emerge often when clansmen assemble to determine whether or not they should go to war. Given the crowding of the compact clan territories along the narrow valleys, the men of any clan are usually quick to agree that the actions of an expanding adjacent group are a serious threat to their security. Only the few really obtuse men must have their attention drawn by Big Men and fight leaders to the growing danger; the rest readily accept the need for a prompt defensive response, which may also be defined to include a preemptive attack on the potential aggressors.

Such decision meetings are by no means mere rituals, for vital strategies, tactics, and timing are all at issue. Although individual decisions are largely preempted by the group political process, the ideal of consensus is sometimes compromised because in any egalitarian society a subgroup is essentially free to proceed on its own.

Also writing about the Enga of the New Guinea highlands, missionaries Sackschewsky, Gruenhagen, and Ingebritson (1970:76–77) provide further insights into how public opinion operates in clan meetings in a setting that is more acculturated. They refer to the role of the *kamongo*, or Big Man:

So often the European has the image of a *kamongo* as a swaggering, self-conceited braggart. This image is an insult to the Enga society. To picture the *kamongo* as one who stands up in a cocky manner before his brothers and tells them that he is boss and they have to do things his way—such is an unrealistic picture. For a *kamongo* to assume such a position would be to marshal all the other men of his clan against him,

and his attempt to assert himself would be futile. A *kamongo* is acting within the acceptable code of conduct when he boasts of what he has done, what he thinks, and what he plans to do. But he does this as an individual seeking recognition from his fellow clansmen. It is at this critical point that the group's response of praise or ridicule determines whether the man will be elated or shamed.

Obviously, egalitarian rules tightly regulate the behavior of discussants in such decision meetings. Individuals may vary in how sensitive they are to simple disapproval, but few will wish to endure the active ridicule that comes from being overly pushy. Reported decisions of these acculturating Enga deal principally with issues of clan territory and fighting, revenge, events involving pigs, and an assortment of parish activities; but we may assume that sanctioning of upstarts would follow the same consensual route—so long as the meeting could be held without their being present. An earmark of these egalitarian decision meetings is that arguments tend to be euphemized so that differences of opinion do not engender personal conflict (Sackschewsky, Gruenhagen, and Ingebritson 1970), and this approach applies to other culture areas (for instance, Africa or Asia; see Bloch 1975).

Public opinion definitely constrains Big Men where this role is tolerated at all. Whereas with foragers, boasting was deemed reprehensible and negatively sanctioned, a New Guinea Big Man can properly proclaim his own powers to a certain degree—so long as he does not try to turn the resulting appearance of authority into a means of seriously reducing the political parity of others. Here we see an excellent example of the *primus inter pares* philosophy at work: the influential achiever is allowed to be a rather flamboyant *primus*, but his peers will quickly join together and dominate him if he tries to encroach on their prerogative to make decisions for the group. The locus of authority is carefully kept with the entire group, so a reverse dominance hierarchy is in effect.

These public opinion processes can be generalized. When political, subsistence, or social deviancy problems become so urgent that the group as a whole feels it must meet, tribal councils all over the world use a remarkably similar methodology to arrive at group opinions. As with hunter-gatherers, private discussion helps to shape public opinion in advance, and in the process factions may form. Once the group meets, consensus-seeking becomes salient and the tribe usually emerges in agreement.

In making decisions about serious upstarts who go against the egalitarian ethos, a tribe may confer in small groups behind the back of the menacing individual in question, and thereby develop public opinion without alerting the deviant to a decision that could remove him from the group. An alternative is to meet as a group when the intimidator is away. In either case, public opinion can coalesce in the direction of actively sanctioning even a dangerous and feared political upstart.

Criticism

When tribesmen begin to criticize one of their leaders, rather than merely gossiping about him in private, such behavior is guided by the egalitarian ethos. For example, in the Philippines when an Iban chief gets out of line he may be charged with partiality, and if he is rash enough to give someone a command he is sharply rebuffed (Freeman 1970:111, 113). In South America, among the Shavante, people shout down a leading hunter who becomes overassertive (Maybury-Lewis 1967:200), just as forager groups do in Africa.

In Panama, the Cuna rebuke their chief for “wanting all the power for himself” (Howe 1979:540), and it would appear that the Cuna chiefs regularly try to push their own prerogatives a little, while followers regularly push back to keep them in their place. This particular culture seems to have a routinized tendency to push—and restrain. A similar situation prevails among the northern Tairora of New Guinea, where Watson (1983:235) reports that a “strong man” actually takes antagonism and popular ambivalence about him as proof of his political potency. Whereas in many egalitarian societies political tensions are not readily discernible and upstartism is regularly nipped in the bud, in others the tension between rank and file and potential upstarts apparently can be active and continuously expressed, through criticism. We have seen that the Hadza (Woodburn 1982; Blurton-Jones 1984) and the Kalahari foragers studied by Lee (1979) seem to have arrived at similarly contentious political styles.

Ridicule and Ostracism

When the Enga use ridicule to keep a leader in line (Sackschewsky, Gruenhagen, and Ingebritson 1970:77), the disrespectful sting is hurtful. Similarly, Schneider (1979:210) states that if a wealthy pastoralist in East Africa

tries to control others, scorn is manifested. Ridicule seems to be mentioned much less frequently for tribesmen than for foragers, probably because of the warrior ethic that coexists with egalitarian values. This warrior ethic pertains directly to males, even though females nurture it by socializing males in this direction.

We have seen that a warrior ethic poses an interesting problem for many tribal egalitarians: their societies suppress many forms of competition at the same time that they deliberately motivate males to compete in warfare. As a result, warriors are given to taunting one another, and often their honor demands that a severe taunt be paid back in blood. Thus, the use of ridicule is riskier than among foragers, who are not likely to take their macho roles so seriously. Indeed, Madhi (1986:300–301) suggests for Puktun speakers of Pakistan and Afghanistan that the inclination of warriors to take offense at insults, and to do so homicidally, serves as a deterrent to the informal ridicule that might otherwise be expressed. I believe this pattern to be widespread (see also Boehm 1986).

I have tended to portray sanctioning as though entire groups spontaneously begin to criticize or ridicule or ostracize overly assertive leaders or other upstarts by acting in concert, almost as though a group mind is at work. Not infrequently, anthropologists under the spell of Durkheim (1933) use such theoretical rhetoric as a kind of shorthand. Full and complete descriptions of sanctioning are scarce, but I suggest that, everywhere, the process of arriving at a sanctioning decision is similar to an Enga clan's war meeting. First, individuals begin to grope toward a group resolution of the problem, initially by gossiping behind the deviant's back and carefully watching the reactions of others. Once consensus seems predictable, some individual still has to lead the sanctioning—unless several group members do so in concert, which can be the case with ridicule. Once in a while a deviant will simply be too intimidating—or too unpredictable—for any one person or even a small coalition to risk taking the first step. This kind of impasse can lead to a domination episode, and eventually to stealthy assassination.

While ridicule is an immediate social reaction, “ostracism” is the rather imprecise name given to long-term social distancing of various types and degrees. It occurs when all or most people deny deviants the respectful social contacts that accompany a normal social life, or deny them any social response whatsoever (as with shunning). This is a minimal definition, for many scholars would also include expulsion from the group (see Gruter

and Masters 1986) or even capital punishment as variants of ostracism. All may be seen as varieties of social distancing (Boehm 1985), and a shunning form of ostracism appears to be rather widely distributed among tribesmen. While many brief mentions appear in the literature (for instance, Pospisil 1963; Dole 1966), seldom is there detailed discussion such as Briggs gave us for the Utku.

Although ostracism is generally acknowledged to be part of a nonliterate moral community's sanctioning repertoire (Edgerton 1975), the specific tribal cases I have located involve mainly feuding societies, in which a clan may wish to create a great deal of social distance between itself and one of its members who is likely to get the entire clan into an unnecessary feud. We have seen that Australian Aborigines actually handed over a culprit to the opposing side.

Moore (1972) first identified an African pattern, whereby feuding tribal segments, to avoid a costly feud, declare one of their own to be no longer a group member. These groups will readily stand up for a clan member in good standing who has triggered a feud unintentionally or for reasons that are consistent with clan honor. But in the case of a notorious troublemaker—usually a political upstart given to bullying and starting unnecessary quarrels—his clan brothers may explicitly disassociate themselves from him. The result is that the troublemaker can be easily killed because he no longer enjoys the backing of his group. Such extreme distancing is reported for tribal Serbs (Boehm 1985, 1986:250; 1987). One Montenegrin clan leader actually proffered a cartridge to a member of the enemy clan, so that the opposing side could kill an upstart in his own clan with impunity. Eliminating someone in this way would seem to be more like ostracism than capital punishment, but elements of both are involved.

Disobedience, Deposition, and Desertion

These three sanctions are applied to leaders, or to those who try to exert authority over others even if they have not been chosen as leaders. All three are reported fairly frequently for tribesmen, who regularly exhibit a named leadership role because of military need. A second need for authority springs from the potentially destructive consequences of quarrels within the group. When internecine conflicts cause fissioning, they reduce the size of groups, and in warfare the loss of fighting power can be a major disadvantage (Chagnon 1983). Thus, for many tribesmen foreseeable forces in

political and social life intensify tendencies to allow limited authority in leadership—both on the battlefield and in handling quarrels.

To whatever degree such authority is granted, it increases the need for an egalitarian rank and file to watch for potential upstarts and head them off. Dickson (1949:117) reports on an acculturating Bedouin leader who tries to impress visiting Europeans by extending his authority. His “subjects” agree with him initially—tongue in cheek—and afterward they simply disobey his orders. The Bedouin are perhaps not strictly tribal as defined here, but the example is illustrative. In the last chapter, we saw that when a Hadza forager tried something similar, his peers made a point of ignoring him.

Blatant attempts to aggrandize authority are exhibited in classic tribal settings as well. Freeman (1970:113) says of the Iban that no one listens to a Philippine chief who issues a command, as opposed to a suggestion. Writing about South American tribes in general, Clastres (1977:5) says that the notion of personal obedience is foreign to indigenous cultures. Speaking of Pokot and Nandi diviners who attain strong personal influence in East Africa, Schneider (1979:192) says that “they cannot order people to do anything.”

Leaders are kept powerless by the anticipation of harsh sanctions. Merely disobeying or ignoring a leader puts him in his place without his followers having to dispense with his services (which may be useful to the group). A more decisive tactic is to unseat the person and make him return to the role of ordinary group member, where he can continue to contribute to group decisions without trying to take over. For example, among the Bantu (Gluckman 1939:148) a chief can be deposed by his own kinsmen; among the Carib (Taylor 1956:181–182) a chief can be ousted for attempting gross injustices; among the Panamanian Cuna (Howe 1979:541–552) people will get rid of their chief if he fails to consult with them before making a decision, or if he shows violent anger or behaves immorally; and among Somali tribesmen (Lewis 1961) people once deposed their chief because the man was mean and partial in his decisions. Elsewhere in Africa, the Anuak (Mair 1962) discharge a headman who is stingy, while the Busama in New Guinea depose a Big Man who behaves too masterfully (Hogbin 1951). If such mobility is feasible, a tribal chief also can be deserted by his followers, a decisive type of social distancing that involves losing his services altogether. The few examples of this technique include Africa (Gluckman 1939:148; 1965:153); North Africa (Briggs 1958:89–90); and South America (Murphy and Quain 1955:56–57).

Assassination

Among nomadic foragers, even though many groups do not have named leaders, we saw that disobedience, deposition, and desertion were used sometimes when people in leadership positions or others tried to assume too much authority or otherwise became problematic. We also saw a few serious domination episodes, in which milder social controls such as ridicule or disobedience could not be employed by fearful group members and therefore assassination became necessary. In the extant cases for foragers the deviant is (almost always) a man who has managed to intimidate his group, who becomes in effect a despot.

Tribesmen too execute chosen leaders who get out of hand. Leeds (1962:599) reports that in South America after contact a Yaruro chief was killed for making his own deals with outsiders. In New Guinea, a Big Man who seriously overstepped his prerogatives could be killed by the community; the members would persuade his relatives to do him in, so as to avoid lethal retaliation. This behavior is reported by Pospisil (1963:49) for the Kapauku and, as we have seen, by Hogbin (1951:145) for the Busama. For the Baruya, Godelier (1986:109–110) provides some detail about the deviance involved: high status went to a man's head, and he began to appropriate his neighbors' livestock and forced their wives into sexual relations. He was killed by his own people. In these New Guinea groups the egalitarian ethos continues strongly, even though people do approve of Big Man behavior in its proper context. If a Big Man oversteps, he can be assassinated.

Among foragers with their lower-key leadership, it seems to be shamans or physically intimidating hunters, rather than the nominal headmen, who somehow gain power sufficient to change behavior. It probably is no accident that at the tribal level our reports of assassinations of intimidating bullies are mainly from New Guinea. In other parts of the world, tribal people were usually pacified by colonial powers before they were studied, and colonial powers regularly punished homicides. The use of assassination was thereby inhibited; if not abandoned, it surely was often hidden—even from ethnographers. In highland New Guinea, many ethnographers arrived soon after contact. But a special factor in New Guinea was that if a bragging Big Man role was combined with an egalitarian ethos, problems were found to arise with certain personalities. As this particular combination is found quite widely in New Guinea, it is not surprising that once in a while a Big Man lets his considerable legitimate influence and authority go

to his head—in spite of the prevailing ethos and the sanctions that may follow.

A Comparison of Tribesmen and Foragers

Let us compare the sanctioning of upstarts by our two types of egalitarians. As with foragers, in tribal groups some of the attempts at domination come from those appointed to lead the group, while others come from overly assertive persons not in leadership roles. As with foragers, a range of escalating sanctions is employed to put upstarts in their proper place—or else eliminate them from the tribe's social life. And as with foragers, the more basic tribal political values, social sanctions, and leadership functions remain remarkably similar across continents. Generosity and an even temper are prominent in the egalitarian ethos of both foragers and tribesmen.

My limited survey of world ethnography (Boehm 1993:232) turned up five instances of execution among hunter-gatherers on three continents, and five instances among tribesmen on three continents. These were strictly political executions of upstarts, and on this basis I suggest that domination episodes and political assassinations are rare, yet widespread, among egalitarian societies. This hypothesis might be tested further by means of a total survey of the world ethnographic literature.

Lesser types of sanctioning also tend to be spottily—yet broadly—represented (Boehm 1993:232). Tribesmen used criticism or ridicule on four continents, foragers did so on two. Disobedience, deposition, and exile were employed by tribesmen on five continents, whereas foragers, with their less developed leadership role, were limited to two. Again, with complete ethnographic sampling I would expect the statistical patterns to become better fleshed out.

These data suggest a remarkable uniformity with respect to the egalitarian ethos and its vigilant enforcement through acts of social sanctioning. All humans have moral communities, and bands and tribes have moral communities that are particularly vigilant in the political field because they share an egalitarian ethos. This is so even though bands and tribes exist in a wide range of natural and political environments, with a wide variety of subsistence patterns. My survey demonstrates, tentatively, that virtually the same pattern is found in all smaller human groups, both before and after domestication.

Given the fact that such societies universally use collective sanctioning in

order to remain egalitarian, and all seem to develop upstarts from time to time, I believe the characterization “reverse dominance hierarchy” (Boehm 1993) is applicable. In effect, it is the rank and file who are on top, and the would-be alphas who remain under their thumbs. The fact that the occasional successful intimidator can rise to tyrannize these egalitarians for a time does not negate the characterization, for the group’s next move is to dominate the dominator by removing him. If a domination episode extends beyond the life span of the original dominator, we could see one quick route to a political centralization and hierarchization of society that sometimes supersedes egalitarianism. I suspect that most chiefdoms, with their orthodox hierarchies, come into being far less dramatically.

Given our sketchy diachronic data, it is difficult to define, even in theory, the transition point at which reverse dominance hierarchies begin to assume an orthodox form (see Earle 1991). Big-Man societies are suggestive, in that the ethos allows a primus to become unusually ascendant. But it seems safe to say that once the egalitarian ethos has atrophied or disappeared, the necessary guidance mechanism is lacking. Without it an orthodox hierarchy is likely to form quite readily.

Importance of the Ethos

The relative uniformity of egalitarian polities is ascribable to ideology as an immediate cause: the ethos provides the blueprint, and the moral community provides the necessary sanctions. Probably no single description of an egalitarian ethos is fully explicit and complete, but the ethnographic reports examined suggest that people living in nomadic bands and tribes are concerned with similar practical political problems. A useful diagnostic is that ideal and disliked qualities in their main political actors are defined quite similarly; they focus on generosity and moderate temperament as antidotes to competitive tendencies to dominate politically and gain economic advantage.

This egalitarian ethos amounts to an unusual political “game” that is based on social agreement among the main political actors. The implicit contract reads something like this:

There are individually variable human tendencies to outstrip or control one’s fellows, which can lead to domination by the strong. We determine to solve the problem as follows. Rather than countenance modes of com-

petition that will permit one of us to dominate the others, we all agree to give up our statistically small chance of becoming ascendant—in order to avoid the very high probability that we will be subordinated. We agree to settle merely for individual autonomy for all, rather than seeking ascendancy or domination, and we implement this program by defining our “firsts” as mere “equals.”

This contract is based on the seminal quote from Schneider, “All men seek to rule, but if they cannot rule they prefer to remain equal.”

Although all men may seek domination, some are much more likely to try—whether from parental influence or accidents of personal history. Conceivably, the tendency may be influenced by individual variability in innate dominance. But upstartism tends to be a function of developed personality, and of opportunity. A person who is thick-skinned with respect to public opinion is especially likely to seek dominance in a group that is sure to resent him; and if the group does not dare to criticize him, he is likely to become a tyrant—and get himself killed.

As described, the egalitarian approach to political life seems all but invincible. As long as people were foraging as mobile hunter-gatherers, it appears that they managed to stay true to their egalitarian ethos—even though on several continents they are reported as experiencing temporary domination episodes, and even though some (but not all) *sedentary* foragers may have converted to orthodox social hierarchy without any outside influence. Tribesmen continued to carry the torch, but once in a while they developed much larger chiefdoms.

The Hominoid Political Spectrum

A human egalitarian system can be explained at a rather basic level in terms of ethology. The “political” typology I use here was developed originally to understand the social ecology of birds (Vehrencamp 1983), but this analytical scheme can measure any social animal’s species-specific pattern of hierarchy formation. It does so in terms of useful questions that interest behavioral ecologists, and with respect to primates it has been applied to understanding the degree of hierarchy displayed by several monkey species (for instance, van Hoof and van Schaik 1992; Boinski 1994; Strier 1994; see also de Waal 1996). It also has been applied to the problem of how humans might move from egalitarianism to hierarchy (Boone 1992), and here I shall broaden its use to make interspecific comparisons useful to the determination of human political nature. The typology will be applied to the three African great apes to which humans are closely related molecularly, and also to a wide variety of humans. My goal is to evaluate all these hominoids as political animals, and to determine whether, and if so where, our species can be reliably placed on a scale that extends from egalitarianism to despotism.

Vehrencamp’s Political Continuum

At Vehrencamp’s despotic extreme are animal societies with individuals in a position to exert strong dominance and monopolize reproductive resources. Vehrencamp suggests that such a degree of individual dominance can be selected more readily if the reproductively disadvantaged subordinates have difficulty in leaving the group to seek better success elsewhere. Group size can enter into the picture. From the perspective of the domi-

nant individual's reproductive success, the ability to cope collectively with predators or with competing conspecific groups is improved if overdominated subordinates are not driven away. From the subordinate's reproductive perspective, it is better to live in larger groups—but not be dominated so severely. These evolutionary dynamics help to fix the degree of despotism, which is measured phenotypically by the strength of the psychological disposition to dominate and submit.

Now let us consider bird and animal societies that fit Vehrencamp's egalitarian classification. The typical signs of a social dominance hierarchy are muted, for competition for food and mates is absent or low key; displays of dominance or of submissive signaling occur rarely; and the fighting that attends a high degree of status rivalry is absent. In such situations of noncompetition, subordinates have no reason to leave the group—and all may gain from group responses that reduce predation.

In highly egalitarian species, individual dominance and submission behaviors can be all but absent, along with food and mating competition and coalition behavior. For example, among squirrel monkeys studied by Boiniski (1994) group males sometimes cooperated in the sexual investigation of females. They also joined in aggressive interactions against males of neighboring troops, and in defense of infants and juveniles against predators. At the same time, there was little male-male aggression within the troop. Such animals have low levels of intragroup aggression because, it is hypothesized, natural selection has favored reduced intragroup dominance at the basic level of innate behavioral dispositions.

Along the continuum between the two political extremes, ethologists make their typological decisions on the basis of phenotypic behavior. At the same time, it is assumed that innate propensities are at work. An animal species, even if it is subject to some "adaptive modification" (Kummer 1971) in its patterns of social dominance hierarchy, will basically remain true to political type. This is because behaviors such as dominance and submission have such a strong innate basis in individuals, and these propensities—or their relative absence—have a direct impact on behavior at the group level.

The basic despotism of our three African great apes is exemplified by the stereotype and frequency of dominance displays, especially of males, and also by a noteworthy presence of submissive behaviors in the form of vocalizations, gestures, postures, or facial expressions. In effect, predictable and uniform phenotypic patterns can be taken as indicators of the under-

lying genetic dispositions. However, if a species is extremely flexible in its political behavior, as humans can be, then a single phenotypic behavior in a sample group may be neither a reliable indicator of genotype nor a trustworthy basis for ethological classification.

My intention here is to resolve this problem well enough to be able to place the four extant African hominoids—including *Homo sapiens*—on Vehrencamp's continuum. It will be beneficial to do this before the Common Ancestor of humans and the three African great apes is reconstructed with respect to its political behavior.

Difficulties Posed by Behavioral Flexibility

Primates other than humans can be impressively flexible in their social and political behavior. When Kummer (1971) coined the phrase “adaptive modification,” his example was baboons living in two notably different habitats, whose despotic social dominance hierarchies differed considerably in accordance with the (assumed) adaptive requirements of the respective niches. Yet even the desert-adapted hamadryas retains fundamental patterns of despotic male dominance that are found in environments such as savannas and forests; it is just that out on the Ethiopian semidesert, harems appear to work better for foraging than do the large, semipermanent groups that inhabit forest environments. In this dry country, foraging baboons must disperse widely and each male harem leader, with his bulky body size and large canines, guards his females. Protection from predators may be involved with this dimorphism, but the main threat to his females is from other males.

These other males provide little overt competition, for every successful adult male can create his own harem by recruiting young females, then will watch over it constantly. The entire social system seems to reach equilibrium in this respect. The harem master is an aggressive tyrant who keeps his evasive but submissive females subjugated, and with this task constantly at hand he is not in a viable position to compete directly with other highly possessive males. As a result, male hierarchy is little developed—even though hamadryas sleep together in very large troops to avoid predators, and even though they make common foraging decisions before they divide into harems to forage (Kummer 1971; see also Boehm 1978).

By contrast, baboons who utilize richer environments can stay in much larger groups, and in these groups (there are no harems) males develop a

social dominance hierarchy that allows higher-ranking males to partially monopolize mating opportunities in a promiscuous breeding situation (Kummer 1971). Male dominance is directed at competition among males rather than at dominating and controlling females in harems, and while foraging, the males engage diurnally in collective defense against predators. Both systems work well in the quite different environments that stimulate and constrain them, and both social systems can be rated as despotic.

With humans, adaptive modifiability goes far beyond these variations of baboons. The Julian Steward school of cultural ecology demonstrated that human social organization, similar to that of the hamadryas, tends to be modified as environments and subsistence techniques change (Steward 1955). What is startling about this behavioral lability of humans is that sociopolitical patterns—and even subsistence patterns—can vary *drastically* within the same environment. This flexibility raises fundamental questions about whether humans can even be classified as egalitarian or despotic by Vehrencamp's ethological typology. At first blush, our species appears to be all over the political continuum, as Schneider's (1979) study of East Africa suggested. Even though this behavioral flexibility raises serious questions about humans as a political species, answers can be found.

It is my plan to try to resolve three fundamental questions as this book proceeds. One is whether humans may be carrying around something like a Lockean "blank slate" with respect to their political behavior. If our political nature were *that* flexible, then our adaptive modifiability in matters of social and political self-expression would be all but infinite—and my next two questions would be irrelevant. A more specific question is whether there is, in Fried's (1967) terminology, a universal human drive to dominance. In designating human egalitarian societies as reverse dominance hierarchies (Boehm 1993), I challenged Fried's position that no such predispositions exist. My point was that egalitarian societies do exhibit despotic-type behaviors, ethologically speaking, because the rank and file are obliged to deliberately dominate their potential masters if they wish to remain equal. Indeed, I chose the term "reverse dominance hierarchy" precisely because I wanted to confront cultural anthropologists with the need to consider human nature in dealing with political classifications. The third question is whether there might be something like what Fried called a universal drive to parity, an ultimate evolutionary question that Fried merely mentioned in passing.

All three of these questions will be explored in future chapters. By way of preview, I can say that the evidence will point in the direction of a

rather definite—if impressively flexible—human political nature, rather than some version of the political *tabula rasa*.

Human Nature

Human nature is of obvious importance to anthropology, for it is one major locus of ultimate causality; another, obviously, is the environment. At one time, anthropologists were so desperately enamored of the culture concept that they tended to ignore both of these other “causes.” They did so even though humans always must cope with their environments, and even though by nature we are at a minimum impelled to eat, drink, copulate, rest, seek creature comfort, form pair bonds, nurture our offspring, socialize with one another, and engage in status rivalry. When Steward (1955) did finally bring the environment into our anthropological purview, unfortunately he was more interested in taxonomy than in process—including even the long-term process of natural selection and the human nature it has produced. A generation of cultural ecologists continued to ignore the question of human nature as they developed Steward’s approach further, but they did begin to include decision models in their analyses in order to study *immediate* processes involving subsistence strategy (for example, Ortiz 1967).

As successors to these cultural ecologists, human-behavioral ecologists today work with models from animal behavior that do make some assumptions about behaviors being species specific. However, in dealing with *Homo sapiens* they largely neglect human nature as they concentrate on the environment and its direct effects on foraging strategies and social behavior. These anthropological studies are very useful, but from a larger and longer-term evolutionary perspective they remain limited.

Unfortunately, as proponents of the holistic study of their own species, cultural anthropologists—and most biological anthropologists as well—have not really engaged with human nature as a problem that demands theoretical attention. Over the past several decades, in effect others have begun to do the job for us (examples are E. O. Wilson 1975, 1978; Alexander 1987; de Waal 1989, 1996; Wrangham and Peterson 1996; Betzig 1997; Sober and Wilson 1998). Few ethnologists have wanted to take on the task, even though human nature and human universals are crucial to their discipline (see, for instance, Kluckhohn 1953; Boehm 1979; Brown 1991; Sussman 1995).

In later chapters I shall have much more to say about human nature—

and about human social and political nature in particular. At this point my suggestion is that we can learn a great deal about human cultural flexibility, and about the human nature that channels and constrains such flexibility, by comparing ourselves with closely related species that appear also to be behaviorally quite labile.

African Great Apes

Chimpanzees as Candidates for Despotism

Wild chimpanzees, particularly the males, rather nicely fulfill Vehrencamp's criteria for a despotic animal society. We have seen already that dominance seems almost to be an end in itself for males of this species, and that alphas and other high-ranking individuals gain reproductive benefits via political intimidation in mating and food competition. A male subordinate cannot reduce his reproductive disadvantage by leaving the group or by trying to change groups, for he will be killed on sight by members of neighboring communities.

Dominance rankings play a significant part in female reproductive success as well (Baker and Smuts 1994; Pusey, Williams, and Goodall 1997). Females compete for core foraging areas, but they seldom vie for mating opportunities and they do not seem to be nearly as obsessed with status rivalry as are males (Goodall 1986). A female can leave the group safely, but only if she is reproductively "available." A large number of females do transfer, and others remain peripheralized (Wrangham 1980; Goodall 1986), so chimpanzee communities are far from being closed. Basically the males stay put for life, and it is they who engage in hierarchical behavior to a degree that suggests very strong despotism.

The fact that subordinate males must stay put is to the advantage of the alphas: numbers help when chimpanzees mob predators and when chimpanzees engage in direct territorial competition at the intercommunity level—a special type of coalition behavior (Boehm 1992). On record are two instances in which small communities (habituated and provisioned wild groups) were lethally raided by larger ones until the males of the smaller groups were virtually eliminated (Nishida et al. 1985; Goodall 1986; see also Manson and Wrangham 1991). If subordinate males were able to transfer to groups with less-dominant alphas, the more-dominant alphas would lose out because their smaller groups would become vulner-

able territorially. On that basis, dominance behaviors would be less strongly selected in this species; but this is not the case.

It is with this type of situation that Vehrencamp (1983) believes despotism can flourish, and in fact many behavioral correlates of strong despotism are present. We saw in the second chapter that dominance and submission are prominent in chimpanzees, with a linear male hierarchy based on competition for status and an alpha male in the control role. We saw also that coalition behavior is prominent among males—and evident with females, who gang up against immigrant females. It bears mentioning that the capacity of female chimpanzees to act in power coalitions can become much greater in captive situations, where females are not so socially isolated (de Waal 1982) and adaptive modifications occur. Given this suite of behaviors, chimpanzees may be placed squarely on the despotic side of Vehrencamp's continuum, even though the collective power of subordinates can be decisive at times in reducing the power of alphas (de Waal 1996:131).

Having made that assessment, I need to say a word about a book by Power (1991), which in its title and analysis characterizes chimpanzees as being egalitarian. By any political or social typology, be it technical or commonsensical, chimpanzees are *unegalitarian* because domination behavior is prominent and intrinsic to their social life, and because domination leads to reproductive rewards. Power's book has been severely criticized on many grounds (for example, Stanford 1993). Whatever the merits of her arguments about chimpanzees being free to come and go in their fission–fusion communities, it is evident that wild chimpanzees—whether they are baited or not, whether they are habituated to humans or not—are given to status rivalry that leads to a high degree of political, social, and reproductive inequality. In no important sense are they politically egalitarian, for they always have alpha males.

Silverback Gorillas as a Special Type of Despot

In politically rating the well-studied mountain gorilla, sexual dimorphism tells a substantial part of the story. The much larger body size of males may stem in part from the protection against predators silverbacks provide to their harems, but the requisite data are not available. What we do know is that harem leaders must defend their females against the many other males who have no mates (Fossey 1983; Watts 1996). With sexual selection oper-

ating so strongly, their being almost twice the size of females comes as no surprise. Despotic male gorillas are innately disposed to display and bluff, but also to fight and vanquish.

Within the harem a silverback easily dominates the adult females and any other males who grow to maturity and fail to leave the group. He exerts significant control over the entire group of perhaps half a dozen adults. Whenever the group travels, he sets its direction and manipulates it if danger is apparent; if quarrels break out among those subordinate to him, he suppresses them using a pig grunt or other means of intervention. His position of domination is easily recognized (Fossey 1983).

In terms of subordinates leaving the harem, reproductive females (who most decidedly are subordinate to silverbacks) do manage sometimes to transfer (Fossey 1983). The situation is quite different for males. As the silverback's sons or the sons of his predecessor reach maturity, they may leave the harem because the silverback inhibits their chances of mating. Then, as rogue males who travel alone or in packs, they must try to invade other harems by defeating incumbent silverbacks. From this picture it is obvious that dominance is closely related to reproductive success in male mountain gorillas—even though dominated males can readily leave their natal groups.

While mountain gorillas seem despotic, their political style is quite different from that of chimpanzees. Social dominance is not manifested continuously by means of male-male competition; instead, the contests between males are infrequent but reproductively ultimate (Fossey 1983). Infanticide plays a role sometimes, as a male may kill the progeny of a genetic competitor and sire his own offspring with the same female (Wrangham and Peterson 1996).

In formally applying Vehrencamp's criteria, we see that mountain gorillas exhibit male domination strongly in mating contexts and that the controlling silverback regulates whatever competition takes place among his females. Males without harems sometimes travel in groups, but their attempts to usurp established harems seem to be individual. Furthermore, if younger males have stayed into adulthood with a harem, they may support their leader against a male intruder, and females may act in what appear to be political coalitions when two harems meet (Fossey 1983). We will investigate these patterns further in Chapter 7, but they too are evidence of despotism.

Chimpanzees vs. Gorillas

If we compare mountain gorillas and chimpanzees to determine the relative degrees of despotism, decisive male domination over females is present in both species, and success in dominating other males is relevant to mating success. Higher rank also affects access to food sources. To consider the alternatives available to male subordinates, whose low political status brings reproductive disadvantages, chimpanzee males are locked into the same group for life whereas subordinated male gorillas can leave their natal harem and seek to displace a silverback elsewhere. However, subordinate chimpanzees can bully a female into going away on a consortship and thereby gain significant reproductive success (Goodall 1986). In effect, chimpanzee subordinate males are able to subvert the dominance hierarchy without leaving the group.

In light of all of these diverse features, it is almost impossible to make a precise decision about the relative positions of chimpanzees and mountain gorillas. But if we compare them with squirrel monkeys, who have low rates of agonism, little dominance behavior, and no group-internal political coalitions (Boinski 1994), both deserve to be placed near the despotic end of the Vehrencamp scale.

Semidespotic Bonobos

The bonobo is a somewhat more gracile version of the chimpanzee, about the same size but a separate species with differing facial characteristics and a different placement of the vagina that makes ventral-ventral copulation much easier (de Waal 1996). *Pan paniscus* lives in a restricted African environment in what formerly was known as the Congo, and shows both similarities to and sharp differences from *Pan troglodytes*. Because the two lines split only about two million years ago (Wolpoff 1996), the similarities are not surprising. Both species live in fission-fusion communities that have their own home ranges, both exhibit hostility when they meet another group, and the males of both species essentially stay in their natal groups whereas the females tend to emigrate (Wrangham and Peterson 1996).

Rating these two species on a despotism-egalitarianism scale is difficult, in part because we humans always have at the back of our minds the idea of finding an “ancestor” who fits with our (often wishful) conception of

ourselves as a human animal. It is easy to disagree with Power (1991) about chimpanzees, because they are well studied in the wild and in captivity, and in some cases they have been studied without baiting. Bonobos are not so well studied, even though field workers have observed this species at several sites for as long as two decades (Kano 1992).

A great deal of my work in placing bonobos on Vehrencamp's political continuum has been accomplished by Wrangham and Peterson (1996). In a chapter entitled "The Gentle Ape," they comment (p. 205):

On the surface, bonobos have a social life very much like chimpanzees, living in communities, sharing a range with eighty or more others, traveling in various-size parties within the community range, living with their male kin group, and defending their range against outsider males . . . Among chimpanzees every adult male is dominant to every adult female, and he enjoys his dominance. She must move out of his way, acknowledge him with the appropriate call or gesture, bend to his whim—or risk punishment . . . But among bonobos, the sexes are codominant. The top female and the top male are equal. The bottom female and the bottom male are equal. In between, your rank depends on who you are, not what sex you are.

"Who you are" is not just a matter of competing individuals, for the authors go on to discuss coalition behavior (Wrangham and Peterson 1996:205–206; see also Kano 1992). They use the example of a testosterone-driven male who, as a young adult, tried to challenge Ude, the second-ranking male in his group. The younger male's mother was named Aki, and she also ranked high in the group.

One day Aki's son charged aggressively at Ude, screaming and dragging a branch, swerving away only at the last second. Ude, clearly agitated, slapped his challenger before being calmed by an intervention from the top-ranking male. But Aki's son charged again. This time Ude chased him but Aki's son stood his ground. A fight ensued, with some kicking and hitting. The tide turned when Aki joined in. Carrying her screaming baby on her belly, she chased Ude not once but a dozen times. Other females joined in the fray with supportive calls. It wasn't long before Ude fled. Ten years after that single incident, Ude is still subordinate to Aki's son: fleeing, presenting, or taking little steps away whenever the two meet.

Female bonobos are “physical” in providing political support to their sons, and each female has female coalition partners who can back up such support. So bonobo males depend on their mothers (and their mothers’ friends) for reinforcement, and they themselves do not form coalitions with other males. With chimpanzees, whereas a male may receive noisy support from his mother in the form of agonistic vocalizations, the coalition partners who will join him actively in a fight are other males.

In Wrangham and Peterson’s (1996) view, this allocation of substantial political power to bonobo females makes for significant differences in agonism levels, differences that might be used to argue that bonobos are significantly less despotic than chimpanzees. Behaviorally, the overall result seems to be a lower level of fighting and wounding, and definitely a far lower level of competition among males for access to sexually receptive females. However, male chimpanzees intensify their competitive mating efforts around the time of ovulation because they are able visually to determine it. Female bonobos apparently conceal their ovulation; therefore the male bonobo has no way of maximizing his reproductive efficiency by competing harder during special windows of opportunity (Wrangham and Peterson 1996). However, male bonobo dominance does come into play prominently in situations of feeding competition. De Waal (1996:244) shows significant differences between captive bonobos and captive chimpanzees, with the bonobos engaging more in forced claims and theft and the chimpanzees engaging more in cofeeding or sharing behavior.

In *Demonic Males* Wrangham and Peterson are exploring an area of strong interest to educated readers who want to know whether a truly despotic ape—or possibly a gentler version thereof—shares our immediate phylogeny. They hypothesize that chimpanzees may be highly conservative in terms of retaining ancestral features, whereas bonobos could be more of an offshoot species that went its own way ecologically, sexually, and socially. Bonobos do seem to be much less engaged in status rivalry and competition for mates, and certainly are far less involved in male coalitions. This difference tends to make wild bonobos less despotic—but far more involved with coalitions of females. It is difficult to say which species is more despotic with respect to development of coalitions; but if the larger coalitions of chimpanzee females in captivity are brought into the picture, the edge probably goes to *Pan troglodytes*, not *Pan paniscus*.

Elsewhere (Boehm 1992) I have suggested extending “coalition theory” (Harcourt and de Waal 1992) to include the macrocoalitions of chimpan-

zees that take the form of patrols or excursions (Goodall 1986), and also the mobbing of predators (Byrne and Byrne 1988). Territorial behavior of chimpanzees is reasonably well studied (see also Nishida 1979), and it represents an extension of dominance behavior to a special collective realm. With much less research expended on bonobos, the outlines of social dominance behavior when two communities meet are only starting to be understood.

Wrangham and Peterson (1996) report on bonobos in territorial encounters, some of which are directly influenced by provisioning, and because they have carefully summarized the long-term data of ethologists such as Kano (1992), I shall rely on their discussion. When bonobo groups meet, they “run to the border to chase away neighbors. Clashes can result, sometimes leading to bloody wounds. But . . . no one has seen border patrols, raiding, lethal aggression, or battering of strangers” (Wrangham and Peterson 1996:215–216). Thus, the tentative conclusion is that bonobos are less systematic about defending their resources and more restrained, territorially speaking, than are chimpanzees with their regular patrols and lethal stalking raids.

The contrived encounters of bonobos were as follows. At Wamba, the Japanese primatologist Takayoshi Kano created what proved to be an unintended experiment in nature, baiting bonobos from two different groups with sugarcane right at the frontier of their ranging areas. By chance, the two groups arrived at the same time. Instead of behaving like chimpanzees, with males displaying fiercely and prolongedly before the two groups retreated, the groups approached each other. While the mature males on both sides stayed aloof—a probable sign of male macrocoalition behavior—the females crossed to the other group and copulated both with other females and sometimes with the males.

Thus it appears that chimpanzee tendencies to dominance, expressed by attacking as well as by bluffing, are *far* stronger in a territorial context than those of bonobos (see also de Waal and Lanting 1997:88–89). To understand this experiment better, it would be useful to know the political and social histories of the two groups in depth, just as it would have been useful to know the histories of the two groups at Gombe which for a time fed together on provisioned bananas and later split and behaved as lethal competitors (Goodall 1986).

These differences of territorial behavior should not weigh too heavily in evaluating the two species on Vehrencamp’s criteria. Wild bonobos have

both alpha males and alpha females, and potent female political coalitions. Their low level of mating competition is at least partly explained by the absence of signals of ovulation; bonobos may well be more competitive over food than chimpanzees. Although bonobos probably should be rated as less despotic than chimpanzees, they are despotic, nevertheless. All three African great apes can be placed on the despotic side of the Vehrencamp continuum.

The Human Spectrum

In considering significant varieties of human political society, I will attempt to deal in straightforward behavioral descriptions that parallel accounts of the great apes. I go into considerable detail with respect to the first human category, hunting nomads, because I shall shortly explore the political life of their precursors, the Paleolithic foragers who put the definitive touches on our political nature.

Nomadic Hunter-Gatherers

On a daily basis, we have seen that in bands there appears to be little expression of interpersonal rivalry among the main political actors. This is so even though there can be considerable male domination of females within the household. Still, underlying tensions—especially among male household heads—are far from absent. Serious disputes do arise, and in cases of sexual jealousy they quickly reach the level of homicide. Females too engage in disputes with both males and other females (for instance, Shostak 1981).

In bands, one man's dominating or controlling another becomes a critical issue at the level of egalitarian ideology. As a practical matter, behaviors in this direction can be harshly sanctioned by the group, which itself is a form of domination. Bands also develop institutions designed to head off serious male conflicts. The cultural specifics vary, from mutually vilifying song contests, to physical competitions in which turns are taken in delivering blows by hand, to purported duels in which the aggrieved party is expected to wound the perpetrator with a spear (Hoebel 1954). The purpose is always to resolve the dispute sufficiently to eliminate the likelihood of the group's being disturbed by a homicide.

Chapter 4 included examples of typical forager bands exhibiting serious

competitive tensions, usually associated with male status rivalry. Disputes can be focused on specific “commodities,” and the prime bone of contention is women, in the context of adultery—a point emphasized by both Fried (1967) and Knauff (1987, 1991). Despite an ethic that strongly condemns homicide within the group, such disputes readily become lethal because hunters are adept at killing large-bodied mammals. A homicide of this sort can easily lead to lethal retaliation by armed kinsmen. Both the original lethal attack and subsequent retaliation by kinsmen qualify as forms of domination behavior. We must keep this in mind when evaluating ethnographic reports citing an everyday absence of male competition.

Overt competition for food usually is not prominent. Sharing systems are kept carefully in place with respect to foods that either come in large packets (Cashdan 1990; Kelly 1995) or are in chronic short supply (Gould 1982). Here too, underlying tensions and outbreaks of conflict can occur. Many ethnographers have remarked on the smoothness of routinized sharing in bands, but a few have emphasized the competitive tensions that accompany it (for example, Peterson 1993). The Hadza seem to be frequently cantankerous as sharers (Blurton-Jones 1984), even though at the level of ethos they believe in meat-sharing in the same way that all hunter-gatherers seem to. The Siriono hunters of South America can be added to the list of “nasty-sharers” (Edgerton 1992:13). They often hunt cooperatively and share on that basis, but overt conflict over food has been expressed straightforwardly.

One day Eantandu was angry with Mbiku, who had hunted *coati* and given him none. Flushed with anger Eantandu picked up his bow and arrows and departed for the hunt. When he returned about five hours later with a couple of small monkeys his wrath had subsided considerably. He told me that when men are angry they go hunting. If they shoot any game their anger disappears; even if they do not kill anything they return home too tired to be angry. (Holmberg 1950:157)

Holmberg’s published accounts of Siriono behavior are unusually detailed. Another Siriono disagreement over meat illustrates still better the intimate connection between sharing and power politics.

Kwandu, a member of the band and extended family of Aciba-eoko, the chief, was absent for several days with his younger brother on a hunting expedition. On returning to camp, they brought with them about a dozen tortoises of good size. These were tied up with lianas and hung on beams

in the house, one or two of them being butchered each day. Aciba-eoko, desiring meat, first made a direct request to Kwandu, but was brushed off and given nothing. Following this he made public remarks without mentioning names that *mbia* (countrymen) were keeping all the meat to themselves and not giving any to him, the chief. The owners of the tortoises still paid no attention to him. Finally, after about three days, Aciba-eoko, having received nothing, became so angry that he left for the hunt with his family and stayed away for about a week. He returned with considerable roast meat which he distributed to no one else but members of his immediate family. (Holmberg 1950:149)

This second nonsharing incident deserves further attention. Undoubtedly contributing to situational ambiguity was the fact that, in toto, the captured tortoises added up to a large amount of meat—but the meat happened to be in small, living parcels that could be eaten, fresh, over a considerable period. It is possible that the would-be sharer was counting all the meat together and seeing it as part of a variance-reduction plan, whereas the owner chose to see it as a collection of separate small parcels that did not need to be shared. In any event, nepotistically selfish behavior prevailed and the chief's attempt to dominate was resisted.

The Siriono system of sharing apparently is not fine-tuned at the cultural level—by which I mean that effective customs and rituals have not been set in place and refined over time, in order to avert predictable misunderstandings that come from individuals overperceiving their prerogatives. It is the potential for provocative, socially disruptive behavior of a competitive nature that has led foragers on various continents to invent and refine the amazingly similar “randomization systems” that are designed to defuse a sense of ownership where large amounts of meat are involved. The prevalence of these customs suggests that the underlying problem—competitiveness over food—is widespread. Although foragers usually cooperate quite well, they are competitive nonetheless.

This conclusion about food competition is worth noting when we think about where to place human foragers on Vehrencamp's continuum. So is the fact that male competition over women (and, to a lesser degree, female competition over men) leads to tensions, quarrels, and homicides. Societally inspired efforts do not eliminate such problems, even though the moral community does its best to head off these conflicts. If the band succeeds reasonably well, then an ethnographer visiting for one or two years may well report low levels of conflict and competition. If the same

ethnographer gets to witness a forager community with a serious behavior problem, two kinds of political coalitions may appear. One is the entire moral community as it engages in serious sanctioning, actively dominating the deviant in question. The other is a small male coalition of relatives that can form to avenge a kinsman's death. It is for this reason that killers predictably leave their band: they know that retaliation is both predictable and difficult to avert.

The most frequent type of power coalition in egalitarian bands consists of the entire adult community coalescing against a deviant. In addition to the proscription of bullying by upstarts, all foragers are opposed to incest, murder within the group, and undue selfish use of deception. Campbell (1975) has shown that these prohibitions are present in all ancient civilizations, and probably in all moral codes everywhere. Let me emphasize that among mobile foragers even moderately despotic behavior among the main political actors is morally proscribed.

When one of these small nomadic, moral communities becomes aroused, it is males and females together who act as a power coalition. This behavior was emphasized in Chapter 1: all the adults line up against deviants who threaten the group's quality of social life or the individual autonomy of its members (or even their very lives). Often the culprit realizes his adverse position, submits, and is socially rehabilitated. If not, he (or she) pays the price. This use of aggressive, dominant coalitions is universal, as is the submission of most individuals who try to behave dominantly or otherwise become deviant. Usually it is the rank and file who dominate, and the would-be political upstart who submits. Once in a while the tables are turned—temporarily.

Because human foragers exhibit male competition for females, high homicide rates, and substantial overt competitiveness, and because they act aggressively as large power coalitions when they behave as moral communities, I believe that they could be conservatively placed on Vehrencamp's political continuum somewhere between bonobos and chimpanzees (closer to chimpanzees). If one adds in the occasional domination episodes that occur in bands, the placement would be still closer to the despotic pole.

Acephalous Tribes

We have seen that tribal societies have significantly greater military requirements than hunter-gatherers, and that this characteristic is reflected in the

rearing of males. The result is a higher degree of overt male status rivalry, plus some ephemeral delegation of authority to military commanders on the battlefield. Nonetheless, the political situation for males is the same as for egalitarian hunter-gatherers. They are “equals” who are willing to tolerate some “firsts”—but only if such outstanding men do not try to take away the autonomy of the average main political actor.

Premaritally, male competition for mating partners usually is not overt, direct, and physical, as it is with chimpanzees or mountain gorillas. Parental manipulation or female choice is likely. After marriage, however, and in spite of group disapproval of adultery, male-male competition over females can become dramatic and lead to serious quarrels. This behavior is similar to that of foragers, and we have seen that there is a propensity to feud rather than rely on flight and avoidance.

Conflict resolution is likely to be more effective with tribesmen, however. Within tribes, competition over food sources is no longer mediated by pervasive sharing, for often tribesmen produce and eat their food as household units. To regulate natural resources, cultural rules pertain to property rights, a political and economic assessment that holds across a wide variety of tribal social organization types (Sahlins 1968; see also Service 1962; Fried 1967). Most tribes compete directly as groups, whether through warfare or raiding. When they engage in conflict, very often their political coalitions are patrilineally based and involve associations of males who ideologically consider themselves to be “brothers” (Thoden van Veltzen and van Wetering 1960). The result is a strong tendency to fight together, and to retaliate for homicides as a unit. Thus, while leadership remains muted in tribal societies, coalitions of males are quite conspicuous; competition and domination are prominent at the intergroup level, just as they are with chimpanzees.

The fact that small tribal segments can merge and function as much larger political units does not really change this overall political characterization. The same limitations on leadership and intermale domination prevail when larger political segments are activated, for tribal segments always have equivalent status; there may be an overall “chieftain,” chosen to lead a temporary confederation of segments, but he is carefully defined as a mere first among equals. His role is not dominant.

If the only humans we knew were tribesmen rather than foragers, placement on Vehrencamp’s scale would move a bit toward the despotic pole, perhaps quite close to the chimpanzee. But tribesmen suppress many kinds

of within-group competition, along with strong leadership, and therefore they fail to develop anything like a linear dominance hierarchy in spite of strong tendencies to compete and dominate.

Big-Man Societies

Big-man societies are basically egalitarian tribal societies that permit men adept at trading to develop personal economic empires and throw their political weight around a little (Godelier 1986). Apparently, their behavior is tolerated because of the rivalry between groups; such men help their entire group to compete with others at the level of prestige. Big Men tend to be large-scale feast givers, and conspicuous consumption is the name of the political game they are playing. They end up creating a caricature of the humble generosity that leaders of bands and tribes everywhere are expected to demonstrate. In being hypergenerous, they lose much of their humility.

Permitting this role to develop may lead to some ethnographically noticeable political authority, but in practice these trading empires tend to be very much a product of individual skills. They also tend to be unstable. Just as Schneider (1979) suggested that livestock provide a statistically precarious base for the growth of economic power, Big Men are subject to similar vagaries. Their empires are built upon networks of debts and obligations, and by their nature these seem not to stay in equilibrium forever. The more stringent and predictable limit on development of authority is the egalitarian ethos: we have cited assassinations of Big Men when they begin to be too assertive (for example, by taking over other men's wives). Like tribal societies and bands, Big-Man societies are kept intrinsically egalitarian (for the males) by a power coalition composed of the entire rank and file, which sets the limits on how much a Big Man can throw his weight around. The limits on acting the bully may be more relaxed than in other tribal societies; still, the entire group remains firmly in control when it comes to outright domination by a Big Man who has upstart tendencies. Big-Man societies are a special instance of tribal society, one that by definition lacks social stratification and hereditary leadership, and has an egalitarian ethos.

Sedentary Foragers

I have referred in passing to sedentary foragers such as the Kwakiutl, who are nonegalitarian. It is they and some of their northwest-coast neighbors,

and a few other people like the Calusa in Florida and the Ainu in Japan, that Kelly (1995) refers to as nonegalitarian hunter-gatherers. The exceptions are important, for they show that hunting-and-gathering is not always associated with egalitarianism, and also because extant sedentary foragers may help in interpreting the political effects of an increasingly sedentary life on foraging adaptations in the Neolithic (Price and Brown 1985).

Woodburn (1982) has drawn a sharp distinction between foragers whose economies are “immediate-return”—meaning that they do not engage in long-term food storage and are politically egalitarian—and “delayed-return” systems with storage, competition, and considerable social hierarchy. The Kwakiutl fit this model well: they live in the midst of rich resources and therefore can stay in a permanent village. Along with social classes and slaves, they have intensive warfare and strong hereditary chiefs, and they are anything but egalitarian in their outlook. Because villages own specific resources and go to war, it is not easy for low-ranking commoners to leave. Slaves remain heavily exploited with little possibility of exit.

In thinking about Woodburn’s delayed-return subtype, I do find a problem. In northern California are instances of sedentary, warlike, food-storing hunter-gatherers, such as the Tolowa and Coastal Yurok, who remain politically egalitarian with *weak* leaders (Gould 1982). Aside from their egalitarianism, these village communities are quite different from nomadic bands. They neither hunt together nor share their large-game kills, but tend to function economically as independent families. They also engage in degrees of overt social competition that would be frowned on in nomadic groups.

These sedentary foragers can remain politically egalitarian even though they exhibit noteworthy levels of social competition and engage far less in sharing (because individual families can depend on storage). Their natural resources are usually abundant, as with the despotic Kwakiutl. By contrast, Kwakiutl-type sedentary foragers seem to have gone well beyond the Big-Man societal pattern. They have lost the egalitarian ethos and established authoritative hereditary leadership.

These political variants do not seem to have been determined exclusively by availability and type of natural resources or by storage of food. They do suggest a general tendency for sedentary life, coupled with population expansion, to spur an increase in competitive behavior and social hierarchy that may or may not coexist with egalitarianism. If we consider only the

Kwakiutl type of sedentary forager, it is obvious that a few hunter-gatherers come closer to the chimpanzee degree of despotism than tribesmen do. In effect, these are “forager chiefdoms”: leadership and high rank are hereditary, and social classes exist.

Chiefdoms

Service (1975) describes chiefdoms in terms of voluntary patron-client relationships, which keep the patrons in a position of economic and political power. Chiefdoms are difficult to delineate politically, for their forms are manifold and the degree of authority residing in the leaders varies considerably. Firth’s (1936) classic study of the island of Tikopia examines a chiefdom that is not overly centralized politically. Tikopian chiefs have some authority, but it is far from being absolute or even very strong. Yet, they are expected to live better than their fellows, and because they have more wives their reproductive advantages can be substantial. Although they receive submissive deference in public, politically these men are far from being serious despots. They are susceptible to being deposed, and they are kept in check by *fonos*—popular assemblies that arrive at major decisions by consensus, even though they take into serious account the opinions of their chief. Firth (1949) emphasizes that chiefs in Tikopia are governed by public opinion, and must remain sensitive to it. Even in the absence of an egalitarian ethos, the moral community tends to govern its governors to a considerable extent.

A more developed chiefdom was that of the Trobriand Islanders of Melanesia (Malinowski 1929). They had a paramount chief who ruled over a number of satellite villages, each of which had its own chief. The egalitarian ethos definitely was absent: as one example, commoners could not tower over their chief, and when he sat outside, his chair was placed on a raised platform so that people would not have to stoop as they passed. His authority was greater than in Tikopia, but he too had to abide by tradition or else face rebellious forces.

We have already met the eighteenth-century Montenegrin Serbs who, while resisting an empire, moved from a strictly egalitarian segmentary tribal system to hereditary leadership at the confederation level. Because tribal opinion was divided, eventually a succession of hereditary paramount chiefs were able to gradually increase their power, and despotic practices increasingly were tolerated. The result, after a coup by an exceed-

ingly strong leader, was a despotic kingdom in which the leader acquired fearsome coercive power—far more than any alpha-male chimpanzee.

In some ways, a pristine chiefdom is similar to a chimpanzee community. The leader has many advantages, and other heads of household also are socially unequal, yet the leader cannot boss the entire community unless he (or she) is in accord with group inclinations. The leader also has significant conflict-resolution duties and can exert some authority if intervention is needed, though the use of force is not possible. Chiefdoms seem to me to be on a par with chimpanzees on Vehrencamp's political scale.

Primitive Kingdoms

In delegating legitimized power to their rulers, people in primitive kingdoms go far beyond what takes place in chiefdoms (Service 1975). The egalitarian ethos is long gone, having been replaced by a hierarchical worldview by which people accept major differences that not only separate commoners from the royal line, but may include an intermediate noble class as well as slaves at the bottom. In terms of the popular will, such societies are not supposed to be oppressively despotic. But when legitimate rulers are given control of full-time military specialists like bodyguards or standing armies, they have at their fingertips an instrument of raw coercive power. The fact that their lineages are exalted also helps them to push their political prerogatives.

As with chiefdoms, one legitimate use of power in these kingdoms is to resolve or forcibly suppress active competition between factions. Another is to lead the society in directions that make sense to the leader, to a point where people begin to react strongly to either poor decision-making or abuse of power. While I must emphasize that nothing like an egalitarian ethos prevails in such societies, it is possible that a coalition of all or most of the rank and file may revolt and overthrow a seriously despotic king. Beattie (1967) has shown that both chiefdoms and kingdoms in Africa have checks on the abuse of power. Some are formal or institutionalized, such as rendering kings unable to hold property; others are spontaneous, such as engaging in popular revolts.

How do primitive kingdoms rate on the Vehrencamp scale? The leader has far more power to manipulate his group's destiny than does a chimpanzee alpha male, so that social dominance hierarchy is very strongly expressed. The human potential for despotism is much in evidence.

Ancient Civilizations and Modern States

What has been said about primitive kingdoms holds also for ancient civilizations and states—which added writing, impressive bureaucracies, and a high degree of economic specialization with social class distinctions (Service 1975). In terms of a general political typology, modern nations are fairly similar to primitive kingdoms. Both have strongly centralized polities with abundant coercive force available to the rulers, and both can suppress most factional strife—even though civil wars may arise. As with primitive kingdoms, both nondemocratic modern nations and despotic ancient civilizations vest enormous power in their leaders, and tend to provide few institutionalized means of controlling tendencies to tyranny. Ancient and modern democracies may temper individual power with checks and balances, but centralized power still exists and is backed by the coercive force supplied by professional policemen or soldiers. In Vehrencamp's sense, both ancient civilizations and modern nations are highly despotic because the leaders can govern strongly, with abundant coercive power. Although this is somewhat less true of democracies, they too are more similar to primitive kingdoms than to chiefdoms.

Rating the Hominoids

Chimpanzees appear to be quite despotic in all of the varied environments in which the species is distributed. Mountain gorillas seem to be almost as despotic as chimpanzees; but rating them against chimpanzees or bonobos becomes rather subjective because we are comparing harem structures with fission-fusion communities. Bonobos seemingly are notably less despotic than chimpanzees, a species to which they are frequently compared in terms of social organization. Among primates, they nevertheless appear to be on the despotic side of the scale.

If we restrict ourselves to obvious political phenotype, humans appear to be capable of extreme adaptive modification. At one extreme are egalitarian foragers; at the other, despotic kingdoms and modern dictatorships. If we look below the surface, however, the fact that egalitarians are obliged to *strongly* suppress both competition and social hierarchy means that the range of modifications is not so broad. While I have placed foragers and tribesmen somewhere between bonobos and chimpanzees, primitive king-

doms and tyrannical modern states are far more despotic than any ape. Ethologically, humans are definitely a despotic species. But this discussion leaves us with a question: Which are the real human political animals?

Is Human Nature Despotic?

If we change gears to speak of human nature, one of Fried's questions can now be answered. There is, in fact, a "universal drive to dominance" in our species, in the sense that we readily learn both domination and submission behaviors and that such behaviors tend to emerge in situations of competition (Eibl-Eibesfeldt 1979, 1989). "Drive to dominance" is, of course, old-fashioned terminology. But whether it is called a "predilection" or a "genetic preparation" (E. O. Wilson 1975), or simply "an innate disposition," we are talking about a behavior that, because of our genes, is more readily learned in our particular species than it might be in another.

Particularly in the interactions of males with males and males with females, humans are prone to dominate and prone to submit. Dominance and submission are constants that run across all the societal types we have discussed. Sometimes the subordinates dominantly hold down their would-be alphas, who either submit to them or are executed. Sometimes a tyrant gains absolute control of a very large human society and personally dominates its members. Often, as in chiefdoms, some kind of compromise is reached, by which power is shared more or less equally by leaders and followers. In all such contexts, domination and subordination are prominent underlying mechanisms, and often they become quite obvious when conflicts arise between leaders and followers.

Human nature surely is despotic in Vehrencamp's terms, particularly if we focus on the males; but the forms that our hierarchies take are quite varied—precisely because sometimes the subordinates take firm charge of the group, sometimes they share their power with fairly authoritative leaders, and sometimes they are subjugated or enslaved. Our despotic human nature is flexible, and it leads to many permutations that may be influenced by local environments but that also are part of local or regional history.

My last chapter will be devoted to human nature, with a focus on its expression in males. This venture into political typology tells us already that human nature is given to competition and that dominance and submission are natural tendencies of our species, even though most of the

domination is accomplished by males. So we come now to the second human-nature question, the one that Fried posed but did not explore: Is there anything like a universal drive to parity? In the next chapter I shall make the case that the seeds of egalitarianism were in place millions of years ago.

Ancestral Politics

Thomas Hobbes and Jean-Jacques Rousseau set the stage in the eighteenth century for a protracted and polemicized debate about human political nature. If we continue to look for simplified answers that lead strongly in one direction, the discourse promises to be lively—but interminable. A more sophisticated set of questions can be fashioned. However, to generate them we must understand our complex and multifaceted human nature in a relatively full evolutionary context, one that spans the last seven million years.

I suggest that the views of Rousseau and Hobbes may reflect human nature quite accurately—but only if we combine their contradictory viewpoints, rather than allowing them to compete. Humans do seem to enjoy autonomy and serenity. At the same time, they seem to have a competitive penchant for domination that leads to conflict and creates a need for governance. Natural selection is the agency responsible for both facets, so we must look to the evolutionary basis of our political nature if we are to understand these opposing tendencies.

Modeling Our Precursors

Let us begin by considering preadaptations that could have led to the emergence of egalitarianism. To this end I shall create a comprehensive political portrait of the Common Ancestor of humans and the three African great apes. The four-species cladistic methodology I utilize is based on conservative behavioral features that all four species share today (Wrangham 1987). If we compare this kind of modeling to that done with just a single species, the former is far more reliable; it is highly unlikely that four

different lineages would have accidentally converged on a behavioral feature lacking in the Common Ancestor.

The shared features I identify on the basis of extant behaviors will be projected back about seven million years, as measured by “molecular time” (Wolpoff 1996), to the Common Ancestor from which the four extant hominid lineages are descended. At that juncture the gorilla lineage went one way and the lineage ancestral to chimpanzees, bonobos, and humans went another. Perhaps five million years ago another split took place, this time with the *Pan* and human lineages diverging. Eventually, between one and a half and three million years ago, bonobos and chimpanzees diverged to become two separate species.

This four-species cladistic model has scientifically conservative properties that are highly desirable, in that any behavior determined to have been present in the Common Ancestor surely will have been present in all species within the human line—from hominids through to Anatomically Modern Humans. Because I shall also use a narrower, chimpanzee-based referential model, I must address the fact that referential models have been criticized (see Tooby and DeVore 1987; Potts 1987; Stanford and Allen 1991; Moore 1996; Stanford 1998b), and that there are in fact two chimpanzee models.

If we consider the two *Pan* species, it would appear that the chimpanzee (*Pan troglodytes*) may have been rather conservative in its evolution (Wrangham 1987; Wrangham and Peterson 1996) in comparison with the bonobo (*Pan paniscus*). Thus, when the human and *Pan* lineages diverged, their mutual ancestor could have been more similar to a chimpanzee than to a bonobo. This assumption is based on the fact that bonobos exploit a narrower range of environments than chimpanzees (Wrangham and Peterson 1996), and that such environments are likely to be different from those of their mutual ancestor.

Chimpanzees may be considerably more “generalist” in their behavioral ecology than bonobos, but if we compare chimpanzees with humans the disparity is still greater. As the ultimate generalists (see Potts 1996), we humans have developed huge brains, almost hairless bodies, and language along with symbolic culture. We can exist in virtually any earthly environment as long as it is not too frozen, utterly desiccated, under water, or at too high an altitude. Chimpanzees are lesser generalists: they continue to adapt to a rather wide spectrum of tropical forest and savanna environ-

ments similar to those of their ancestors five million years ago (Wrangham and Peterson 1996).

The Original Cladistic Model

In arriving at an innovative experimental model of the hominoid African Common Ancestor as of seven million years ago, Wrangham (1987:55) says:

The behavioral variables selected for analysis are those which theory suggests are primary determinants of other aspects of social organization . . . They are adult grouping patterns, relationships among mothers, relationships among breeding males, sexual relationships and intergroup relationships. These are considered to be fundamental aspects of social organization because they reflect rather directly the reproductive strategies of breeding adults, which are themselves influenced strongly by ecological variables.

With respect to groups, Wrangham determined that the ancestor of gorillas, the two *Pan* species, and humans lived in semiclosed, stable social networks with some lone males, and that relations between groups were hostile. It was uncertain whether males formed political alliances within the group, even though males stalked and attacked other males. Wrangham judged that females usually left their natal group to breed and rarely engaged in alliancing with their own kind. With respect to sexual relationships, extant African apes and humans are so variable that nothing could be assumed about promiscuity versus polygyny, or about the duration of relationships. Intergroup relations were hostile on the part of males, but territorial defense could not be deemed universal because gorilla harem leaders seem not to defend the natural resources they exploit.

There is a fundamental question that Wrangham (1987) did not address, even though it probably is just as basic to individual reproductive competition and behavioral ecology as the behaviors enumerated in the quotation above. What about individual competition by means of dominance and submission, and its effect on the internal structure of these semiclosed groups?

In 1987 it would have been easy enough to determine that pronounced social dominance hierarchies existed in gorillas, chimpanzees, and bono-

bos. Humans, in contrast, posed something of a problem. In spite of interpretations by Lee (1979), Woodburn (1982), and Boehm (1982b, 1984a, 1994b), many anthropologists were still tending to take hunter-gatherer egalitarianism at face value. As we have seen, a few were implying that such societies were “anarchic,” while others seemed to feel that they were naturally “without hierarchy.” With humans in chiefdoms and nations being characterized as hierarchical, but the foragers whose genes we inherited being viewed as having insignificant hierarchy, the call was perhaps a difficult one. However, the ethologists Tiger and Fox (1971) had already countered Fried (1967), taking the position that humans were by nature hierarchical, and Eibl-Eibesfeldt (1974) had attacked the myth of peaceful, nonhierarchical hunter-gatherers.

Another behavioral feature not on Wrangham’s list, one I feel to be potentially important from the standpoint of behavioral ecology, is group leadership. Again, mixed messages were coming from the hunter-gatherer literature. Some bands had named leaders, while others merely had an array of individuals who served as functional leaders when the context was appropriate.

Here, with somewhat different interests, I shall try to develop a Common Ancestral cladistic model more politically complete than previously. The issues of social dominance hierarchy and group leadership will be treated in some detail, along with the question of coalitions among both males and females. This updated, politically oriented model will be based on a better understanding of human egalitarianism, and also on information about captive apes. Because my interest is in the Common Ancestor’s preadaptive *potential*, captive data are relevant. As we try to understand the political evolution of a species as behaviorally labile as our own, large groups of apes in zoos provide useful information about how labile the Common Ancestor is likely to have been, and about its behavioral potential.

A Political Portrait of the Common Ancestor

Defense of Reproductively Relevant Resources

A political behavior that Wrangham (1987) considered but deemed questionable in the Common Ancestor is territorial defense of natural resources. He found this characteristic to be variable in humans and chim-

panzees, doubtful in bonobos, and absent in gorillas. He also suggested that open-country chimpanzees might be utilizing ranges too large to defend, but methodological difficulties have blocked identification of patterns of grouping and intergroup relations where this species inhabits arid lands (McGrew, Baldwin, and Tutin 1981; Moore 1996).

Human territorial defense is variable because some peoples, particularly the simpler foragers who are thought to best approximate our prehistoric forebears (Woodburn 1982; Knauff 1991), appear *sometimes* to have very little active intergroup conflict and less than highly proprietary attitudes about the land they use (Kelly 1995). However, in view of extant behaviors involving hostile social boundary defense and active perimeter defense as defined by Cashdan (1983) and discussed by Kelly with respect to foragers on several continents, we do well to heed Service's warning that hunter-gatherers probably had a greater degree of group conflict in the past.

With respect to bonobos, we have seen that the adult males do appear to be antagonistic or at least hold aloof when groups meet, even as females move between groups with friendly interactions. In this case, new information has become available since 1987. Mountain gorillas remain a problem, but their ranges overlap, as do those of lowland gorillas. We do have reports of lowland gorilla groups engaging in aggressive encounters over fruiting trees and stands of bamboo, and also over acquisition or defense of females (Yamigawa et al. 1996:94; Tutin 1996:63–64), a behavior seen also in mountain gorillas. There is some uncertainty about how distinct western lowland gorillas are from mountain gorillas; but if one considers them together, the Common Ancestor did defend natural resources. If one considers them separately, mountain gorillas show no definitive evidence of territorial behavior—even though the potential may be present.

This point merits further discussion. My interest here is more in politics than in behavioral ecology per se. Wrangham's (1987) definition of territorial defense was based on models of animal territoriality, which classically involve highly predictable, active defense of precisely bounded pieces of real estate. If we change the definition to "defense of any and all reproductively relevant resources in a group context," we have seen that mountain gorilla silverbacks defend their harems vigorously against interlopers, and they sometimes have their sons as allies in doing so (Fossey 1983).

On this basis, it can be said that the Common Ancestor had a definite tendency to defend reproductively relevant resources in a way that involved semiclosed groups. Giving further credence to a "defense of resources"

assumption for the Common Ancestor is the fact that studies of great apes and human foragers are usually made during times of relative plenty, whereas times of serious scarcity are more likely to stimulate direct competition between groups.

The Critical Question of Hierarchy

Was the Common Ancestor hierarchical or not? The question hinges solely on humans. We have just seen that if their egalitarianism is taken to indicate a true lack of hierarchy, no determination can be made about the Common Ancestor. The problem disappears if egalitarian society is seen as involving a mere reversal in the direction of social dominance. I have already mentioned the debate in *Current Anthropology* (Boehm 1993) and the subsequent critiques of my reverse dominance hierarchy interpretation (see especially Knauft 1993, 1994b; Erdal and Whiten 1994, 1996; Barclay 1993; Boehm 1994b, 1997a; de Waal 1996). A minority of researchers still prefer to see hunter-gatherers as having very little hierarchy, rather than emphasizing the dominance of the rank and file.

My own position can be summarized as follows: all humans are innately prepared to engage in dominance-and-submission behavior (for example, Blurton-Jones 1972), either in orthodox hierarchies or in reverse hierarchies that are operated decisively by the rank and file. If all humans live hierarchically in one way or another, this pattern removes the only obstacle with respect to determining the nature of ancestral social organization. The exact nature of the Common Ancestor's hierarchy cannot be specified, but in all probability it was of the orthodox variety that produces one or more dominant individuals at the top. This top ancestral ape could have been male or female; to judge from role assignments in our four extant species, it was more likely to have been a male.

Leadership

Decisive individual leadership is prominent in gorillas, noteworthy among chimpanzees, and at least present in moderate form in bonobos and egalitarian foragers. It is very prominent in some human societies. Thus, at least a moderate degree of leadership must have been present in the Common Ancestor. While leaders may influence the group in setting a direction for

travel, another important function (shared by all four species) is the pacification of conflicts within the group.

From the standpoint of power and politics, this issue is important. Silverback gorillas use pig grunts to stop fights (Harcourt 1979; Fossey 1983; see also Watts 1996:22), and dominant chimpanzees routinely pacify the quarrels of subordinates (Boehm 1994a; see also de Waal 1982; Goodall 1986). Bonobos are less well studied, but they have some of this behavior as well (Kano 1992; Parish, personal communication), and extant humans exhibit it strongly (Boehm 1986). Egalitarian foragers keep their leaders so weak that their interventions tend to be ineffective, but they do try (see von Fürer-Haimendorf 1967; Knauff 1991; Kelly 1995). The Common Ancestor had group leaders, and they helped to pacify conflicts.

Small Political Coalitions

I have saved for last a type of political behavior that will figure prominently in the interpretation of human political evolution. This is coalition behavior, by which individuals form short-term or longer-term alliances. I shall treat political coalitions of entire groups separately from the smaller, within-group coalitions discussed here.

In 1987 Wrangham judged female small alliances with other females to be rare in gorillas, chimpanzees, and humans, and basically unknown in bonobos. Similar male alliances were very rare in gorillas and bonobos, but common in humans and chimpanzees. Wrangham (1987:59) rated the Common Ancestor as having rare female alliancing and questionable male alliancing. A decade later Wrangham and Peterson (1996), using new information published by Kano (1992), suggested that female coalitions are prominent in bonobos, whereas males do not form alliances to compete within the group. These findings do not appear to have changed Wrangham's original assessments for the Common Ancestor.

In chimpanzees and bonobos, we have seen that coalitions work strongly to determine the rank positions of individuals. In bonobos, it is well-bonded females who act together physically to advance their own political fortunes and those of their sons. In chimpanzees, it is primarily the males whose extreme status rivalry leads them to form political coalitions, although wild females help one another to resist the domination attempts of adolescent males and to combine forces in other contexts, and mothers at least support their sons in contests with other males by vocalizing (Goodall

1986). Female small coalitions mainly have to do with self-protection and with defense of resources. Male small coalitions aim at increasing rank, and, if possible, unseating the alpha.

With respect to female chimpanzees, Goodall's (1986) assessment that female hierarchies are relatively muted has been augmented by Pusey, Williams, and Goodall's (1997) finding that female rank correlates with reproductive success. That makes it less surprising that in captivity a group of chimpanzees was dominated by an alpha female in the absence of any adult males. In taking over the Arnhem Zoo group, this alpha female was helped by a female coalition partner who also ranked high (de Waal 1982). At Mahale, Nishida and Hosaka (1996) report that wild female chimpanzees can act in pairs, or slightly larger units, to support favored males who engage in contests with other males. In two reported instances the females actively supported the alpha male against the same rival, and in one case more than two females were involved (see also Nishida et al. 1995).

Thus, small coalitions play a meaningful role in the political lives of chimpanzees and bonobos, even though the sexes engage in very different ways in the wild. The linking of male bonobos with their mothers (and their mothers' allies) provides them with highly stable coalitional backing. By contrast, male chimpanzees' partnerships with other males tend to be expedient and therefore less durable, while females have their own coalitions separately from males.

Gorillas present something of an empirical problem with respect to small coalitions. Lowland gorillas are just coming under study, and their ecology is somewhat different from that of mountain gorillas. Wild mountain gorillas are well studied, though, and even if coalition behavior is rare I can set out some relevant details.

We know that harems are dominated by enormous silverbacks, so female coalitions have relatively little play. However, if resident blackbacks who are sons of the silverback harem leader are not driven from the group, they may act as allies of their father when the silverback's control is challenged by an interloper. Fossey (1983:75–76) reported a son's receiving profuse wounds while supporting his father against a usurper who tried to take over the harem, and I judge this to be an important form of coalition behavior. Fossey (1983:66–67) also reported a meeting of two harems during which younger females from one wanted to play with females in the other, their natal group. The more dominant male eventually moved into the other male's group to retrieve his own females, and at one point several

females of that group rushed him, screaming, even though their intimidated harem master stayed to one side. On this basis it can be said that small male and female coalitions are found, if rarely, among wild mountain gorillas.

Among lowland gorillas, Watts (1996:22) stated that males within a group are prone to compete strongly for breeding privileges, with adolescents often leaving their natal groups; but also silverbacks are more tolerant of very close kin than of other males growing up in their harems. This tolerance provides them with allies in defending their harems against outsiders. In this respect lowland gorillas seem similar to mountain gorillas: small coalitions, usually fathers and sons, are operative for males.

Probably the most widespread type of small political coalition among humans is the linkage between close male kinsmen. When one is killed, the others often seek to retaliate, a type of behavior frequently found among hunter-gatherers. It is prevalent as well among tribesmen, who sometimes retaliate as entire clans. In addition, in most human groups families or extended families act together in other political contexts, as when factions form. Small coalitions are widespread.

Let us now triangulate to the Common Ancestor. It would seem that small coalitions of some kind existed, but the question arises whether they involved males or females. Small male political coalitions are formed by humans, chimpanzees, and mountain and lowland gorillas, but not by bonobos; small female political coalitions appear to occur very frequently in bonobos, moderately in chimpanzees, weakly in humans, and rarely in mountain gorillas. Furthermore, among bonobos coalitions are formed by mothers and sons. What can be said conservatively about the Common Ancestor is that small coalitions were present in one sex or the other. And it seems likely that if one sex engaged in such behavior, the potential would have existed for the other sex to do so as well.

Political Macrocoalitions

In the next chapter I trace the evolutionary development of egalitarianism. By my definition, egalitarian society is the product of a large, well-united coalition of subordinates who assertively deny political power to the would-be alphas in their group. For this reason, we will be particularly interested in the capacity of the Common Ancestor to act cooperatively in *large* coalitions that unify the group—as opposed to small ones that basi-

cally divide the group. Here I broaden the definition of political alliancing to include what I have called macrocoalitions (Boehm 1992). These units are formed in the course of intergroup hostilities or collective defense against predators, but also when all or most of a group gangs up on a *persona non grata* within the group.

Defense of Resources

We have seen that well-studied chimpanzee communities in predominantly forested environments regularly patrol their perimeters, with all the males acting as a single coalition much as humans do when conducting major raids. At Gombe the chimpanzees also engage in “excursions” (Goodall 1986): essentially, to acquire food, an entire community moves into territory normally used by neighbors on an exclusive basis. In one such case, a determined coalition of defending males (from the Mitumba community) discovered a larger group of intruders who were not on their own turf, and by bluffing furiously drove them away (Jane Goodall, personal communication).

Adult male bonobos stick together and appear to be antagonistic when different groups meet—even though systematic patrolling and gang attacks on individuals thus far have not been reported. This too can be taken as macrocoalition behavior. Mountain and lowland gorillas exhibit individual and sometimes coalitional defense of harems, with the few adult males all participating, and lowland gorilla groups engage in contests over concentrated food sources. Humans show a variable but widespread pattern of raiding, feuding, and warfare that often involves smaller groups of males, but sometimes entails all the males of one group actively attacking another group. Although gorillas may be a weak link in this particular argument because their coalitions are so small and infrequent, at the very least the Common Ancestor had some potential to form large coalitions against conspecific interlopers. If harems were absent, these coalitions are likely to have been large.

Defense against Predators

Certain birds engage in mobbing as a type of group bluffing, as do many primates, and mobbing often involves actual physical contact. The basic principle is that a determined group of “weaklings” can scare away or at

least seriously confuse a single predator who is far more powerful—and also discourage it from stalking them because their predictable mobbing behavior will spoil its hunting activities.

Pythons are not the only dangerous predators that chimpanzees dare to mob. At Mahale, observers heard a group of chimpanzees vocalizing aggressively, and when they arrived the chimpanzees had driven a female leopard into a sheltered place. One of the chimpanzees entered her refuge and emerged with a leopard cub, which was killed, eaten at, played with, carried, and groomed (Byrne and Byrne 1988). Such mobbing behavior serves to reduce the reproductive success of predators. In Tai Forest in West Africa, chimpanzees were subject to serious predation by leopards, but were able to defend themselves if they were not caught alone (Boesch 1991). In all these cases, coalition behavior enabled the prey species to cope with an individually more powerful predator.

Human hunters often work in groups to hunt large game, just as chimpanzees do, and we may assume that they also resist predation by staying in groups. Bonobos do not seem to have many predators, and data are unavailable about possible mobbing even though such behavior seems possible. Gorillas appear to be a definite exception. Their best defense against predation apparently is sexual dimorphism in body size, and it seems possible that silverbacks protect their harems on a solo basis. The only evidence is Schaller's (1963) report of finding a silverback gorilla and a leopard both dead, apparently from mutually inflicted wounds. Given the lack of data for bonobos and gorillas, mobbing of predators by the Common Ancestor must be deemed questionable.

Internal Macrocoalitions

Very large coalitions that direct their power against members of their *own* group are particularly interesting as preadaptations for human egalitarianism. Let us begin with hunter-gatherer moral communities. These may be viewed as large subordinate coalitions formed to neutralize the power of aggressive deviants. Deviance is culturally defined, and outside of the family for an individual “egalitarian” to seek or attain dominant political power is always deviant. When serious inclinations in this direction become evident, the entire group mobilizes into a large political coalition. Had the band been unable to mobilize in this way, it seems highly unlikely that our human type of egalitarianism could have arisen; instead, prehis-

toric hunter-gatherers would have been dominated by alpha individuals in a position to use coercive force and work their will on inferiors.

It is vital, at this point, to assess whether collective subordinate rebellion is present in the other three African hominoids. Such a potential definitely is present in chimpanzees. In the wild, just once in thirty-five years of observation, the Gombe chimpanzees worked as a large coalition to prevent a long-established alpha male from making a comeback—this, after his displacement by a much younger male (Goodall 1992).

Wilkie's challenge to Goblin had taken place in the context of mating competition. The female in question was Candy, and Goblin suffered severe wounds to his abdomen and scrotum. Without intervention by a veterinarian who was visiting the park, this defeated alpha male probably would have died of the abscesses that developed. But Goblin recovered and, being a political animal noted for his persistence (see Goodall 1986), he attempted to stage a comeback. When Goblin tried to enter a large group led by Wilkie, the younger males united to drive him away. He was peripheralized for a time before he worked his way back into the hierarchy at a much lower position. In effect, Goblin was ostracized until he gave up his intention to regain the top position.

It would be anthropomorphizing to use the moralistic term "political deviance" in this connection, but it is evident that as alpha candidate Goblin had become a *persona non grata*. The parallel with human egalitarians is significant, because most of the chimpanzee males united as a single large coalition and collectively dominated their former leader when his intention was to dominate them again. Normally, chimpanzees coalesce into macrocoalitions only to patrol, to hunt, or to mob predators. But they obviously have the potential to mob a member of their own group, and use it occasionally.

A similar report comes from Mahale (Nishida and Hosaka 1996:130): "In 1991, Kalunde, then alpha, chased Ntologi, who was roaming alone as an exiled ex-alpha male. At that time some adult females, together with some adult males, cooperated with Kalunde against Nitologe." This episode, further described in Nishida (1994), is quite similar to what happened at Gombe. It seems that if a wild chimpanzee group is followed for several decades, eventually a group-internal macrocoalition will be observed in action. Unfortunately, we do not yet have a comparable depth of study in West Africa.

This natural behavior is paralleled by the Arnhem Zoo females, and also

by females at Yerkes Regional Primate Research Center in Atlanta. At Arnhem, after adult males were introduced to the group, females no longer occupied the alpha position. But as a large coalition they actively selected one alpha male and limited the functions of a successor (de Waal 1982). At Yerkes, females in the large study group collectively wounded several adult males who were introduced, and finally accepted Jimoh, a small male that two of the females had known previously at another captive location (de Waal 1996:91–92, 131). They also controlled Jimoh, subsequently their alpha, when he attacked a lesser male (in an episode to be described later), so their macrocoalition was powerful indeed. This behavior is directly paralleled by captive lowland gorilla females who in effect voted for a resident young blackback and rejected a new silverback. Bonobos show no sign of forming *very* large coalitions within their groups, but wild females regularly operate in coalitions larger than pairs, as they easily maintain political parity with males who are larger and more muscular.

Because of bonobos' being less studied than chimpanzees, I can only offer a "probable" opinion with respect to the likelihood of the Common Ancestor's forming *group-wide* macrocoalitions aimed at dominating otherwise dominant individuals within the group. However, in all four species individuals who otherwise would be decisively subordinated combine forces, in groups larger than two, to neutralize the power of their superiors.

Political Effects of Subordinate Coalitions

By examining three types of large-coalition behavior, I have concluded that seven million years ago in its groups the Common Ancestor had the potential to cope collectively with conspecific interlopers, and also to gang up on powerful individuals within the group. By "gang up" I mean that there was the potential to undermine alpha power by excluding certain politically potent individuals from a dominant, alpha-type role. While today it is human egalitarians who carry this pattern to an extreme (doing so moralistically as unified groups of both males and females), the preadaptive potential for subordinate-coalition behavior would seem to have been considerable in the Common Ancestor.

I believe it to have been greater still in the mutual ancestor of chimpanzees and humans—assuming that bonobos are more derived than chimpanzees and can be set aside for purposes of reconstruction. If we move to

five million years ago to consider this mutual ancestor, it is likely that all the males of a group hunted together, mobbed predators together, and protected natural resources together, and within the group very large coalitions of males and females had the potential to work effectively to control power at the top.

The Psychology of Subordinate Intransigence

Simple Dominance-and-Submission Models

The mission of behavioral ecologists is to describe species-typical behaviors accurately, and then to understand their ecological and evolutionary ramifications. My interest in this volume is in assessing the ancestral preadaptive potential with respect to a rather unusual type of political behavior, by which a rank and file's collective insubordination acts to significantly neutralize a social dominance hierarchy. Because I have been dealing in behavioral *potential*, I have given far more weight to behaviors taking place in captivity than would normally be the case. Another liberty I now take is to consider the political motivations and intentions of subordinates when they join forces to reduce the power of those above them.

Ever since the work of Tinbergen and Lorenz, it has been customary to identify dispositions to “dominate” and “submit” as coevolved behavioral building blocks that produce social dominance hierarchies in a wide variety of social species. In small-brained species such as birds (Schelderup-Ebbe 1922; Tinbergen 1961), or fish (Lorenz 1963), analyses of their dominance-submission interactions imply that they are behaving more or less like automatons—even though they are quite efficient as “learning machines.” By this I mean that they appear to be equipped with on-off switches that make them either dominate or submit on what amounts to a binary basis. Once they have assessed an adversary's fighting ability, in effect the switch is thrown one way or the other. More recently, Pulliam and Dunford (1980) and Lumsden and Wilson (1981) have emphasized the ethological importance of thinking in terms of decision-making; decision modeling has become rather popular in behavioral ecology, and in human behavioral ecology in particular. I extend this approach, to consider motivations and choices that attend political life within a primate social dominance hierarchy.

An Ambivalence Model

If one discards this implicit on-off model, ambivalence becomes a prominent element in decision behavior (Boehm 1989, 1996). I hypothesize that in a hierarchically organized, socially labile species that exhibits a substantial degree of status rivalry are both strong preferences to dominate in situations of competition and inclinations to submit or flee. In the absence of a something like a binary switch, these two orientations work against each other constantly as individuals make their political decisions. The inclination to dominate is mitigated by fear of getting into the wrong fight. If fear overwhelms political ambition or desire for a specific prize, submission is the result. Such fear is useful to individual reproductive success, for the loser of a fight can be wounded or killed.

When we tease apart the act of submission, it appears to be composed of several competing motivational elements. One is the underlying desire to dominate, which is assumed to be continuing even as submission takes place. Another is the aforementioned fear, which results in a posture or gesture of appeasement, a submissive vocalization or facial expression, or possibly flight. Being subordinated also may be complicated by positive orientations: for example, the submitter may anticipate becoming less tense, for often appeasement signals lead to immediate cessation of the threat or even to friendly intercourse. A useful long-term relationship may be involved, one that involves protection against predators, help against political rivals, sharing of food, or routinized and satisfying social contact.

The critical hypothesis here is that submitters often would prefer to dominate, therefore they are likely to be ambivalent when they submit. Negative feelings about being subordinated stem from the basic competitive dispositions that make for status rivalry in the first place: a would-be winner hates to lose—or at least is ambivalent about losing, even though submission has its obvious advantages. The primatological literature is replete with accounts of ambitious subordinates who bide their time until the situation is ripe for rank reversal or a takeover of the top position. Frequently they engage in minor challenges along the way—even though they are obliged to submit (for instance, de Waal 1982; Goodall 1986).

A striking example of this ambivalence is a protracted dominance instability, in which two individuals are competing for rank and cannot arrive at the clear-cut dominance-and-submission arrangement that would both

simplify their lives and eliminate the risk of being wounded. Such instabilities are reported for many despotic primate species, but probably the best data come from Arnhem Zoo. For this large group, with its ease of continuous observation, de Waal (1982) has described pairs of males in the throes of protracted instability. Their political ambivalence is obvious from body language and facial expression, as each tries to bluff down the other. Both are feeling aggressive and fearful at the same time, wanting to display or attack but simultaneously exhibiting fear-grins. In one case in which two males wanted to be dominant but were indecisive and exhibiting fear-grins, one of them actually covered his mouth with his hand—apparently to deprive his rival of information that could be of strategic use.

The Chimpanzee Waa as Ambivalent Vocalization

Humans have the gift of speech, a trait that makes it much easier to identify political ambivalences. We have examined statements and philosophies of egalitarians who obviously are ambivalent about status differences: they praise and respect competent warriors and hunters, yet deny them power. While chimpanzees do not have speech, they are a particularly expressive species. Their behavioral repertoire is well suited for observers to make inferences about politically-relevant emotions and intentions in the context of dominance interactions. One chimpanzee vocalization in particular lends itself nicely to the case for ambivalence—the *waa-bark* (Goodall 1986).

Let me detail a typical group-intimidation scene. When Goblin erects his hair as he readies himself for a display, subordinates are already moving toward trees or holding them in position to climb. When the display begins, a chorus of submissive pant-grunts and pant-barks erupts, but also a great deal of apparently terrified screaming as trees are climbed rapidly, in fear. Once the subordinates are well up in their trees, some of the screaming vocalizations change in the direction of waa-barks. This acoustical transition requires some explanation.

Chimpanzees have a graded call system (Marler 1969), which means that certain calls can and do mutate into other calls along an acoustical continuum. For example, a scream can grade, gradually or quickly, into a waa. When a chimpanzee screams, air is expelled from the vocal cavity as the animal's lips are drawn back to expose the teeth; this amounts to a fear-grin, which is hard wired. The vocalization has a high, thin, bleating qual-

ity, which tends to be continuous except when air intake is necessary. (Orthographically, this vocalic production can be roughly represented by *ee*, as in “see.”) By contrast, a waa involves expelling air while the lips are *pursed*, and an “*ah*-like” vowel is voiced.

The waa vocalization has a variety of acoustical forms, none of which really sounds like barking. Sometimes as the call begins, it sounds like the English semivowel *w*. This is because the chimpanzee’s pursed lips are being gradually opened. As the vocalization continues, with a definite *ah* quality to the vocalic production, the lips remain somewhat pursed, rounded but more open. Like the scream, this classic waa can be prolonged until it is interrupted by the need to breathe. A possible variant might be called the *wow*, because the lips are moved toward a closed position again at the end, to produce a terminal semivowel effect. Another variant that has struck my ear (but may well have no special meaning to chimpanzees) is the *eeyow*, which exhibits the semivowel effect only at the end of the call and before that vocalically resembles our English *ee* sound more than our *ah*. As will presently be seen, a similar variant has been noted in captivity by de Waal (1996).

These are merely personal impressions of wild calls I have heard. I have not used spectrographic analysis to categorize them, but rather an ear that is attuned to human speech sounds and to what is known about articulation of sounds in human language. That same ear also has been exposed to thousands of chimpanzee vocalizations. In the course of sixteen months of fieldwork and many hours of examining videotaped vocalizations, I have been able to find no statistical correlation between the three phonetic variations I seem to hear and the behavioral contexts in which they occur.

For this reason, I take the three waas to be in free variation. Until it can be proved otherwise, there is only a single waa call; statistically, the pure waa seems to be more frequent than the *wow* or the *eeyow* variant. When a scream grades into a classic waa, my impression is that the quality of the vowel-sound is what changes first: the screaming *ee* sound moves, without necessarily an abrupt transition, toward the *ah* sound of the classic waa. Once the *ah* is established, when intake of air becomes necessary the semivowel sound appears at the initial position and a waa results; the fear-grin has been relaxing and the lips can now be pursed.

According to Goodall’s (1986) behavioral analysis of chimpanzee calls, what is taking place at the level of the emotions is a transition from fear to hostile defiance. If we look at the typical behavioral context in which the

waa is emitted, the facts support this inference: when the displaying alpha male is at close range, screams of pure fear are emitted, and they tend to continue as trees are being climbed. Once the threat is reduced by the high predictability of the alpha male's staying on the ground to continue his display, often the screams grade into waas.

Goodall (1986) has called the waa a vocalization of defiance, and de Waal (1996) refers to it as "indignant." The social context suggests a hostile resistance to power or authority, and this is consistent with the ambivalent psychological state described a few pages back. However, the call is emitted in other behavioral contexts as well. After examining several hundred hours of videotape in the laboratory at the Jane Goodall Research Center at the University of Southern California, I came to the conclusion that many (probably most) waas at Gombe are given by subordinates expressing hostility to their superiors from a safe distance. A less usual context occurred when a mother vocally supported her late-adolescent son as he challenged a male ranking above him. This too can be categorized as defiance by a subordinate, for any female ranks lower than an adult male, and in this anecdote the son was challenging an adult male. Waas may be given simultaneously by individuals whose rank is close and who are engaged in a conflict of some type, a behavioral context that suggests *mutual* defiance. In one videotaped incident, two mothers quickly retrieve their respective offspring after the infants' rough play has resulted in screaming; then the two of them issue waas at each other for a moment before things calm down. The mothers were females of relatively high rank.

Waas also are used in a very different political context. In one videotaped sequence, two juveniles are playing and the play becomes quite rough. The smaller juvenile screams, disengages to solicit aid from nearby adults who ignore him, goes back to play, again is hurt, and screams loudly. A large adult female, Gigi, is resting five yards away. She issues a waa at that point but does nothing more. It has the effect of temporarily damping the agonistic behavior, but play resumes and again the larger juvenile hurts the smaller. This time Gigi not only waas but erects her hair and gets to her feet, taking a step toward the two. They completely disengage, and the play session is terminated as Gigi lies down again. In this instance the waa was used not in a subordinate capacity, but in a control role. Gigi was on the verge of physically pacifying the conflict by use of her vastly superior strength, but she accomplished the same purpose from a distance: the waa

was a warning by a dominant that the two subordinates were about to experience an active intervention.

In another instance of waa use in a context of dominant control, rather than insubordination, Goblin and Evered are eating some meat. Goblin's little brother Gimble is begging so persistently that both of the adult males repeatedly issue waas at him. As he waas, Evered advances toward Gimble and directs arm threats at him.

Waas also are interspersed with other calls when chimpanzee communities are reacting to "foreign entities" of various types. They are mixed with hunting barks when chimpanzees go after colobus monkeys or bushpigs. Waas were directed at the python in the episode detailed earlier, along with hostile, aggressive *wraaas*. When two patrols meet and begin to vocalize, again waas are mixed with *wraaas* and also a variety of hoots (Goodall 1986). These are situations of contest, fraught with hostility and danger, and the basic orientation appears to be both aggressive and defensive. The defensive side is true even in hunting, where a similar mixture of calls is heard. Bushpigs are formidable killing machines and colobus males bite at the testicles of their larger simian predators (Stanford 1998a).

The vast majority of *waas* appear to be used by defiant subordinates, but obviously their frequency is affected by the fact that alpha males put on their intimidation displays on a daily basis. Clearly, this call (or set of calls) is not dedicated just to the expression of subordinate defiance. What does seem to hold constant, however, is that *waas* invariably express hostility—and that if fear is involved, it is subordinated to the hostility. When an alpha male begins to display and a subordinate goes *screaming* up a tree, we may interpret this as a submissive act of fear; but when that same subordinate begins to waa as the display continues, it is an open, hostile expression of insubordination. I believe that a similar emotional and behavioral orientation underlies the human moral community's labeling of domination behaviors by stronger individuals as deviant.

As suggested by de Waal (1996), chimpanzees too have some capacity to "rule from below" in a way that is stable over time. For some years Frans de Waal has been observing a large chimpanzee group in a spacious enclosure at the Yerkes Regional Primate Research Center, and he provides fascinating observations of the use of the waa vocalization by females there. As at Arnhem Zoo, the Yerkes females act as a power coalition and have been able to fiercely reject a number of candidates for alpha male. After they

accepted Jimoh, this small male eventually dominated even the alpha female. As alpha male he worked zealously on the community's behalf to break up fights between other chimpanzees. In the following anecdote, however, Jimoh is pursuing his own self-interest and it is the females subordinate to him who collectively change the course of the conflict.

Jimoh . . . once detected a secret mating between Socko, an adolescent male, and one of Jimoh's favorite females. Socko and the female had wisely disappeared from view, but Jimoh had gone looking for them. Normally, the old male would merely chase off the culprit, but for some reason—perhaps because the female had repeatedly refused to mate with Jimoh himself that day—he this time went full speed after Socko and did not give up. He chased him all around the enclosure—Socko screaming and defecating in fear, Jimoh intent on catching him.

Before he could accomplish his aim, several females close to the scene began to “woaow” bark. This indignant sound is used in protest against aggressors and intruders. At first the callers looked around to see how the rest of the group was reacting; but when others joined in, particularly the top-ranking female, the intensity of their calls quickly increased until literally everyone's voice was part of a deafening chorus. The scattered beginning almost gave the impression that the group was taking a vote. Once the protest had swelled to a chorus, Jimoh broke off his attack with a nervous grin on his face; he got the message. Had he failed to respond, there would no doubt have been concerted female action to end the disturbance. (de Waal 1996:91–92)

This display of collectivized subordinate power can be compared with two of the waa-behaviors cited above for wild chimpanzees. Individually, the females were all subordinate to Jimoh, so their waas can be compared with those of Fifi at Gombe, who waaed in support of her adolescent son Freud when he attacked the adult male Atlas to enter the male dominance hierarchy. Atlas was dominant to Fifi. However, the chorus of Yerkes waa vocalizations can be taken as a *collectively dominant* warning that grew out of scattered subordinate protests. Contextually, these manipulative waas are directly comparable to those of Gigi, who had dominant power on her side when she similarly stopped a conflict at a distance, without having to intervene physically.

In a sense, the waa vocalizations of large chimpanzee groups can be considered an expression of “public opinion,” as we would put it in human

terms. Indeed, this description by de Waal of an emerging female consensus can be compared with Silberbauer's description, cited earlier, of G/wi foragers in the Kalahari as they gradually arrive at a decision of the entire band about where to migrate next. Human decisions to sanction a bully are likely to develop on a similar basis.

A handful of scattered subordinate protests up in trees can be ignored by a superior as he displays, but an entire group waaing in a context that suggests imminent physical intervention will get his attention. In this sense, waa-barks provide a signal by which individuals in various roles can read the political dynamics that are taking place in their group. The subordinates, if they sense enough support, may be emboldened to rebel in deed, rather than by voice alone. The dominant can react to such collectivized threats and submit to the subordinate coalition, as Jimoh did, or he can try for intimidation, as Goblin did against Wilkie, and find himself in exile.

By definition, ambivalence involves mixed emotions. Indirect but persuasive evidence suggests that chimpanzees can experience serious and protracted ambivalence in situations in which they must submit, or in which they are not sure what to do. Offered as further evidence are the two competitive contexts I earlier described, in which chimpanzee subordinate males set aside their usual response (appeasement and submission or flight) to threaten or actively attack a superior. Both involved rivalry over prized commodities. With meat and with mates, prior possession can embolden a subordinate to act on the aggressive side of his ambivalence: instead of merely resenting domination, the intransigent subordinate is prepared to fight in spite of his adversary's established dominance.

Egalitarian Ambivalence

What about political ambivalence in humans? In societies that are egalitarian, subordinate intransigence is pervasive and results in vigilant suppression of alpha-type behaviors. In human societies that are hierarchical, subordinates appear to buy into the notion of social and political hierarchy. Nevertheless, they subject their dominators to a certain kind of cost-benefit accounting. If their leaders are fair-minded and attentive to the needs of their people, subordinates remain appreciative—and docile. If they feel the leaders are abusing their powers, however these may be defined locally in terms of political legitimacy, they become ambivalent, hostile, potentially rebellious, and disposed to act forcefully.

My suggestion is that any behaviorally flexible animal that lands on the despotic side of Vehrencamp's political scale will, in a subordinate role, react with partial hostility when subjected to intimidation that breeds fear and stress. Possible situations include those in which its freedom of action is curtailed, or when it loses specific prizes in food or mating competition. Such motivational ambivalence is most likely to be expressed when the animal senses a possible opportunity to gain rank and is testing the resolve of a superior. The assumption of political ambivalence would seem to include our African Common Ancestor. Like any despotic primate, this ape was prone to become ambivalent about being dominated whenever a subordinate role was necessary and some major prize was at issue. Presumably, the mutual ancestor of humans and chimpanzees was the same, but was more prone to act *collectively* in an "insubordinate" capacity.

In human nature terms, our discussion is relevant to Fried's (1967) passing speculation that there may be a universal drive to parity. The disposition in question is not one that orients us specifically to equality, but one that makes us resentful of being *unduly* subordinated, however that happens to be defined individually—or culturally. Today's human egalitarians define inappropriate domination culturally, and do so on a hair-trigger basis. Their ingenious invention is to define the ideal society in a way such that no main political actor gets to dominate another. Then they see to it, as a group, that anyone who tries to infringe *seriously* on this rule is himself dominated. In the next chapter I develop a scenario for how this curious and wonderful state of political affairs originated.

The Evolution of Egalitarian Society

Intentionality and morality are not needed to form a despotic hierarchy, one in which strong dispositions to competitively dominate inevitably push certain individuals to the top. The despotic social order of chickens, for example, is basically mechanical, with the pyramid of power pointing upward toward a few dominant individuals (Schelderup Ebbe 1922). Nor are complicated intentions or a sense of ethics needed to form an egalitarian society like that of squirrel monkeys (Boinski 1994), in which innate dispositions to compete through dominance are so weak that much of the time little sign of hierarchy is apparent. Their relaxed social order is equally mechanical.

With chimpanzees something rather different is involved. Fundamentally, there is a linear social order for males and a looser hierarchy for females (Goodall 1982, 1986). In this sense chimpanzees are similar to chickens: their intentions are individualistic and fairly immediate as they compete for status, females, and food. When they join in dyadic coalitions to enhance their competition for status, their intentions remain individualistic, and on that basis their community remains far from being an intentional society. It is when a very large group combines to play kingmaker, or routinely curb the power of the alpha male, that a similarity to humans is visible. We have just seen that large coalitions of captive females exhibit something similar to human public-opinion formation—in a context of angry defiance, which leads to a consensus that interferes with the alpha's dominant behavior. The Gombe males have acted quite similarly, and on a smaller scale comparable behavior has been observed at Mahale. Including Arnhem Zoo and Yerkes, collectively based kingmaker behavior has been reported at four sites; it would be foolish to deny intentionality where

the goal is so unambiguous and the actors are obviously collaborating. It would seem that both wild and captive chimpanzees are able to arrive at essentially agreed-on political strategies, sometimes long-term ones, and shape their societies on that basis. Thus, at least a modest element of intentionality is incorporated into their group behavior (Boehm 1991a).

In its outward appearance, this rebellious manipulative behavior of large groups, with attendant waa calls, has the earmarks of what Trivers (1971) refers to as moralistic aggression. Is this behavior actually moral in some sense? Like chickens, chimpanzees have no ethos. Therefore, their society cannot be deemed an intentional one like the moral community of the Hutterites. There the rank and file take over definitively as a group, define their standards with a very strong sense of "ought," and all but eliminate the group-leadership role (Wilson and Sober 1994). Chimpanzees do exert significant control from below, and more generally de Waal (1996) has attributed to them the possibility of protomorality. What they do not do is put their antiauthoritarian feelings to use in radically redesigning their society on the basis of a morally based political vision. Human morality makes possible such redesign, for once the egalitarian blueprint is in place, a fully unified moral community can dominate or eliminate any individual, no matter how strong, who tries to oppose this vision. Decisive domination from below is not merely episodic, for in small-scale human societies sustained rule by the entire rank and file is quite predictable.

If a small group's ethos changes in the direction of accepting hereditary personal authority and marked social differences, the reversal of dominance order will be lost: a socially accepted orthodox hierarchy asserts itself instead, as with the Kwakiutl. Even if the ethos does not change, small societies that are stalwartly egalitarian may suffer despotic episodes in which a freedom-loving rank and file become intimidated to the point that the only recourse is assassination. Egalitarian societies are durable, yet at the same time they are vulnerable. In the face of predictable challenges, only a vigilant commitment to an egalitarian lifestyle keeps them equalized.

Was There an Egalitarian Revolution?

How did prehistoric foragers begin intentionally to exchange their orthodox hierarchies for definitively reversed ones? Whallon (1989) has suggested (and I am inclined to agree) that symbolic culture permitted ortho-

dox hierarchies to be replaced by egalitarian hierarchies based on cultural rules. Egalitarian society was a cultural invention, one that put a distinctly competitive, ethologically despotic human nature to radically new political uses.

Another question arises with respect to cultural provenance. Did egalitarianism arrive very quickly, on a revolutionary basis, or was it an instance of very gradual cultural evolution? With the degree of political tension I have documented in Chapters 3 to 5, and with the high predictability of upstarts arising, the origin of such societies might not have been at all gradual. Indeed, to eliminate the alpha role decisively, the rank and file may have needed to use force to displace a specific alpha, and further force to keep his would-be replacements sufficiently cowed to allow an egalitarian situation to stabilize. This hypothesis is speculative, for one can also imagine large, stable coalitions similar to those at Arnhem and Yerkes moving gradually in the direction of increasing their power over the alpha types, until finally they were in a position to eliminate the alpha role entirely. With either scenario, the political tool used by rebellious subordinates would have been the ability to operate in large coalitions that had specific and sophisticated political objectives.

To understand how this type of political capacity managed to develop to the point that stable egalitarian societies were formed by humans, we must consider a series of hypotheses about likely preadaptations. In Vehrencamp's terms, the purpose is to explain, at the level of phenotype, how a species innately given to despotism could have changed its behavior from despotic to egalitarian. Additional preadaptations to be considered are the invention of hunting weapons, the advent of large-game hunting, and—more basically—the development of a large brain and the linguistic, cognitive, and cultural capacities that accompanied it. For each of these preadaptations, I shall try to specify the window of time during which it is likely to have become available.

Political Preadaptations

Basic Political Dispositions

Let us review some basic characteristics of the political animal in question. To reverse a social dominance hierarchy, “hierarchical tendencies” are needed as a foundation: it is dispositions to dominance and submis-

sion that generate human hierarchies (Eibl-Eibesfeldt 1971, 1989; Masters 1989). Also needed is a shared motivation to rebel against the alpha-male system (Boehm 1993), motivation that is provided by an innate aversion to subordination (Boehm 1994b). This aversion can be considered a third basic political disposition (Boehm 1997a), or as an important but little-examined side effect of the disposition to dominate.

These basic dispositions produced a species likely to engage in direct competition based on dominance and submission. Eibl-Eibesfeldt (1971) makes the point that most primate competition of this type is by bluff, which is in the genetic self-interest of the principals. But he also says that bluffing is coupled with fighting ability, and that sometimes competition in chimpanzees and humans comes down to a physical encounter. It took a species given to competition, bluffing, and fighting to manage to reverse its own hierarchies.

Displacement of Displays by Weapons

In this context we must ask why it is that humans lost dangerous canine teeth and their cloak of bodily hair, both of which were extremely useful to fighting and bluffing, and why sexual dimorphism in human body size has been reduced over the past several million years. Dunbar (1996) points out that in primates, pronounced dimorphism like that of Australopithecines is associated with either harem arrangements or with open, promiscuous mating competition by males, as opposed to permanent pair bonding. The long-term shift suggests to Dunbar a movement from strongly polygamous mating arrangements to mild polygamy. This type of hypothesis began with Darwin, who judged sexual selection to be an extremely powerful force in evolution. In *The Descent of Man and Selection in Relation to Sex*, he posits that men are larger and stronger than women because men must compete for women. He was correct, for we have seen that the one form of dominance behavior that egalitarian hunter-gatherers cannot seem to suppress is the violence that accompanies male competition over females.

In *The Origin of Species* Darwin suggests that jaws, jaw muscles, and teeth diminished in size after weapons were introduced into human life; people no longer needed powerful natural tools to fight each other or dispatch animals they hunted, a theory also entertained by Washburn (1960). Darwin also considers radical hair loss, which essentially took place everywhere except on the head and where the extremities join the body. He

does not link hair loss to lack of intimidation displays, as I shall. While mentioning climate as a possible cause, he favors the theory that the loss of body hair was mainly a function of sexual selection (see also Pilbeam 1972): in effect, aesthetically inclined women were choosing as mates men with less hair on their bodies. This hypothesis has obvious merit.

Wheeler (1985) has a different perspective. He sets aside gross factors of climate, because African apes and many other quadrupedal species that are adapted to tropical settings have retained their body hair. Instead, he proposes that it could have been human bipedalism that led to elimination of bodily hair. Because the human body largely shields itself from the sun with upright posture, hair loss made cooling of the body more efficient, while retention of hair on the head afforded protection from the sun. This environmental hypothesis also may have some merit.

One must keep in mind that such arguments need not compete: natural selection can operate on a multidimensional basis. A politically based hypothesis is possible as well. The arrival of lethal hunting weapons can explain more than the reduction of dimorphism and canine size. Ancestrally, exuberant intimidation displays genetically coevolved with long erectile hair, which is found virtually over the entire bodies of the three African great apes and vestigially with humans. As Eibl-Eibesfeldt (1971) demonstrates, bristling displays were useful to reproductive success because they enabled individuals to exhibit (and exaggerate) their power without having to fight at close range. In this way they could make expedient moves up the social dominance hierarchy, yet usually avoid fights that might hurt their reproductive success. Humans have departed far from African apes in this respect. Except as vestiges, we have neither the innately well-prepared displays nor the profuse bristling bodily hair that accompanied those displays.

When lethal weapons were developed by humans, they could have had profound effects not only on display behavior, but on the quantity of hair. Weapons made possible not only killing at a distance, but far more effective threat behavior; brandishing a projectile could turn into an instant lethal attack with relatively little immediate risk to the attacker. This potent new extrasomatic means of fighting and threatening reduced the natural-selection pressures that for millions of years had been keeping in place apelike canines, innately disposed intimidation displays, and long, erectile body hair.

To consider the *immediate* effect of weapons, one need only compare chimpanzee killings with human homicides in bands. A hunter can kill

another hunter with a weapon in relatively short order, even though weapons are far from being totally efficient (Lee 1979). By contrast, it is likely to take an individual chimpanzee some time to kill another, and lethal outcomes are rare in one-on-one combat. Indeed, it takes a group of several male chimpanzees ten to twenty minutes of ferocious gang attack to do in a stranger they catch while on patrol (Goodall 1986).

In *Homo erectus* and Anatomically Modern Humans, weapons are likely to have been used in defending against predators, scavenging, hunting, seeking dominance in one's own group, and threatening other groups; preadaptations for such behavior definitely existed. Wrangham and Peterson (1996:180) tell about watching a chimpanzee displace a large male baboon from a tree by hitting him from a distance with his fist, which kept the chimpanzee out of range of the baboon's very dangerous canine teeth. They connect this behavior with the chimpanzee's adaptation to swinging with powerful arms, and point out that chimpanzees thus are preadapted for weapons use. They feel that use of wooden clubs is within the behavioral possibilities of extant chimpanzees, and with respect to human evolution they make the case that sexual selection would favor increased upper-body strength because it made males better able to fight by boxing, or to grasp and use weapons.

Wrangham and Peterson do not carry their analysis to the point of emphasizing the importance of weapons invention for human dominance, competition, and aggression more generally, but it does seem likely that the mutual ancestor was well preadapted physically for weapons use. Eibl-Eibesfeldt (1971), arguing similarly, demonstrates that chimpanzees engage in a variety of behaviors involving found objects in their agonistic contests. Behaviors range from throwing pieces of vegetation or stones into the air while displaying, to aiming projectiles, and (under Kortlandt's filmed situation of contrivance) to clubbing a stuffed leopard as flailing displays turned into direct attacks. Calvin (1983) has emphasized throwing ability as a factor in human evolution, but it is significant that chimpanzees do not use clubs or aimed projectiles in their fights within the group, or in attacking strangers, or in hunting. Weapons of whatever variety do not level differences of physical strength, gymnastic ability, and dentition when chimpanzees fight.

McGrew (1992) discusses weapons at some length, pointing out that some "lithic technology" is present in nonhuman species. He cites the use of stones as defensive weapons by baboons in three different regions, even

though these “instruments” are found, rather than fabricated, objects. At four out of eight sites he surveyed (McGrew 1992:180), chimpanzees throw missiles but they are used in conjunction with display and bluffing behavior or at very early stages of attack, rather than as tools for disabling or killing. Indeed, even to one who has carefully watched Kortlandt’s remarkable film of the stuffed leopard experiment, the chimpanzees’ aggressive use of found objects (sticks) seems to be much more an extension of bluffing behavior than a mode of serious physical attack. When Byrne and Byrne (1988) observed Mahale chimpanzees who had cornered a leopardess, they did not use weapons, even though a chimpanzee was able to capture one of her cubs and kill it. Nor were objects used in my videotaped python-mobbing episode at Gombe, aside from swaying branches high in trees as an enhanced bluffing behavior.

Thus, a preadaptation for weapons use appears to have been present in the mutual ancestor but was not highly developed. Nor were lethal weapons necessarily present with early hominids. Ardrey (1966), stimulated by Dart (1959), had Australopithecines going to war with weapons, but Montagu (1976) argued forcefully, with the help of Brain’s (1972, 1981) interpretations, that Australopithecine-fashioned stone tools were used for purposes other than killing.

How do these insights affect egalitarianism? When killing becomes both easy and rapid, the balance of power between two combatants becomes more a matter of skill in tool use than a matter of canine size, jaw strength, and body size and strength. As will be seen through some vivid ethnographic examples, a strong element of chance is involved in who strikes the first lethal blow. Furthermore, while a larger individual may still have an advantage over a smaller in wielding a weapon such as a spear, he also presents a larger target when it comes to spearing, clubbing, or throwing a projectile.

Woodburn (1982) has made the point that, with hunting weapons, it is possible to take out one’s adversary by ambush or during sleep. Thus, after weapons arrived, the camp bully became far more vulnerable. Such political equalization could have had meaning as a preadaptation for an egalitarian cultural revolution, particularly if one considers the *combined* weaponry of a group of rebellious subordinates being directed at a *single* too-aggressive alpha. The latter could be readily dispatched at a safe distance or driven from the group, with little immediate physical risk to the rebels.

In exemplifying the effect of weapons on the political life of extant foragers, we turn again to Lee's (1984:93–95) excellent ethnography. He describes in detail a conflict among a number of Kalahari forager band members, in which the basic issue is two males fighting over a female one of them intends to take as a second wife.

Two men, Debe and Bo, were fighting for the hand of a woman, Tisa. This is a composite account of two participants, Debe and Kashe, men now in their fifties. Debe reported:

Bo started it by refusing me a wife. I wanted to marry Tisa, and her mother and father gave me permission, but Bo had already married Tisa's older sister and he wanted to take her as a second wife, so he refused me.

There was a big argument, and fighting broke out. Bo yelled at my younger sister, "What is your brother doing marrying my wife? I'm going to kill you!" He shot an arrow at her and missed. Then Bo came up to me to kill me, but my father came to my aid. Then Samkau came to Bo's aid. Samkau shot at me but missed; my father speared Samkau in the chest under the armpit. Samkau's father, Gau, seeing his own son speared, came to his aid and fired a poisoned arrow into my father's thigh. I was shooting at Bo but missed him.

The narrative continues with the account of Kashe, the brother of Tisa.

Then Debe's father, Hxome, stabbed at Gau with his spear. Gau put up his hand to protect himself and the spear went right through it. Samkau rushed at Hxome with his spear and tried to spear him in the ribs. At first the spear jammed, but then it went through.

In the meantime several side fights were going on. My older brother dodged several arrows and then shot Debe's sister in the shoulder blade (she lived). I dodged arrows by two men and then hit one of them in the foot with a poisoned arrow.

After being hit with a poisoned arrow in the thigh and speared in the ribs Hxome fell down, mortally wounded. Half-sitting, half-lying down, he called for allies. "I'm finished, my arms are stilled. At least shoot one of them for me."

But no more shooting happened that day. We went away and came back the next morning to see Hxome writhing in his death

throes. He had been given cuts to draw off the poison, but the poison was in too deep, and he died. We left N=/=wama.

This account makes it clear that foragers do form political coalitions (primarily male), and that their weapons make them lethal fighters in spite of all the times their arrows miss as others dodge them. Lee discusses a number of strings of retaliatory killings that have taken place after !Kung homicides, then returns to the quarrel we are examining. (Keep in mind from here on that there are two men named Debe, who are allies.)

The !Kung do have one method of last resort, a trump card, for bringing a string of homicides to an end. I listened with amazement to my informant Debe as he unfolded an incredible tale of passion and revenge. This is a continuation of the case discussed above.

After my father's murder, Debe, a man who was my !kun!a [older namesake] complained, "Now my namesake Debe has no father, but Samkau still has a father. Why is this?"

I said, "You are right. I am going to kill Bo, who started it all."

"No," Debe said, "Bo is just a youngster, but Gau is a senior man, a n!ore [waterhole] owner, and he is the one who has killed another n!ore owner, Hxome. I am going to kill him so that n!ore owners will be dead on both sides."

One evening Debe walked right into Gau's camp and without saying a word shot three arrows into Gau, one in the left shoulder, one in the forehead, and a third in the chest. Gau's people made no move to protect him. After the three arrows were shot, Gau still sat facing the attacker. Then Debe raised his spear as if to stab him. But Gau said, "You have hit me three times. Isn't that enough to kill me, that you want to stab me too?"

When Gau tried to dodge away from the spear, Gau's people came forward to disarm Debe of his spear. Having been so badly wounded, Gau died quickly, but made no further move to harm Debe. However, fearing more trouble, some of our people brought in the Tswana man Isak to mediate the dispute (Lee 1984:95-96).

Gau's group made no move to defend him, so what took place was perhaps a socially sanctioned execution. In the absence of manufactured weapons the outcome would have been far less certain, for Debe would have been matching his ability to fight tooth and nail or to pick up and use objects like stones, against Gau's ability to do the same.

Gau's political history was sufficiently checkered that his group might have been happy to get rid of him, for he was prone to conflict. He already had started a lengthy feud by killing a man with a spear, then killed a man in the group who attempted to retaliate. He killed a third man when his enemies attacked again. Several others were also killed or wounded in these fights (Lee 1984:94). Gau may well fit the tribal profile we saw earlier, of an incorrigible aggressor who dominates his group sufficiently that they cannot easily take care of the problem, and who essentially is given over to his enemies because his own group wants to be rid of him.

Of three other !Kung instances of killers being executed, one is worth citing for details of how hunter-gatherers *as a group* go about using weapons to execute someone who is overaggressive.

In the most dramatic case on record, a man named /Twi had killed three other people, when the community, in a rare move of unanimity, ambushed and fatally wounded him in full daylight. As he lay dying, all the men fired at him with poisoned arrows until, in the words of one informant, "he looked like a porcupine." Then, after he was dead, all the women as well as the men approached his body and stabbed him with spears, symbolically sharing the responsibility for his death. (Lee 1979:00)

This group execution involved the entire moral community that made the decision, and active participation by each person obviated the possibility of precisely targeted revenge. It may seem puzzling that the females participated, but remember that they were full members of the moral community.

To summarize, weapons made men more dangerous to one another and thereby mitigated differences of size or strength in fighting. Bluffing behavior as well was transformed. Brandishing a spear conveys an immediate and lethal threat, one that can be carried out at a distance. By contrast, jumping around on the ground and bristling one's hair merely telegraphs an attack that often is avoidable through flight. Weapons not only made the outcomes of dyadic fights far less predictable; as we have seen, they also made it much easier for a group to implement extreme sanctions against a powerful or overaggressive deviant. If a deviant was truly intimidating (as human serial killers are), capital punishment would be unlikely in the absence of reasonably efficient killing tools. It is for this reason that use of efficient hunting weapons was critical to the definitive reversing of hierarchies in prehistoric bands.

My hypothesis is that weapons appeared early enough to have affected

dentition, body size, hair loss on the body, and display loss, and that they helped to ready humans for egalitarian society by making fights less predictable and by enabling groups collectively to intimidate or eliminate even a dominating serial killer. When was this possible? Brace (1995), with a particular interest in Neanderthals, points out that the hafted spear point was present in the Middle Pleistocene epoch in Africa (see also Brooks 1988; Shea 1988), and he feels that the thrown hunting spear, as opposed to spears used for jabbing, could have radically changed the natural-selection forces that determined bodily robustness. This thesis accounts neatly for the first appearance of reduced robustness being in Africa, and it also provides a conservative time frame for the appearance of hunting weapons that could have helped to equalize human males, politically speaking. (Brace does not mention the political consequences I have discussed above, nor does he link the advent of projectile spears with formidable hafted stone heads to loss of apelike body hair or displays.)

Thrown spears could have been present much earlier than the Middle Pleistocene, for a wooden spear is light to carry yet heavy enough to do serious damage. Such weapons are likely to have preceded large-game hunting for two reasons. One is that humans on savannas may have needed to carry weapons constantly to repel predators; this could have been a factor in the development of advanced bipedality, with body size becoming smaller as a useful trade-off. The other reason is that if humans scavenged actively, they had to cope with competing scavengers. Wooden spears would leave no trace in the archaeological record, but as readily carried weapons, they could have changed the nature of fighting and bluffing within the group early in human evolution. A more conservative estimate is that weapons were in a position to transform political behavior by 500,000 years ago, a figure that provides fully 20,000 generations for weapons to affect the genetic selection of body size and build, display behavior, canine size, distribution of hair on the body, and possibly bipedal efficiency.

Cognitive Preadaptations

Political Intelligence

To reverse the direction of dominance definitively in a social hierarchy, substantial cognitive ability is required. Otherwise humans could not strategize politically in the context of alliance formation. Coalitions are

prominent among primates and other highly social species (Harcourt and de Waal 1992); surely the Common Ancestor possessed an adequate ability to strategize that evolved in the context of limited coalition behavior. The *mutual* ancestor not only engaged in small, dyadic coalitions of females or males, but also acted in larger coalitions. We have seen that the contexts would have included not only territorial interactions, mobbing of predators, and hunting, but rejection of certain alpha-male candidates. Sufficient political intelligence was present, preadaptively, that large numbers of subordinates were able to engage in effectively rebellious activities that took significant power from those at the top of the hierarchy—an ability that required a relatively large brain.

Dunbar (1996) has an interesting theory in this regard. He believes that as neocortical size increases, more subtle social and political strategies, such as tactical deception, come into play. As a result, lower-ranking individuals are able to find loopholes in the social dominance hierarchy. Their special cognitive capacity enables them to improve their reproductive success in spite of low rank. This thinking is directly in line with the Machiavellian Intelligence hypothesis (Whiten and Byrne 1988, 1997), but let me stress that the political invention of egalitarian society enabled subordinates to forgo or supplement strategies of tactical deception. Instead of tricking dominants into losing reproductive success, subordinates ganged up on their superiors and advanced their reproductive interests by aggressively bluffing, and by employing brute force if necessary.

Banding together in this way, on a long-term, stable basis, can be viewed as a special product of *political intelligence* (Boehm 1997a). It leads to a type of calculation that involves complicated assessments of power situations. Chimpanzees already have this ability, as de Waal (1982) and Goodall (1986) have demonstrated, and bonobos too use power coalitions with sophistication (Kano 1992). But when the mutual-ancestor type of political intelligence is enhanced by a very large human brain, the result can be the formation of huge, stable, purposeful coalitions that create new patterns of group behavior.

Morality, egalitarianism, and warfare are three special products of this political capacity. In humans, it seems safe to assume that the larger the brain, the greater the degree of political intelligence and the higher the probability that subordinate coalitions could definitively suppress alpha-type behavior. Humans were ready to form moral communities and reverse their dominance hierarchies 100,000 years ago, and probably considerably

earlier. The brain of later *Homo erectus* may well have provided such potential.

Actuarial Intelligence

A different application of human brainpower also is relevant. For lack of an established term, I refer to it as “actuarial intelligence” (see also Boehm 1999b). I mean the intuitive human capacity, seen abundantly in hunter-gatherers, to think stochastically and to understand rather complex systems on an intuitive but statistically valid, predictive basis. Regardless of what drove human brains to be so large, one product was the generalized capacity to understand and manipulate complex systems of various types.

An example is the natural environment. In dealing with human subsistence behavior, behavioral ecologists work with models borrowed from the analysis of other species, essentially considering humans as though they were reacting instinctively to their environments. At the same time, they know that extant hunter-gatherers are making conscious calculations about their environments, discussing them and arriving at common migration decisions as they make their often-precarious livings (Mithen 1990). Humans, with their complex ways of deciding how to shield themselves from hunger, thirst, and predators, come very close to approximating the subsistence strategies of other animals—innately well-prepared subsistence strategies that have the benefit of thousands of generations of natural selection. My point is that hunter-gatherers’ cognized strategies lead them to behavior that is quite close to that predicted by behavioral ecology, but that with humans the behavior is based on important (if limited) insight into environments and subsistence possibilities.

A capacity for understanding complex systems also comes into play in the socioeconomic sphere. It is ethnographically well established that meat in large packets is always shared, and that this reduces family-level variance in protein intake (Kelly 1995). Sharing meat does not always go smoothly, but mobile hunter-gatherers do manage to share their large-game meat at times when sharing is useful. It is reasonable to assume that band members understand why meat sporadically acquired in large packets needs to be shared, whereas plentiful small tubers should be consumed by households individually.

I am suggesting that intuitively these actors comprehend the overall, long-term effects of sharing, even though many may be unable to articulate

their reasoning to an ethnographer. One need only consider the elaborate, highly contrived Netsilik Eskimo system of sharing seal body parts (see Van de Velde 1956) to realize that variance reduction is precisely what these people were seeking when they created the system. These hunters shared seal meat spontaneously within their nuclear and extended families; their elaborately specified system of redistribution applied only to households that were not connected by close kinship. They knew exactly what they were doing when they created an extremely rule-bound system that effectively equalized meat intake among *unrelated* families. The statistical effect is that total meat and blubber intake was equalized for the entire multifamily hunting camp.

Sharing selectively is widespread. Hawkes (1992:22) sums up some relevant findings on Ache foragers, saying that Kaplan, Hill, and others have

noted the wide variation in the extent to which different kinds of food resources are shared. They tested several hypotheses about this variation on observations of the foraging Ache of Eastern Paraguay. The data show the Ache to be notable sharers: on average three quarters of what anyone eats was acquired by someone outside the consumer's nuclear family. Some resources are more likely to go to close kin, but other kinds of resources show no such kin-biased sharing. The extent of this sharing is positively correlated with the average package size of resources and the unpredictability of securing them. As Kaplan and associates noted, wide sharing of large and unpredictable resources reduces the variance in daily consumption, lessening the risk of a hungry day.

Hunter-gatherers use their actuarial intelligence to come up with other "insurance programs" as well (Boehm 1999b). Within the family people look out for one another in many ways, and kin selection helps them ultimately to arrive at nepotistic strategies of sharing and caretaking. Similar practices apply at the level of the band as a whole, and they are heavily based on actuarial sophistication. If I help an incapacitated nonkinsman to move when migration is necessary, I know that socially this is not an isolated act. Rather, it is a contribution to the long-range system of reciprocity by which nonkinsmen in the band may someday assist me if I become incapacitated. The implications are far-reaching, for this generalized helping behavior cannot be laid at the doorstep of something as simple as reciprocal altruism (Trivers 1971). The person I am helping may not be living when my turn comes, or I may have moved to a different band. Long-term, generalized reciprocity has been discussed by Alexander

(1987), and it is characteristic of hunting bands. Ultimately, such altruism is difficult to explain in terms of sociobiology, and in the next chapter I shall demonstrate that political egalitarianism helped to change human nature in this respect.

Whatever their ultimate basis, band-wide sharing and cooperative systems depend heavily on actuarial calculations. This statement may be difficult to prove ethnographically, but I believe nonliterate people understand full well that anyone can experience a crippling hunting accident, or become seriously ill, or grow old—and that there is long-term individual advantage in participating in such a security net. I have not used the term “actuary” recklessly. These long-term safety nets are kept consistent with resources: when they must, hunter-gatherers quickly abandon the incapacitated (see, for example, Balikci 1970). As intuitive statisticians, they know when the system they have created is becoming too costly, and they adjust it accordingly. (Modern actuaries deal with similar problems in designing health care plans.)

To keep such systems operative and efficient requires a large brain, for future effects of present actions must be calculated in complicated ways. Similar modes of thinking take place in moral communities. People intuitively understand the social systems in which they are embedded, and they create and uphold moral rules because they can predict the long-term effects of the absence of such rules—that is, what would take place if they were not enforced. This imaginativeness involves not only an appreciation of small groups and their social and political dynamics, but an intuitive understanding of human nature—of the types of impulses and drives that are likely to cause trouble. Proscriptions against bullying and serious deception are universal precisely because of the conflict they bring (Boehm 1982b).

At the same time, people try to manipulate their social systems in *prosocial* directions: they regularly preach in favor of cooperation, generosity, and altruism, and they reward such behavior. I do not suggest that all positive social functions are the result of planning, or that such planning is anything like omnipotent. Obviously, rationality is bounded (Simon 1976). Also, humans may continue egregiously maladaptive behaviors even when they appear to possess adequate diagnostic information (Edgerton 1992). But in many cases, complicated social, political, and ecological outcomes are guided by our capacity to manipulate and plan (Boehm 1978, 1991a).

It is easy to overlook this unobvious and indigenous theorizing, precisely

because in our own culture we are used to having academics make virtually everything painfully explicit—including even the workings of the subconscious mind! We devote substantial funds to studying our own systems formally, and we train actuaries for years before they begin to inform our insurance programs. The comparable actuarial accomplishments of hunter-gatherers may be difficult to document ethnographically, but they are extremely important to the way these people make a living and maintain social rules.

This actuarial capacity applies directly to egalitarian politics. I have suggested already that hunter-gatherers develop intuitive political blueprints as part of their group traditions. We have examined some of the product, in the form of predictable behavioral preferences and aversions that reveal the egalitarian ethos. It is because people are concerned with creating a special kind of political equilibrium, one that enables them to enjoy great personal autonomy, that we find them regularly placing generosity and humility on their list of desirable attributes. Because they want to keep in check domination tendencies that would impinge on their autonomy, they also proscribe behaviors likely to lead to ugly domination episodes. Such episodes are infrequent, yet the possibility of domination's getting out of hand seems to be well understood even when an egalitarian political system is in place.

When the !Kung insult not only the meat but (in effect) the hunting prowess of skilled or fortunate hunters, they are not seeking merely an immediate suppression of domination tendencies. They are thinking about their group life as a whole, and about the possibility that if some stronger individual emerges, he may eventually try to boss other men—or turn into a menacing killer who is capable of despotism. We are fortunate that Lee is so adept an ethnographer, and that he had an unusually articulate informant who could make this fear of homicide explicit. Kalahari foragers understand the political dynamics of their bands all too well, and they shape political and social life accordingly. The same is true elsewhere, as we have witnessed in the case of the Utku.

Human degrees of political and actuarial intelligence are functions of an outsized brain. Because the human brain was enlarging significantly over a period of more than a million years, we must assume, in the absence of very specific information, that these two types of cognitive capacity also were increasing along something like a continuum. They surely were becoming fully developed 100,000 years ago, and probably were already quite

highly developed 200,000 years ago. This preadaptation aided in the formation of egalitarian communities, for these two closely related types of intelligence made it possible for social dominance hierarchies to be definitively, and stably, reversed. To create such systems, humans had to understand them *systematically*, and they also required morality.

Communication Capacity

Morality is inextricably entangled with language, a fact that has strong relevance to the moralistic suppression of alpha types and other upstarts by human egalitarian communities that deal with deviance. The profiles of respectable versus deviant main political actors are readily communicated. Furthermore, gossiping provides an information network that enables an entire group to respond to transgressions on a well-informed and collective basis. Foragers dealing with dispersed resources cannot stay together all day, so the issue of *specific and detailed* communication is highly pertinent to building a moral consensus. If a cunning dominator begins to act the bully by picking on isolated group members one at a time, the entire band quickly learns about such behavior and grasps the pattern.

At Arnhem Zoo and the Yerkes Research Center, female chimpanzees managed as subordinates to undermine alpha-male power quite thoroughly. We have seen that their affectively expressive vocalizations helped them to arrive at decisions to unite and collectively stop a bullying incident. This type of communication does not, however, permit the sharing of detailed behavior profiles, or the exchange of specific information in tracking individuals and watching for incipient signs of deviance, or the discussion of what constitutes a desirable political milieu.

A definitive reversal of the flow of power in bands requires some kind of vision of the kind of political society that is desired. Such a vision is based on the sort of political and actuarial intelligence we have just discussed, but also on a culturally based capacity to communicate in specifics. The very fluid, emotionally focused systems of communication in the great apes, although effective, are limited to a rather immediate context. Yet I do not underestimate these other hominoids. In chimpanzees, a substantial cultural capacity makes possible group behavioral traditions (Goodall 1985, 1986; Nishida 1987; see also Wrangham et al. 1994), and collective problem-solving is a part of such traditions. The Yerkes females made an urgent decision on the basis of increasingly consensual defiant vocalizations,

which emboldened them to act as a group and sanction their own leader. When wide social disapproval of this type takes place in captivity or in the wild, as it did at Gombe, with vocalizations playing an important part, is this not close to what we see in small moral communities of our own species?

Let us look again at the waa call. In the Yerkes incident (de Waal 1996), at first the scattered waas of a few females could be classified contextually as defiant but subordinate. As the vocal consensus grew, contextually the hostile defiance became dominant, assertive enough to make the alpha male take notice. If we set aside the issue of ethics, this episode could be considered an analogue to human deviance and social control. Collective outrage over the bullying behavior is identifiable, and the collective aggression of the females was used strategically to manipulate the behavior of the alpha male. Functionally, this behavior can be likened to the ostracism directed at Briggs by the Utku. Her band used its own brand of moralistic aggression to deal with a social transgression, but at the same time it was willing to have her remain as a member of the group and even reinstate her if her behavior changed. By contrast, the intervention of the Gombe males on behalf of Wilkie to head off Goblin's comeback as alpha male is similar to very strong ostracism in humans—that is, to temporary expulsion from the group.

These functional analogies are suggestive. Still, one must ask whether the chimpanzee sanctioning is merely immediate, as opposed to human operations in a morally based context that looks to the future. The well-described female coalition at Arnhem Zoo can contribute here, for this female rebellion is highly routinized and stable. The Arnhem females may be inferior to the males in fighting power, just as members of a human band are individually afraid of their more aggressive deviants. Yet these female chimpanzees have enough confidence in their coalition partners to control certain aspects of alpha-male behavior, in a routinized pattern that has been going on for years.

De Waal's (1982) analysis suggests that the Arnhem females are operating on an intentional basis, so they may be said to have goals—perhaps even “values” insofar as the goals seem to be shared. They regularly cut down the power of males and circumscribe their roles, a pattern reminiscent of egalitarian sanctioning and social control. However, their behavioral preferences remain implicit in their behavior; in the absence of spoken symbolic language, they can neither formalize their behavioral

preferences into a “moral code” nor exchange detailed information about the deviant behavior of which they disapprove.

It seems, then, that a definitive step in the direction of moral behavior cannot be taken in the absence of communication with displacement (Hockett 1963). In this context, “displacement” means that a subordinate who wants to combine forces with other subordinates to limit alpha power can communicate about something that does not exist in the here and now. For example, one can speak (pejoratively) about the past actions of a bully when he caught someone off by himself. One can even look to the future and discuss the likelihood of an individual’s unchecked domination behavior turning into despotism that will be unbearable to the group.

The capacity of wild chimpanzees to communicate with displacement appears to be limited (Boehm 1991b; Clark and Wrangham 1993). Chimpanzees are so competent at reading behavioral contexts that often this deficiency is not important, but an anecdote from a videotaped episode at Gombe illustrates the limits of chimpanzee communication. Alpha male Goblin returns to a small subgroup of his community after an absence. An adult female, recently bothered by a male, begins to scream, gesticulate, and posture in a way that eloquently enlists the alpha’s help and clearly indicates her adversary by the direction in which she faces. With aggressive gestures and agonistic vocalizations, she alternates her attention between Goblin and the male chimpanzee, and it is not extreme to suggest that Goblin is reading the context well enough to know that there has been some kind of prior grievance. Obviously, such communication would be more effective if the precise nature of the prior offense could be conveyed—and more effective still if it were verbally verified by a reliable third party.

The period of gruesome intragroup cannibalism at Gombe is similarly instructive (Goodall 1982, 1986). Adult female Passion with her adult daughter Pom systematically hunted the infants of other mothers, eating them as they would consume any prey, and perhaps took nearly a dozen infants in this way. With a high-ranking male present, these two females certainly could not have achieved their captures in the face of fiercely resisting mothers; but because chimpanzee mothers so often forage alone, plenty of opportunities arose. There were incidents in which victimized females enlisted male support long after the fact, but the males behaved as though they had no idea as to what was going on—and probably did not. On the basis of these and other behaviors, Goodall (1982) judged “law” to

be absent in chimpanzee communities. In effect, she says, chimpanzees' social order results from the fact that a social dominance hierarchy automatically channels aggressive behavior, and does so quite efficiently.

What about human degrees of egalitarianism as a result of moralistic social control? A semantically potent verbal language, combined with morality as we now know it, might not have been absolutely necessary to suppress alpha-male domination on a continuing basis. However, a more advanced medium of communication, with some degree of displacement, would have greatly facilitated the task of inventing—and *maintaining*—such an inherently precarious political arrangement. It is the verbally elaborated egalitarian ethos that serves as a social “gyroscope” in this respect, for the ethos provides a rather precise blueprint for group members to follow.

When a band is preoccupied with keeping down dominance behavior on a continuous basis, it is no surprise that the ethos reflects this concern. The manifestations of the ethos we encountered in earlier chapters were merely the tip of an elaborate cognitive and affective iceberg, a system of values based on symbolic culture as humans know it. As a practical matter, communication of specifics was vital in identifying behaviors that needed to be suppressed or rewarded. Indeed, if we turn from the ethos to gossiping and sanctioning behavior, displacement in communication is critical to these processes—particularly in a fission-fusion group. We have seen that people can report on factors removed from the here and now. Also, one group member can tell another something that was merely told to him or her. This is oral tradition, which informs the moral process. It incorporates past crises with present solutions, including knowledge about political domination episodes and executions. The closer our ancestors moved from proto-language to language as we know it, the better their ability to form richly communicative moral communities, and to definitively reverse the flow of power in their bands so that individual autonomy could be maximized.

When was human language first up to this task? Recent works by Lieberman and Dunbar may help us here. Lieberman (1998) believes that vocal communication, rather than the gestural communication suggested by Hewes (1973), was crucial as the precursor to human spoken language. He has analyzed the attendant brain functions, particularly voluntary control of the acoustical productions that make human speech articulation both rapid and efficient. What is needed is vowels that can be decoded with little ambiguity, and a modern vocal tract that permits “stops” that form conso-

nants. His emphasis is on the emergence of fully developed language as we know it, and his best date for its origin is about 100,000 years ago. The people involved were Anatomically Modern Humans, whose vocal apparatus appears to have been as modern as the rest of their anatomy.

Assuming general agreement on this date, we still face the problem that a staged series of increasingly potent “protolanguages” surely preceded spoken language. If an advanced protolanguage could have facilitated the permanent overthrow of alpha types, our window opens to a period of, say, several hundred thousand years. Lieberman allows Neanderthals a rather effective protolanguage and he suggests that *Homo erectus*, with its sizable brain, was also likely to have used some kind of protolanguage

Lieberman (1998) links language ability and cognitive capacity as co-evolved features, both being tied directly to cranial capacity. Dunbar’s (1996) book on gossiping and the evolution of language focuses on the connection between language, social behavior, and the neocortex. He takes gossiping to be the functional equivalent of primate grooming, receiving positive selection pressure because the resulting social and political alliances are individually beneficial. Dunbar sees this as a force in language evolution, and he may well be right, but gossiping has other functions as well. In fact, it is curious that Dunbar wrote an entire book on the evolutionary role of gossiping without more emphasis on its role in the transmission of information about deviance in prehistoric human moral communities. He alludes briefly to the possibilities for controlling cheaters, but leaves it at that.

My own assessment is that once language permitted the transmission of detailed and specific information with displacement, a preadaptive readiness was in place for the invention of moral communities that could support egalitarianism. Such communities required not only an advanced type of communication, but the political intelligence needed to operate in large coalitions and actuarial intelligence sufficient to manipulate dominance hierarchies in ways that were radical.

Sharing of Large-Game Meat

A more specific preadaptation that could have further enhanced the chances of a band’s definitively suppressing alpha-male domination behavior is the vigilant sharing of meat (see Erdal and Whiten 1994, 1996). We have seen that such behavior is widespread among extant foragers when

large or even medium-sized game is taken sporadically, and we have seen that chimpanzees at Gombe also share large packets of meat—at the whim of an adult male who controls it aggressively. In spite of bickering and emotional flare-ups among the “beggars,” meat is distributed to various adult chimpanzees, not necessarily to all of them at each event (Stanford 1998a; see also Teleki 1973). In the Tai Forest of West Africa, the chimpanzees appear to share meat more routinely, possibly because they are more dependent on cooperation in hunting. However, a selfish advantage still goes to the actual hunter and to those of higher rank (Boesch 1994).

The human hunter-gatherer approach is different, for the amount of large-game meat individuals receive is only moderately contingent on hunting ability (Kelly 1995). Indeed, a conscious and watchful orientation to equalization prevails, and a variety of cultural devices have been invented to ensure that all the households in a band share fairly evenly.

One interpretation is that the less productive hunters are forcing the more proficient to “pay tribute” to them (Hand 1986; see also Blurton-Jones 1984). Another explanation (which I favor) is that everyone realizes, first, that they must share to avoid feast or famine disadvantages and, second, that whoever is temporarily the killer of meat is likely to want to take a larger share because of selfish motives. The group anticipates such problems and sets up rules adequate to even out meat consumption. It makes sense that the better hunters and their families would be more ambivalent about this system than others; but during harder times, when kills become extremely sporadic for even the best hunters, the need to reduce intake variation over time becomes obvious indeed.

The meat-sharing habit of nomadic foragers is transformed by language and morality so that definitive rules exist. Stigmatized roles such as “cheater” or “selfish bully” are labeled (and sanctioned) to make the system work in spite of predictable conflicts. This moralistic approach works reasonably well in curbing individual selfishness or tendencies to dominate, precisely because the group knows how to become aggressive in dealing with those it labels as deviants. An *armed* group can be exceedingly dangerous to any deviant—even the most powerful and aggressive hunter in the group—and hunters are always armed.

If we think of large-game hunting as an activity that made bullies a special problem as meat-sharing became important, then hunting (or scavenging) could actually have triggered the invention of social control. During glacial episodes it is safe to say that dependency on large game, as

opposed to small game and plant foods, became strong or possibly overwhelming—just as it is at many times of year for most Eskimos. If we take into account increasing brain size as a measure of actuarial ability, some means of socially regulated variance-reduction behavior becomes possible from the Middle Pleistocene on, and this capability could have been one factor in humans' growing expertise in both political leveling (Erdal and Whiten 1996) and moral sanctioning (Boehm 1997a).

Moral Communities and Moralistic Blueprints

Along the way I have discussed many aspects of morality as a human development useful to (and probably necessary for) the rise of stable, effective egalitarianism. Collectively creating and maintaining an egalitarian society requires a high degree of political intelligence and a systematic understanding of political dynamics and outcomes. It also requires a political capacity to operate in large coalitions and a cognitive capacity to arrive at a shared plan of action. Deciding to move vigorously against an aggressive deviant can be a politically risky act, so it is necessary for the rank and file to feel they are acting together, or at least for the leading "moralists" to sense the potential force of their group solidly behind them. A preexisting shared conception of group goals stimulates such solidarity, and that is where cognitive "blueprints" fit in.

I have chosen this term as a way of emphasizing that humans are able to communicate in great detail, and that groups can develop precise notions about the kind of society in which they wish to live. An extreme example would be the small modern "intentional communities" we have examined, while some Marxian socialist states have tried to implement egalitarian blueprints on a very broad scale. These will be discussed further, but their success has been limited when it comes to the state's withering away. By contrast, a typical hunter-gatherer band succeeds extremely well in keeping its egalitarian blueprint in effect: if some are "firsts," they must be firsts among equals.

Mobile hunter-gatherers agree that individual tendencies to compete and dominate must not only be countered where upstartism becomes serious, but must be suppressed continuously—on a preemptive basis. Certainly a shared goal is in place, for the emancipated subordinates who collectively keep this program going want to enjoy a high degree of individual autonomy. The underlying plan has the advantage of being believed in

strongly. For one thing, at the level of human nature is the predictable individual resentment of subordinates toward those who would dominate them by taking more than they give. In this arena antiauthoritarian feelings, when expressed collectively, create group political intransigence. Then too, moral feelings of inappropriateness enhance these feelings even as they focus them in the direction of social sanctioning. Bullying intimidation is no longer a normal but resented aspect of daily life: it is singled out as a type of heavily proscribed deviance—just like lying, theft, murder, or incest. It is commitment to such a moralistically conceived blueprint that enables a stable coalition of potential subordinates to dictate the tenor of political life in the band, and thereby remain politically autonomous as individuals.

Elsewhere I have offered competing scenarios about how this egalitarian arrangement came into being. In the first scenario, I saw morality as an absolute prerequisite for the emergence of egalitarian bands (Boehm 1982b). The idea was that once groups of humans began to proscribe and control behaviors like incest, rape, adultery, cheating, and murder, they were in position to overthrow their alphas and permanently dispose of the alpha role by classifying it as deviant. In the second scenario, excessive domination was the very first behavior to be proscribed and sanctioned as early moral communities formed (Boehm 1997a), and this measure was the result of trying to institutionalize a popular revolt that succeeded. Once bands had coalesced to eliminate domination behavior, it was easy enough to expand the scope of sanctioning and suppress other troublesome behavior. There is no need to choose between these two scenarios, for either accounts for the origination of egalitarian political orders.

How Quickly Did Egalitarianism Appear?

Let us consider cultural variables. My conservative guess is that egalitarian society as we know it appeared, *at the very latest* with Anatomically Modern Humans. The preadaptations were solidly in place 100,000 years ago, and special stimulation from the physical environment may not have been necessary. Subordinate resentment of domination, the ability to form large coalitions, and the capacity of such coalitions to dominate or eliminate a bully with their combined weaponry were sufficient to momentarily eliminate an alpha-type individual, and the advent of moral communities made

it possible to stabilize such episodes. In effect, egalitarianism could have arisen simply because humans became culturally able to form moral communities and were prone to rebel against dominant authority.

However, world environments were subject to dramatic climatic fluctuations between 128,000 years ago and 72,000 years ago, fluctuations that were unusually extreme and unusually frequent (Potts 1996). Two environmental hypotheses are possible with respect to this instability. First, hunting or active or passive scavenging of large game would have periodically caused meat to become dominant in the human diet, and second, population displacements would have been very frequent in many parts of the populated world, a topic I return to in the next chapter.

The hunting-dependency hypothesis is as follows. During a period when people were coping with environmental cooling, periodic tundra-like conditions may well have skewed the subsistence division of labor from a mixed foraging strategy to periods of heavy dependency on large-game hunting. At such times variance-reduction practices would have been particularly useful, and suppressing alpha-male behavior would have been a means of effectively equalizing the redistribution of meat. Once such political inventions were in place, they could have had staying power during milder climatic interludes as well. An invention stimulated by periods of cold would have continued to be attractive during interglacial periods when variation reduction was less critical, simply because subordinates had learned to enjoy their political autonomy.

Once one band, somewhere, invented an egalitarian order, this radical change in social ways of doing things would have become visible to its neighbors. The advantages would have been evident wherever subordinates were ambivalent about being dominated, particularly in bands with very aggressive bullies. Furthermore, the advantages of well-equalized variance reduction would have been obvious to members of despotic bands whose alpha types could be counted on to monopolize meat just when it was scarce. One would expect a gradual cultural diffusion to take place, with attractive egalitarian traditions replacing despotic ones locally.

During periods of scarcity-driven migration, bands surely were mixed around a great deal, as they followed their individual strategies in coping with climatic changes—a situation we shall consider in more detail. The statistical chances of a despotic band's coming into contact with an egalitarian band would have increased, and as a result the rate of cultural

diffusion would have been accelerated. Over time, migration patterns over longer distances could have fairly rapidly spread this political invention from one continent to another.

To summarize, I have favored a cultural saltation theory here. The political nature of the innovation we are discussing would appear to be “revolutionary,” in the sense that alpha types would not have readily given up their power and privileges. However, it is possible that egalitarianism advanced in stages, with subordinates gradually, over many millennia, gaining more control until the alpha role was effectively suppressed. In either event, the chances of cultural diffusion were maximized by the attractiveness of the invention to the dominated rank and file of a nonegalitarian group nearby. The process could have begun with *Homo erectus*, and conceivably even earlier, depending on when the linguistic and cultural thresholds were present for moral life to develop. But the highest state of behavioral and cultural readiness was reached by Anatomically Modern Humans.

Paleolithic Politics and Natural Selection

This chapter provides a novel evolutionary scenario, one that contradicts several fundamental tenets of traditional social biology. For three decades a general assumption has been that genotype and phenotype can be equated for purposes of mathematical modeling. Another premise has been that selection arising from competition between groups is so feeble that it does not warrant serious consideration. For humans in the Late Paleolithic, neither of these assumptions can be taken for granted.

The Genetic Paradox of Altruism

My general hypothesis is that the spread of Paleolithic egalitarianism had a profound effect on basic mechanisms of natural selection. Specifically, selection at the between-group level was empowered at the expense of selection at the within-group level, a shift that profoundly affected human nature. This was the case because between-group selection supports the altruistic traits that have been so vigorously denied for three decades. I would not advocate this controversial hypothesis unless there was persuasive ethnographic evidence in its favor.

Like many evolutionary scenarios developed by paleoanthropologists, this behavioral hypothesis is not susceptible to disconfirmation with present archaeological evidence. But because it is critical to our understanding of human nature, that standard of scientific accuracy can be replaced by one of relative plausibility. The first assumption to be tested against that yardstick is fundamental. It concerns the availability of sufficient time for human nature to have been transformed under the aegis of egalitarianism.

We are speaking about *evolutionary* time, which must be measured in generations.

It is extinction rates, along with variation, that determine the rate of evolution of a species. E. O. Wilson (1978:91) has the following to say about the rate of evolution for humans: “The theory of population genetics and experiments on other organisms show that substantial changes can occur in the span of less than 100 generations, which for man reaches back only to the time of the Roman Empire. Two thousand generations, roughly the time since typical *Homo sapiens* invaded Europe, is enough time to create new species and to mold their anatomy and behavior in major ways.”

I have quoted Wilson to show that if something were to have changed *radically* in the natural-selection scenario for humans, it certainly could have had significant effects in a thousand generations or so. A human generation is a relatively lengthy twenty-five years, so a thousand generations places us at 25,000 years ago, and two thousand generations would take us back 50,000 years.

Egalitarianism could be far more ancient than this (Knauff 1991). Indeed, later *Homo erectus* and Neanderthal apparently lived in smallish bands like those of extant mobile hunter-gatherers (Dunbar 1996; see also Mithen 1990). By inference their brain sizes might have provided them with the requisite political intelligence—and with the moral communities that were needed—to reverse their dominance hierarchies. A more conservative estimate (one that I prefer, given present evidence) is that about 100,000 years ago Anatomically Modern hunter-gatherers were fully egalitarian—or were about to become so. The assumption is that a fully modern brain made them as capable of maintaining an egalitarian order as their extant counterparts. An extremely conservative estimate would pair the invention of egalitarianism with the cultural emergence of realistic cave art, sculpture, and incised calendars, as described by Marshak (1989; see also 1992). Egalitarianism would still have had more than a thousand generations in which to do its work on human nature.

How such work was done is the subject of this chapter, and the selection scenario I describe is far from simple. Indeed, it involves a variety of hunter-gatherer behaviors and their combined effects on natural selection. The overall hypothesis is straightforward: basically, the advent of egalitarianism shifted the balance of forces within natural selection so that within-group selection was substantially debilitated and between-group selection

was amplified. At the same time, egalitarian moral communities found themselves uniquely positioned to suppress free-riding (to be discussed shortly) at the level of phenotype. With respect to the natural selection of behavior genes, this mechanical formula clearly favors the retention of altruistic traits.

An altruistic gene can be defined simply and unambiguously: it is supported by between-group selection, and it is undercut by within-group selection (E. O. Wilson 1975; Wilson and Sober 1994). However, as Knauff (1989) points out, for well over twenty years evolutionary biologists, sociobiologically inclined anthropologists, and evolutionary psychologists have agreed—almost, but not quite unanimously—that natural selection can support nepotistic helpfulness but *not* altruistic helpfulness.

A wide variety of scholars have gone to ingenious lengths to show that for humans genetically altruistic behaviors—those that mitigate against inclusive fitness and appear to transfer reproductive resources to nonrelatives—somehow are bogus. It is held that such giveaways must be derived from kin selection or social coercion (for example, Wilson 1978), or else that they somehow are made possible by selfishly-motivated exchanges of service that take place over time (for instance, Trivers 1971; see also Alexander 1987). With humans, two problems arise with this approach. One is simply that many members of the species in question do not like to see themselves reduced to “total selfishness.” This is a problem of the heart, and I have done my best to set it aside. The second problem is one of facts—and theories—that challenge a powerful paradigm long in vogue, a paradigm which as I write is subject to serious scrutiny (Wilson and Sober 1994; Boehm 1996, 1997a, 1997b, 1999a, 1999b; Sober and Wilson 1998; see also Wilson’s 1997 edited *American Naturalist* supplement).

The factual problem is that extant hunter-gatherer nomads not only cooperate, in very generalized ways, as groups, but to a significant degree they may take care of nonrelatives in their bands—as described in the previous chapter and elsewhere (Kelly 1995; Wiessner 1996; see also Boehm 1999b). They also preach steadfastly and strongly in favor of altruism (Campbell 1972); while such preaching is of obvious importance, its ultimate, natural-selection basis remains little explored.

In my opinion, traditional approaches in social biology have been seriously out of touch with common sense when traits such as human cooperativeness and one-way helping behavior are explained wholly in terms of selfish desire for self-aggrandizement, innate nepotism, exact reciproca-

tion, or third-party coercion. Sober and Wilson (1998) propose that the rejection of pre-1966 group-selection theories involved not only a set of deep biases, but also some technical misunderstandings that have become rigidly institutionalized. A number of evolutionary biologists have responded favorably to their earlier critical but constructive attack (see Wilson and Sober 1994), which called for a substantial paradigm shift, and the campaign continues as I write.

Altruism has always posed a special puzzle for philosophers, a puzzle that resonates strongly because we all know, introspectively, how powerful the forces of selfishness must be. Yet for readers unacquainted with the academic literature on altruism, the term as used by philosophers, biologists, and anthropologists can be ambiguous. A few general illustrations will be helpful before I present detailed arguments at the level of biology and culture.

With respect to reproductively self-sacrificial helping behavior, Lorenz's (1963) study of the behavior of turkey hens and how they protect their offspring is highly instructive. These fowl viciously attack a dangerous predator such as a fox that comes near their nest, and in normal English usage this behavior could be called altruistic because the mother is risking her life to protect her offspring. Technically, biologists would call the behavior nepotism and contrast it with altruism. Reproductive success is their currency, and the hen's investment in her own offspring provides her with net inclusive fitness gains rather than losses. If the same turkey hen were to defend another mother's chicks, a biologist would call this altruism because it would reduce her ability to advance her genes into the gene pool and thereby damage her inclusive fitness. In fact, she would be reducing her relative fitness quite significantly, for this risky behavior would be advancing the inclusive fitness of her genetic competitor at the very time that her own fitness was being reduced.

In such analysis, the sole criterion is reproductive success. A biologist's version of altruism or nepotism does not necessarily entail the empathy or selfless feelings of generosity that we think of when applying the term to humans who are selflessly helpful in the motivational sense (Wilson 1978; Boehm 1979; Sober and Wilson 1998). Lorenz discovered that turkey hens were programmed so "stupidly" that their self-endangering maternal instincts appear to be far from maternal concern as we see it in humans. The first clue came when a turkey hen that had been deafened immediately destroyed her own chicks, attacking them just as she would a predator.

Lorenz formed a hypothesis. He wanted to know if turkey hens would attack *anything* living that drew near to their nests, that is, anything that failed to give the high-pitched vocalizations turkey chicks are programmed to emit. He obtained a stuffed fox and brought it near the nest of a turkey hen that was not deafened, and predictably the hen attacked viciously. The second time, he hung a little machine around the fox's neck, a tape recorder that emitted the cheeping sound of turkey chicks, and the mother ignored the fox entirely. In effect, the hen was acting on a hard-wired compulsion. We may never know her emotions and cognitive state, but this genetic compulsion appears to be quite different from what we mean by altruism when we refer to a socially sensitive psychological state—one that involves empathy, feelings of generosity, and a decision to help.

Human social behavior is seldom driven by anything approaching so-called blind instinct, even though, as Darwin himself noted in *The Expression of Emotions in Animals and Man*, a few of our facial expressions are hard-wired (see also Masters 1989) and linked to specific emotions. These surely include anger, grief, and fear, but not necessarily any emotions we would associate with altruism. This makes it still easier for traditionalist social biologists to deny innately-prepared altruism in humans, altruism that at the level of psychological motives we would call genuine.

To identify such emotions in humans is difficult because in any given instance of altruistic-seeming behavior, the motivational waters are likely to be muddied by other factors. A fireman may undertake a rescue mission because he was originally attracted by the pay, and now this is just his line of work. He knows that he would endure both shame and damage to his career if he failed to undertake a rescue where the risks were reasonable. Another fireman may wish to play the hero and receive accolades (or professional advancement) because he takes unusual risks. His motives, too, are patently selfish. Another fireman's original attraction to his career may in fact have been based on genuinely wanting to help others, and an unusual degree of genuine altruism may still gear him to take unusual risks—above and beyond the call of duty. Still another fireman may take unusual risks partly because he likes the pay, partly because he selfishly seeks the esteem of his community, and partly also because he is driven by genuine altruism.

In some human instances of what appears to be self-sacrificial helping behavior, no altruistic feelings are likely; social pressure alone is responsible for the munificent action. For example, at work one grudgingly gives a

few dollars to the United Way because one's boss is known to be making a list of donors—and one knows the list will be circulated through the office. The same unwilling donor may identify strongly with animals, and give generously and *anonymously* to wildlife conservation. The difference is between socially influenced altruism and motivationally genuine altruism.

In other cases direct coercion may play a role, as when totally unwilling men submit to the draft. They may then fight for their country in what they consider to be unjust wars—simply because they do not want to invite court-martial. These examples suggest that if genuine altruism does exist, it can be mixed in countless ways with personal self-interest, and altruistic performance can be largely if not entirely influenced or forced socially. These motivational clouds have made it easy for many to claim that genuine human altruism can be dismissed (Wilson 1978; Alexander 1987)—that basically all altruistic-appearing behavior is reducible to individual genetic self-interest as represented by inclusive fitness.

If human altruism amounts to a definitional and motivational jumble, social biologists have sorted out the problem in a bizarre—if unambiguous—way. Guided by their own standard paradigm, they have arrived at the conclusion that the only self-sacrificial behaviors that can be supported by natural selection involve assistance directed to offspring or closer relatives. In terms of selection mechanisms, the name of this nepotistic game is kin selection (Hamilton 1964). As explained by E. O. Wilson (1975), kin selection derives from both the turkey-hen type of parental investment (Trivers 1972) and from broader types of nepotism that involve helping siblings, cousins, and the like.

As a major amendment, Wilson and Alexander also include long-term, exactly reciprocated exchanges between individuals as another sustainable type of genetically selfish helping behavior. For three decades now, the majority of evolutionary biologists have agreed that perfectly evened-out sacrifices and benefits, exchanged recurrently between a dyad over time, can be sustained because the cooperators have greater reproductive success than pairs of individuals who fail to cooperate. Such behavior has been labeled reciprocal altruism (Trivers 1971), which is confusing. By definition, there can be no *net* reproductive sacrifice—on either side.

That Darwinian selection is augmented by kin selection of various degrees is indisputable; inclusive fitness is a powerful factor in human evolution. However, the reciprocal-altruism argument seems far less convincing, given the fact that such exact reciprocation is required over time, with

many repeated interactions. While it is true that pairs of cooperators tend to outclass noncooperators, it is in the reproductive interest of each cooperating partner to inconspicuously cheat, thereby gaining not only the advantages of mutual cooperation but a further selfish bonus as well.

This explanation is the best that sociobiology can do, and it does very well indeed in explaining why people help their closer relatives. When it comes to explaining helping behavior that extends beyond nepotism, a serious empirical problem is encountered: extant foragers often cooperate with nonkin spontaneously and with a spirit of generosity, rather than meting out their donations very carefully, and such cooperation extends far beyond the level of dyads. Even though certain individuals manage to do some moderate freeloading, people in bands tend to cooperate intensively, with apparent good will and with great benefit to group members in general. Or so it seems to me, as I read richly descriptive ethnographic reports on hunting bands (for instance, Balikci 1970; Lee 1979).

It is true that while some bands seem to cooperate smoothly, others do so only moderately effectively, with squabbling or cheating. I am referring to the equitable distribution of large-game meat. In effect, the entire band engages in this type of variance reduction, and it does so whenever sharing makes sense. Sharing is accomplished in spite of this squabbling, and even though an occasional social deviant may compromise the system somewhat by cheating when others will not be too disturbed (Boehm 1999b).

Psychologically, there *appears* to be a genuinely altruistic component in this cooperation. A precise “tit for tat” ideology is absent, and often sharing proceeds smoothly even though typical bands contain unrelated families. People seem to have readily internalized cooperative values they were taught as children (Goody 1991). This innately disposed “readiness” requires explanation at the level of human nature, for it certainly *seems* to involve genetic altruism as we have defined it.

Levels of Natural Selection

Cultural anthropologists may be only semiconversant with the nuances of natural-selection theory as promulgated by social biologists, and for that reason I shall err in favor of detail. Explanatory strategies begin with the fact that humans live in groups and that basically natural selection takes place *within the group*. The individual (with his or her inclusive fitness)

is the fundamental “container” or unit, the essential vehicle of selection (Wilson and Sober 1994). Selection takes place either by individuals competing genetically on an indirect basis, as Darwin postulated, or sometimes by their competing on a direct basis, as when one hunter successfully steals another’s wife or is killed in the attempt. The expected behavioral result of within-group selection is selfishness and nepotism, never altruism.

Another level at which natural selection operates is the *between-group level* (E. O. Wilson 1975). In this case a group of individuals is the container that determines the fate of a given set of genes. If such units are subject to variation and extinction, they too can serve as (larger) vehicles of natural selection. Such selection does not require rigidly demarcated groups, or groups that remain in existence for a very long time, or outright group extinctions (Sober and Wilson 1998). What is needed is a population that somehow is structured into variable units that tend to replace one another, and it helps if the units are not too large (Wade 1978).

For the time being we are dealing with genes rather than with psychological motives. I have defined altruistic genes in terms of levels of selection. It is between-group selection that supports them, and it bears emphasizing that most biologists concede, *in theory*, that selection at this level could support genuinely altruistic traits on a straightforward basis (E. O. Wilson 1975). What they deny, often quite vehemently, is that natural conditions could ever lead to between-group selection’s approaching the power of within-group selection.

Realistic possibilities for group selection were first raised by Darwin. Recent efforts, referred to above, have tried to rescue the group-selection baby from the bathwater that was thrown out after 1966. As this book is published, a very large community of evolutionary biologists, anthropologists, psychologists, and others will be deciding whether a major paradigm adjustment is in order.

Selection Mechanisms and Altruism

The inclusive-fitness/reciprocal-altruism paradigm of social biology has profoundly influenced certain anthropologists (for example, see Chagnon and Irons 1979), ethologists and behavioral ecologists (Wrangham and Peterson 1996), psychologists (Campbell 1975; Tooby and Cosmides 1992), philosophers (Sober and Wilson 1998), political scientists (Corning 1984; Masters 1989; Arnhart 1998), and economists (Bergstrom and Stark 1993; Bowles and Gintis 1998). A full list would include hundreds of names.

The vast majority of these scholars have rejected group selection as a viable level of natural selection, and this decision automatically excludes the evolution of altruistic genes in any orthodox mammalian species, including our own. However, for more than two decades David Sloan Wilson has been a “voice in the wilderness” within the community of evolutionary biologists (D. S. Wilson 1975, 1977, 1980, 1983, 1989, 1990, 1991, 1992, 1997; Wilson and Sober 1994; Sober and Wilson 1998). His heretical and increasingly persuasive campaign on behalf of multilevel selection prominently features selection between groups, and it dates all the way back to the publication of Edward O. Wilson’s *Sociobiology* in 1975. It is an approach that applies to a wide variety of species, including humans.

For two decades I too have been pointing to mechanical possibilities for group selection mainly in humans (Boehm 1978, 1981, 1982a, 1986, 1991a, 1996, 1997a, 1997b, 1999a, 1999b). Here I shall detail a specific hypothesis involving between-group selection and effective free-rider suppression, a hypothesis that could go far toward resolving the natural-selection paradox of altruism for our own species. I shall accomplish this task by examining further the behavior of egalitarian hunter-gatherers in whose bands our genes were selected.

The relevant selection mechanics are as follows. Fundamentally, it is the balance of power between within-group selection and between-group selection that determines whether altruistic genes can reach equilibrium in a gene pool. When people perform altruistic acts that are beneficial to the group but costly to individual reproductive success, by definition such traits will be supported by between-group selection and opposed by within-group selection. Any population structure with phenotypically variable groupings that are positioned to replace one another is capable of generating selection forces that operate at the between-group level (Wilson and Sober 1994). Nevertheless, mathematical models show that between-group selection must become powerful indeed to overcome the free-rider problem defined by Hamilton (1964).

This problem needs to be further defined for humans, for free-riding plays a crucial role in the hypotheses I am about to develop. An example will help. Let us say that in sharing zebra kills I am genetically disposed to assist unrelated members of my band, and that many band members are not close kin of mine. In terms of selection at the within-group level, my altruistic genes would be quickly eliminated because some group members, lacking this gene, will take a free ride on my altruism by eating my zebra meat but not sharing theirs. Thus, their nonaltruistic genes will be for-

warded into the gene pool at a higher rate than my altruistic ones. If born free-riders regularly outcompete born altruists, in the long run altruism cannot be supported unless group selection can somehow do the job.

If *extremely* robust selection is taking place between groups, the situation will change for these altruistic genes. At the same time that within-group selection is whittling away at a band's altruistic genes and free-riders are taking their toll, between-group selection will be supporting such genes because groups with many altruists can succeed better than groups with few altruists. In theory, if the between-group level of selection becomes much more robust than usual, or if the within-group level is sufficiently debilitated, altruistic genes could stand a chance of reaching fixation in spite of free-riding.

There is one other way that altruistic genes could prevail. If, somehow, free-riding behavior could be eliminated or heavily suppressed at the level of phenotype, then the force of selection taking place between groups would not need to rise to nearly so high a level for altruistic genes to be supported.

What can we actually expect with humans? At first glance, selection taking place between individuals *within* the group should be operating very powerfully indeed, because humans, like any other mammalian species, exhibit a high rate of genetic variation. Furthermore, as individuals with finite life cycles they "go extinct" very predictably, if at much longer intervals than most mammals. By contrast, prehistoric *bands* did not tend to go extinct every thirty-five years or so, unless intensive warfare, or recurrent plagues, droughts, or epidemics, or radical changes in their environments were cutting down entire bands on an extremely frequent basis. Although the relevant facts are few, this scenario is at present considered unlikely. Furthermore, groups are likely to be much less genetically variable than individuals, for groups are composed of many individuals, and averaging effects make variation between nearby groups much less than variation among individuals within those groups.

For these reasons group selection has been rejected as a basis for altruistic behaviors that involve significant reproductive costs to the donors. According to advocates of the standard paradigm, even though Paleolithic humans lived in smallish bands (Dunbar 1996) that in size were quite appropriate as group vehicles of selection, the between-group effects were simply too feeble to have had any significant effect on human nature. This supposition has been basic and widespread for all social mammals, but I

propose four solid reasons why humans should be exceptions to the rule. All have to do with the fact that people in the Late Paleolithic lived in small moral communities, nomadic bands that insisted on egalitarianism as a social and political way of life.

Behaviors that Weaken Within-Group Selection

Elimination of Pronounced Dominance Hierarchies

When entire hunting bands began to form formidable, moralistically aggressive coalitions to keep their alpha-male types from dominating group life, individual variation was affected profoundly. In an orthodox primate social dominance hierarchy, the individuals at the top gain the advantage in accumulating reproductive benefits (Ellis 1995), while subordinates regularly are given short shrift. This direct competition heightens phenotypic variation among individuals. When an egalitarian band eliminates this type of power role and begins to share its large-game meat on a more or less equalized basis (Kelly 1995; Erdal and Whiten 1996; Wiessner 1996), the variation picture changes radically.

Keep in mind that Darwinian selection acts not on genotype, but on phenotype. In the final analysis, it is actual behavior that counts, not the genetic dispositions that underlie it. For most animals the disparity between the two is not large, and in their use of mathematical models to explain gene selection, social biologists properly simplify matters by assuming isomorphism. When the human moral community arose, however, public opinion and active moral sanctioning acted together to make people conform to social mores that often went *against* human nature (Campbell 1972, 1975; see also Boehm 1982a; Boyd and Richerson 1992).

Such conformity greatly reduced phenotypic variation among individuals, the same variation that drives natural selection taking place within groups. The potential camp bullies—individuals unusually aggressive by nature who let their hunting prowess go to their heads in a way that led to self-aggrandizement—were obliged to behave very much like everyone else. This leveling applied to acquiring spouses, to sharing meat, or to actively taking away the resources of others; all are important to reproductive success.

I must take care to say that egalitarianism did not eliminate all individual reproductive advantages within bands (Kaplan and Hill 1985; see also

Fried 1967; Flanagan 1989). Far from it. But it did drive phenotypic variation to much lower levels. We can see this result if we try to imagine a hunting band in the absence of egalitarians who are continually suppressing the behavior of bullies. One need only compare the egalitarian !Kung with the despotic Kwakiutl to get the point: the presence of nobles, commoners, and slaves creates a substantial amount of phenotype variation that impacts on reproductive success. With certain literate societies, highly despotic by Vehrencamp's ethological standard, the disparities become still greater (Betzig 1982, 1992). Egalitarians nip these tendencies in the bud.

The prehistoric result was a significant debilitation of within-group selection, a process that automatically allowed more scope for whatever between-group selection was present to support altruistic traits. I must emphasize that in the analysis so far, the behaviors we are talking about are not boosting the *absolute* power of between-group effects. The change is merely relative: in what amounts to a "horsepower race," the strength of the much more powerful within-group engine is being significantly reduced, while the power of the between-group engine remains far, far weaker.

This diminution of within-group variation may have been substantial, but by itself it cannot explain the degrees of altruism and willing cooperation exhibited by our species in its forager manifestations. For such traits to evolve, some further reduction in the force of within-group selection would seem to be necessary, and also some absolute boosting of between-group effects. In addition, it would be extremely useful to have some drastic reduction of free-riding at the level of phenotype, for this diminution would all but neutralize the reproductive advantages of born cheaters as they compete with born altruists. As will be seen, the morally based "egalitarian syndrome" of Paleolithic hunter-gatherers made all of this possible (Boehm 1997b).

Consensual Decisions

Egalitarian foragers uniformly eschew strong, authoritative leadership. Yet they do not give up on making decisions at the band level. Consensus-seeking is a strong feature of all egalitarian societies (Boehm 1996) and of forager societies in particular (Mithen 1990; Knauff 1991); and consensus-seeking further reduces phenotypic variation within the group. In arriving at a consensus, foragers do not necessarily all meet in one place for discussion as tribesmen often do. They arrive at group decisions, nonetheless,

because nomadic bands normally move around as units. Every adult has the right to contribute, as people in small or large groups discuss their migration options. We have seen that as consensus builds the majority is likely to pressure any dissenters to join with them.

There is nothing *mandatory* about forming a consensus; in an egalitarian band every family is free to go its own way. But the challenges that stimulate such discussions affect the entire group. Everyone understands that if they do not reach a consensus, they may no longer be able to function as a group. Hunter-gatherers make their group decisions principally about major migrations, a type of problem with which they cope up to a dozen times in a single year (Tanaka 1980). They have valid reasons to stay together when they move to a new camp. One is to share their large-game meat, and thereby reduce family-level variation in high-quality protein intake, or to share other foods that are subject to scarcity. Another may be to defend the resources they are exploiting against other groups. Another is simply to stay together because they are highly sociable and enjoy one another's company.

From the standpoint of natural selection, the net effect of consensus-seeking is that phenotypic variation among individuals (or families) is reduced. Say that, as a household head, one hunter thinks it better to hunt eland than giraffe, and eland and giraffe are located in opposite directions. He goes along with the group's strategy, migrating to where giraffe possibilities are maximized. Another hunter prefers buffalo, another zebra, but they all agree on giraffe because giraffe is preferred by the majority. At any given time, the habit of making migration decisions on a consensual basis renders every family's *basic* subsistence strategy the same. This strategy can shift, obviously, if the entire band changes its mind. But the basic strategy remains uniform for a group that, if it atomized into families, would become far more variable in its behavior.

As long as the strategies are chosen unanimously, individual variation is being leveled drastically at the level of phenotype, a process that *further* weakens within-group selection. As a result, the relative power of between-group selection is further enhanced, which increases the mechanical possibility that altruistic genes can be maintained in the gene pool. This hypothesis must be judged in terms of relative plausibility. I know of no published data that permit a quantitative analysis of the degree to which potentially varying family strategies are being made uniform because people prefer to live and migrate as bands.

One major exception supports the rule. Several Australian desert groups,

discussed by Gould (1982), live in an environment so marginal and so unpredictable that they cannot consistently stay in bands: to survive, each family needs to be ready to move expediently wherever it must, following its own basic subsistence strategy. Because these unusually harsh ecological conditions are chronic, band consensus is seldom in a position to equalize the subsistence strategies for these hard-pressed nomads. Such hunter-gatherers are exceptional, but with them the family seems to be the largest group on which natural selection is likely to operate.

I point out, parenthetically, that such families themselves are groups susceptible to between-group selection (see Sober and Wilson 1998; Smuts 1999). However, when family members help one another unselfishly, this generosity can be laid on the doorstep of nepotism, even though a group is assisted. By contrast, the genetic paradox of altruism arises unambiguously when groups contain people who are unrelated and group members help one another on a nonprecise basis. This sort of help is exactly what takes place in bands, rather than in families, so in probing the genetic-altruism paradox we properly focus our attention on bands as a test case.

Behaviors that Amplify Between-Group Selection

Consensus-seeking at the band level does more than diminish variation within groups; it also amplifies variation *between* groups. For example, one entire band may migrate to seek eland as its preferred prey, whereas its neighbor may unanimously opt for giraffe and move off in a different direction. In a given year, particularly in a difficult year, these varying commitments may lead to differential reproductive success for nearby groups that belong to the same breeding population. Because such groups are in a position to replace each other, between-group selection can operate.

Sometimes band decisions can be critical to reproductive success in a very immediate way (Boehm 1996, 1997b). When bands in a given area are suffering prolonged drought, they may waver, between staying to ride it out versus investing what little energy they have in migrating to an area where rainfall might be greater. Under some circumstances, they may survive either way—or suffer disaster either way. Under others, if neighboring bands make different decisions, one small group may survive while the other suffers decimation or actually perishes (for example, Mirsky 1937).

Bands facing reduced resource levels or scattered resources do not always stay together. Foragers who normally operate as groups may temporarily

fission into independently acting households and follow family rather than band strategies (for example, Balikci 1970). They may be faced with seasonal resource dispersion and routinely scatter until they can be together again. Selection thereby is temporarily reduced at the between-band level. When a major migration is in order, however, it is usually the entire band that deals with where to go next. As long as nearby bands sometimes arrive at varying strategies and then enact them as entire bands, variation between bands is amplified. Selection of altruistic traits at the between-band level thus becomes far more robust than it would be if the families primarily went their own way.

It has been argued that forager bands are so unstable that they might almost be considered non-groups (Palmer et al. 1998). It is true that most families can and do move back and forth between bands, particularly if a married couple has in-laws in two different bands (Kelly 1995). It is also true that published data are lacking to demonstrate how bands are replaced and what kind of propagules (Wade 1978) might be operative. Let me emphasize that the operation of between-group selection does not require permanent, perfectly bounded groups (Wilson and Sober 1994; Sober and Wilson 1998). The porous, far from permanent bands of nomadic hunter-gatherers seem to provide effective vehicles for group selection, but I leave to others the task of using mathematical modeling to evaluate group-selection possibilities on a more technical basis. My goal here is to provide a general outline of the probable selection paths, with ethnographic data to support it.

In the preceding arguments I have made the assumption that the environments of most prehistoric foragers were usually rich enough not only to permit bands to stay together, but to allow nearby bands to make their living by following subsistence strategies that differed. Obviously, some environments drastically constrain adaptive-strategic possibilities, as with the famines endured by the Netsilik. Even in such instances it is possible that crucial differences of strategic fine-tuning (see Boehm 1978) will cause differences in reproductive success at the between-band level. In more favorable environments, the possibilities for strategic variation will obviously increase. We must keep in mind that in Paleolithic times the planet's best environments were available to foragers whose social and adaptive patterns varied across a very wide spectrum (Kelly 1995), and that often there were a variety of adaptive strategies that might succeed in the same rich environment.

Human Manipulation of the Free-Rider Problem

Surely the combined effects I have described are far from making selection at the between-group level as robust as selection that operates at the within-group level. Were this the case, humans would be so altruistic that it would stagger the imagination. However, these cultural influences on phenotypic variation do make the two competing engines more nearly even in their ratings; therefore, the group-selection engine is in a far better position to support altruistic traits. The remaining obstacle is the theoretically formidable problem of free-riders.

“Free-riders” may be defined as individuals who were born with fewer altruistic genes than other people or perhaps carry “opportunistic genes” that help them actively to take advantage of altruists. Such individuals were cited by Williams (1966) when, in effect, he blew the mathematically ill-founded group-selection theory of Wynne-Edwards (1962) out of the water. Free-riders obviously are important figments of mathematical modeling, but for foragers living in bands, the problem of free-riders is a real-life, *social* problem—as we saw in a mild form with the Utku studied by Briggs. Hyperbolically, the question is, How can cheerful, altruistic co-operators, people guided by generous feelings and positive expectations about cooperation, avoid being exploited by lazy slackers and outright cheaters, or by opportunistic bullies who take advantage of situations by force? To whatever degree the cooperating altruists in a group can be successful in circumventing such losses, it becomes far, far easier to explain the natural selection of altruistic traits.

Social control (see Black 1984) has powerful effects on human behavior. Wiessner provides an excellent description of sharing among hunter-gatherers, one that includes their negative response to free-riders:

Relationships that pool risk are ideally balanced over a lifetime, if constantly controlled for cheating. For example, those who have things of value but do not give are subject to social control through gossip, ridicule or ostracism. Those who feel that they are being exploited may cease to produce for a while and force others to do their share. However, it is recognized that unpredictable events will make some people unable to reciprocate adequately even in the best of times, and, accordingly, a wide range of reciprocal ties are maintained so that people will win some times, lose other times, and break even in most. (Wiessner 1996:186)

It is clear that a multiplicity of sanctions is being used for the same purpose—to curb would-be free-riders whose motives are opportunistic.

By exercising their actuarial intelligence, foragers realize that an excess of free-riding will make their generalized systems of sharing ineffective. One way they can resolve this all-too-apparent social problem is by “legislating” altruism. As moral communities, humans try to stimulate, reward, and in some areas *insist on* altruistic behavior from group members (Campbell 1972). These actions facilitate the expression of whatever altruistic tendencies are inherent in the species, but are present *variably* in individuals who are basically egoistic. At the level of socialization, foragers prosocially manipulate children’s ambivalent genetic potential for selfishness and altruism, doing so in a direction that leads to helpfulness and cooperation (Goody 1991). They also praise their best adult altruists in everyday life, even as they frown at their worst free-riders. They can do more than praise or frown, of course. If the stakes are high, they can apply stern sanctions such as ostracism (Gruter and Masters 1986). Group members faced with severe individual breaches of their altruistic ethic can turn to effective punishment (Boyd and Richerson 1982, 1991, 1992). Surely it was hunter-gatherers who did this first as the inventors of morality. To this day they continue to promote altruism—and condemn undue selfishness—in ways that are similar on every continent.

Let me illustrate with a concrete area of behavior. We have seen that foragers are famous for their sharing of large-game meat, and that they can be quite inventive in making sure that accomplishment of a large kill is all but meaningless when it comes to individual control over the meat (Lee 1979; Kelly 1996; Erdal and Whiten 1996; Wiessner 1996). As a result, the best hunters cannot easily turn proprietary feelings into an excessive share or total control, and thereby gain political power to dominate others or monopolize women.

This situation amounts to socially enforced altruism, in that the hunter is virtually *obliged* to relinquish his product and hand it over to the group. Earlier, a kind of scientific mythology sprang up about nomadic hunters. It saw the sharing of kills as a virtually automatic behavior accompanied by beatific feelings of camaraderie. Sometimes it probably is that. For a forager-style system of cooperative sharing to work well, though, wholehearted generosity is far from necessary. Peterson (1993) has surveyed a number of foragers and finds that often group pressure is applied quite actively to

ensure that altruistic rather than selfish impulses are acted on. Among the Hazda, the process of sharing meat has even been interpreted as tolerated theft, rather than socially facilitated giving away of resources (Blurton-Jones 1984), but the analogy to chimpanzee meat-sharing may be inexact (see de Waal 1996).

It has become evident that *vigilant* sharing (Erdal and Whiten 1994, 1996), rather than automatic, unambivalent, totally altruistic sharing, is at the heart of the matter. This is the way people who carry the more altruistic traits protect themselves from those who are more disposed to act as free-riders. By manipulating behavior in the direction of conformity in matters of sharing and cooperation, moralistically aggressive group members not only reduce phenotypic variation at the within-group level, but do so strategically when it comes to selection possibilities for altruistic genes. They go out of their way to all but neutralize the potential advantage of those who strike them as being opportunistically exploitative, people who very likely carry free-riding genes.

I define such people broadly, to include camp bullies as well as free-loaders and cheaters. Bullying free-riders are taken care of by egalitarian sanctioning, as described in Chapter 4. Other free-riders take advantage of altruists by being lazy, by feigning injury, by selfishly wolfing down meat they have killed secretly, and so on. Such people are not necessarily bullies. Members of the band are sensitive to these deceptive opportunists too, and usually can deal with them quite effectively.

Very little reproductive effort is expended in so doing. Much of the investment involves gossiping, and as a general phenomenon gossiping brings individual reproductive benefits through rewarding social interaction (Dunbar 1994) and through exchange of information about subsistence. In terms of physical risk, stress, extra energy expended, and time subtracted from the subsistence quest, little further investment is required if active sanctioning merely involves offering criticism, engaging in ridicule, or establishing some social distance. Most social control is accomplished in this way, and the psychological stress is likely to be far greater for the deviant than for those who exert the pressure.

Band members are in a position to pursue flagrant free-riders effectively, for when it comes to cheating on a band's cooperative system, relatively little can be hidden in such a small group. If someone begins to emerge as a serious repeat offender, people may move from covert gossiping to active sanctioning, as noted by Wiessner, Balikci, and Briggs. We saw earlier, with

the socially distanced Utku family and its particularly controversial member Niqi, that one approach is simply to keep such people at arm's length. A certain aloofness that sets up some social or spatial distance can either change the behavior of such a readily identified deviant, or at least keep down the losses due to sharing with that person by reducing the degree of social contact. In the case of more serious free-riders, it may be necessary to escalate the sanctioning to criticism, ridicule, ostracism, even expulsion from the group—or execution.

Of course, minor transgressions are rife in the flow of hunter-gatherer affairs and human affairs. Indigenously, they tend to be overlooked or, more likely, set aside for future reference. But in important matters, forager communities can be quick to unite in manipulating deviants or getting rid of them—unless they are greatly feared. Whenever resources are scarce, freeloading or cheating becomes a far more serious matter, which foragers with their well-developed actuarial acumen thoroughly understand. Few foragers have been carefully studied in situations of prolonged scarcity, aside from Turnbull's (1972) ethnographically dubious work on the geographically and ecologically dislocated Ik. Yet the sanctions we encountered in Chapter 4 are always available, whenever the group becomes aroused enough to use them.

Foragers do tolerate some moderate free-riding, as with Niqi, but it is safe to say that such behavior tends to be observed when food is relatively abundant, and that should not be taken as the norm for hard times. Furthermore, tolerance for free-riders presumably varies with the ratio of active free-riders to altruists. Predictably, the cooperators will become less responsive to questionable requests or demands to share food as the number of freeloaders in the band increases (Boehm 1999b).

I emphasize that foragers do not insist that all hunters perform equally—not by any means. But they do expect every adult male to produce willingly according to his ability. To summarize, while the data are mostly anecdotal, foragers seem to be quite astute when it comes to calculating the costs and benefits of behaviors related to hunting and food-sharing. We may assume, therefore, that they not only recognize free-riding behavior, but are intellectually equipped to deal with it on a cost-benefit basis. If the costs become significant, mere resentment will change to active sanctioning.

Free-riders do have a powerful tool at their disposal. Among foragers there is an ethic that one should always share according to the rules when it

comes to large-game kills, and also that one should accede helpfully to direct requests of others to share food of any kind (Kelly 1995). That is why the Utku for a time shared their plentiful fish heads with Niqui, even though she habitually avoided doing her share in boiling them. An overall system of this sort helps everyone over the long run, as long as not too many people take free rides—and as long as free-riding can be dealt with decisively if need be. In one instance, reported for the Netsilik by Balikci (1970), when a man left home his food cache was destroyed by the children of a family to whom he had failed to reciprocate in the past. Although we may never have a great deal of data of this type, I suggest that the average band's tolerance for lazy free-loading or outright cheating is low enough that the reproductive burden created by these social parasites is not high.

What are the consequences for altruistic genes and their retention? Negative sanctioning of free-riding, applied strongly just when the reproductive losses of altruists would otherwise be high, powerfully enhances the natural selection of altruistic traits because the advantages of free-riding largely disappear. Indeed, if a free-rider carries things too far and his deviance leads to really serious action such as ostracism, exile, or execution, he may experience a major reproductive loss in comparison with the altruists who invested limited energy in punishing him.

As a result, much of the evolutionary biologist's free-rider problem is resolved at the level of phenotype, on a deliberate basis, by a moral community that wants everyone to do their part. Foragers in bands are not afraid to be unresponsive to flagrantly unjustified requests for food when serious scarcity looms, and they know how to punish outrageous cheaters if they must, and punish them rather severely. By means of this actuarially sophisticated group behavior, an enormous obstacle is removed when it comes to the retention of altruistic genes by what is probably a moderate degree of between-group selection.

All the same, in a forager band not everyone is equally altruistic to everyone else all of the time. The same moral communities that are so quick to suppress opportunistic free-riding do tolerate people taking *legitimate* free rides (Boehm 1999b). There are always willing but far less talented hunters whose families receive virtually the same share of meat as families of proficient hunters. There are individuals who fall on hard times because they are incapacitated and are helped by nonrelatives. There are those who by bad luck have no family to support them in old age and are

cared for by nonrelatives. Such problems arise randomly with respect to the behavior genes people carry, and therefore these asymmetrical donations do not affect the natural selection of altruistic or free-rider genes.

It is when people who are innately disposed to cheat or dissemble actually succeed in doing so, that within-group selection can operate decisively against the retention of altruistic genes. At the level of phenotypic consequences, hunter-gatherers seem quite adept at calculating most of the potential losses and are in a position to drastically reduce them if necessary. In doing so, they create a nearly level playing field, on which born altruists play with little genetic disadvantage relative to the born free-riders.

Adding Up the Effects

First, let us consider the division of labor between within-group and between-group selection. The former favors individualistic selfishness (egoism) and helping of kin (nepotism), and I deem it likely that selection at that level has remained by far the predominant mode of selection for egalitarian bands. This is because the egalitarian syndrome has little effect on the high extinction rates that prevail at the individual level. With variation, however, things are quite different. I judge that with egalitarians variation between groups has approached—but surely not equaled—variation within groups. Remember that we are concerned with phenotypic variation and that within-group competition has merely been debilitated, not eliminated. Male hunters are still competing for females, as partners in both marriage and adultery, and some will do better than others. Females also compete for breeding partners (see Shostak 1981). Egalitarianism does not wholly eliminate this type of competition, for occasional polygyny is prevalent (Kelly 1995), but a single alpha-bully no longer has the chance to monopolize many of the females.

On the matter of between-group selection, I have emphasized emergency decisions as contexts in which bands arrive at varying subsistence strategies, strategies that can quickly alter the relative sizes of nearby bands. Routine decisions also play their part (Boehm 1996). At the level of relative band size, group differences that emerge in the course of routinized migration patterns could add up substantially over time, but such differences are not analyzed in the ethnographic reports of which I am aware. Wherever environmental possibilities permit local variations in subsistence pattern,

hunter-gatherers can be expected to probe some of the possibilities; and when their strategies vary, reproductive consequences can result. Even where environmental constraints allow a relatively narrow range of alternatives, bands are free to experiment with alternative strategies at their own peril, or to attempt migrations to different environments.

There is a further consideration. Emergency decisions that lead to more rapid evolution probably were more frequent prehistorically than with foragers we can observe today. Potentially, Pleistocene foragers were as variable in their subsistence strategies as their extant nomadic counterparts (Kelly 1995), but climatic fluctuations surely increased their need to experiment. People faced protracted and recurrent periods of stress (Potts 1996) when bands became desperate enough to improvise radically.

The general paleoanthropological view, based on precious little information, is that major climatic perturbations stimulated so-called migrations. One tends to think of large populations streaming more or less safely from cool to warm environments, a view corrected by Potts (1996). What seems more likely (Boehm 1999b) is that locally things became fraught with peril and chaotic. Faced with scarcity, our foraging acturaries began to modify their usual local migration patterns, moving in new directions that were not necessarily adaptive. The trials would have been many, and some of the errors fatal.

I suggest this scenario because the direction taken by slow-moving, glacier-driven cold fronts probably was difficult to discern most of the time, except by following migrations of prey. As a result, many bands surely perished or had to change their subsistence strategy radically because they stayed in place or moved in the wrong direction; those who moved experimentally in the right direction still had to compete with other bands that were becoming similarly stressed.

What I envisage, then, instead of a stream of people methodically moving in one direction, is a gradually moving climatic broom that swept a fortunate few before it and forced those left behind to experiment radically as they either succeeded or perished. How did such recurrent long-term periods of crisis affect interband variation? Certainly they led to greater differences of strategy as bands faced unaccustomed adaptive challenges, and therefore led to both higher variation and higher extinction rates. Selection at the between-group level became especially robust at times of extended emergency, as one band perished or was cut in half and had to

grow again while another band, shrewder or in any event pursuing a different strategy, survived intact. The mechanical opportunities for selection at the between-group level (Sober and Wilson 1998) apparently were abundant at such times. Indeed, it could have been the more altruistic group members, as superior cooperators, who best survived such decimations and served as propagules to found new bands.

These are the conditions that prevailed during the Late Paleolithic. Extreme fluctuations of climate were quite frequent over the preceding million years (Potts 1996), and the past 500,000 years have seen several major oscillations between warmth and cold. The period from 128,000 to 78,000 years ago is generally considered an interglacial period, but from oxygen isotope curves Potts identifies ten radical climate reversals *within* that period. These shifts lasted as much as ten thousand years, with the amplitude of change being extreme, and Potts (1996:158) says, "I find it interesting . . . that the appearance of modern *Homo sapiens* and the oldest developments of symbolic activity, which are the foundation of modern culture, occurred during this span of high amplitude."

If we assume that the egalitarian syndrome arose at the latest with Anatomically Modern Humans, there are convincing reasons to believe that between-group selection was significantly amplified during this highly unstable interglacial period. "Environmental change was expressed in different ways in different regions of the world, and each ice age or meltdown worked somewhat differently from the one before. Each major zig or zag in the isotope proxy of global change is a signal of new topographies and mosaics of vegetation never seen before. Each major shift in global climate created unfamiliar rearrangements of water, food, and other resources" (Potts 1996:159).

Rather than resulting in orderly migrations of entire populations, such conditions, I have suggested, would have mixed people around and disturbed existing territorial equilibria (Boehm 1999b). But one must resist the idea that it was just advancing cold fronts that stimulated human inventiveness and raised between-group variation. In windows of opportunity during warming cycles, people also had to experiment in the face of favorable new climates and biomes that were opening up as populations expanded. The result was further amplification of between-group selection as the strategies of some bands succeeded better than the strategies of others.

Other Possible Routes to Altruism

Pleiotropic Support of Helping Behaviors

I must mention briefly the possibility that natural selection could be helping to support altruistic behavior (that is, reproductive donations to nonkin), even in the absence of altruistic genes (Boehm 1981, 1999b; see also Simon 1990). This obviously is not a group-selection theory. The hypothesis is that genes based on kin selection could in effect be subsidizing the altruistic behavior by which nonkin are assisted. For example, an individually costly behavior that is extremely beneficial to inclusive fitness (such as intervening in the fights of one's own offspring) is extended to nonkin with whom similar social bonds exist—even though this approach contradicts what is assumed sociobiologically about the operation of natural selection (Boehm 1981).

This type of general hypothesis is far from new (Boehm 1999b). It began with Aristotle and was mentioned by Darwin, while at the level of phenotype Eibl-Eibesfeldt (1989, 1996) and J. Q. Wilson (1993) have elaborated at length the ways that a parental type of nurturance can be extended to unrelated group members. The facts about behavior are indisputable; but a theory is badly needed to explain how natural selection could permit such an apparent misdirection of reproductive effort.

My thought is that normal methods of mathematical modeling in social biology may be getting in the way of understanding this phenomenon: specifically, consider the simplifying assumption that one gene prepares only one behavior. I believe the possibility of pleiotropy must be entertained, in the sense that a single gene can have multiple phenotypic effects. Thus, the same gene that makes for parental investment and helping of other very close kin has a second effect: it also allows nonkin, at least those with whom strong social bonds exist, to be treated generously. The further assumption is that the reproductive benefits from frequently helping close kin are so powerful that any moderate losses that may accrue from occasionally helping nonkin can be readily sustained—even though they constitute a drain on the reproductive success of the donors. I call this a pleiotropic subsidy (Boehm 1999b).

We are used to thinking about natural selection as though its winnowing capacity were all-powerful. In this instance, however, proximate mechanisms of social bonding could be generating a problem that natural selec-

tion cannot solve. By this I mean that humans bond not specifically to kin, but to individuals with whom they interact positively, for whatever reason (see Fox 1989). In a small band, the closest bonding will take place between nurturant parents and offspring, between siblings, and between other close kin who stay in close proximity because of social ties. Lesser degrees of bonding will also take place among nonkin who, because of their life circumstances, have frequent social intercourse. In a small hunting band, this applies to virtually everyone.

To summarize, the hypothesis is that natural selection cannot solve the mechanical problem of eliminating *moderate* degrees of reproductive generosity that extend beyond nepotism. Precisely the same genes are supporting generosity toward close kin and generosity toward nonkin, and for the individual donors these genes are producing a *net* reproductive benefit that is large. If this hypothesis has merit, the process involved can be seen as being independent of the group-selection arguments made above (Boehm 1999b), even though ultimately the two types of argument may be combined.

A Warfare Hypothesis

This second hypothesis does look to group selection, and it is readily combined with the previous hypotheses, based on the egalitarian syndrome (Boehm 1999b). In theory, warfare could have made a straightforward contribution to the retention of altruistic traits by upping the extinction rates between groups (Alexander and Tinkle 1968; see also Alexander 1974; E. O. Wilson 1975), and it could have done so independently of egalitarianism. But for how many generations have humans been subject to warfare?

Keeley's (1996) careful search of the archaeological record reveals no definitive evidence of massacres before the Neolithic (see also Daly and Wilson 1988). Keeley does document pre-Mesolithic cemeteries, in which over time many people died, apparently one at a time, of wounds inflicted by weapons. The cause could have been improbably high levels of conflict within the group, or gradual group attrition due to raiding or low-level territorial conflict. Given the Wilson and Sober (1994) theory of multilevel selection, absolute or near extinction of bands would not have been necessary for lesser degrees of warfare such as small raids to raise extinction rates at the between-group level. Occasional incremental decimations, comparable to those inflicted by chimpanzees on neighboring communities

(Nishida 1979; Goodall 1986), could have had significant cumulative effects. But we are left with too few data from the Late Paleolithic.

Extant hunter-gatherers do not often seem to pursue all-out, intensive warfare, even though many exhibit perimeter defense or social boundary defense (Cashdan 1983). Today hunter-gatherers frequently are socially encapsulated, and their environments have been reasonably stable over the brief time we have known them. Yet if we hark back to Potts's (1996) description of an ever-changing Late Pleistocene environment that was alternatively dangerous and full of opportunity, environmental stimulation of territorial conflict could have been extensive if periodic.

Times of environmental stability may have created far more territorial competition than we see in most foragers today, because Paleolithic foragers had the pick of our planet's finest habitats. Eventually, population growth was likely to have increased territorial tensions as bands were subject to crowding. During times of sharp climatic perturbation, some of which were relatively immediate in reducing the resources available to Paleolithic hunter-gatherers, the pervasive and prolonged dislocations discussed in the previous section (and also possibly straight-line migrations in pursuit of prey) could have exacerbated intergroup competition as discussed by Kelly (1995). Thus, the issue of pre-Neolithic warfare may require further consideration (see Boehm 1999b).

The term "warfare" requires careful definition in this context, for intergroup conflict varies substantially in its scale and intensity. *Raiding* tends to be based on selfish incentives: normally just a few raiders go out, and the fact that they cautiously take some risks is compensated by the fact that they personally enjoy the spoils. A species that is not innately altruistic could easily engage in raiding as a reproductively selfish cooperative enterprise. By contrast, *intensive warfare* calls for substantial altruistic sacrifices from males, because in such warfare the men are fighting for their groups: indeed, they run a high risk of losing their lives in the process (Campbell 1975).

As the egalitarian syndrome helped to reshape human nature in the direction of altruism over hundreds or thousands of generations, the probability of intensive warfare rose precisely because this risky activity is predicated on a strong capacity for patriotic self-sacrifice—and therefore on altruistic genes. Intensive warfare with genocide may not have been affecting our species much during the early development of innate altruism, but once altruistic genes had time to become well established in human gene

pools it was far more likely that intergroup conflict would rise to an intensive level, with territorial displacements and massacres.

One way to explain the massacres that rather suddenly appeared in the Mesolithic-Neolithic transition (Keeley 1996) would be to suggest that the selection of altruistic patriotic genes, induced by the egalitarian syndrome, was reaching fixation at about that time. A less precise hypothesis would be that at some earlier point tendencies to patriotic altruism reached a potential that could support intensive warfare, but it took changes in environment, technology, population density, and degree of sedentary living to strongly stimulate this behavioral potential.

Thus, the warfare hypothesis has two dimensions. First, it may have been necessary for the egalitarian syndrome to work on human nature for many generations to prepare the way for highly altruistic patriotic warfare. (Selfishly oriented raiding might have contributed to this preparatory process by raising the extinction rates between groups.) Second, once intensive warfare was in place, selection at the between-group level was in a still better position to support all altruistic traits. In developing my main arguments I have set the warfare question aside. Like pleiotropic subsidies, it does deserve some consideration (Boehm 1999b) as a potentially independent factor.

This chapter proposes, and elaborates, a new genetic theory of altruism in human beings. Aside from some possible help from pleiotropic subsidies, it is based squarely on mechanisms of natural selection as these have been defined by the majority of contemporary evolutionary biologists. On the assumption that extant foragers may be used as *reasonably* accurate proxies for their predecessors, the analysis applies directly to the Late Paleolithic humans in whose bands many of our genes were evolved. In recreating Paleolithic band life with its egalitarian syndrome, I have taken not only extant central tendencies but certain rarer extant responses to special environmental exigencies, and I have tried to adapt them to the extremely varied conditions experienced by our predecessors in the Late Pleistocene.

My main theory of altruism does not apply wholesale to all social mammals, for it depends on moral communities that manipulate behavior according to complicated cognitive blueprints—normatively-based plans that can radically restructure social organizations and patterns of personal interaction. The selection-mechanics approach I have used may have wider application where an animal species by some other means tends to equalize

individual differences within groups, or to amplify differences between groups, or somehow to police its free-riders.

In considering humans as a special case, I have focused mainly on phenotypic variation, as opposed to extinction rates. Such variation is equally important in considering how strongly selection can operate at various levels. Yet it has been little considered by evolutionary biologists, because they prefer to model variation at the level of genes (Wilson and Kniffen 1999). I have all but eschewed mathematical modeling here, to focus on ethnography as a key to the overall outline of phenotypic behavior as it affects variation. This approach makes sense when dealing with a species that, through morality, can *radically* manipulate its own behavior. As will be seen in the next and final chapter, the effects of the egalitarian syndrome on phenotype, and ultimately on genotype, brought formidable changes to human nature itself.

Ambivalence and Compromise in Human Nature

Modern scholars have devoted much thought to the subject of human nature, and there are many ways of defining and dealing with this nebulous entity. Some, following the lead of certain traditional philosophers (see Masters 1989), continue to make *tabula rasa* assumptions that deny human nature. Others conceive it as a series of powerful drives, needs, or dispositions—behavioral tendencies that usually are considered piecemeal (for example, Ruyle 1973). Still others try to explain how innate dispositions such as selfishness and nepotism fit with the entire web of social life. Three prominent examples of this last approach are Edward O. Wilson’s *On Human Nature* (1978) and Richard D. Alexander’s *The Biology of Morals* (1987), both classics in sociobiology, and James Q. Wilson’s *The Moral Sense* (1993).

A few thinkers, beginning with William James, have considered human nature as being inherently contradictory or “ambivalent” (James 1890; see also Campbell 1965; Eibl-Eibesfeldt 1971, 1989; Tiger and Fox 1971; Briggs 1982; Boehm 1984a, 1989, 1997b; Masters 1989; Erdal and Whiten 1994; Knauff 1994a, 1994b; Sober and Wilson 1998), an approach that warrants further development. Before we discuss some of the theories, however, a philosophical digression is in order.

Rousseau, Hobbes, and the Endless Debate

Cross-cutting many of these approaches is a pair of well-known scholarly biases. Hobbes and Rousseau, who basically appear to have advocated the *tabula rasa* (see Masters 1989), nevertheless continue to inspire contradictory philosophical folk traditions that color our speculations about human

nature. One tradition is hawkish and the other dovelike, and they lead many scholars to view humans as either essentially nice or essentially nasty. “Nice” includes social harmony in the group, freedom, cooperation, and absence of warfare, whereas “nasty” encompasses dominant competitiveness, oppression, and prevalence of conflict and homicide both within the group and vis-à-vis other groups.

Even anthropologists who have no avowed interest in human nature become profoundly involved with these biases. Indeed, most of the better-known ethnographic differences of opinion are polarized along these philosophical dimensions (Heider 1988; Moody-Adams 1997). Redfield and Lewis’s famous Mexican controversy was a nice-versus-nasty dispute. Human groups in other culture areas have been subject to similar ethnographic vagaries; for example, in the Pacific, Mead and Fortune disagreed about matters of cooperation versus conflict, while similar problems cropped up in the American Southwest with the Zuni and the Hopi. Biases that emerged in Africa indirectly colored our views of human evolution, for earlier and later ethnographic interpretations of Kalahari hunting life are quite disparate. Pointed examples are Elizabeth Marshall Thomas’ *Harmless People* (1959), followed by Irenaus Eibl-Eibesfeldt’s “Myth of Aggression-Free Hunter-Gatherer Society” (1974). The overall pattern seems to be that an original description moves in a Rousseauian direction, then a correction follows in favor of Hobbes.

Paleoanthropology has been infected with a similarly bifurcate political virus, but in this case “nasty” preceded “nice” as early hominids moved from the status of putative killer apes (Dart 1959) to being unwarlike victims of predation (Brain 1981). On the other hand, archaeologists dealing with Neolithic warfare possibilities have followed the usual ethnographic progression from Rousseauian “denial” to Hobbesian “realism.” In this context, Keeley (1996) suggests that definitive evidence of Neolithic defensive ramparts and genocidal slaughters was long ignored by a number of his colleagues, including those who made the excavations.

Because hunter-gatherer societies are so germane to interpreting the earlier archaeological record, differing interpretations such as those of Thomas and Eibl-Eibesfeldt had far-reaching implications. After certain early interpretations of extant hunter-gatherers went somewhat overboard in the direction of peaceful cooperation (Thomas 1959) or “anarchy” (Sharp 1958)—or otherwise went in the direction of underplaying competition, hierarchy, and violence—there came a whole series of realistic fac-

tual corrections (see Fried 1967; Eibl-Eibesfeldt 1974, 1979; Lee 1979; Boehm 1982a, 1993; Knauff 1987, 1989, 1991, 1993, 1994b; see also Daly and Wilson 1988; Flanagan 1989; Knauff 1994a).

My “reverse dominance hierarchy” interpretations (Boehm 1982a, 1984a, 1993, 1997a, 1999a) are oriented to conflict, and many will take them to be distinctly Hobbesian. Others will see them as realistic. Others may even think that I am underplaying the conflict component. As an admirer of both Hobbes and Rousseau, I hope that my approach has been in accordance with the facts rather than overwhelmed by ideology.

On the “nasty” side of the equation, we have seen that hunter-gatherers live in intentionally reversed dominance orders, and that these muted hierarchies involve political tensions so strong that they sometimes require capital punishment to maintain them. The assumption is that competition and domination are learned very naturally by our species, and that if competitive tendencies leading to individual dominance are to be routinely suppressed, both vigilance and occasional harsh sanctioning are necessary.

There is a “nice” assumption, as well. I have suggested that the typical societal blueprint of egalitarians, which calls for strict, punitive social controls, is oriented also to the promotion of essentially willing cooperation. Hunter-gatherers preach in favor of generalized cooperation and good will toward nonrelatives in the group—whether this be a band (Service 1962) or a small nexus (Heintz 1972) of friendly, cooperating bands. They also are responsive to such preaching. So in a sense I have tried to straddle the polarized debate, and Knauff (1991, 1994a) has done the same. As he points out, foragers do have very high homicide rates, but they also exhibit a relatively low level of lesser conflict, and are heavily preoccupied with the maintenance of social harmony.

Theories of Human Nature

Probably no more difficult area of inquiry exists than human nature (see Sussman 1995), nor any more fascinating. In combination with the tentativeness of our methodologies, it is the multifaceted and structurally contradictory composition of human nature that feeds the differences of opinion referred to above. To engage briefly in meta analysis, I believe that the divergent scholarly views themselves reflect innately structured psychological ambivalences harbored by each one of us. Potentially we are all both doves and hawks, and the prudent course is to realize that our own contra-

dictory nature predisposes us to draw caricatures. The next step is to try and be evenhanded, looking dispassionately for specific combinations of nice and nasty in order to see how the two work together.

In the interest of developing methodology in productive directions, I shall examine in some detail the innate forces—and counterforces—that can be identified as underlying hierarchical political behavior and human social life more generally. This base will assist in developing a preliminary ambivalence-and-compromise approach, and in testing its potential. To understand the possibilities and the obstacles, we must scrutinize the relevant theories that prevail today, along with some of their antecedents.

Elsewhere I have reviewed a broad spectrum of recent approaches to studying human nature (Boehm 1989). Even though many psychologists are loosening their commitment to rampant environmentalism, *tabula rasa* viewpoints of the type criticized by Campbell (1965) still prevail in many quarters, as do a variety of essentially dismissive viewpoints that hold human nature to be unknowable because we cannot study behavior genes directly. Some evolutionary approaches emphasize behavioral lability as a general-purpose, problem-solving device that is based on learning; Pulliam and Dunford (1980) have outlined such a program (see also Lumsden and Wilson 1981). A number of modular approaches isolate specific functional domains such as language, mate choice, coalition behavior, or social exchange, and suggest that the human brain was evolved for specialized problem-solving in these areas (Cosmides and Tooby 1992; see also Barkow, Cosmides, and Tooby 1992). The result is a useful “evolutionary map” of cognitive and emotional functioning in human beings, even though the human brain, in its structure, may not be compartmentalized as neatly as is implied (Mithen 1996; Lieberman 1998; see also Potts 1996).

Several ontogenetic models examine responses in human infants for clues about adults. One such response is attachment (Wilson 1993); another is babbling as a genetic preparation for language acquisition (Pinker 1994). There are also models of basic emotions, based on hard-wired facial expressions and inspired by Darwin, that are well grounded in empirical data (Ekman, Sorensen, and Friesen 1969; Eibl-Eibesfeldt 1989; Masters 1989; Brown 1991). Brain-reward models use evidence from psychophysiology and brain chemistry to support arguments about various tendencies that are likely to be genotypically based, a pioneer in this area being Konner (1982; see also Hoebel 1983). More diffuse, satisfaction-quest models (Malinowski 1939; Ruyle 1973) complement brain-reward approaches.

Many other models have been proposed, including one which suggests that human political tendencies are derived from a genotypic “deep structure” (Tiger and Fox 1971), and the potentially very useful “human universals” approach pioneered by Kluckhohn (1953) and Brown (1991). Earlier “aggression” models of human nature add to the list well-known names such as Lorenz (1963), Ardrey (1966), and Morris (1967). Furthermore, a number of evolutionary psychologists, biocultural anthropologists, and sociobiologists have tried to explain a wide variety of discrete behaviors that might qualify for inclusion in “human nature” (Stent 1981; Daly and Wilson 1988; Barkow, Cosmides, and Tooby 1992; Betzig 1997).

The usual procedure has been a simplifying one. Scholars focus on one area of behavior at a time, in an attempt to explain its selection by means of inclusive fitness theory. Recently, Sober and Wilson’s (1998) multilevel selection theory (see also Wilson and Sober 1994) has broadened the explanatory possibilities because it makes the explanation of altruism mechanically more plausible. I applied this type of theory to Paleolithic humans in the previous chapter (see also Boehm 1997a, 1997b, 1999a), and also have suggested tentatively that pleiotropic subsidies may be entering into the equation (Boehm 1999b).

A number of the proposals focus specifically on the moral aspect of human nature. Darwin was the evolutionary pioneer in this respect, and some scholars have followed up on his work or have introduced variant evolutionary approaches (Westermarck 1894; Campbell 1965, 1972, 1975; Eibl-Eibesfeldt 1971, 1989; E. O. Wilson 1975, 1978; Boehm 1979, 1982b, 1997b; Alexander 1987; Fox 1989; J. Q. Wilson 1993; Wright 1994; Wilson and Sober 1994; Ridley 1996; Arnhart 1998; Sober and Wilson 1998). This book continues that tradition.

The spectrum of “human natures” implicit in these and other approaches is broad, indeed. Human nature could be blank or relatively specific. If specific, it could be nice or nasty. As Ruyle (1973) suggests, human nature could be a primary determinant of culture. It also seems to be a prime major target for decisive cultural manipulation (Campbell 1972, 1975; Boyd and Richerson 1992), insofar as our moral codes regularly work to suppress the hedonistic or aggressive behavior tendencies that generate social problems.

These behavior tendencies are becoming better defined. Masters criticizes the behaviorist psychologists who spoke of undifferentiated drives, and instead credits Lorenz (1963) and his approach, by which “animal

behavior can be described in terms of a ‘parliament of instincts’ in which conflicts between competing impulses are resolved” (Masters 1989, p. 31). He also credits Tiger and Fox (1971) for thinking similarly when they introduced the idea that humans have a generative “biogrammar.” He suggests that such approaches are highly preferable to the “animal-drive” theories that were espoused by some of the ancients and by modern behaviorists as well.

Generally academicians today take care not to speak of “drives,” as Fried did in 1967. They do talk in terms of what might be called innate propensities. These come in many semantic shades, and the terminology could be confusing to cultural anthropologists and others who have not covered the burgeoning literature of evolutionary biology. In the search for increasing sophistication, the creation of technical-sounding nomenclatures abounds. These terms, to sample a few that are in the public domain and are used more or less synonymously, include predilection, disposition, predisposition, learning disposition, behavior tendency, behavior trait, behavioral predisposition, genetic disposition, innate disposition, and innate tendency. Sussman (1995) has pointed out difficulties that can arise when such notions are incorporated into cultural analysis, but I believe we can vastly improve our record in this respect.

E. O. Wilson (1975, 1978) has employed the term “genetic preparation” to emphasize that what often was called an instinct merely amounts to a genetic readiness that makes a behavior easy to learn in the type of environment in which it evolved. Even small-brained turkey hens need learning experiences to make their compulsive-seeming behaviors reproductively effective, and with humans most of our genetic preparations are far less specific. As a species with prolonged nurturance, our social development is far more dependent on learning experiences—experiences that not only shape our behaviors but are needed to stimulate them in the first place. However, we must not forget that our nature is reasonably definite, sufficiently so that genetic tendencies tend to constrain us at every turn.

In social biology heroic attempts have been made to describe human life in terms of these innate behavior tendencies, and to do so in a way that takes account of what is generally seen to be a selfish yet cooperative pattern of social intercourse (E. O. Wilson 1978; Alexander 1987; Daly and Wilson 1988; Cosmides and Tooby 1992; J. Q. Wilson 1993; Wright 1994; Ridley 1996). Nonetheless, as a matter of methodology these studies tend

to examine one trait or behavioral area at a time; for example, selfishness, or nepotism, or attachment, or aggression, or cooperation, or everyone's favorite—*altruism*. While what Sussman (1995) calls a laundry-list approach obviously is useful, it would be helpful to combine such elements dynamically and thereby gain a more holistic perspective.

The Study of Innately Structured Ambivalences

Masters (1989:31), writing as a biologically oriented political scientist, says: “The demonstration that human nature is a compound of contradictory impulses has important theoretical consequences. Ethological studies of social life show us that human societies and governments cannot be adequately explained by supposedly invariant natural traits or instincts like altruism or selfishness.”

The key word here is “contradictory.” In suggesting that it could be useful to dissect psychological ambivalences that stem from human nature, Campbell (1965) was influenced not only by William James but by Freud (1930). Campbell's focus was on the tensions between egoism and altruism (see also Sober and Wilson 1998), which are directly relevant to our discussion in the previous chapter; here, in conclusion, I shall examine these tensions further.

When I titled this final chapter “Ambivalence and Compromise in Human Nature,” I wanted to emphasize that structural contradictions in our nature tend to produce profound ambivalences in humans, psychological tugs of war that are reasonably predictable because they are anchored in human nature (Boehm 1989, 1997b). Before I proceed further, let me elaborate on the difference between structural contradictions in human nature and psychological ambivalences that are experienced at the level of phenotype.

With present knowledge, an innate structural contradiction cannot be identified by analyzing the structure of the human genome; rather, one must look at actual behavior and make appropriate inferences about probable genes that work in opposition at the level of phenotype. For example, when we observe another species whose typical behavior pattern includes frequent acts of dominance and submission, we assume that these behaviorally opposed tendencies have coevolved genetically (Lorenz 1963), and that in situations of competition individuals are genetically prepared to

choose one or the other as they learn their political repertoires. Such assumptions underlay Vehrencamp's (1983) ethological assessment of egalitarianism and despotism as these relate to animals living in groups, and they underlie the behavioral treatments of primatologists in general. As my analyses in the previous chapters indicate, I believe that such an approach is applicable to humans in the spheres of politics and sociality.

Let me briefly illustrate a political application of ambivalence theory, before I make some suggestions about its relevance to anthropology and then proceed to a more detailed analysis of political ambivalences that could illuminate ethnographic analysis. If an individual in a group is caught psychologically in a two-way pull between his (or her) tendency to submit or dominate, we can readily hypothesize a link between an innate structural contradiction and the individual's immediate psychological state. When caught in such an ambivalence, a man can decide on either a strategy of domination or a strategy of appeasement or flight; but if the species is behaviorally labile, he also may blend the two responses. For instance, he runs to an ally and simultaneously solicits support for a counterattack.

This reaction bears some similarity to what human egalitarians are doing when they arrive at a *primus inter pares* way of life, but the overall blend of responses is more complicated. As members of a moral community, egalitarians may submit individually to dangerous upstarts in their midst, yet as a *community* they may become collectively and unambivalently dominant over such individuals, and even kill them. The use of an ambivalence approach does not end there. Because their society is intentional, as contributors to it egalitarians are involved in a perpetual meta-compromise: in effect, they are giving up on personal domination possibilities, which human nature tends to make attractive—so as to avoid having to submit to other individuals—which human nature tends to make unattractive. It was this unique behavioral compromise that transformed human political and social life.

An Ethologically Sophisticated Anthropology

For several reasons, I think a human-nature based "ambivalence" approach could be useful to an anthropology which, as the century turns, may be coming apart at the seams. One is the reduction of personal and theoretical

biases, something that all anthropologists espouse. Another is the development of more nearly holistic approaches in ethnography and ethnology. Finally, there is the need for clarification of the human behavioral lability that we talk about so frequently, yet deal with so imprecisely.

Reduction of Bias

Anthropologists are prone to bias in interpreting cultures in terms of their sociality and their aggressiveness. Some of us tend to beautify the people we study, others prefer to be realistic, and still others may try to compensate for previous beautification—or for too much “realism.” One has only to read the nice-versus-nasty ethnographies discussed above to realize that the web of biases is complicated and that the underlying feelings can be powerful and influential.

One way to make the study of human behavior less biased is to split some of these differences—not as an expedient compromise, but as a matter of seeking better biocultural explanations of the human condition. For example, I have analyzed blood revenge killings in the Balkans to demonstrate that typical feuding behavior can involve far more than just the strong human tendency to retaliate (Daly and Wilson 1988). Many acts of tribal revenge involve men having to kill men who formerly were friends, and there is evidence in the Balkans that these social bonds breed an ambivalence so powerful that charms must be used to keep the killer from losing consciousness (Boehm 1989).

As a more complicated empirical domain, hunter-gatherer egalitarianism has involved many biases in its interpretation. These preferential approaches reflect implicit or unstated assumptions about human nature, and they range from assumptions of anarchism or of spontaneously benevolent cooperation, to theories based on endemic competitive power plays or even tolerated theft. Some interpretations appear to see equality everywhere, whereas others emphasize the existence of competition and hierarchy. My suggestion is that we could profit from carefully examining the indigenous ambivalences that help to shape such multifaceted societies. This would aid us in shedding some of our biases as we try to understand behavior in its own right. It also would assist us in understanding the underlying human political nature, and how it articulates with human values and human behavior.

A More Holistic Ethnography

Ethnography is the cornerstone of anthropology, but many types of ethnography have been so static (as with most of the symbolic, structural, or functional approaches) that it is difficult to tie them to human nature. Doing so is important, for human nature provides a special kind of anchor that links cultural patterns with natural history. A better opening is provided by processual approaches, particularly dynamic ethnographic analyses that take decisions into account. Decisions provide an arena in which human nature affects cultural values, and values help first to define decision alternatives and then to inform choices made among such alternatives. Much of human behavior is determined by decisions, in which individuals or groups define their dilemmas, consider their options, and then move to a course of action.

Many anthropologists shy away from the direct study of decisions, for often our informants are no better than we are at sorting out *ex post facto* rationalizations from the “intuitions” (or consciously calculated reckonings) that actually guide decision processes. Even if they are able to respond to our queries about why they made a particular decision, they may not choose to do so. However, the basis for individual decisions can emerge in autobiographical accounts, while in collective decisions that are publicly discussed values, alternatives, and sharp dilemmas become quite apparent (Boehm 1996).

At the level of phenotype, the psychological ambivalences involved in typical human decision dilemmas are structured by “values,” as defined by Kluckhohn (1952). It is the possibility of tracing the often very close relationship between widespread cultural values and human nature (see Bidney 1947) that offers a potentially fruitful focus for improving anthropological research and explanation.

Let us consider some specifics. In this book I have concentrated on the political ethos, which in egalitarian societies is largely describable in terms of social and political values that define leadership roles. Causally, I have connected positive values, which espouse a combination of unaggressiveness, generosity, and friendly emotions in leaders, to a *disposition to dislike domination*—an innate tendency that egalitarians express decisively as they try to make everyday life conform to their largely implicit blueprint for a society of equals. I also have connected the aggressive social control people use collectively to reinforce their ethos with *dispositions to dominance*. To

complete the picture, I must emphasize something I have all but taken for granted: it is the *submissive dispositions* in human nature that make most of the would-be upstarts desist, before they have to be vigorously manipulated (or eliminated) by their groups. A united moral community is a fearsome adversary indeed.

These three innate propensities underlie the predictable psychological ambivalences that are experienced by individual decision-makers in a variety of political contexts. When human societies take on a despotic form, hierarchies become orthodox instead of reversed because the predictable ambivalences of both subordinates and would-be dominators are resolved in a different direction. It may be raw fear that swings the pendulum for those who are less powerful individually, but the attractions of being cared for, protected, and governed may also be salient, and all of these competing dispositions can be linked to human nature.

To me, the most interesting aspect of human egalitarian societies is that the main political actors—innately ambivalent individuals who know they are likely to be subordinated by bullies—manage to conquer their fears and move, *collectively*, in the direction of domination. It is the strong who must submit, and their ambivalences also are predictable. The continuing inclination to dominate is expressed in the fact that these alpha types sometimes try to turn the tables and engage strongly in upstartism, something that apparently takes place with all egalitarians, everywhere, given enough time. That, too, is consistent with the contradictory human political nature I have defined.

Conceived more broadly, human nature includes a wide array of dispositions of which we can be reasonably certain. One must include even the need for sleep and creature comfort, along with thirst, hunger, and sexual appetite. Nepotistic and altruistic capacities for giving nurturance and protection are salient, as well as the capacity for attachment, and sociality more generally. We are disposed to communicate, and we may well be disposed to detect cheaters or form political coalitions. Our definition of human nature should be inclusive, yet reasonably specific.

I have emphasized dominance, submission, and the resentment of domination because of my topic. These underlying dispositions may work in concert, but they are likely to clash. When they work against one another, the phenotypic result is psychological ambivalence—and a type of concrete decision dilemma that involves conflict of values as egalitarians weigh their needs for personal security and their fears of being attacked

against their attraction to personal autonomy. This type of dilemma should be special grist for our ethnological mill, as we try not only to understand local patterns of behavior, but also to define the human condition in general.

Behavioral Lability and Its Limits

The facultative flexibility of humans is great (Sober and Wilson 1998), and it requires far better explanation. Also called plasticity, human behavioral lability is so extensive that if one moves beyond “needs” to eat or copulate, and beyond genetically demarcated developmental windows (during which, for example, language is very easy to learn), it is easy to come to the conclusion that in many areas human nature is not very specific at all. Cultural anthropologists note, pointedly, that cultural behavior seems to be all over the map. Given our neglect of human nature, such conclusions have seemed reasonable.

At first blush, our political past gives precisely such an impression. Knauff (1991) identified the problem in a groundbreaking discussion of human political evolution, and I have discussed his “U-shaped curve” in an earlier chapter. The problem was, first, an enormous political discrepancy between the despotic ancestors of our human lineage and the egalitarian foragers in whose bands our genes were evolved, and, second, the equally large discrepancy between those same egalitarians and the despotic human societies that followed them after the Neolithic. Knauff ruled out the possibility that modern despotism evolved very rapidly after the Paleolithic, for there was inadequate time for such genetic change to take place. We were left with a political nature apparently so labile as to be indecipherable.

Subsequently I proposed that egalitarian society was little more than a highly unusual type of social dominance hierarchy, one taken over, in effect, by rebellious subordinates (Boehm 1993). It came into being because the rank and file began to act on their antiauthoritarian tendencies, rather than on competing submissive tendencies. If one accepts this ambivalence-based hypothesis, then Knauff’s paradox is resolved. A perplexingly indefinite image of human political nature can be replaced by an image that involves definite (but contradictory) innate dispositions that can prepare radically different behavioral outcomes at the level of phenotype. That is, our polities can be either reasonably egalitarian or seriously despotic.

We saw in Chapter 6 that the forms human hierarchies take are quite

varied. We also saw that all human societies involve some kind of political hierarchy, whether reversed or orthodox, and that if leaders get seriously out of line resolution of the ensuing political crisis can involve coercive force—with either the rank and file or the despot in question winning out. We are left with something far different from a political *tabula rasa*. While humans may strike one as being unusually flexible in their political behavior when compared with other higher primates, our political nature nevertheless makes certain aspects of human political life quite predictable. We always live with *some* type of hierarchy, which suggests that our behavior is constrained by human nature. Contributing to the flexibility are the psychological ambivalences discussed above: we can combine our competing innate tendencies in a number of ways.

The basic ambivalences involve tendencies to dominance, resentment of domination, and submission, and in groups people sometimes resolve them by going to extremes of either despotism or egalitarianism. They also may arrive at compromises, as seen in egalitarian Big-Man societies and egalitarian tribal republics, or in moderately despotic chiefdoms like the Tikopia, where authoritative leaders are heavily constrained by public opinion. Other noteworthy types of political-compromise societies include ancient and modern democracies, for they maximize personal freedom yet centralize power in ways that are compatible with governing very large populations.

Analytically, it is difficult to imagine the political societies we might create if we had a substantially different nature, for human nature tends to configure our very imagination. I suggest that our realistic possibilities are simultaneously flexible, as illustrated above, and constrained by a nature that channels our political life along fairly specific tracks. Human imagination does sometimes try to outrun these constraints. Marxian communism will be treated later, as an innovative and hopefully practical political agenda that was formed with a flawed understanding of human political nature, and for that reason failed.

Ambivalence in Political Affairs

Chimpanzee Evidence

A major theme of this book has been that human political nature includes not only dominance and submission dispositions, widely recognized in primates, but also a disposition to resent being dominated. The resentment

in question could be construed to be merely an occasional side effect of dominance tendencies. I have no quarrel with that theoretical stance, as long as it is acknowledged that in the subordinate role chimpanzees and humans often may be biding their time rather than submitting wholeheartedly. It is difficult to document this third disposition, even in subhuman species whose political patterns are simpler and more predictable than our own. Submission often becomes so highly routinized that resentment of domination is not apparent.

In the interest of clarifying the nature of subordinate intransigence I shall briefly reexamine all three basic dispositions, first with chimpanzees and then with humans. There is no doubt that *Pan troglodytes* is exceptionally given to status rivalry (Nishida 1979; de Waal 1982; Goodall 1986), and Wrangham and Peterson (1996) emphasize that this feature applies especially to the males. Nor is there any doubt that chimpanzees are genetically well prepared for submissive behavior. We have detailed the rich array of readily learned (and sometimes hard-wired) behaviors that help to make them adept at playing a subordinate role. However, field reports tend to "streamline" the description of chimpanzee social behavior patterns, and thereby portray dominance versus submission as something like a binary choice.

This representation gives little structural emphasis to the resentment of domination, a third component I have added on the basis of my own work with wild chimpanzees and my reading of field reports. In early chapters I emphasized that chimpanzees, particularly the males, can be obsessively persistent in their status rivalry. Indeed, in descriptively adequate field reports, sporadic but sometimes very protracted dominance instabilities arise between contenders for rank (Goodall 1971, 1990, 1992; de Waal 1982; Uehara et al. 1994; Nishida and Hosaka 1996). It is subordinate resentment of being dominated that creates such instabilities, and I propose that such resentment also is operative at times when ambitious subordinates are submissively biding their time.

The collective power of resentful subordinates is at the base of human egalitarian society, and we can see important traces of this group approach in chimpanzee behavior. Witness de Waal's account of how the Yerkes females intervened against their own alpha male when he was harassing a lesser male who had dared to court a favored female. Even though we cannot interview chimpanzees, we can speculate on the specific ambivalences involved. The females were used to submitting to the alpha, but they

dared to protest individually (indeed, for chimpanzees everywhere the defiant or indignant waa vocalization seems to be dedicated to such protest). As new females added their voices, all became emboldened. The hostile chorus signaled an impending physical intervention—an aggressive act of collective dominance—and Jimoh desisted. I believe this to have been an instance of shifting ambivalence on both sides.

This adventurous excursion into the chimpanzee mind is at least grounded in realistic assessments of chimpanzees' behavioral tendencies, emotions, and intentions, and I hope it does not seem far-fetched. In its simplicity, this anecdote brings into relief the fact that, for humans, the analysis of innately structured ambivalences could enhance our explanations of political behavior. The advantage of studying ambivalences of humans is that there can be a far more robust connection between behavioral facts and our assumptions about psychological orientations that may be operative. We the analysts have the advantage of also being human, and once in a while our subjects can articulate to us their feelings and their strategies.

Human Egalitarian Ambivalence

Perhaps the best ethnographic data on human ambivalence come from public decision meetings, in which open debate brings out the ambivalences felt by different individuals as the group struggles to find a consensus (Boehm 1996). A useful account was published by Turton (1977) on East African pastoralists, who were deliberating whether or not to go to war. The tension between fear and self-assertion was quite apparent as the group worked toward a common policy. The enemy was external, of course, not a dangerous internal upstart, but the emotions that underlay the perceived dilemma were similar to those experienced by egalitarians who want to resist a threatening dominator.

I am aware of no comparably detailed ethnographic account of a debate in which an egalitarian rank and file are trying to decide what to do about a dangerous upstart. A warfare debate can be public because the enemy is absent; in deciding what to do about a group member of whom you are seriously afraid, it is prudent to keep the discussion clandestine. This fact is useful to the principals, but not to ethnographers. When the upstart is less dangerous, however, people are likely to engage in spontaneous direct criticism as a way of keeping him in line. At that point, the overall process

becomes similar to what we saw with the female chimpanzees at Yerkes. Direct criticism portends decisive intervention by the group, and usually the upstart desists.

In teasing apart the emotive and cognitive elements that are operative when people define and try to resolve a dilemma that involves upstartism, we do not actually need verbatim transcripts of the public decision meetings or private gossip sessions that shape public opinion. Fortunately, other kinds of ethnographic information enable us to triangulate to the underlying emotions, values, and strategies. The ethos provides a general guide to overall concerns, and when earlier we examined a series of ethnographic summaries and anecdotes that revealed egalitarian values, the quite predictable lists of attributes for good and bad leaders provided ample clues to what was going on politically.

There are other ways of enhancing one's understanding of the political decision process. In the field, one can ask for descriptions of past political crises that are retained in memory, and one can elicit statements about values in general and then ask for exemplification. One also can use hypothetical situations as an eliciting device. All can be used inferentially, to understand typical decision dilemmas and the ambivalences involved. One also can get lucky, as it were, and be privy to a crisis in which an upstart is put down. A number of such direct observations were discussed in earlier chapters.

At the time a hunter-gatherer political domination episode is beginning, it is likely that the main political actors are caught in a psychological ambivalence rather similar to that experienced initially by the female chimpanzees at Yerkes. At the same time, at the individual level *fear* of taking action is definitely present because serious human upstarts and alpha male chimpanzees are threatening. They may counterattack immediately or become vindictive later on. There are obvious differences in how the collective responses are derived. With humans, subordinate resentment is culturally catalyzed by an egalitarian ethos. Furthermore, we can consult *privately*, and in great detail, as we seek agreement in assessing facts and options. Yet the raw political dynamics are similar to those of chimpanzees.

When assertive action is to be taken, the human and chimpanzee paths diverge in political methodology. Essentially, the chimpanzee sanctioning tool is blunt: having clearly signaled their disapproval, the Yerkes females were poised to "mob" the culprit, and in doing so they could have moved from bluffing to actual physical attack. Jimoh sensed this and desisted. The

human array of manipulative tools is far more varied. For one thing, we can go beyond a generalized expression of disapproval, analogous to the chimpanzee chorus of waa vocalizations, to add details about what is rousing our ire. We can add the sting of ridicule as a special facet of our ability to use symbols. Malevolent humor, used aggressively by the entire group, is extremely hurtful. Chimpanzees have no analogous behavior. Humans can inflict the social pain of ostracism, thereby taking a longer-term, collective approach to social control and the manipulation of deviant behavior. Also, humans bent on social distancing can expel someone from the group. The Gombe chimpanzees did this once, when they ganged up on ex-alpha male Goblin. (After he “reformed” and became submissive to the new reigning alpha he was able to reenter the group.) Chimpanzees do not, however, appear to collectively decide on assassination as the solution for an extreme problem of despotism.

It is obvious that symbolic communication and possession of an ethos make a very large difference for humans. Yet it would appear that the underlying emotions and behavioral orientations are similar to those of chimpanzees, as are group intimidation strategies that have the effect of terminating resented behaviors of aggressors. I believe that an ethological approach that looks to innate behavior dispositions enables the psychological ambivalences that underlie egalitarian society to be incorporated into ethnographic analysis, and into ethnology more generally.

One key to identifying such ambivalences is the ethos, with its lists of desirable and undesirable qualities and behaviors. Consider now the fact that the egalitarian ethos of nomadic hunter-gatherers is very similar to that of tribesmen, who gain their living very differently and dwell in larger groups. An ambivalent (yet far from amorphous) human nature could perhaps be structuring human political possibilities in a similar direction for both types of relatively small societies.

We need not limit our analysis to egalitarians who live in bands or tribes, for we have seen that a universal political dilemma is abuse of power. Egalitarians may define it on a hair-trigger basis, whereas in a hierarchical chiefdom people expect their leader to throw his weight around to a moderate degree. Even in a highly despotic primitive kingdom, where the leader rules by coercive force, the boundary between legitimate and illegitimate use of power continues to be defined by public opinion. There, however, psychological ambivalences about abuse of power may remain permanently unresolved: the rank and file may quietly complain about a tyrant’s behavior even as fear of his loyal soldiers keeps them from active rebellion.

Likewise, in a modern democracy the power of a Senator Joe McCarthy can become so intimidating that the people's representatives, including their president and the press, simply dare not speak out for a time. In spite of having an egalitarian ethos they are cowed, just as hunter-gatherers may be initially intimidated when a domination episode begins.

With President Richard Nixon's use of the Federal Bureau of Investigation and the Internal Revenue Service to gain unlawful political advantage, the "fact-finding" was done not by all the main political actors gossiping, as in a foraging band, but by a special committee of elected representatives who served as decision leaders. These very special political actors were ready to impeach Nixon when he resigned, and his removal from office was not that different from the deposition of a band leader or a tribal chieftain.

Humans are resentful of power abuse in a wide variety of political circumstances, and this resentment stems rather directly from human nature. But as human political groups become larger and more hierarchical, the psychological ambivalences of individual actors become more complicated. In addition to the triadic pull between dominance, resentment of domination, and submission, other factors enter the picture: for example, tendencies to resent control from above may be heavily tempered by appreciation of what a benevolent dominating leader does for one, as in chiefdoms or primitive kingdoms or modern democracies where largesse is redistributed from the political center. Or one may identify with a powerful leader on a chauvinistic basis, as he (or she) tries to advance the political advantage of one's nation. Or one may simply be captivated by a leader with powerful charisma.

I have used some simplified examples here to point in the direction of a more holistic approach to dynamic ethnographic analysis of political behavior. I do not restrict this ambivalence approach to politics: next, I discuss some of the dilemmas that derive from our *social* nature, which I also construct as tripartite.

Ambivalence in Social Affairs

Political life and sociality are sometimes difficult to disentangle. I have argued that our social nature should reflect the levels of selection that acted on human gene pools over the many millennia of egalitarian forager life (Boehm 1997b), and in the previous chapter I suggested that in the Late Paleolithic there was a solid basis for selection at the between-group level,

with the free-rider problem seriously curtailed. As a result, what I believe to be moderately strong altruistic dispositions are pitted today against what obviously are strong dispositions to nepotism and extremely powerful dispositions to egoism.

When Campbell (1965) suggested that an ambivalence approach might be useful to evolutionary analysis, what he had in mind was explaining the fundamental tension between egoism and altruism. It is logical to make the ambivalence tripartite: at the level of human nature, egoism, nepotism, and altruism are structured to work against one another. If we move from genotype to phenotype to consider psychological motives, human interactions in groups are likely to see individualistic prerogatives competing directly with familial ones, while altruistic motives that favor unrelated individuals or the entire multifamily group compete against both.

The interplay of these three dispositions can be exemplified ethnographically. When Netsilik Eskimos must either undergo a long migration or starve, the number of dogs they can feed limits what they can carry on their sleds and how fast they can travel. If there are old people too infirm to carry their own weight, they cannot be put on a sled at the expense of equipment that is necessary to a family's survival. Generous feelings based on nepotism or altruism must be set aside; these unfortunates are sadly allowed to freeze to death (Balikci 1970).

Despite strong ambivalence about abandoning these incapacitated people, the "winner" (motivationally speaking) is the fear of individual or familial starvation if the migration is not completed in a timely fashion. Cost-benefit analysis works against their survival and, if the incapacitated have close relatives who must make such a decision, the ambivalence can be rather complicated. Egoistic and nepotistic motives that favor the welfare of *healthy* family members will oppose nepotistic motives that dispose people to care for *any* close relative. If the incapacitated are dependent on a group in which they have no close relatives, the ambivalence will pit generous tendencies based on altruistic genes against both nepotistic family interests and personal interests. The only behavioral compromise allowed is to make the victims as comfortable as possible, which in warmer environments such as South America may include granting them a speedy death to prevent molestation by natural predators (Kim Hill, personal communication).

In the Arctic, the conflict between individual and familial prerogatives can come into stark focus if families are undergoing a severe famine. Starv-

ing parents have been known regretfully to consume their own dead children, and even to kill offspring in order to eat them (Mirsky 1937; Balikci 1970). Where offspring are actively dispatched, the interplay between human nature and human decision-making starkly pits egoism against nepotism. The psychological ambivalence is bound to be devastating.

I have chosen to discuss dilemmas of triage because they highlight powerful, raw ambivalences that stem from our structurally tripartite social nature. These dilemmas, and others that are more routine, involve more than human nature interacting on a one-time basis with a particular situational context. As highly cultural animals, humans tend to automatically conform to prior decision patterns (see Boyd and Richerson 1985). We tend also to make such conformity normative, and therefore in many cases we think strategically about why conformity is needed (Boehm 1978, 1996). We set up rules that assist people in resolving their ambivalences in a certain direction, whether the decision is highly routinized or an emergency situation of triage. Such is the nature of morally based behavioral traditions.

From the standpoint of biocultural evolutionary theory, this intersection between human nature and cultural tradition is important. The two interact in recurrent situational dilemmas, and underlying “natural contradictions” structure the culturally defined predicaments. These practical dilemmas provide a situational context in which ambivalent minds are made up, and both specific group precedents and commonly held values help to structure these recurrent social quandaries for us. Usually human nature, in spite of its internally contradictory aspects, has a steadying effect on cultural traditions. The range of dilemmas likely to arise in a given environment is curtailed in part by the limited range of emotions and behavioral dispositions that help to define them.

Darwin, in *The Expression of the Emotions in Man and Animals* (1865), took the lead in studying emotions in an evolutionary context. Some basic emotions, like fear and anger, are linked to culturally invariant facial expressions. Submissive fear and angry domination play a large role in human social and political life. At the same time, cultural traditions have their own strong effect. They are free to reinforce certain aspects of human nature, and to suppress others. We have already noted that human groups regularly favor innate behavioral tendencies such as generosity in sharing food or cooperativeness that is useful to the group; at the same time, they try to damp undue selfishness, indiscriminate lust, and group-disruptive

fighting. We are used to thinking of culture mainly as a regulator of the bad in human nature, a position emphasized in an evolutionary context by Campbell (1975). I believe that culture also reinforces the innate tendencies of humans to do good for others (Boehm 1999b)—which is fortunate, for in all probability such tendencies are not all that powerful.

Value Systems That Favor Altruism

The negative, punitive side of moral behavior is easy enough to account for on an ultimate basis. Egoism, nepotism, and the human capacity to become aggressive readily explain the fact that everywhere hunter-gatherers arrive at lists of self-defensive proscriptions—prohibitions which head off deviant behaviors that could directly damage their personal interests or sully their quality of social life with internecine conflict (see Boehm 1982b). Their assertive willingness to punish deviants collectively prevents their being personally victimized by cheaters, liars, rapists, and other individuals who are prone to behave as bullies outside the family. The pattern of punishment goes well beyond suppressing disruptive behaviors such as rape and murder, however, for punishment also is aimed at securing cooperation (Boyd and Richerson 1992) and convincing people that generosity toward other group members is desirable. Because punishment is such a powerful all-purpose tool, we must ask, at the level of ultimate causality, why moral reinforcement also appears to have a very strong *positive* component (Boehm 1999b; see also Campbell 1972, 1975).

One place to look would be in *Cooperation and Prosocial Behavior*, a book edited by Hinde and Groebel (1991) that examines group-beneficial behaviors from a wide range of disciplinary perspectives. The ultimate provenance of human prosociality is not really addressed, but perhaps acceptance of narrowly sociobiological assumptions about an exclusively selfish-nepotistic human nature was responsible. Ethnographers may be partly responsible, as well. Unfortunately, in our descriptive reports the positive side of moral reinforcement tends to be inadequately emphasized because we borrow our approaches to deviance and social control from sociology. Edgerton (1975) makes it clear that the dominant emphasis in sociology has been on social control in its negative, punitive mode (for example, Black 1984). It also appears that modern law, with its accent on proscription and punishment, influences our perceptions in a negative direction (Barnsley 1972). Furthermore, the negative side of social sanction-

ing is basically far more dramatic than the positive side. When it comes to carrots and sticks, it is the sticks that arrest our attention when we are in the field, and deviance and negative types of social sanctioning also seem to dominate the attention of natives. This is all too apparent when they are “working over” their neighbors in a gossip session (see Haviland 1977). Furthermore, when I listed sanctions that ethnographers identified, most were negative.

In spite of this descriptive hiatus, when anthropologists sum up the social life of small groups, often they do emphasize social harmony (see Sober and Wilson 1998); Durkheim’s (1933) influence is partly responsible. Today it is widely held that this sociologist was too quick to take note of the harmonious ideologies of small nonliterate groups. Despite some problems with functional beautification, I believe that Durkheim was accurate in pointing to their significance. Praise and desire for respect may be far less obvious and dramatic than ostracism or execution, but they play a prominent role in regulating the behavior of people living in small-scale egalitarian societies (see Alexander 1987). For instance, every moral code has a substantial positive side, with long lists of *prescriptions* that call for prosocial behaviors of various types. Every moral community deals heavily in rewards as well as punishment, although the rewarding phase is far less obvious. And even though a few individuals are likely to be seriously deviant in any community, and will require decisive punitive manipulation, desire for group esteem also is a powerful motivation for the majority, who basically behave themselves. Personal reputations are a universal concern of human beings.

That the positive side of moral manipulation is substantial is borne out by the patterns that appeared when I surveyed desired and undesired leadership qualities in the chapters on hunter-gatherers and tribesmen. We saw that these egalitarians heavily emphasized positive role features, notably generosity and even temper, and appeared to think of them at least as frequently as negative features such as stinginess or overbearingness. It was clear that, in a typical ethos, altruistic generosity oriented to the entire group was an extremely important attribute.

If in theory we are preponderantly given to selfishness and nepotism, why are we so predictably motivated to manipulate human behavior in the direction of cooperative altruism, rather than merely protecting ourselves from deviant aggression? Common sense would suggest that groups who harbor some limited yet socially significant altruistic tendencies are more

likely to come up with persuasive calls for altruism, and with positive types of sanctions, than are the selfish nepotists posited by sociobiology. In turn, as individuals these partial altruists will be far more responsive personally to prosocial messages. The hypothesis is that it takes a significantly altruistic species to come up with a strongly positive blueprint for group (as opposed to family) social life, and to be responsive to such expectations. This hypothesis needs more work, but it is consistent with the tripartite human nature delineated in the last chapter.

Political and Social Universals

Anthropologists have always been concerned with universals of behavior, for given the cultural variety to which we are exposed, they permit us to ask a fascinating question: Could we create an effective theoretical link that would directly couple cultural analysis to human nature, and ultimately to natural selection? Unfortunately, for almost a century our discipline has exhibited a schizophrenic combination of attitudes toward evolutionism. Today one can detect a major undercurrent of fear and near-contempt with respect to “biological considerations,” even though the majority of us believe, in theory, that humans must be studied in a context of natural history. Paradoxically, this rampant ambivalence has coexisted with the fact that we have basically made our livings as hybrid scientist-humanists, scholars whose mission it is to document and explain the natural history of *Homo sapiens*.

Many anthropologists resolve such ambivalence unidirectionally. At the one extreme are dedicated “culturologists” such as White (1959), Benedict (1934), the earlier Mead (1928), Kroeber (1948), Herskovits (1952), and Geertz (1965), who to varying degrees have proclaimed the autonomy of culture from biology. Today’s so-called postmodernist school (a movement easy to label but difficult to define) can be included here. In the middle are a few leaders such as Boyd and Richerson (1985) and Durham (1991), who provide us with formalized coevolutionary paradigms. At the other (biological) pole are many contemporary physical anthropologists, archaeologists, and paleontologists, along with anthropological sociobiologists, evolutionary psychologists, and human behavioral ecologists—and also earlier scholars who paid attention to human nature: for example, Wissler (1923), Murdock (1945), Malinowski (1939, 1944), Kluckhohn (1953, 1959), Greenberg, (1963, 1966, 1975), Tiger (1969), Tiger and Fox (1971), and

Ruyle (1973). These scholars have compiled lists of cultural behaviors, or lists of societal or psychological functions, that they believe might be universal. Usually what they have on their minds is the possibility of an underlying biological impetus.

Universal People

To this last list must be added Donald Brown (1991), whose ambitious *Human Universals* contains what might be called the master list. Brown is aggressive in looking for human universals, and some of the risks of undertaking such a comprehensive search are identified by Sussman (1995). Many of the “regularities” Brown identifies strike me as unexceptional, others as dubious; but he does tackle head on the problem of political and social universals. As an imaginative descriptive device, Brown creates a Universal People (UP) and devotes ten pages to describing them.

In terms of social stratification he specifies that “prestige is differentially distributed among the UP, and the members of UP society are not all economically equal. They acknowledge inequalities of various sorts, but we cannot specify whether they approve or disapprove” (Brown 1991:137). Brown is speaking of all human groups, but I shall evaluate his generalizations only in terms of egalitarians, notably the nomadic hunter-gatherers who have been my principal focus. The above description fits them quite well. We can specify further that egalitarians accept or even promote some kinds of inequality, but in general they are disapproving of competition that creates political domination outside the family or provokes conflict in the group.

With respect to the relative powers of men and women, Brown says: “Men and women and adults and children are seen by the UP as having different natures. Their men are in fact on the average more physically aggressive than women and are more likely to commit lethal violence than women are.” He adds: “In the public political sphere men form the dominant element among the UP. Women and children are correspondingly submissive or acquiescent” (Brown 1991:137). These statements seem to jibe generally with what I have said about hunter-gatherers, and even more with respect to tribesmen. However, Agta female hunters in the Philippines appear to be a thought-provoking exception.

In the quoted passage Brown at least implies that males and females have different political natures. Whereas males usually do appear to have the

dominant role, it is possible that this is accomplished through differences of socialization combined with differences of reproductive function, body size, and muscularity—and not actually by behavior genes. I sidestep this question because the task of describing just a single human nature for both males and females is sufficiently daunting. However, Smuts (1992, 1995) and Wrangham and Peterson (1996) provide us with food for thought about the possibility of there being two human natures.

Speaking of group political life, Brown says: “The UP have leaders, though they may be ephemeral or situational. The UP admire, or profess to admire, generosity, and this is particularly desired in a leader. No leader of the UP ever has complete power lodged in himself alone. . . . Since the UP never have complete democracy, and never have complete autocracy, they always have a *de facto* oligarchy” (Brown 1991:138). Here Brown and I seem to disagree—at least terminologically. One tends to think of oligarchies as involving either governance by a few or governance by a small group exercising control in a way that is selfish or even corrupt. Generally, it would appear that in bands all the main political actors have an important and basically equalized role in decision-making, even though permanent or functional leaders may play the role of catalyst. Certain Australian Aborigines may give the appearance of having gerontocracies that amount to oligarchies, but an alternative way of viewing them is that their “gerontocracy” simply has to do with control of oral tradition and mythological prerogatives.

In any event, the real *political* power in a hunter-gatherer band lies with *all* of its adults as members of a moralistically aggressive social community—a group that respects its responsible citizens and collectively manipulates, polices, or eliminates its deviants. This is the closest that these people are likely to come to “government,” and having a few older men firmly in charge of mythology does not change this fundamental power base, which may well be gender blind. I judge this significant *moral* phase of political decision making to be universally “democratic” among nomadic hunter-gatherers, and fundamentally egalitarian with respect to gender.

Brown’s Universal People most definitely are moral:

The UP have law, at least in the sense of rules of membership in perpetual social units and in the sense of rights and obligations attached to persons or other statuses. Among the UP’s laws are those that in certain situations

proscribe violence and rape. Their laws also proscribe murder—unjustified taking of human life (though they may justify taking lives in some contexts). They have sanctions for infractions, and these sanctions include removal of offenders from the social unit—whether by expulsion, incarceration, ostracism, or execution. They punish (or otherwise censure or condemn) certain acts that threaten the group or are alleged to do so. . . .

The UP distinguish right from wrong, and at least implicitly . . . recognize responsibility and intentionality. They recognize and employ promises. Reciprocity, also mentioned earlier, is a key element in their morality. So, too, is their ability to empathize. Envy is ubiquitous among the UP, and they have symbolic means for coping with its unfortunate consequences. . . . Etiquette and hospitality are among UP ideals. (Brown 1991:138–139)

Brown's characterization reflects the negative bias I discussed earlier, but the description fits foragers very well with respect to proscriptions and sanctioning.

The Universal People cooperate:

In addition to their division of labor, whereby different kinds of people do different things, the UP have customs of cooperative labor, in which people jointly undertake essentially similar tasks. They use reciprocal exchanges, whether of labor, or goods, or services, in a variety of settings. Reciprocity—including its negative or retaliatory forms—is an important element in the conduct of their lives. The UP also engage in trade, that is, in nonreciprocal exchanges of goods and services (i.e., one kind of good or service for another). Whether reciprocally or not, they give gifts to one another too. In certain contexts they share food. (Brown 1991:137–138)

Again, the Universal People nicely subsume what is done in nomadic bands, whose members might be called the Original Universal People. But in describing the cooperative phase of human life, Brown concentrates more on economics than on the normative forces that support cooperation.

In effect, Brown has compiled yet another laundry list. His is comprehensive, however, a descriptive *master* list that focuses far more on phenotype than on genotype. He takes some risks as he includes features that would be difficult to establish empirically on a sound basis, such as phobias

against snakes (see Sussman 1995), but his list goes further than any other in the direction of specificity. Brown realizes that it is not enough, saying, "A fuller and truer account of the UP would in various ways show the relationships between the universals" (Brown 1991:141). I obviously agree.

Brown also, discussing the universality of decisions, touches tangentially on the ambivalence theme I have emphasized: "The UP have a concept of the person in the psychological sense. They distinguish self from others, and they can see the self both as subject and object. . . . They distinguish actions that are under control from those that are not. They understand the concept of intention. They know that people have a private inner life, have memories, make plans, choose between alternatives, and otherwise make decisions (not without ambivalent feeling sometimes)" (Brown 1991:141).

I have suggested that such ambivalences provide a key to making the study of human nature more relevant to ethnographic analysis, and vice versa. Situational dilemmas can be both moral and practical. The effect of human intentions becomes obvious and direct when adults join together as moral communities to socially condition other adults in favored directions, or when entire groups arrive at strategic decisions in subsistence or politics. I return to a theme emphasized earlier in this chapter: that one way to join the study of human nature with ethnography is to examine the typical dilemmas that human groups face and try to resolve, and to consider the possible effects of human nature on the values that inform this process. This approach provides a method by which ethnologists can bring human nature into anthropological theory, and by which we can subject evolutionary theories to testing at the local level.

Political Domination as a Biocultural Universal

The innate tendency to dominate underlies a universal that Brown did not identify, as does the innate tendency to resent being dominated. Every human group arrives at a political ethos that legitimates whatever degree of governance is deemed acceptable, and in doing so the group defines the abuse of power, as it was discussed in Chapter 6. These universals operate at the level of normative ideology, but they affect behavior profoundly. There is always a point, variable in its expression, at which desperate subordinates may rise to remedy a situation that has become intolerable by local standards of political legitimacy. It is powerful dispositions to dominance and submission that oblige us to live always in hierarchies of one

type or another, and it is our antiauthoritarian tendencies that lead us to limit the power of leaders or other dominants, and that make politically illegitimate despots wary of popular rebellion. This dynamic appears to be universal.

Some of our societies may be seen as “cultures of rebellion,” insofar as the limits of authority or domination are circumscribed on a vigilant, decisive, all but rigid basis. Other societies amount to true “cultures of dominance,” insofar as people not only accept but identify with a strong political authority that rules them. Of course, a culture of dominance can quickly become a culture of rebellion if a despot begins seriously to abuse his legitimately great power. The rebellion may not change the basic political order, however. By no means do all national revolutions end in democracy of the type de Tocqueville extolled.

The political dispositions in human nature are powerful, but at the same time they are highly susceptible to cultural conditioning. One agency of conditioning I have emphasized is human design, whether the strategy of an individual or of a group. Others are the external environment, accidents of history, and self-organizing dynamics of cultural systems that lie beyond human control. The underlying political dispositions are susceptible to such conditioning precisely because they are merely genetic *preparations*, albeit fairly strong and definite ones. They provide obvious flexibility, yet human beings always live in *some* kind of hierarchy and all humans are sensitive to the abuse of power. These are formidable political universals.

We humans will never be able to live in *relaxed* egalitarian societies, in the way that squirrel monkeys do much of the time. These monkeys’ innate dispositions appear to be substantially different from our own apelike dispositions, which are ethologically despotic. It is our capacity for morality, a most important cultural universal, that enables us to create egalitarianism out of what would otherwise be despotism.

Hierarchy in the Forest

This book tells a political story, one that began with a Common Ancestor who was innately despotic in the ethological sense. The story moved on to a more chimpanzee-like *mutual* ancestor, one equally given to forming social dominance hierarchies but who probably had a greater potential to form large coalitions for the purpose of undermining the power of leading despots. I say this because humans, chimpanzees, and bonobos all form

small subordinate coalitions that can significantly rearrange the internal balance of power within their groups, and because humans and chimpanzees form much larger temporary coalitions that can clamp down decisively on powerful individuals.

After the mutual ancestor gave birth to the human lineage, at some point humans (conceivably even hominids) were poised on the threshold of inventing not only morality, but egalitarianism. Innately they were still despotic, for they were given to dominance, subordination, and the formation of power pyramids with just a few dominators at the top. But with help from morality, an insubordinate rank and file learned to combine their power in a politically focused, durable way and managed to turn such pyramids upside down. This political invention proved attractive to other groups whose subordinates resented being dominated, and it spread. People lived in dominance hierarchies that were decisively reversed for at least several thousand generations.

Gradually, many millennia of egalitarianism modified our basic social dispositions; I have discussed at length the unusual human balance between egoism, nepotism, and altruism. All those generations under the egalitarian syndrome were likely to have affected our basic *political* dispositions as well. Even though the invention of efficient hunting or scavenging weapons probably started the process, egalitarianism could have contributed strongly to our loss of bristling displays.

Other behaviors changed. Flagrant individual competition, strongly disapproved by egalitarian moral communities, was severely punished. As a result, as members of politically vigilant moral communities we became adept at controlling our desires for power and at political dissembling—as Innutiaq did in his Utku band. With these presumptive evolved propensities for political self-control, most of us became able to fill prominent roles such as “great hunter” or “influential group leader” without giving our peers the idea that we were serious upstarts.

As we have seen with extant foragers, the adult males are still far from being perfect in this respect. Because, fairly frequently, severe punishment is leveled at those who become active intimidators, it is possible that over time dominance dispositions were gradually weakened or somehow were changed qualitatively. Within groups, any obvious engagement in antisocially aggressive behavior is seriously punishable and therefore is individually maladaptive. With the reduced reproductive success of extreme upstart types, natural selection seems likely to have changed our political disposi-

tions considerably—in addition to having eliminated stereotyped displays and long, full-body, erectile hair. This could have taken place through debilitation of aggressive responses, strengthening of inhibitory controls, or both.

I suspect that the most radical effect of the egalitarian syndrome on human behavioral dispositions came in the social field, because of robust selection of genes for altruism. That evolutionary saga ends with a species altruistic enough to cooperate quite efficiently in large or small groups, but at the same time prone to competition and conflict. This cooperation is possible because human groups invariably act as *moral* communities that implement prosocial blueprints even as they suppress the aggressive egoism and dedicated nepotism that are so powerful in our nature.

In this respect, our most amazing accomplishments are complex societies that verge on being antlike in their division of labor and organic cooperation—and also their unusual capacity to go to war. I believe that the potential for intensive, genocidal warfare would not have arisen had we not invented both morality and the egalitarian syndrome. It is morality that enables us to shame our males into putting their lives on the line for the group, while it is innate altruistic propensities that help to motivate those males to suffer and die in the interest of the rest of the group.

We continue to live in a forest that is hierarchical. Aside from going to war and creating complex cooperative societies, another political outcome derives from our extended egalitarian phase of hierarchical living. That is the glorification and empowerment of the ordinary individual, a cultural habit that preoccupied foragers the world over for scores of millennia, and stayed with most of the tribesmen who followed. This peculiar and wonderful means of doing political business was continued by egalitarian Iroquois tribesmen who lived in a large, segmentary, matrilineal “nation,” and we have seen that they in turn transmitted it to the framers of the American Constitution. As we enter a new century, one must wonder if this tradition can flourish in a troubled, divided, and politically very tentative “world order” that is composed predominantly of nonegalitarian nation-states.

Since its prehistoric invention and diffusion, “egalitarian society” has constituted a remarkable and unbroken cultural tradition. As I write, modern democracies are becoming its only powerful representatives. The surviving Iroquois tribes are living on reservations, their politically independent Confederation gone but not forgotten. Most of the world’s egali-

tarian hunter-gatherers are either annihilated, living at missions, or acculturating rapidly as their political and cultural environments change. A few egalitarian tribesmen still exist (quite a few on certain continents) and a few of them wield some real political power on the world stage. We may yet hear again from the Kurds and the Afghanis, but they and others are no longer the standard-bearers of egalitarianism and freedom. It is mainly North Americans, Europeans, and the people of India who have taken over the job.

The present forest we face is as dominated by issues of hierarchy as the past one, for human nature changes but slowly. The political future of democratic egalitarianism is uncertain, but as a century turns, the economic and military strength of the world's democracies make them a strong and politically significant minority force in world politics.

This book has chronicled some major surprises in human political and social evolution. One is the loss of long, bristling hair and flagrant intimidation displays. Another is symbolic language and its transformation of group traditions. The moral community was a profound development indeed, and it empowered large subordinate coalitions as they outlawed domination by stronger individuals in their bands. This was the egalitarian surprise. After the Neolithic, another unexpected occurrence was the larger-scale, *tribal* egalitarian society, a segmentary type of reverse hierarchy that permitted individual autonomy and freedom to combine (ephemerally) with some centralized governance and large-scale military operations. Eventually that society led to the development of a few tribal republics, which consolidated themselves politically on a durable basis yet remained egalitarian—a special (and rare) innovation in the tribal field. Given our apelike despotic nature, the advent of chiefdoms was no political surprise. Indeed, I have likened chimpanzee alpha males to the leaders of human chiefdoms because both have some limited means of controlling the destiny of their group. By contrast, the degree of centralized political control in primitive kingdoms and early civilizations was phenomenal by primate standards.

As a relatively recent surprise, national political democracies provide a workable compromise between individual liberty and centralized governance for the benefit of all, a compromise that seems to be in tune with human political and social nature as I have described it. Underlying assumptions are that the rank and file are committed to keeping their auton-

omy, and that those entrusted with authority may try to aggrandize their power—even if they are working for the common good. De Tocqueville was quick to notice this, as he scrutinized the goals of American democracy and the checks and balances created by our founding fathers.

On the world scene, another major surprise (had it worked as advertised) would have been the communal society conceived by Marx and Engels. Communism presented a competing, and to many a compelling, blueprint; it seemed to take the idea of democracy to a new level that placed economic equality on a par with political equality. The utopian prediction was that economic exploitation would end, that competition would thereby become unnecessary, and that state power would naturally wither away because humans were basically “good.”

Had this blueprint taken shape as envisaged, a truly remarkable surprise would have appeared in human social evolution. Entire nations would have behaved much like cooperative hunter-gatherers in their bands, with the same economic egalitarianism and the same freedom from personal domination. The rapid spread of communism, on the basis of an ideology that glorified the political empowerment of the rank and file, provides us with a possible model for how the egalitarian syndrome diffused from band to band in the Late Paleolithic (or whenever it occurred). We humans are attracted to political “deals” that free us from domination and exploitation, precisely because we are innately prone to resent authority. However, in practice, the Paleolithic “deal” was a far better one than Marxism.

Marx and Engels were sincere altruists and political reformers, but as visionary democrats they were unrealistic. Unfortunately for the modern world, they subscribed to a strongly “Rousseauian” position on human nature: remove the cancer of exploitative capitalism, and human social systems would all but automatically become egalitarian, noncompetitive, and noncoercive. Had these political visionaries understood human nature as it has been described in this book—and understood, therefore, the depth of the need for political vigilance and formal checks and balances—the world might have been spared a long and costly Cold War that fortunately was won by *realistic* democrats.

Marx and Engels were not alone. In their anthropological naiveté, visionary communists everywhere failed to see that human hierarchical tendencies are simply too strong to allow dominant competition to evaporate and the state to wither away on its own. The image was compelling, and it captured the hearts of resentful underdogs everywhere. But the social engi-

neering was inept: the blueprint was not laid out with an accurate view of human political nature.

Hunter-gatherers maintain similar blueprints, but they are utter realists about human nature. Intuitively they comprehend the need for eternal political vigilance, and the need for force in the hands of the rank and file as means of controlling the self-aggrandizing tendencies of their own leading citizens. Similarly, the Iroquois understood the need for formal checks and balances in their very large version of tribal government. From them, the equally realistic American revolutionaries borrowed wisely, having recently been dominated by a foreign king. A belated communist response was to declare a Dictatorship of the Proletariat, but this ideological Band-Aid solved none of the problems of poorly controlled despotism.

Anthropology is not generally a predictive science, but I believe we can foretell certain directions that human political life is likely to take in the future. Indeed, the political dynamics I have described constrain us to a limited variety of options with respect to nations. There will be democracies. There will be types of government, both secular and sacred, that are far more autocratic. There may be societies in between. These national types will continue to compete at the level of political ideology, even as they compete culturally, economically, and militarily as nations. I would like to predict an eventual sweep for realistic, effective democracy at the levels of both national and world government, but here I may be indulging in wishful thinking.

The creation of the United Nations was yet another major surprise in world political history. It combines principles of egalitarianism (the General Assembly) with principles of oligarchy (the Security Council), but in many ways it behaves very much like a hunter-gatherer band. For one thing, no serious policy step can be taken unless everyone in the Security Council agrees. For another, as with bands and tribes, the control of serious conflicts is tenuous, at best. Today, as an incredibly violent twentieth century fades and disappears, we face the invention and diffusion of increasingly effective (and increasingly long-distance) means of mass destruction, and there is no way for nations at odds with one another to practice avoidance in the way that mobile hunter-gatherers do when lethal conflict invades one of their small communities. The further development of "world government," as a political organization that could create *trustworthy* and effectively controlled yet potent power at the political center, may well be the most daunting challenge we face.

In designing future political systems, we must take into careful account the flexible specificity of human political nature and the constraints it places on our behavior. At the same time, we must try to envisage new possibilities and new—but anthropologically realistic—political blueprints. Sober realism is called for, yet we must not make predictions that are unduly limiting. Indeed, the next political experiments that humans undertake may bring further surprises, for better or for worse.

I close by wishing democratic egalitarianism well, as it prepares for a new century—and, let us hope, for a new millennium.

References

- Alexander, Richard D. 1974. "The Evolution of Social Behavior." *Annual Review of Ecology and Systematics*, 5: 325–384.
- . 1987. *The Biology of Moral Systems*. New York: Aldine de Gruyter.
- Alexander, Richard D., and D. W. Tinkle. 1968. "Review of *On Aggression*, by Konrad Lorenz, and *The Territorial Imperative*, by Robert Ardrey." *Bioscience*, 18: 245–248.
- Ardrey, Robert. 1966. *The Territorial Imperative: A Personal Inquiry into the Animal Origins of Property and Nations*. New York: Atheneum.
- Arnhart, Larry. 1998. *Darwinian Natural Right: The Biological Ethics of Human Nature*. Albany: State University of New York Press.
- Baker, Kate C., and Barbara B. Smuts. 1994. "Social Relations of Female Chimpanzees: Diversity between Captive Groups." In Richard W. Wrangham, W. C. McGrew, Frans B. M. de Waal, and Paul G. Heltne, eds., *Chimpanzee Cultures*, pp. 227–242. Cambridge, Mass.: Harvard University Press.
- Balikci, Asen. 1970. *The Netsilik Eskimo*. Prospect Heights, Ill.: Waveland.
- Barbosa, Artemio. 1985. "The Ethnography of the Agta of Lamika, Penablanca, Cagayan." In P. B. Griffin and A. Estioko-Griffin, eds., *The Agta of Northern Luzon*, pp. 12–17. Cebu City, Philippines: San Carlos Publications.
- Barclay, Harold B. 1970. "Is There a Theme of Equality in the Arab Rural Community?" In M. D. Zamora, J. M. Mahar, and H. Orenstein, eds., *Themes in Culture*, pp. 285–306. Quezon City, Philippines: Kayumanggi Publishers.
- . 1993. "Comment on Christopher Boehm, 'Egalitarian Behavior and Reverse Dominance Hierarchy.'" *Current Anthropology*, 34: 240–241.
- Barkow, Jerome, Leda Cosmides, and John Tooby, eds. 1992. *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*. Oxford: Oxford University Press.
- Barnsley, John H. 1972. *The Social Reality of Ethics: The Comparative Analysis of Moral Codes*. London: Routledge and Kegan Paul.

- Basehart, Harry. 1970. "Mescalero Apache Band Organization and Leadership." *Southwestern Journal of Anthropology*, 26: 87–105.
- Basso, Keith H. 1971. *Western Apache Raiding and Warfare: From the Notes of Grenville Goodwin*. Tucson: University of Arizona Press.
- Beattie, John. 1967. "Checks on the Abuse of Political Power in Some African States: A Preliminary Framework for Analysis." In R. Cohen and J. Middleton, eds., *Comparative Political Systems: Studies in Politics of Pre-Industrial Societies*, pp. 355–373. Garden City, N.J.: Natural History Press.
- Benedict, Ruth. 1934. *Patterns of Culture*. Boston: Houghton Mifflin.
- Bergstrom, Theodore C., and Oded Stark. 1993. "How Altruism Can Prevail in an Evolutionary Environment." *American Economic Review*, 83: 149–155.
- Bern, John. 1987. "Is the Premise of Egalitarianism Inequality?" *Mankind*, 17: 212–223.
- Berndt, Ronald M., and Catherine H. Berndt. 1964. *The World of the First Australians: An Introduction to the Traditional Life of the Australian Aborigines*. Chicago: University of Chicago Press.
- Betzig, Laura. 1982. "Despotism and Differential Reproduction: A Cross-Cultural Correlation of Conflict Asymmetry, Hierarchy, and Degree of Polygyny." *Ethology and Sociobiology*, 3: 209–221.
- . 1992. "Roman Polygyny." *Ethology and Sociobiology*, 13: 309–349.
- ed. 1997. *Human Nature: A Critical Reader*. New York: Oxford University Press.
- Bidney, David. 1947. "Human Nature and the Cultural Process." *American Anthropologist*, 49: 375–399.
- Biocca, Ettore. 1970. *Yanoáma: The Narrative of a White Girl Kidnapped by Amazonian Indians*, autobiographical account of Helen Valera; trans. Dennis Rhodes. New York: Dutton.
- Black, Donald. 1984. *Toward a General Theory of Social Control*. Orlando, Fla.: Academic Press.
- Bloch, Maurice, ed. 1975. *Political Language and Oratory in Traditional Society*. New York: Academic Press.
- Blurton-Jones, Nicholas G. 1972. "Characteristics of Ethological Studies of Human Behavior." In N. G. Blurton-Jones, ed., *Ethological Studies of Child Behavior*, pp. 3–36. Cambridge: Cambridge University Press.
- . 1984. "A Selfish Origin for Human Food Sharing: Tolerated Theft." *Ethology and Sociobiology*, 4: 145–147.
- Boehm, Christopher. 1978. "Rational Preselection from Hamadryas to Homo Sapiens: The Place of Decisions in Adaptive Process." *American Anthropologist*, 80: 265–296.
- . 1979. "Some Problems with 'Altruism' in the Search for Moral Universals." *Behavioral Science*, 24: 15–24.

-
- 1981. "Parasitic Selection and Group Selection: A Study of Conflict Interference in Rhesus and Japanese Macaque Monkeys." In A. B. Chiarelli and R. S. Corruccini, eds., *Primate Behavior and Sociobiology*, pp. 160–182. Berlin: Springer-Verlag.
- 1982a. "A Fresh Outlook on Cultural Selection." *American Anthropologist*, 84: 105–124.
- 1982b. "The Evolutionary Development of Morality as an Effect of Dominance Behavior and Conflict Interference." *Journal of Social and Biological Structures*, 5: 413–422.
- 1983. *Montenegrin Social Organization and Values*. New York: AMS Press.
- 1984a. "Can Social Hierarchy and Egalitarianism Both Be Ascribed to the Same Causal Forces?" *Politics and the Life Sciences*, 1: 12–14.
- 1984b. "Mountain Refuge Area Adaptations." *Proceedings of the Southern Anthropological Meetings*, 17: 24–37.
- 1985. "Execution within the Clan as an Extreme Form of Ostracism." *Social Science Information*, 24: 309–321.
- 1986. *Blood Revenge: The Enactment and Management of Conflict in Montenegro and Other Tribal Societies*. Philadelphia: University of Pennsylvania Press.
- 1987. "Capital Punishment in Tribal Montenegro: Implications for Law, Biology, and Social Control." In M. Gruter and R. D. Masters, eds., *Ostracism: A Social Biological Phenomenon*, pp. 157–172. New York: Elsevier.
- 1989. "Ambivalence and Compromise in Human Nature." *American Anthropologist*, 91: 921–939.
- 1991a. "Lower-Level Teleology in Biological Evolution: Decision Behavior and Reproductive Success in Two Species." *Cultural Dynamics*, 4: 115–134.
- 1991b. "Vocal Communication of *Pan troglodytes*: Possibilities for Explaining Human Language Origins." In J. Wind, E. G. Pulleyblank, E. de Grolier, and B. H. Bichakjian, eds., *The Origins of Human Language*, vol. 2, pp. 323–350. Philadelphia: John Benjamins.
- 1992. "Segmentary 'Warfare' and the Management of Conflict: Comparison of East African Chimpanzees and Patrilineal-Patrilocal Humans." In A. H. Harcourt and F. B. M. de Waal, eds., *Coalitions and Alliances in Humans and Other Animals*, pp. 137–173. Oxford: Oxford University Press.
- 1993. "Egalitarian Society and Reverse Dominance Hierarchy." *Current Anthropology*, 34: 227–254.
- 1994a. "Pacifying Interventions at Arnhem Zoo and Gombe." In Richard W. Wrangham, W. C. McGrew, Frans B. M. de Waal, and Paul G. Heltne, eds., *Chimpanzee Cultures*, pp. 211–226. Cambridge, Mass.: Harvard University Press.
- 1994b. "Reply to Erdal and Whiten: 'On Human Egalitarianism: An Evolu-

- tionary Product of Machiavellian Status Escalation?" *Current Anthropology*, 35: 178–180.
- 1996. "Emergency Decisions, Cultural Selection Mechanics, and Group Selection." *Current Anthropology*, 37: 763–793.
- 1997a. "Egalitarian Behavior and the Evolution of Political Intelligence." In D. Byrne and A. Whiten, eds., *Machiavellian Intelligence*, vol. 2, pp. 341–364. Cambridge: Cambridge University Press.
- 1997b. "Impact of the Human Egalitarian Syndrome on Darwinian Selection Mechanics." *American Naturalist*, 150: 100–121.
- 1999a. "Forager Hierarchies and Their Effect on Human Behavioral Dispositions." In Michael Dietz, ed., *Hierarchies in Action*. Carbondale: Southern Illinois University Press (in press).
- 1999b. "The Natural Selection of Altruistic Traits." *Human Nature* (in press).
- Boesch, Christophe. 1991. "The Effects of Leopard Predation on Grouping Patterns in Forest Chimpanzees." *Behaviour*, 117: 220–241.
- 1994. "Cooperative Hunting in Wild Chimpanzees." *Animal Behavior*, 48: 653–667.
- Bohannon, Paul J. 1954. "The Migration and Expansion of the Tiv." *Africa*, 24: 2–16.
- Boinski, Sue. 1994. "Affiliation Patterns among Male Costa Rican Squirrel Monkeys." *Behaviour*, 130: 191–209.
- Boone, James. 1992. "Competition, Conflict, and Development of Social Hierarchies." In E. Smith and B. Winterhalder, eds., *Evolutionary Ecology and Human Behavior*, pp. 301–338. Hawthorne, N.Y.: Aldine de Gruyter.
- Bowles, Samuel, and Herbert Gintis. 1998. "The Evolution of Strong Altruism." Paper presented at the Santa Fe Institute, Santa Fe, New Mexico.
- Boyd, Robert, and Peter J. Richerson. 1982. "Cultural Transmission and the Evolution of Cooperative Behavior." *Human Ecology*, 10: 325–351.
- 1985. *Culture and the Evolutionary Process*. Chicago: University of Chicago Press.
- 1991. "Culture and Cooperation." In R. A. Hinde and J. Grobel, eds., *Cooperation and Prosocial Behavior*, pp. 27–48. Cambridge: Cambridge University Press.
- 1992. "Punishment Allows the Evolution of Cooperation (or Anything Else) in Sizable Groups." *Ethology and Sociobiology*, 13: 171–195.
- Brace, C. Loring. 1995. *The Stages of Human Evolution*, 5th ed. Englewood Cliffs, N.J.: Prentice-Hall.
- Brain, C. K. 1972. "An Attempt to Reconstruct the Behaviour of Australopithecines: The Evidence for Inter-Personal Violence." *Zoological Africana*, 7: 379–401.
- 1981. *The Hunters or the Hunted? An Introduction to African Cave Taxonomy*. Chicago: University of Chicago Press.

- Bridges, E. Lucas. 1948. *Uttermost Part of the Earth*. London: Hodder and Stoughton.
- Briggs, Jean L. 1970. *Never in Anger*. Cambridge, Mass.: Harvard University Press.
- . 1982. "Living Dangerously: The Contradictory Foundations of Value in Canadian Inuit Society." In E. Leacock and R. Lee, eds., *Politics and History in Band Societies*, pp. 109–131. Cambridge: Cambridge University Press.
- Briggs, Lloyd Cabot. 1958. *The Living Races of the Sahara Desert*. Papers of the Peabody Museum of Archaeology and Ethnology 28 (2). Cambridge, Mass.: Harvard University Press.
- Brooks, Alison S. 1988. "Middle Stone Age." In I. Tattersall, E. Delson, and J. van Couvering, eds., *Encyclopedia of Human Evolution*, pp. 346–349. New York: Garland.
- Brown, Donald. 1991. *Human Universals*. New York: McGraw-Hill.
- Brunton, Ron. 1989. "The Cultural Instability of Egalitarian Societies." *Man*, 24: 673–681.
- Butt, Audrey. 1952. *The Nilotes of the Anglo-Egyptian Sudan and Uganda [Nuer, Dinka, Acholi, Luo of Kenya, Shilluk, Lango, Burun, Alur]*. London: International African Insitute.
- Byrne, R. W., and J. M. Byrne. 1988. "Leopard Killers of Mahale." *Natural History*, 97: 22–26.
- Calvin, W. H. 1983. *The Throwing Madonna: From Nervous Cells to Hominid Brains*. New York: McGraw-Hill.
- Campbell, Donald T. 1965. "Ethnocentric and Other Altruistic Motives." In D. Levine, ed., *Nebraska Symposium on Motivation*, pp. 283–311. Lincoln: University of Nebraska Press.
- . 1972. "On the Genetics of Altruism and the Counter-Hedonic Component of Human Culture." *Journal of Social Issues*, 28: 21–27.
- . 1975. "On the Conflicts between Biological and Social Evolution and between Psychology and Moral Tradition." *American Psychologist*, 30: 1103–26.
- Carpenter, C. R. 1942. "Societies of Monkeys and Apes." *Biological Symposia*, 8: 177–204.
- Cashdan, Elizabeth A. 1980. "Egalitarianism among Hunters and Gatherers." *American Anthropologist*, 82: 116–120.
- . 1983. "Territoriality among Human Foragers: Ecological Models and an Application to Four Bushman Groups." *Current Anthropology*, 24: 47–66.
- ed. 1990. *Risk and Uncertainty in Tribal and Peasant Economies*. Boulder, Colo.: Westview Press.
- Chagnon, Napoleon. 1983. *Yanomamo: The Fierce People*. New York: Holt, Rinehart and Winston.
- . 1988. "Life Histories, Blood Revenge, and Warfare in a Tribal Population." *Science*, 239: 985–992.
- Chagnon, Napoleon A., and William Irons, eds. 1979. *Evolutionary Biology and*

- Human Social Behavior: An Anthropological Perspective*. North Scituate, Mass.: Duxbury Press.
- Clark, Adam P., and Richard Wrangham. 1993. "Acoustic Analysis of Wild Chimpanzee Pant-hoot: Do Kibale Forest Chimpanzees Have an Acoustically Distinct Food Arrival Pant-hoot?" *American Journal of Primatology*, 31: 99–109.
- Clastres, Pierre. 1977. *Society against the State: The Leader as Servant and the Humane Uses of Power among the Indians of the Americas*. New York: Urizen Press.
- Cohen, Mark N. 1985. "Prehistoric Hunter-Gatherers: The Meaning of Social Complexity." In T. Douglas Price and James A. Brown, eds., *Prehistoric Hunter-Gatherers: The Emergence of Cultural Complexity*, pp. 99–119. New York: Academic Press.
- Conn, Stephen. 1985. "Inuit Village Councils in Alaska—An Historical Model for Effectuation of Aboriginal Rights?" *Inuit Studies*, 9: 43–59.
- Corning, Peter. 1984. *The Synergism Hypothesis: A Theory of Progressive Evolution*. New York: McGraw-Hill
- Cosmides, Leda, and John Tooby. 1992. "Cognitive Adaptations for Social Exchange." In Jerome H. Barkow, Leda Cosmides, and John Tooby, eds., *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, pp. 163–225. Oxford: Oxford University Press.
- Count, Earl. 1958. "The Biological Basis of Human Sociality." *American Anthropologist*, 60: 1045–89.
- Daly, Martin, and Margo Wilson. 1988. *Homicide*. New York: Aldine de Gruyter.
- Damas, D. 1972. "The Copper Eskimo." In M. G. Bicchieri, ed., *Hunters and Gatherers Today*, pp. 3–50. New York: Holt, Rinehart and Winston.
- Dart, Raymond. 1959. *Adventures with the Missing Link*. New York: Harper and Brothers.
- Darwin, Charles. 1865. *The Expression of the Emotions in Man and Animals*. [1972.] Chicago: University of Chicago Press.
- . 1871. *The Descent of Man and Selection in Relation to Sex*. New York: D. Appleton.
- Denig, Edwin T. 1930. *The Assiniboin*. Bureau of American Ethnology Report No. 46. Washington, D.C.: Government Printing Office.
- Dentan, Robert K. 1993. "Comment on Christopher Boehm, 'Egalitarian Behavior and Reverse Dominance Hierarchy.'" *Current Anthropology*, 34: 241–242.
- Dickson, H. R. P. 1949. *The Arab of the Desert: A Glimpse into Badawin Life in Kuwait and Saudi Arabia*. London: Allen and Unwin.
- Djilas, Milovan. 1966. *Njegosh: Prince, Poet, Bishop*. New York: Harcourt Brace Jovanovich.
- Dole, Gertrude E. 1966. "Anarchy without Chaos: Alternatives to Political Authority among the Kuikuru." In M. J. Swartz, V. W. Turner, and A. Tuden, eds., *Political Anthropology*, pp. 73–87. Chicago: Aldine.
- Draper, Patricia. 1978. "The Learning Environment for Aggression and Anti-Social

- Behavior among the !Kung (Kalahari Desert, Botswana, Africa)." In Ashley Montagu, ed., *Learning Non-Aggression: The Experience of Non-Literate Societies*, pp. 31–53. New York: Oxford University Press.
- Dumont, Louis. 1970. *Homo Hierarchicus: The Caste System and Its Implications*. Chicago: University of Chicago Press.
- Dunbar, Robin. 1996. *Grooming, Gossip and the Evolution of Language*. London: Faber and Faber.
- Durham, William H. 1991. *Coevolution: Genes, Culture, and Human Diversity*. Stanford, Calif.: Stanford University Press.
- Durkheim, Emile. 1933. *The Division of Labor in Society*. New York: Free Press.
- Earle, Timothy. 1991. *Chiefdoms: Power, Economy, and Ideology*. New York: Cambridge University Press.
- Edgerton, Robert B. 1975. *Deviance: A Cross-Cultural Perspective*. Menlo Park, Calif.: Cummings Press.
- 1992. *Sick Societies: Challenging the Myth of Primitive Harmony*. New York: Free Press.
- Eggan, Fred R. 1936. *The Kinship System of the Hopi Indians*. Chicago: University of Chicago Press.
- Eibl-Eibesfeldt, Irenaus. 1971. *Love and Hate: The Natural History of Behavior Patterns*. New York: Holt, Rinehart and Winston.
- 1974. "The Myth of the Aggression-Free Hunter and Gatherer Society." In R. L. Holloway, ed., *Primate Aggression, Territoriality, and Xenophobia: A Comparative Perspective*, pp. 435–457. New York: Academic Press.
- 1979. *The Biology of Peace and War: Men, Animals, and Aggression*. New York: Viking Press.
- 1989. *Human Ethology*. New York: Aldine de Gruyter.
- 1996. "Reply to Christopher Boehm, Emergency Decisions, Cultural Selection Mechanics, and Group Selection." *Current Anthropology*, 37: 779–780.
- Ekman, Paul, E. R. Sorenson, and W. V. Friesen. 1969. "Pan-Cultural Elements in Facial Displays of Emotion." *Science*, 164: 86–88.
- Elkin, Henry. 1940. "The Northern Arapaho of Wyoming." In Ralph Linton, ed., *Acculturation in Seven American Indian Tribes*, pp. 207–258. New York: Appleton Century.
- Ellis, Lee. 1995. "Dominance and Reproductive Success among Nonhuman Animals: A Cross-Species Comparison." *Ethology and Sociobiology*, 16: 257–333.
- Ember, Carol. 1978. "Myths about Hunter-Gatherers." *Ethnology*, 17: 439–448.
- Endicott, Kirk. 1988. "Property, Power, and Conflict among the Batek of Malaysia." In T. Ingold, D. Riches, and J. Woodburn, eds., *Hunters and Gatherers*, vol. 2, *Property, Power, and Ideology*, pp. 110–128. Oxford: Berg.
- L'Equipe écologie et anthropologie des sociétés pastorales. 1979. *Pastoral Production and Society*. Cambridge: Cambridge University Press.

- Erdal, David, and Andrew Whiten. 1994. "On Human Egalitarianism: An Evolutionary Product of Machiavellian Status Escalation?" *Current Anthropology*, 35: 175–184.
- . 1996. "Egalitarianism and Machiavellian Intelligence in Human Evolution." In P. Mellars and K. Gibson, eds., *Modelling the Early Human Mind*, pp. 139–150. Cambridge: MacDonal Institute for Archeological Research.
- Erhardt, Carolyn, and Irwin S. Bernstein. 1994. "Conflict Intervention Behavior by Adult Male Macaques: Structural and Functional Aspects." In A. H. Harcourt and F. B. M. de Waal, eds., *Coalitions and Alliances in Humans and Other Animals*, pp. 83–112. Oxford: Oxford University Press.
- Evans-Pritchard, E. E. 1940. *The Nuer: A Description of the Modes of Livelihood and Political Institutions of a Nilotic People*. Oxford: Clarendon Press.
- Firth, Raymond. 1936. *We the Tikopia: A Sociological Study of Kinship in Primitive Polynesia*. London: Allen and Unwin.
- . 1949. "Authority and Public Opinion in Tikopia." In Meyer Fortes, ed., *Social Structure: Studies Presented to A. R. Radcliffe-Brown*, pp. 168–188. Oxford: Clarendon Press.
- Flanagan, James G. 1989. "Hierarchy in Simple 'Egalitarian' Societies." *Annual Review of Anthropology*, 18: 245–266.
- Flanagan, James F., and Steven Rayner, eds. 1988. *Rules, Decisions, and Inequality in Egalitarian Societies*. Brookfield, Vt.: Gower Press.
- Flannery, Regina. 1953. *The Gros Ventres of Montana*, pt. 1–2. Washington, D.C.: Catholic University of America Press.
- Fortes, Meyer, and E. E. Evans-Pritchard, eds. 1940. *African Political Systems*. London: Oxford University Press.
- Fossey, Dian. 1983. *Gorillas in the Mist*. Boston: Houghton Mifflin.
- Fox, Robin. 1989. *The Search for Society: Quest for a Biosocial Science and Morality*. New Brunswick, N.J.: Rutgers University Press.
- Freeman, Derek. 1970. *Report on the Iban*. LSE Monographs on Social Anthropology No. 41. New York: Humanities Press.
- Freuchen, Peter, ed. 1961. *Peter Freuchen's Book of the Eskimos*. Greenwich, Conn.: Fawcett Crest Books.
- Freud, Sigmund. 1930. *Civilization and Its Discontents*. London: Hogarth Press.
- Fried, Morton H. 1967. *The Evolution of Political Society: An Essay in Political Anthropology*. New York: Random House.
- . 1975. *The Notion of Tribe*. Menlo Park, Calif.: Cummings Press.
- von Fürer-Haimendorf, Christoph. 1967. *Morals and Merit: A Study of Values and Social Controls in South Asian Societies*. Chicago: University of Chicago Press.
- Gardner, Peter. 1969. "Paliyan Social Structure." In D. Damas, ed., *Contributions to Anthropology: Band Societies*, pp. 153–171. Ottawa: Ottawa National Museum of Canada.

- . 1991. "Foragers' Pursuit of Individual Autonomy." *Current Anthropology*, 32: 543–558.
- Gayton, A. H. 1930. *Yokuts-Mono Chiefs and Shamans*. Berkeley: University of California Press.
- Geertz, Clifford. 1965. "The Impact of the Concept of Culture on the Concept of Man." In John R. Platt, ed., *New Views of the Nature of Man*, pp. 93–118. Chicago: University of Chicago Press.
- Gluckman, Max. 1939. "The Balance between European and Native Political Authorities in Zululand." *Man*, 39: 42–43.
- . 1965. *The Ideas in Barotse Jurisprudence*. New Haven: Yale University Press.
- Godelier, Maurice. 1986. *The Making of Great Men: Male Dominance and Power among the New Guinea Baruya*. Cambridge: Cambridge University Press.
- Goodall, Jane. 1971. *In the Shadow of Man*. Boston: Houghton-Mifflin.
- . 1979. "Life and Death at Gombe." *National Geographic*, 155: 592–622.
- . 1982. "Order without Law." *Journal of Social and Biological Structures*, 5: 349–352.
- . 1985. "Conditions of Innovative Behaviour in Primates." *Philosophical Transactions of the Royal Society of London*, 308: 203–214.
- . 1986. *The Chimpanzees of Gombe: Patterns of Behavior*. Cambridge, Mass.: Belknap Press, Harvard University Press.
- . 1990. *Through a Window*. Boston: Houghton Mifflin.
- . 1992. "Unusual Violence in the Overthrow of an Alpha Male Chimpanzee at Gombe." In T. Nishida, W. C. McGrew, P. Marler, M. Pickford, and F. B. M. de Waal, eds., *Topics in Primatology*, vol. 1, *Human Origins*, pp. 131–142. Tokyo: University of Tokyo Press.
- Goodman, Madeleine J. 1985. "The Compatability of Hunting and Mothering among the Agta Hunter-Gatherers of the Philippines." *Sex Roles*, 12: 1119–1209.
- Goody, E. 1991. "The Learning of Prosocial Behavior in Small-Scale Egalitarian Societies: An Anthropological View." In R. Hinde and J. Groebel, eds., *Cooperation and Prosocial Behavior*, pp. 106–128. Cambridge: Cambridge University Press.
- Gould, Richard A. 1982. "To Have and Have Not: The Ecology of Sharing among Hunter-Gatherers." In N. M. Williams and E. S. Hunn, eds., *Resource Managers: North American and Australian Hunter-Gatherers*, pp. 69–81. Boulder, Colo.: Westview Press.
- Greenberg, Joseph H. 1966. *Language Universals: With Special Reference to Feature Hierarchies*. The Hague, Netherlands: Mouton.
- . 1975. "Research on Language Universals." *Annual Review of Anthropology*, 4:75–94
- , ed. 1963. *Universals of Language*. Cambridge, Mass.: MIT Press.

- Gruter, Margaret, and Roger D. Masters, eds. 1986. *Ostracism: A Social and Biological Phenomenon*. New York: Elsevier.
- Guenther, Mathias. 1991. "Reply to Peter Gardner, 'Foragers' Pursuit of Individual Autonomy.'" *Current Anthropology*, 32: 563–564.
- Hamilton, W. D. 1964. "The Genetical Evolution of Social Behavior, I and II." *Journal of Theoretical Biology*, 7: 1–52.
- Hand, Judith Latta. 1986. "Resolution of Social Conflicts: Dominance, Egalitarianism, Spheres of Dominance, and Game Theory." *Quarterly Review of Biology*, 61: 201–220.
- Harcourt, Alexander H. 1979. "Social Relationships among Adult Female Mountain Gorillas." *Animal Behavior*, 27: 251–264.
- Harcourt, Alexander H., and Frans B. M. de Waal, eds. 1992. *Coalitions and Alliances in Humans and Other Animals*. Oxford: Oxford University Press.
- Hart, David M. 1976. *The Aith Waryaghar of the Moroccan Rif: An Ethnography and History*. Tucson: University of Arizona Press.
- Haviland, John B. 1977. *Gossip, Reputation, and Knowledge in Zinacantan*. Chicago: University of Chicago Press.
- Hawkes, Christen. 1992. "Sharing and Collective Action." In E. A. Smith and B. Winterhalder, eds., *Evolutionary Ecology and Human Behavior*, pp. 271–300. New York: Aldine de Gruyter.
- Hayden, Brian, M. Deal, A. Cannon, and J. Casey. 1986. "Ecological Determinants of Women's Status among Hunter/Gatherers." *Human Evolution*, 1: 449–474.
- Heider, Karl G. 1988. "The Rashomon Effect: Where Ethnographers Disagree." *American Anthropologist*, 90: 73–81.
- Heintz, H. 1972. "Territoriality among the Bushmen in General and the !Ko in Particular." *Anthropos*, 67: 405–416.
- Herskovits, Melville J. 1952 (1947). *Man and His Works*. New York: Knopf.
- Hewes, Gordon. 1973. "Primate Communication and the Gestural Origin of Language." *Current Anthropology*, 14: 5–32.
- Hilger, Sister Inez M. 1952. *Arapaho Child Life and its Cultural Background*. Bureau of American Ethnology Bulletin No. 148. Washington, D.C.: Government Printing Office.
- Hinde, Robert A., and Jo Groebel, eds. 1991. *Cooperation and Social Behavior*. Cambridge: Cambridge University Press.
- Hockett, C. F. 1963. "The Problem of Universals in Language." In J. H. Greenberg, ed., *Universals of Language*. Cambridge, Mass.: MIT Press.
- Hoebel, Bartley. 1983. "The Neural and Chemical Basis of Reward: New Discoveries and Theories in Brain Control of Feeding, Mating, Aggression, Self-Stimulation, and Self-Injection." In M. Gruter and P. J. Bohannon, eds., *Law, Biology and Culture: The Evolution of Law*, pp. 111–128. Santa Barbara, Calif.: Ross-Erikson.

- Hoebel, E. Adamson. 1940. *The Political Organization and Law-Ways of the Comanche Indians*. American Anthropological Association Memoir 54. Washington, D.C.
- . 1954. *The Law of Primitive Man: A Study in Comparative Legal Dynamics*. Cambridge, Mass.: Harvard University Press.
- Hogbin, H. Ian. 1951. *Transformation Scene: The Changing Culture of a New Guinea Village*. London: Routledge and Kegan Paul.
- Holmberg, Allen. 1950. *Nomads of the Long Bow: The Siriono of Eastern Bolivia*. Washington, D.C.: Smithsonian Institution Press.
- van Hoof, Jan A. R. A. M., and Carel P. van Schaik. 1992. "Cooperation in Competition: The Ecology of Primate Bonds." In A. H. Harcourt and F. B. M. de Waal, eds., *Coalitions and Alliances in Humans and Other Animals*, pp. 357–390. Oxford: Oxford University Press.
- Howe, James. 1979. "How the Cuna Keep Their Chiefs in Line." *Man*, 13: 537–553.
- James, William. 1890. *Principles of Psychology*, vol. 2. New York: Holt.
- Jenness, Diamond. 1922. *The Life of the Copper Eskimos. Report of the Canadian Arctic Expedition, 1913–1918*, volume 12. Ottawa: F. A. Acland.
- . 1935. *Ojibwa Indians of Parry Sound*. National Museum of Canada Bulletin No. 78. Ottawa.
- Kano, T. 1992. *The Last Ape: Pygmy Chimpanzee Behavior and Ecology*. Stanford, Calif.: Stanford University Press.
- Kaplan, Hillard, and Kim Hill. 1985. "Hunting Ability and Reproductive Success among Male Ache Foragers." *Current Anthropology*, 26: 131–133.
- Keeley, Lawrence H. 1996. *War before Civilization: The Myth of the Peaceful Savage*. New York: Oxford University Press.
- Kelly, Raymond. 1985. *The Nuer Conquest: The Structure and Content of an Expansionist System*. Ann Arbor: University of Michigan Press.
- Kelly, Robert L. 1995. *The Foraging Spectrum: Diversity in Hunter-Gatherer Lifeways*. Washington, D.C.: Smithsonian Institution Press.
- Kent, Susan. 1993. "Comment on Christopher Boehm, Egalitarian Behavior and Reverse Dominance Hierarchy." *Current Anthropology*, 34: 243.
- Kluckhohn, Clyde. 1944. *Navajo Witchcraft*. Papers of the Peabody Museum of American Archaeology and Ethnology 22 (2). Cambridge, Mass.: Harvard University Press.
- . 1952. "Values and Value-Orientations in the Theory of Action: An Exploration in Definition and Classification." In T. Parsons and E. Shils, eds., *Toward a General Theory of Action*, pp. 395–418. Cambridge, Mass.: Harvard University Press.
- . 1953. "Universal Categories of Culture." In A. L. Kroeber, ed., *Anthropology Today*, pp. 507–523. Chicago: University of Chicago Press.

- 1959. "Common Humanity and Diverse Cultures." In Daniel Lerner, ed., *The Human Meaning of the Social Sciences*, pp. 245–284. New York: Meridian.
- Knauft, Bruce B. 1987. "Reconsidering Violence in Simple Human Societies: Homicide among the Gebusi of New Guinea." *Current Anthropology*, 28: 457–500.
- 1989. "Sociality versus Self-Interest in Human Evolution." *Behavior and Brain Sciences*, 12: 712–713.
- 1991. "Violence and Sociality in Human Evolution." *Current Anthropology*, 32: 391–428.
- 1993. "Comment on Christopher Boehm, Egalitarian Behavior and Reverse Dominance Hierarchy." *Current Anthropology*, 34: 243–244.
- 1994a. "Culture and Cooperation in Human Evolution." In L. Sponsel and T. Gregor, eds., *The Anthropology of Peace and Nonviolence*, pp. 37–67. Boulder, Colo.: Lynne Rienner.
- 1994b. "Reply to Erdal and Whiten." *Current Anthropology*, 35: 181–182.
- Konner, Melvin. 1982. *The Tangled Wing: Biological Constraints on the Human Spirit*. New York: Holt, Rinehart and Winston.
- Kroeber, A. L. 1948. *Anthropology*. New York: Harcourt Brace.
- Kummer, Hans. 1971. *Primate Societies: Group Techniques of Ecological Adaptation*. Chicago: Aldine.
- Layton, Robert. 1986. "Political and Territorial Structures among Hunter-Gatherers." *Man*, 21: 18–33.
- Lee, Richard B. 1976. "!Kung Spatial Organization: An Ecological and Historical Perspective." In R. B. Lee and I. DeVore, eds., *Kalahari Hunter-Gatherers*, pp. 73–97. Cambridge, Mass.: Harvard University Press.
- 1979. *The !Kung San: Men, Women, and Work in a Foraging Society*. Cambridge: Cambridge University Press.
- 1982. "Politics, Sexual and Non-Sexual, in an Egalitarian Society." In Eleanor Leacock and Richard Lee, eds., *Politics and History in Band Societies*, pp. 37–59. London: Cambridge University Press.
- 1984. *The Dobe !Kung*. Chicago: Holt, Rinehart and Winston.
- Leeds, Anthony. 1962. *Ecological Determinants of Chieftainship among the Yaruro Indians of Venezuela*. [Akten des 34 Internationalen Amerikanistenkongresses, Wien 1960.] Vienna.
- Lewis, I. M. 1961. *A Pastoral Democracy: A Study of Pastoralism and Politics among the Northern Somali of the Horn of Africa*. International African Institute. London: Oxford University Press.
- Lieberman, Philip. 1998. *Eve Spoke: Human Language and Human Evolution*. New York: W. W. Norton.
- Lorenz, Konrad. 1963. *On Aggression*. New York: Harcourt Brace and World.
- Lowie, Robert. 1949. *Social and Political Organization of South American Indians*. Bureau of American Ethnology Bulletin No. 143. Washington, D.C.: Government Printing Office.

- . 1973. "Political Organization among American Indians." In D. Black and M. Mileski, eds., *Social Organization of Law*, pp. 278–303. New York: Seminar Press.
- Lumsden, Charles, and Edward O. Wilson. 1981. *Genes, Mind and Culture: The Coevolutionary Process*. Cambridge, Mass.: Harvard University Press.
- Madhi, Niloufer Qasim. 1986. "Pikhtunwali: Ostracism and Honor Among the Pathan Hill Tribes." *Ethology and Sociobiology*, 7: 295–304.
- Maine, Sir Henry. 1861. *Ancient Law*. London: Oxford [1931].
- Mair, Lucy. 1962. *Primitive Government*. New York: Penguin.
- Malinowski, Bronislaw. 1929. *The Sexual Life of Savages in Northwestern Melanesia*. London: George Routledge.
- . 1939. "The Group and the Individual in Functional Analysis." *American Journal of Sociology*, 44: 938–964.
- . 1944. *A Scientific Theory of Culture*. Chapel Hill: University of North Carolina Press.
- Man, E. H. 1882. *Aboriginal Inhabitants of the Andaman Islands*, pt. 1. London: Trubner.
- Manson, Joseph H., and Richard W. Wrangham. 1991. "Intergroup Aggression in Chimpanzees and Humans." *Current Anthropology*, 32: 369–390.
- Marler, Peter. 1969. "Vocalizations of Wild Chimpanzees: An Introduction." In C. R. Carpenter, ed., *Proceedings of the Second International Congress of Primatology*, vol. 1, pp. 94–100. Basel: Karger.
- Marshak, Alexander. 1989. "Evolution of the Human Capacity: The Symbolic Evidence." *Yearbook of Physical Anthropology* 32: 1–34.
- . 1992. "The Origin of Language: An Anthropological Approach." In J. Wind et al., eds., *Language Origin: A Multidisciplinary Approach*, pp. 421–448. Dordrecht: Kluwer.
- Marshall, Lorna. 1967. "Kung Bushman Bands." In R. Cohen and J. Middleton, eds., *Comparative Political Systems: Studies in Politics of Pre-Industrial Societies*, pp. 15–43. Garden City, N.J.: Natural History Press.
- Masters, Roger D. 1989. *The Nature of Politics*. New Haven: Yale University Press.
- Maybury-Lewis, David. 1967. *Akwe-Shavante Society*. Oxford: Clarendon Press.
- McGrew, William C. 1992. *Chimpanzee Material Culture: Implications for Human Evolution*. Cambridge: Cambridge University Press.
- McGrew, William C., P. J. Baldwin, and C. E. G. Tutin. 1981. "Chimpanzees in a Hot, Dry, and Open Habitat: Mt. Assirik, Senegal, West Africa." *Journal of Human Evolution*, 10: 227–244.
- Mead, Margaret. 1928. *Coming of Age in Samoa*. New York: Morrow.
- Meggitt, Mervyn. 1977. *Blood Is Their Argument*. Palo Alto, Calif.: Mayfield Press.
- Menzel, Emil. 1964. "Patterns of Responsiveness in Chimpanzees Reared through Infancy under Conditions of Environmental Restriction." *Psychologische Forschungen*, 27: 337–365.

- Middleton, John and David Tait, eds. 1958. *Tribes without Rulers: Studies in African Segmentary Systems*. London: Routledge and Kegan Paul.
- Mirsky, Jeannette. 1937. "The Eskimo of Greenland." In Margaret Mead, ed., *Cooperation and Competition among Primitive Peoples*, pp. 51–66. New York: McGraw-Hill.
- Mitchell, William E. 1978. "On Keeping Equal: Polity and Reciprocity among the New Guinea Wape." *Anthropological Quarterly*, 51: 5–15.
- 1988. "The Defeat of Hierarchy: Gambling as Exchange in a Sepik Society." *American Ethnologist*, 4: 638–657.
- Mithen, Steven J. 1990. *Thoughtful Foragers: A Study of Prehistoric Decision Making*. Cambridge: Cambridge University Press.
- 1996. "On Early Paleolithic 'Concept-Mediated Marks,' Mental Modularity, and the Origins of Art." *Current Anthropology*, 37:666–670.
- Montagu, Ashley. 1976. *The Nature of Human Aggression*. Oxford: Oxford University Press.
- Moody-Adams, Michelle. 1997. *Fieldwork in Familiar Places: Morality, Culture, and Philosophy*. Cambridge, Mass.: Harvard University Press.
- Moore, Alexander. 1992. *Cultural Anthropology: The Field Study of Human Beings*. San Diego, Calif.: Collegiate Press.
- Moore, Jim. 1996. "Savanna Chimpanzees, Referential Models, and the Last Common Ancestor." In W. C. McGrew, L. F. Marchant, and T. Nishida, eds., *Great Ape Societies*, pp. 275–292. Cambridge: Cambridge University Press.
- Moore, Sally Falk. 1972. "Legal Liability and Evolutionary Interpretation: Some Aspects of Strict Liability, Self-help and Collective Responsibility." In M. Gluckman, ed., *The Allocation of Responsibility*, pp. 51–107. Manchester: Manchester University Press.
- Morgan, Lewis H. 1877. *Ancient Society; or, Researches in the Lines of Human Progress from Savagery through Barbarism to Civilization*. New York: Henry Holt.
- Morris, Desmond. 1967. *The Naked Ape*. New York: McGraw-Hill.
- Murdock, George Peter. 1945. "The Common Denominator of Culture." In Ralph Linton, ed., *The Science of Man in the World Crisis*, pp. 123–142. New York: Columbia University Press.
- Murphy, Robert F., and Buell Quain. 1955. "The Trumai Indians of Central Brazil." *American Ethnological Society Monographs* vol. 25. Locust Valley, N.Y.: J.J. Augustin.
- Myers, Fred R. 1980. "The Cultural Basis of Politics in Pintupi Life." *Mankind* 12: 197–214. Washington, D.C.: Smithsonian Institution Press.
- 1986. *Pintupi Country, Pintupi Self*. Washington, D.C.: Smithsonian Institution Press.
- Nishida, Toshisada. 1979. "The Social Structure of Chimpanzees of the Mahale

- Mountains." In D. A. Hamburg and E. R. McCown, eds., *The Great Apes*, pp. 73–122. Menlo Park, Calif.: Benjamin/Cummings.
- 1987. "Local Traditions and Cultural Transmission." In B. B. Smuts, D. L. Cheney, R. M. Seyfarth, R. W. Wrangham, and T. T. Struhsaker, eds., *Primate Societies*, pp. 462–474. Chicago: University of Chicago Press.
- 1994. "Review of Recent Findings on Mahale Chimpanzees: Implications and Future Research Directions." In Richard W. Wrangham, W. C. McGrew, Frans B. M. de Waal, and Paul G. Heltne, eds., *Chimpanzee Cultures*, pp. 373–396. Cambridge, Mass.: Harvard University Press.
- Nishida, Toshisada, and Kazuhiko Hosaka. 1996. "Coalition Strategies among Adult Male Chimpanzees of the Mahale Mountains, Tanzania." In W. C. McGrew, L. F. Marchant, and T. Nishida, eds., *Great Ape Societies*, pp. 114–134. Cambridge: Cambridge University Press.
- Nishida, T., M. Hiraiwa-Hasegawa, T. Hasegawa, and Y. Takahata. 1985. "Group Extinction and Female Transfer in Wild Chimpanzees in the Mahale National Park, Tanzania." *Zeitschrift für Tierpsychologie*, 67: 284–301.
- Nishida, T., K. Hosaka, M. Nakamura, and M. Hamai. 1995. "A Within-Group Gang Attack on a Young Adult Male Chimpanzee: Ostracism of an Ill-Mannered Member." *Primates*, 36: 207–211.
- Opler, Marvin K. 1940. "The Southern Ute of Colorado." In Ralph Linton, ed., *Acculturation in Seven American Indian Tribes*, pp. 119–203. New York: Appleton Century.
- Ortiz, Sutti. 1967. "The Structure of Decision Making among Indians in Colombia." In R. Firth, ed., *Themes in Economic Anthropology*, pp. 191–228. London: Tavistock.
- Palmer, Craig T., B. Eric Fredrickson, and Christopher F. Tilley. 1998. "Categories and Gatherings: Group Selection and the Mythology of Cultural Anthropology." *Ethology and Sociobiology*, 18: 291–308.
- Peristiany, Jean G., ed. 1966. *Honour and Shame: The Values of Mediterranean Society*. Chicago: University of Chicago Press.
- Peterson, J. 1978. *The Ecology of Social Boundaries: Apta Foragers of the Philippines*. Illinois Studies in Anthropology 11. Urbana: University of Illinois Press.
- Peterson, Nicolas. 1993. "Demand sharing: Reciprocity and the Pressure for Generosity among Foragers." *American Anthropologist*, 95: 860–874.
- Pilbeam, David. 1972. *The Ascent of Man: An Introduction to Human Evolution*. New York: MacMillan.
- Pinker, Stephen. 1994. *The Language Instinct*. London: Allen Lane.
- Popper, Karl. 1959. *The Logic of Scientific Discovery*. London: Hutchinson.
- Pospisil, Leopold. 1963. *The Kapauku Papuans of Western New Guinea*. New York: Holt Winston and Rinehart.
- Potts, Richard. 1987. "Transportation of Resources: Reconstructions of Early

- Hominid Socioecology: A Critique of Primate Models." In W. G. Kinzey, ed., *The Evolution of Human Behavior: Primate Models*, pp. 28–50. Albany: SUNY Press.
- 1996. *Humanity's Descent: The Consequences of Ecological Instability*. New York: Avon Press.
- Power, Margaret. 1991. *The Egalitarians, Human and Chimpanzee: An Anthropological View of Social Organization*. Cambridge: Cambridge University Press.
- Price, T. Douglas, and James A. Brown, eds. 1985. *Prehistoric Hunter-Gatherers: The Emergence of Cultural Complexity*. New York: Academic Press.
- Pulliam, H. Ronald, and Christopher Dunford. 1980. *Programmed to Learn: An Essay on the Evolution of Culture*. New York: Columbia University Press.
- Pusey, Anne E., Jennifer Williams, and Jane Goodall. 1997. "The Influence of Dominance Rank on the Reproductive Success of Female Chimpanzees." *Science*, 277: 828–831.
- Radcliffe-Brown, A. R. 1922. *The Andaman Islanders: A Study in Social Anthropology*. Cambridge: Cambridge University Press.
- Rasmussen, Knud. 1931. *The Netsilik Eskimos*. Reports of the Fifth Thule Expedition, vol. 3. Copenhagen.
- Read, Kenneth E. 1959. "Leadership and Consensus in a New Guinea Society." *American Anthropologist*, 61: 425–436.
- Richards, Audrey, and Adam Kuper, eds. 1971. *Councils in Action*. Cambridge: Cambridge University Press.
- Riches, David. 1982. *Northern Nomadic Hunter-Gatherers: A Humanistic Approach*. New York: Academic Press.
- Ridley, Matt. 1996. *The Origins of Virtue: Human Instincts and the Evolution of Cooperation*. New York: Penguin.
- Rosman, Abraham, and Paula G. Rubel. 1986. *Feasting with Mine Enemy: Rank and Exchange among Northwest Coast Societies*. Prospect Heights, Ill.: Waveland Press.
- Ruyle, Eugene E. 1973. "Genetic and Cultural Pools: Some Suggestions for a Unified Theory of Biocultural Evolution." *Human Ecology*, 1: 201–215.
- Sackschewsky, M., D. Gruenhagen, and J. Ingebritson. 1970. "The Clan Meeting in Enga Society." In P. Brennan, ed., *Exploring Enga Culture: Studies in Missionary Anthropology*, pp. 51–101. New Guinea Lutheran Mission. Wapenamanda, New Guinea: Kristen.
- Sahlins, Marshall D. 1959. "The Social Life of Monkeys, Apes and Primitive Man." *Human Biology*, 31: 54–73.
- 1961. "The Segmentary Lineage: Instrument Of Predatory Expansion." *American Anthropologist*, 63: 322–345.
- 1968. *Tribesmen*. New York: Prentice-Hall.
- Salzman, Philip C. 1979. "Inequality and Oppression in Nomadic Society." In

- Pastoral Production and Society: Proceedings of the International Meeting on Pastoral Nomadism, Paris 1976*, pp. 429–446. Cambridge: Cambridge University Press.
- Sanday, Peggy. 1981. *Female Power and Dominance: On the Origins of Sexual Inequality*. Pittsburgh: University of Pittsburgh Press.
- Schaller, George. 1963. *The Mountain Gorilla: Ecology and Behavior*. Chicago: University of Chicago Press.
- Schjelderup-Ebbe, T. 1922. "Beitrage zur Socialpsychologie des Haushuhns." *Zeitschrift für Psychologie*, 88: 225–252.
- Schneider, Harold. 1979. *Livestock and Equality in East Africa: The Economic Basis for Social Structure*. Bloomington: Indiana University Press.
- Service, Elman R. 1962. *Primitive Social Organization: An Evolutionary Perspective*. New York: Random House.
- 1971. *Cultural Evolutionism: Theory in Practice*. New York: Holt, Rinehart and Winston.
- 1975. *Origin of the State and Civilization: The Process of Cultural Evolution*. New York: W. W. Norton.
- Sharp, Henry. 1994. "The Power of Weakness." In E. S. Burch, Jr., and L. J. Ellanna, eds., *Key Issues in Hunter-Gatherer Research*, pp. 35–60. Providence: Berg Press.
- Sharp, R. Lauriston. 1958. "People without Politics: The Australian Yir Yoront." In V. F. Ray, ed., *Systems of Political Control and Bureaucracy in Human Societies*, pp. 1–8. Seattle: American Ethnological Society.
- Shea, John J. 1988. "Spear Points from the Middle Paleolithic of the Levant." *Journal of Field Archaeology*, 15: 441–450.
- Shostak, Marjorie. 1981. *Nisa: The Life and Words of a !Kung Woman*. Cambridge, Mass.: Harvard University Press.
- Silberbauer, George. 1982. "Political Process in G/Wi Bands." In E. Leacock and R. Lee, eds., *Politics and History in Band Societies*, pp. 23–35. Cambridge: Cambridge University Press.
- Simon, Herbert. 1976. *Administrative Behavior*. New York: Macmillan.
- 1990. "A Mechanism for Social Selection and Successful Altruism." *Science*, 250: 1665–68.
- Slobodin, Richard. 1969. "Leadership and Participation in a Kutchin Trapping Party." In D. Damas, ed., *Contributions to Anthropology: Band Societies*, pp. 56–89. Ottawa.
- Smuts, Barbara. 1992. "Male Aggression against Women: An Evolutionary Perspective." *Human Nature*, 3: 1–44.
- 1995. "The Evolutionary Origins of Patriarchy." *Human Nature* 6: 1–32.
- 1999. "Multi-level Selection, Cooperation, and Altruism: Reflection on *Unto Others: The Evolution and Psychology of Unselfish Behavior*," *Human Nature* (in press).

- Sober, Elliott, and David S. Wilson. 1998. *Unto Others: The Evolution and Psychology of Unselfish Behavior*. Cambridge, Mass.: Harvard University Press.
- Soltis, Joseph, Robert Boyd, and Peter J. Richerson. 1995. "Can Group-Functional Behaviors Evolve by Cultural Group Selection? An Empirical Test." *Current Anthropology*, 36: 473–494.
- Spencer, Baldwin, and F. J. Gillen. 1976. "The Avenging Party in Central Australia." In J. Poggie, Jr., G. H. Peltó, and P. J. Peltó, eds., *The Evolution of Human Adaptations: Readings in Anthropology*, pp. 262–264. New York: MacMillan.
- Stanford, Craig B. 1993. "Review of *The Egalitarians—Human and Chimpanzee*, by Margaret Power." *International Journal of Primatology*, 14: 663–664.
- . 1998a. *Chimpanzee and Red Colobus: The Ecology of Predator and Prey*. Cambridge, Mass.: Harvard University Press.
- . 1998b. "The Social Behavior of Chimpanzees and Bonobos: Empirical Evidence and Shifting Assumptions." *Current Anthropology*, 39: 399–420.
- Stanford, Craig B., and J. S. Allen. 1991. "On Strategic Storytelling: Current Models of Human Behavioral Evolution." *Current Anthropology*, 32: 58–61.
- Stent, Gunther S., ed. 1981. *Morality as a Biological Phenomenon: The Presuppositions of Sociobiological Research*. Berkeley: University of California Press.
- Steward, Julian H. 1955. *Theory of Culture Change*. Urbana: University of Illinois Press.
- Strehlow, T. G. H. 1947. *Aranda Traditions*. Melbourne: Melbourne University Press.
- Strier, Karen B. 1994. "Brotherhoods among Atelins: Kinship, Affiliation, and Competition." *Behaviour*, 130: 151–167.
- Sussman, Robert. 1995. "The Nature of Human Universals." *Reviews in Anthropology* 24: 1–12.
- Tanaka, Jiro. 1980. *The San Hunter-Gatherers of the Kalahari: A Study in Ecological Anthropology*. Tokyo: University of Tokyo Press.
- Taylor, Douglas. 1956. "Kinship and Social Structure of the Island Carib." *Southwestern Journal of Anthropology*, 12: 180–212.
- Teit, James. 1930. *The Coeur d'Alene*. Bureau of American Ethnology Report No. 45. Washington, D.C.: U.S. Government Printing Office.
- Teleki, Geza. 1973. *The Predatory Behavior of Wild Chimpanzees*. Brunswick, N.J.: Bucknell University Press.
- Thoden van Velzen, H. U. E., and W. van Wetering. 1960. "Residence, Power Groups, and Intra-Societal Aggression." *International Archives of Ethnography*, 49: 169–200.
- Thomas, Elizabeth Marshall. 1959. *The Harmless People*. New York: Vintage Press.
- Tiger, Lionel. 1969. *Men in Groups*. New York: Random House.
- Tiger, Lionel, and Robin Fox. 1971. *The Imperial Animal*. New York: Delta Press.
- Tinbergen, Niko. 1961. *The Herring Gull's World*. New York: Basic Books.
- de Tocqueville, Alexis. 1994 [1835]. *Democracy in America*. New York: Knopf.

- Tonkinson, Robert. 1978. *The Mardudjara Aborigines: Living the Dream in Australia's Desert*. New York: Holt, Rinehart and Winston.
- . 1984. "Councils, Corporations, and the Aboriginal Polity." *Anthropological Forum*, 5: 377–381.
- Tooby, John, and Leda Cosmides. 1992. "The Psychological Foundations of Culture." In J. H. Barkow, L. Cosmides, and J. Tooby, eds., *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, pp. 19–136. New York: Oxford University Press.
- Tooby, John, and Irven DeVore. 1987. "The Reconstruction of Hominid Behavioral Evolution through Strategic Modeling." In W. G. Kinzey, ed., *The Evolution of Human Behavior: Primate Models*, pp. 183–238. Albany: SUNY Press.
- Trivers, Robert L. 1971. "The Evolution of Reciprocal Altruism." *Quarterly Review of Biology*, 46: 35–57.
- . 1972. "Parental Investment and Sexual Selection." In B. G. Campbell, ed., *Sexual Selection and the Descent of Man, 1871–1971*, pp. 136–179. Chicago: Aldine.
- Tuden, Arthur. 1966. "Leadership and the Decision-Making Process." In V. W. Turner, M. J. Swartz, and A. Tuden, eds., *Political Anthropology*, pp. 275–283. Chicago: Aldine.
- Turnbull, Colin M. 1965. *Wayward Servants: The Two Worlds of the African Pygmies*. Westport, Conn.: Greenwood Press.
- . 1972. *The Mountain People*. New York: Simon and Schuster.
- Turner, Victor. 1957. *Schism and Continuity in an African Society: A Study of Ndembu Village Life*. Manchester: Manchester University Press.
- Turton, David. 1977. "War, Peace, and Mursi Identity." In K. Fukui and D. Turton, eds., *Warfare among East African Herders*, pp. 179–210. Osaka, Japan: National Museum of Ethnology.
- Tutin, Caroline E. 1996. "Ranging and Social Structure of Lowland Gorillas in the Lopé Reserve, Gabon." In W. C. McGrew, L. F. Marchant, and T. Nishida, eds., *Great Ape Societies*, pp. 58–70. Cambridge: Cambridge University Press.
- Uehara, Shigeo, Mariko Hiraiwa-Hasegawa, Kazuhiko Hosaka, and Miya Hamai. 1994. "The Fate of Defeated Alpha Male Chimpanzees in Relation to Their Social Networks." *Primates*, 35: 49–55.
- Van de Velde, Franz. 1956. "Les règles du partage des phoques pris par la chasse aux aglus." *Anthropologica*, 3: 5–15.
- Vehrencamp, Sandra L. 1983. "A Model for the Evolution of Despotism versus Egalitarian Societies." *Animal Behavior*, 31: 667–682.
- de Waal, Frans. 1982. *Chimpanzee Politics: Power and Sex among Apes*. New York: Harper and Row.
- . 1989. *Peacemaking among Primates*. Cambridge, Mass.: Harvard University Press.
- . 1992. "Coalitions as Part of Reciprocal Relations in the Arnhem Chimpan-

- zee Colony." In A. H. Harcourt and F. B. M. de Waal, eds., *Coalitions and Alliances in Humans and Other Animals*, pp. 233–258. Oxford: Oxford University Press.
- 1994. "Chimpanzee's Adaptive Potential: A Comparison of Social Life under Captive and Wild Conditions." In Richard W. Wrangham, W. C. McGrew, Frans B. M. de Waal, and Paul G. Heltne, eds., *Chimpanzee Cultures*, pp. 243–266. Cambridge, Mass.: Harvard University Press.
- 1996. *Good Natured: The Origins of Right and Wrong in Humans and Other Animals*. Cambridge, Mass.: Harvard University Press.
- de Waal, Frans, and Frans Lanting. 1997. *Bonobo: The Forgotten Ape*. Berkeley: University of California Press.
- Wade, Michael J. 1978. "A Critical Review of the Models of Group Selection." *Quarterly Review of Biology*, 53: 101–114.
- Wagner, Günter. 1940. "The Political Organization of the Bantu of Kavirondo." In M. Fortes and E. E. Evans-Pritchard, eds., *African Political Systems*, pp. 196–236. London: Oxford University Press.
- Washburn, Sherwood L. 1960. "Tools and Human Evolution." *Scientific American* 203: 62.
- Watson, James B. 1983. *Tairora Culture: Contingency and Pragmatism*. Seattle: University of Washington Press.
- Watts, David P. 1996. "Socio-Ecology of Gorillas." In W. C. McGrew, L. F. Marchant, and T. Nishida, eds., *Great Ape Societies*, pp. 16–28. Cambridge: Cambridge University Press.
- Weatherford, Jack M. 1988. *Indian Givers: How the Indians of the Americas Transformed the World*. New York: Crown Press.
- Weber, Max. 1947. [n.d.]. *The Theory of Social and Economic Organization* ed. Talcott Parsons. New York: Free Press.
- Westermarck, Edward. 1894. *The History of Human Marriage*. New York: Macmillan.
- Weyer, E. 1932. *The Eskimos*. New Haven: Yale University Press.
- Whallon, Robert. 1989. "Elements of Cultural Change in the Later Paleolithic." In P. Mellars and C. Stringer, eds., *The Human Revolution: Behavioural and Biological Perspectives on the Origins of Modern Humans*, pp. 433–454. Edinburgh: Edinburgh University Press.
- Wheeler, Peter E. 1985. "Loss of Functional Body Hair in Man. The Influence of Thermal Environment, Body Form, and Bipedality." *Journal of Human Evolution*, 14: 23–28.
- White, Frances J. 1992. "Pygmy Chimpanzee Social Organization: Variation with Party Size and between Study Sites." *American Journal of Primatology*, 26: 203–214.
- White, Leslie. 1959. *The Evolution of Culture*. New York: McGraw-Hill.

- Whiten, Andrew, and Richard Byrne. 1988. "Tactical Deception in Primates." *Behavioral and Brain Sciences*, 11: 233–244.
- eds. 1997. *Machiavellian Intelligence II*. Cambridge: Cambridge University Press.
- Wiessner, Polly. 1982. "Risk, Reciprocity and Social Influences on !Kung San Economics." In E. Leacock and R. B. Lee, eds., *Politics and History in Band Societies*, pp. 61–84. Cambridge: Cambridge University Press.
- 1996. "Leveling the Hunter: Constraints on the Status Quest in Foraging Societies." In P. Wiessner and W. Schiefenhovel, eds., *Food and the Status Quest: An Interdisciplinary Perspective*, pp. 171–191. Oxford: Berghahn Press.
- Williams, B. J. 1969. "The Birhor of Hazaribagh." In D. Damas, ed., *Contributions to Anthropology: Band Societies*, pp. 142–150. National Museum of Canada Bulletin 228. Ottawa.
- Williams, George C. 1966. *Adaptation and Natural Selection: A Critique of Some Current Evolutionary Thought*. Princeton: Princeton University Press.
- Wilson, David S. 1975. "A General Theory of Group Selection." *Proceedings of the National Academy of Sciences*, 72: 143–146.
- 1977. "Structured Demes and the Evolution of Group-Advantageous Traits." *American Naturalist*, 111: 157–185.
- 1980. *The Natural Selection of Populations and Communities*. Menlo Park, Calif.: Cummings Press.
- 1983. "The Group Selection Controversy: History and Current Status." *Annual Review of Ecology and Systematics*, 14: 159–187.
- 1989. "Levels of Selection: An Alternative to Individualism in Biology and the Social Sciences." *Social Networks*, 11: 257–272.
- 1990. "Weak Altruism, Strong Group Selection." *Oikos*, 59: 135–140.
- 1991. "On the Relationship between Evolutionary and Psychological Definitions of Altruism and Selfishness." *Biology and Philosophy*, 7: 61–68.
- 1992. "Complex Interactions in Metacommunities, with Implications for Biodiversity and Higher Levels of Selection." *Ecology*, 73: 1984–2000.
- 1997. "Incorporating Group Selection into the Adaptationist Program: A Case Study Involving Human Decision Making." In J. Simpson and D. Kendrick, eds., *Evolutionary Approaches to Personality and Social Psychology*, pp. 345–386. Hillsdale, N.J.: Lawrence Erlbaum Associates.
- ed. 1997. *Multilevel Selection: A Symposium Organized by David Sloan Wilson*. *American Naturalist* 150: S1–S134.
- Wilson, David S., and Kevin Kniffen. 1999. "Social Transmission and Multilevel Selection: The Partitioning of Phenotypic Variation within and among Groups." *Human Nature* (in press).
- Wilson, David S., and Elliot Sober. 1994. "Reintroducing Group Selection to the Human Behavioral Sciences." *Behavioral and Brain Sciences*, 17: 585–654.

- Wilson, Edward O. 1975. *Sociobiology: The New Synthesis*. Cambridge, Mass.: Harvard University Press.
- 1978. *On Human Nature*. Cambridge, Mass.: Harvard University Press.
- Wilson, James Q. 1993. *The Moral Sense*. New York: Free Press.
- Wissler, Clark. 1923. *Man and Culture*. New York: Crowell.
- 1926. *The Relation of Nature and Man in Aboriginal North America*. New York: Oxford University Press.
- Wolpoff, Milford H. 1996. "Australopithecus: A New Look at an Old Ancestor." *General Anthropology*, 3: 1–7.
- Woodburn, James. 1982. "Egalitarian Societies." *Man*, 17: 431–451.
- Wrangham, Richard. 1980. "An Ecological Model of Female-Bonded Primate Groups." *Behaviour*, 75: 262–300.
- 1987. "African Apes: The Significance of African Apes for Reconstructing Social Evolution." In W. G. Kinzey, ed., *The Evolution of Human Behavior: Primate Models*, pp. 51–71. Albany: SUNY Press.
- Wrangham, Richard, and Dale Peterson. 1996. *Demonic Males: Apes and the Origins of Human Violence*. Boston: Houghton Mifflin.
- Wrangham, Richard W., William C. McGrew, Frans B. M. de Waal, and Paul G. Heltne, eds. 1994. *Chimpanzee Cultures*. Cambridge, Mass.: Harvard University Press.
- Wright, Robert. 1994. *The Moral Animal: Why We Are the Way We Are: The New Science of Evolutionary Psychology*. New York: Vintage Press.
- Wynne-Edwards, V. C. 1962. *Animal Dispersion in Relation to Social Behavior*. Edinburgh: Oliver and Boyd.
- Yamigawa, Juichi, Tamaki Maruhashi, Takakazu Yumoto, and Ndunda Mwanza. 1996. "Dietary and Ranging Overlap in Sympatric Gorillas and Chimpanzees in Kauzi-Biega National Park, Zaire." In W. C. McGrew, L. F. Marchant, and T. Nishida, eds., *Great Ape Societies*, pp. 82–100. Cambridge: Cambridge University Press.
- Zvelebil, Marek. 1991. "Reply to Peter Gardner, 'Foragers' Pursuit of Individual Autonomy.'" *Current Anthropology*, 32: 565–566.

Index

- Abuse of power. *See* Power
- Aché, 184
- Actuarial intelligence. *See* Cognition
- Adaptive modifications, 126, 131
- Afghanis, 101, 118, 255
- Agonism. *See* Conflict
- Agta, 8, 248
- Alaskan Eskimos, 78, 82
- Alexander, Richard D., 2, 11, 14, 129, 185, 199, 202, 221, 225, 229, 230, 246
- Allen, J. S., 150
- Alliances. *See* Coalitions
- Altruism, 197–224; genetic, 3, 12, 14, 15; as genetic paradox, 197, 200, 205, 210, 211; defined, 199–201, 203, 204–212, 222, 254; socially influenced, 202, 211, 213, 246; psychological, 203, 245–247
- Ambivalence: structural conflicts at the level of genotype, 3, 4, 15, 162, 231–258; phenotypic, 15, 71, 117, 163–164, 166, 167, 169, 170, 192, 195, 213, 214, 225, 227, 229, 231–232, 239, 243; in political life, 15, 237–247; in social life, 242–245
- America, 1, 4, 11, 26, 56–57, 71, 74, 86, 101, 226, 254, 256–257
- Anarchic societies, 32, 87, 152, 226, 233
- Anatomically Modern Humans. *See* Evolution
- Andamans, 33, 78
- Anthropology, 2, 21, 30, 31–32, 40, 44, 47, 50–52, 58, 61, 67, 76, 81, 84, 103–104, 118, 128–129, 152, 154, 197, 199–200, 203–204, 218, 226, 229–230, 232–234, 236, 241, 246–247, 251, 256–258; anthropologists meet egalitarians, 16–42, 103; biases, 33, 41–42, 200, 225–226, 233; methodology, 66, 68, 85, 116, 149, 228, 230, 240
- Antihierarchical behavior, 9, 10–12, 14, 52, 56, 60, 67, 82, 83, 84, 86, 102, 105, 112–113, 172, 194, 236, 251; counterdominant behavior, 10, 86; resentment of domination, 15, 39, 54, 103, 112, 194, 215, 235, 237, 238, 240, 242; revolutions, 173, 177, 196, 252, 257
- Anuak, 120
- Apes, 2, 3, 12–14, 17–18, 30, 34, 64–66, 125–127, 130, 134–135, 137, 147, 149, 151–152, 154, 170, 175, 181, 187, 226, 252, 255; bonobos, 13, 30, 140, 146, 150, 152–159, 161, 182, 252; disassembling, 15; Arnhem Zoo, 16, 156, 160, 164, 167, 171, 187–188; chimpanzees, 16–42; harem, 29, 127–128, 131–133, 146, 151, 153, 156–159; gorillas as despotic species, 29, 131–132; chimpanzees as despotic species, 130–131; bonobos as semidespotic species, 133–137; pig grunt (gorilla), 155
- Apinaye, 108, 109
- Aranda, 77
- Arapaho, 70, 71, 76, 77
- Ardrey, Robert, 2, 41, 177, 229
- Aristotle, 220
- Arnhart, Larry, 204, 229
- Arnhem Land, 81
- Arunta, 82
- Assiniboin, 70, 78

- Australian Aborigines, 36, 68, 70, 74–75, 81–82, 119, 249
- Baker, Kate C., 25, 130
- Baldwin, P. J., 153
- Balikci, Asen, 47, 73, 77, 81, 83, 185, 203, 211, 214, 216, 243, 244
- Band level societies, 5, 8, 9, 10, 11, 12, 30; mobile bands, 3, 4, 5, 6, 13, 30, 37–38, 63, 66, 69, 76, 79, 85, 86, 90, 91, 124, 140, 183, 193, 198, 257; causal explanation of bands, 30, 31, 32, 33–38, 192; sedentary bands, 36, 69, 78–79, 86, 88, 94–95, 102, 113, 124, 142–144, 223; immediate-return foragers, 64, 88, 143; nexus, 227
- Bantu, 106, 120
- Barbosa, Artemio, 8
- Barclay, Harold B., 32, 66, 154
- Barkow, Jerome, 228–229
- Barnsley, John H., 245
- Baruya, 121
- Basehart, Harry, 70, 78
- Basso, Keith, 70
- Batek, 78
- Beattie, John, 145
- Beethoven [chimpanzee], 28
- Behavioral dispositions, 230
- Benedict, Ruth, 247
- Berbers, 92
- Bergstrom, Theodore C., 204
- Bern, John, 75
- Berndt, Catherine H., 82
- Berndt, Ronald M., 82
- Bernstein, Irwin S., 26
- Betzig, Laura, 129, 208, 229
- Bidney, David, 234
- Big-man societies, 13, 123, 142, 147, 237; big men, 13, 100, 102–105, 114–116, 121, 142
- Bihor, 77
- Bilateral kinship, 6
- Biocca, Ettore, 92
- Black, Donald, 212, 245
- Bloch, Maurice, 113, 116
- Blueprints. *See* Cognition
- Blurton-Jones, Nicholas, 45, 117, 138, 154
- Boehm, Christopher, 2–5, 9–11, 25–29, 35, 40, 60, 64, 67, 71, 75–76, 80, 82, 84, 86, 88, 91, 95–99, 101, 114, 118–119, 122–123, 127–130, 135, 152, 154–155, 158, 163, 172, 174, 182–185, 189, 193–194, 199–200, 203, 205, 207–208, 210–211, 215–223, 225, 227–229, 231, 233–234, 236, 239, 242, 244–245
- Boesch, Christophe, 159, 192
- Bohannan, Paul, 92, 96
- Boinski, Sue, 125–126, 133, 171
- Bonobos. *See* Apes
- Boone, James, 125
- Bowles, Samuel, 204
- Boyd, Robert, 95, 112, 207, 213, 229, 244–245, 247
- Brace, C. Loring, 181
- Brain, C. K., 177, 226
- Bridges, E. Lucas, 62
- Briggs, Jean L., 47, 50–59, 63–64, 77–78, 119, 188, 212, 214, 225, 241
- Briggs, Lloyd Cabot, 120
- Brooks, Alison S., 181
- Brown, Donald, 6, 129, 228–229, 248–251
- Brown, James A., 143
- Brunton, Ron, 37
- Busama, 109, 120–121
- Butt, Audrey, 105
- Byrne, J. M., 136, 159, 177
- Byrne, Richard W., 136, 159, 177, 182
- Calusa, 86
- Calvin, William H., 176
- Campbell, Donald T., 3, 69, 140, 199, 204, 207, 213, 222, 225, 228–229, 231, 243, 245
- Canela, 113
- Cannon, A., 6
- Carib, 120
- Carpenter, C. R., 34, 39
- Casey, J., 6
- Cashdan, Elizabeth A., 37, 43, 75, 138, 153, 222
- Cayapo, 113
- Central Canadian Eskimo, 83
- Chagnon, Napoleon, 92–94, 96, 109, 119, 204
- Chickens, 171, 172
- Chiefdom level societies, 3, 5, 6, 10, 13, 29, 31, 65, 69, 90–91, 97, 104, 106, 123, 144–147, 152, 237, 242, 255; kingdoms, 6, 13, 31–33, 104, 106, 145–146, 242, 255

- Child-rearing, 7
- Chimpanzees. *See* Apes
- Civilized societies: civilization, 3, 6, 32–33, 65, 95, 97, 106, 140, 146, 255; democracies, 11–13, 42, 146, 237, 242, 254–255, 257; state formation, 97, 100–101
- Clark, Adam P., 189
- Clastres, Pierre, 78, 108, 113, 120
- Coalitions, 2, 3, 23, 25, 35, 94, 155–158, 159–162, 159–162; fraternal interest groups, 5, 141; rank and file, 9–12, 29, 40, 60, 66, 75–76, 79, 117, 120, 123, 128, 140, 142, 145, 154, 162, 172–173, 193, 196, 236, 237, 239, 241, 253; mobbing behavior, 18, 28, 130, 137, 158–160, 177, 182, 240; factions, 87, 116, 145, 157; tribal segmentation, 90, 91, 92, 97, 98, 101, 113, 119, 141, 144, 254, 255
- Coeur d'Alene, 70, 78
- Cognition: ideologies, 4–5, 7, 12, 14, 38, 67, 72, 90, 93, 103, 106, 123, 137, 141, 203, 227, 246, 251, 256–257; blueprints, 12, 60, 87, 109, 186, 193–194, 223, 254, 257–258; actuarial intelligence, 24, 46, 183–187, 192, 193, 213; political intelligence, 181–183, 191, 193, 198
- Cohen, Mark N., 40
- Comanche, 81
- Common Ancestor, 3, 13, 14, 127, 149–155, 157–159, 161, 170, 182, 252
- Competition, 1, 10, 14, 16, 32, 34, 40, 41, 44, 84, 88, 95–96, 118, 126, 143, 145–147; by males for females, 7, 8, 94, 126–128, 130–132, 135, 137, 140–141, 160, 170; as status rivalry, 10, 16, 23, 24, 40, 79, 88, 95, 106, 129, 130, 131, 135, 138, 141, 145, 163, 238; as self-aggrandizement, 72, 87, 108, 110, 113; over food, 138–139, 151, 154, 163, 174, 176, 197, 204, 217, 222, 227, 231, 233, 248, 254, 256
- Conflict: warfare, 5, 6, 8, 33, 81, 83, 91–93, 94–98, 99, 108, 109, 112, 115, 118, 119, 141, 143, 158, 182, 206, 221, 236, 239, 254; raiding, 5, 48, 91–94, 96, 98, 108–109, 112, 114, 130, 136, 141, 158, 221–223; feuding, 5, 81, 91, 96–100, 112, 119, 141, 158, 180, 233; homicide, 7, 44, 45, 63, 68, 80–81, 93, 94, 96, 121, 137–141, 175, 179, 186, 226, 227, 267, 272; weapons, 14, 82, 174–181, 194, 221; agonism, 16, 133, 135, 166, 176, 189; warriors, 70, 90, 92, 95–100, 106, 107, 111, 118, 164; fissioning, political, 76, 86, 93–94, 96, 108, 119, 131, 133, 146, 190, 211; revenge, 80, 81, 96, 140, 233; dueling, 93, 137; refuge area warriors, 98–101, 255; head-hunting raids, 99, 101; warfare hypothesis, 221–223
- Conflict management, 16, 35, 93, 96, 97, 108, 137; conflict resolution, 16, 26, 80, 97, 108, 118, 141, 145, 237; conflict interventions, 26–27, 34–35, 80, 93, 108, 109, 132, 134, 145, 155, 160, 167, 169, 188, 239; truces, 96
- Conn, Stephen, 67
- Cooperation, 67, 69, 72, 73, 76, 80, 185, 192, 203, 208, 212, 213, 214, 226, 227, 231, 233, 245, 250, 254; sharing, 7, 22, 31, 33, 38, 42, 44, 46, 47, 49, 55, 56, 62, 64, 67, 70, 73, 76, 77, 108, 135, 138, 139, 141, 143, 147, 163, 183, 184, 191–193, 203, 205, 207, 209, 212, 213–216, 222, 226, 244, 250; prosociality, 185, 245; antlike societies, 254
- Copper Eskimo, 81
- Corning, Peter, 204
- Cosmides, Leda, 204, 228–230
- Count, Earl, 33
- Cross-cultural methodology, 84
- Cultural ecology, 128
- Cultural variables, 8
- Cuna, 117, 120
- Current Anthropology*, 10, 154
- Daly, Martin, 81, 95, 221, 227, 229–230, 233
- Damas, David, 81
- Dart, Raymond, 177, 226
- Darwin, Charles, 40, 41, 174, 201–202, 204, 207, 220, 228–229, 244
- Deal, M., 6
- Democracies. *See* Civilized societies
- Denig, Edwin T., 70, 78
- Dentan, Robert K., 66
- Despotism: ethological, 1, 30, 64, 125–148, 252; political, 2, 242; slavery, 4, 5, 6;

- Despotism (*continued*)
 bullies, 8, 27, 29, 67, 68, 121, 192, 195,
 207, 208, 212, 214, 235, 245
- de Tocqueville, Alexis, 1, 252
- DeVore, Irven, 14, 150
- de Waal, Frans, 2, 5, 11, 16, 23–27, 66, 125,
 129, 131, 133, 135, 154–156, 161,
 163–164, 166–169, 172, 182, 188, 214,
 238
- Dickson, H. R. P., 120
- Dimorphism, 7, 8, 15, 40, 127, 131, 159,
 174, 175
- Djilas, Milovan, 97, 100
- Dole, Gertrude E., 119
- Dominance, 2, 3, 9, 10, 11, 15, 17, 23, 126;
 threats, 10–11, 24–25, 27, 39–41, 43,
 55–57, 59, 66, 67, 68, 70–71, 73, 75,
 79–80, 82–83, 98, 102, 111, 113, 115, 127,
 140, 163, 166–167, 169, 175–176, 180,
 239–240, 250; instability, 25, 163–164,
 195; domination episodes, 79, 82–83,
 86–88, 90, 118, 121–124, 140, 186, 190,
 240, 242; insults, 96, 118; collective
 domination of leaders, 235, 239. *See also*
 Despotism
- Doves [ideological], 2, 226–227
- Dumont, Louis, 40
- Dunbar, Robin, 174, 182, 190, 191, 198,
 206, 214
- Dunford, Christopher, 162, 228
- Durham, William H., 247
- Durkheim, Emile, 60, 92, 118, 246
- Earle, Timothy, 97, 123
- East African pastoralists, 103–106, 117, 239
- Ecological variables, 8, 104, 151
- Economics, 6, 36, 37, 38, 71, 104, 106, 112,
 123, 141, 142–144, 146, 183, 248, 250,
 255, 257
- Edgerton, Robert B., 119, 138, 185, 245
- Egalitarianism: ethological, 1, 30; equality,
 1, 6, 75, 105; societies of equals, 1, 4, 234;
 personal autonomy, 1, 9, 11, 36, 43,
 63–68, 75, 83–84, 87–88, 100, 124,
 140–141, 186, 190, 193, 236, 255; leveling
 mechanisms, economic, 1, 4, 8, 33, 59,
 64, 68, 70, 102, 103, 248, 256; leveling
 mechanisms, political, 2, 3, 4, 5, 19, 33,
 64, 93, 102, 182; classless society [*see also*
 Marx; Marxism], 4, 256; gender equality,
 6; individualism, 15, 36, 105; leveling
 mechanisms, 34, 38–40, 102, 104, 109;
 primus inter pares, 33, 68–69, 107, 111,
 116, 151, 232; intentional societies, 60,
 67, 193; freedom, 65, 68, 84, 114, 170,
 172, 226, 237, 255, 256; gambling, as
 leveling mechanism, 102, 103; theory of,
 1–42, 102, 105; egalitarian revolution,
 172–173
- Eggan, Fred, 6
- Egoism. *See* Natural selection, individual
 selection
- Eibl-Eibesfeldt, Irenäus, 147, 152, 174–175,
 220, 225–229
- Ekman, Paul, 228
- Elkin, Henry, 71
- Ellis, Lee, 207
- Ember, Carol, 6, 62, 81
- Emotions: anger, 50–51, 53, 56–59, 65, 68,
 72, 80, 120, 138, 201, 244; jealousy, 107,
 137; lust, 244
- Endicott, Kirk, 78
- Enga, 97, 113–116, 117, 118
- Engels, Friedrich, 256
- Environment, 2, 13, 26, 30–31, 35–38, 41,
 52, 54, 60, 67, 73, 85–86, 104–106, 122,
 127–129, 133, 146, 147, 150, 158, 175,
 183, 194–195, 206, 210–211, 217–219,
 222–223, 228, 230, 243, 244, 252, 255;
 resource unpredictability, 6; climate
 changes, 95
- L'Equipe ecologie et anthropologie des sociétés
 pastorales*, 88, 106
- Erdal, David, 2, 10, 66, 86, 88, 154, 191,
 193, 207, 213–214, 225
- Erhardt, Carolyn, 26
- Eskimos [traditional ethnographic term for
 Inuit peoples], 47, 50–51, 53–54, 57, 75,
 78, 82–83, 86, 193, 243. *See also specific
 groups by name*
- Ethology, 2, 125, 232
- Ethos. *See* Morality; Values
- Europe, 4
- Evans-Pritchard, E. E., 31–33, 92, 96, 98
- Evered [chimpanzee], 18, 27, 28
- Evolution: origins, 1, 4, 14, 105, 173, 191,
 194–196; hominoids, 3, 12–13, 125, 127,
 146, 160, 187; evolutionary psychology,
 12, 14; referential model [chimpanzee],
 13, 14, 150, 252–253; cladistic models,

- 14, 149–152; evolutionary biology, 14, 230; anti-evolutionism, 32; U-shaped curve (Knauff), 64, 236; *Homo sapiens*, 127, 129, 198, 219, 247; Anatomically Modern Humans, 150, 176, 191, 194, 196, 219; *Homo erectus*, 176, 183, 191, 196, 198; rate of, 196; modular evolutionary approaches, 228
- Faben [chimpanzee], 20
- Falsification, 83–86
- Familial ideology in bands, 72
- Family, 4, 5, 8, 9, 31, 38, 46, 51, 52–57, 62, 67–70, 73, 77, 87, 100, 110–112, 138, 139, 159, 180, 184, 209–213, 216, 243, 245, 248
- FBI, 242
- Females. *See* Gender
- Feuding. *See* Conflict
- Figan [chimpanzee], 20
- Firth, Raymond, 144
- Fissioning. *See* Conflict
- Flanagan, James G., 38, 227
- Flannery, Regina, 70
- Foragers, 64–89
- Fortes, Meyer, 31–33
- Fortune, Reo, 226
- Fossey, Dian, 29, 131–132, 153, 155–156
- Fox, Robin, 2, 33, 40, 152, 221, 225, 229–230, 247
- Fraternal interest groups. *See* Conflict
- Fredrickson, B. Eric, 37, 211
- Freeman, Derek, 117, 120
- Free-riders, 198, 203, 205, 206, 212–217, 224, 243
- Freuchen, Peter, 73, 81
- Freud [chimpanzee], 18, 19, 20, 23, 28, 168
- Freud, Sigmund, 18–20, 23, 28, 168, 231
- Fried, Morton H., 2, 29–30, 32–35, 37–39, 41, 50, 60, 62, 68, 90, 96, 104, 112, 128, 138, 141, 147–148, 152, 170, 208, 227, 230
- Friedman, Milton, 104
- Friesen, W. V., 228
- Frodo [chimpanzee], 20, 23, 27
- Gahuku-Gama, 111
- Gardner, Peter, 36, 43, 66, 67, 68, 75, 86, 88
- Gayton, A. H., 78
- Gebusi, 36, 83
- Geertz, Clifford, 247
- Gender: females, 2–9; males, 2–9
- Geronimo [Apache leader], 78
- Gillen, F. J., 82
- Gingrich, Newt, 11
- Gintis, Herbert, 204
- Gluckman, Max, 37, 120
- Goblin [chimpanzee], 18, 19, 20–23, 26–29, 160, 164, 167, 169, 188–189, 241
- Godelier, Maurice, 103, 121, 142
- Gombe National Park, Tanzania, 16, 17, 21–27, 39, 136, 158, 160, 166, 168, 171, 177, 188–189, 192, 241
- Goodall, Jane, 5, 16, 18, 20, 22–25, 27, 29, 34, 39, 91, 130, 133, 136, 155–156, 158, 160, 163–167, 171, 176, 182, 187, 189, 222, 238
- Goodman, Madeleine J., 8
- Goody, E., 203, 213
- Gorillas. *See* Apes
- Gould, Richard A., 89, 138, 143, 210
- Government, 11, 32, 33, 35, 39, 51, 67, 86, 87, 92, 98, 101, 108, 111, 144, 146, 149, 231, 237, 249, 251, 255; constitutions, 4, 12, 67, 254; democracy, 4, 13, 42, 242, 249, 252, 256–257; political centralization, 4, 123; consensus, 5, 31, 76, 87, 102, 113–114; checks and balances, 11, 98, 146, 256–257; bills of rights, 12; governance among chimpanzees, 26, 27, 29, 31; tribal councils, 48, 99, 116; political transitions, 88, 125; kingmakers, 171
- Greece, 1, 4
- Greenberg, Joseph H., 247
- Greenland Eskimos, 83, 86
- Groebel, Jo, 245
- Grooming, 24, 159, 191
- Gruenhagen, D., 97, 113, 115–117
- Gruter, Margaret, 74, 118, 213
- Guenther, Mathias, 36
- Guggenheim Foundation. *See* Harry Frank Guggenheim Foundation
- Hadza, 44, 75, 82, 117, 120, 138
- Haig, General Alexander, 11
- Hamadryas, 127
- Hamai, M., 156, 238
- Hamilton, W. D., 202, 205
- Hand, Judith Latta, 192
- Harcourt, Alexander H., 135, 155, 182

- Harry Frank Guggenheim Foundation, 64
 Hart, David M., 92
 Hasegawa, T., 130
 Haviland, John B., 73, 246
 Hawkes, Christen, 184
 Hawks [ideological], 2, 226–227
 Hayden, Brian, 6
 Heider, Karl G., 226
 Heintz, H., 227
 Heltne, Paul G., 187
 Hercegovina, 5, 51, 98, 101
 Herskovits, Melville J., 247
 Hewes, Gordon, 190
 Hierarchies, 1, 2, 3, 4, 5, 12, 16, 24, 34, 64, 79, 86, 151; social dominance hierarchies, 1, 12, 14, 24, 25, 39, 64–66, 79, 88, 126–128, 132, 133, 136, 145, 151, 152, 155, 162, 173, 175, 182, 188, 190, 207, 236, 252; alphas, 2–3, 5, 11, 16, 18–20, 22–28, 30, 38, 61, 66, 79–80, 105, 123, 130–131, 137, 145, 147, 156–157, 160–161, 166–169, 171, 173–174, 177, 182, 187–191, 194–196, 207, 217, 235, 238, 240–241, 255; reverse dominance hierarchies, 3, 10, 11, 12, 14, 22, 23, 64–66, 79, 85–88, 91–116, 123, 127–128, 146, 154, 172–174, 181, 182, 187, 190, 198, 227, 235, 237, 253, 255; prestige, 7, 34–35, 46, 62, 77, 92, 142, 248; orthodox hierarchies, 14, 134, 237; of chimpanzees, 16–42; linear hierarchies, 171; social stratification, 32, 88, 104, 142, 248
 Hilger, Sister Inez M., 70, 77
 Hinde, Robert A., 245
 Hiraiwa-Hasegawa, M., 130, 238
 Hitler, Adolph, 26
 Hobbes, Thomas, 2, 149, 225, 226–227
 Hockett, C. F., 189
 Hoebel, Bartley, 228
 Hoebel, E. Adamson, 81, 137
 Hogbin, H. Ian, 109–110, 120–121
 Holmberg, Allen, 77, 138–139
 Homicide. *See* Conflict
 Hominoids. *See* Evolution
 Honor. *See* Morality
 Hopi, 6, 48, 226
 Hosaka, Kazuhiko, 156, 160, 238, 280
 Howard, A., 48
 Howe, James, 117, 120
 Human nature, 3, 8, 12, 13, 14, 15, 33, 42, 60, 129, 227–231, 235; political, 1, 2, 6, 12, 15, 29, 86, 87, 105, 130, 149, 173–174; social, 2, 3, 12, 15; innate dispositions, 2, 32, 147, 171, 225, 230, 236, 252; lability of, 2, 3, 24, 128, 228, 233, 236; behavior genes, 7, 15, 127, 147, 152, 174, 175, 197, 199, 200, 201, 202, 203, 205, 206, 207, 209, 212–217, 220–221, 223, 224, 236, 238, 243, 249, 252, 254; innate dominance, 10, 34, 39, 41, 64, 88, 124, 234; egoism, 14, 15, 17, 23, 243, 244, 245, 254; nepotism, 14, 15, 139, 184, 199, 200, 202, 203–204, 210, 217, 221, 231, 235, 243, 244, 253, 254; generosity, 15, 33, 68–73, 106–113, 122–123, 142, 185–186, 200–201, 203, 210, 213, 221, 234, 244–246, 249; displays, 16–42, 58, 80, 105, 126, 132, 136, 164, 166–169, 175–177; hedonistic tendencies in, 20, 229; innate dominance denied, 32, 40; drive to parity, 35, 39, 128, 148, 170; blank slate, 39, 127–129, 237; drive to dominance, 39, 128, 147; aversion to subordination, 162, 173, 174, 234, 235, 238; displays, loss of, 181, 253–255; innate ambivalence, 227, 231–232, 237, 243. *See also* Ambivalence
 Hunter-gatherers, 64–89
 Hunting: hunters, 7, 8, 9, 62; large game hunting by humans, 7, 8, 195; meat, 8, 17–18, 20, 22, 31, 34, 37–38, 43, 45–46, 62–64, 67, 95, 138–139, 167, 169, 183–184, 186, 191–192, 195, 203, 205, 207, 209, 213–214, 216; hunting by chimpanzees, 17, 21; variance-reduction, 46, 139, 193, 195
 Hussein, Saddam, 26
 Iban, 117, 120
 Iliaura, 82
 India, 4, 75, 77, 255
 Influence. *See* Power
 Ingebritson, J., 97, 113, 115–117
 Intentions: decisions, 5, 6, 8, 27, 28, 113–117, 235; intentionality, 10, 12, 22, 23, 45, 59, 60, 64, 67, 85, 92, 164, 172, 174, 188, 227, 232, 239, 250, 251
 Inuit, 56, 68, 73, 78–79, 81. *See also* Eskimo

- Inuttiaq, 43–63, 87
 Irons, William, 204
 IRS, 242
- James, William, 225, 231
 Jenness, Diamond, 68, 70
 Jimoh [chimpanzee], 161, 168–169, 239–240
 Jomeo [chimpanzee], 18, 24, 22, 26
- Kalahari foragers, 31, 45, 61, 69–70, 75–77, 82, 117, 169, 178, 186, 226. *See also* !Kung
 Kano, T., 30, 134, 136, 155, 182
 Kaobawa, Yanomamo leader, 109
 Kapauku, 111, 121
 Kaplan, Hillard, 95, 184, 207
 Keeley, Lawrence H., 94, 221, 223, 226
 Kelly, Raymond, 98
 Kelly, Robert L., 2, 6–7, 30, 37, 40–41, 46, 62, 76, 86, 88, 90–91, 94, 138, 143, 153, 155, 183, 192, 199, 207, 211, 213, 216–218, 222
 Kent, Susan, 41, 66, 69
 Kiavirondo Bantu, 106
 Kingdoms. *See* Chiefdom-level societies
 Kluckhohn, Clyde, 49, 84, 129, 229, 234, 247
 Knauft, Bruce B., 2, 4, 7, 31, 36, 44, 65–66, 75–76, 80, 83–84, 138, 153–155, 198, 199, 208, 225, 227, 236
 Kniffen, Kevin, 224
 Konner, Melvin, 228
 Kroeber, A. L., 33, 66, 247
 Kummer, Hans, 126–128
 !Kung, 33, 45–47, 61, 69, 75, 82, 88, 179, 180, 186, 208
 Kuper, Adam, 113
 Kutchin, 71
 Kwakiutl sedentary foragers, 86, 88–89, 143–144, 208
- Lake Tanganyika, 17
 Language, 7, 18, 44, 49, 51, 150, 165, 187–192, 228, 236; oral tradition, 44, 87, 187, 190, 249; displacement in, 160, 174, 189–191, 195, 223
 Lanting, Frans, 136
 Latin America, 4
 Layton, Robert, 37
 Leadership, 4, 6, 7, 9, 10, 27, 31, 32, 33, 61, 68–69; despotic, 3; hereditary, 3, 62, 78, 100, 104, 142, 143, 144, 172; by influence, 8, 9, 27, 54, 61, 97, 104, 111, 120, 121, 154; ignoring leaders, 24, 55–56, 76–78, 120; chieftains, 32, 62, 70–71, 108, 113, 117, 143–144; chiefs, 45, 61, 70, 75, 77–78, 80, 93, 100, 104, 108–109, 117, 120–121, 138–139, 144; Big Men, 45, 104, 114–116, 120–121, 142; Inuit, 52–55; disobedience to leaders, 55, 73–74, 76–77, 79, 84, 105, 119–122; desired qualities in, 69–72; deposing leaders, 73, 74, 78–79, 84, 119–122, 144, 242; desertion of leaders, 74, 78, 119–121; theocratic leaders, 100; war chiefs, 108, 109; peace chiefs, 109; benevolent leader, 242; charisma in, 242
 Lee, Richard B., 45–47, 60–62, 64, 67, 69–70, 75, 80, 82, 88, 95, 117, 121, 152, 176, 178–180, 186, 203, 213, 227
 Leeds, Anthony, 121
 Leveling mechanisms. *See* Egalitarianism
 Lewis, I. M., 107, 120
 Lewis, Oscar, 226
 Lieberman, Philip, 190–191, 228
 Locke, John, 127
 Lorenz, Konrad, 2, 41, 162, 200, 201, 229, 231
 Lowie, Robert, 108–109, 113
 Lumsden, Charles, 162, 228
- Madhi, Niloufer Qasim, 118
 Maine, Sir Henry, 60
 Main political actors, 5, 11, 32, 34, 43, 62, 63, 67, 69, 72, 87, 88, 96, 114, 123, 137, 140, 187, 235, 240, 242, 239; defined, 9
 Mair, Lucy, 120
 Males. *See* Gender
 Malinowski, Bronislaw, 144, 228, 247
 Man, E. H., 78
 Manson, Joseph H., 91, 130
 Marler, Peter, 164
 Marshak, Alexander, 198
 Marshall, Lorna, 70, 226
 Maruhashi, Tamaki, 153
 Marx, Karl, 256
 Marxism, 4, 193, 237, 256
 Masters, Roger D., 2–3, 74, 119, 174, 201, 204, 213, 225, 228–229, 230–231

- Matrilocality, 6
- Maybury-Lewis, David, 117
- Mbuti, 36, 75, 77
- McCarthy, Senator Joe, 11, 242
- McGrew, William C., 153, 176–177
- McKinley, Howard, Jr., 48–49
- Mead, Margaret, 226, 247
- Meggitt, Mervyn, 95, 97, 113–114
- Mennonites, 60
- Menzel, Emil, 39
- Mescalero Apache, 70
- Middleton, John, 31–32
- Mirsky, Jeannette, 83, 210, 244
- Mitchell, William E., 40, 102–105, 110–111
- Mithen, Steven, 75, 183, 198, 208, 228
- Montagu, Ashley, 177
- Montenegro. *See* Civilized societies; Serbs; State level societies; Tribal republics
- Moody-Adams, Michelle, 226
- Moore, Alexander, 98
- Moore, Jim, 150, 153
- Moore, Sally Falk, 119
- Morality, 1, 3, 171, 182, 187, 190, 192, 193, 194, 213, 224, 250, 252–254; moral judgment, 8; moral communities, 8, 10, 11, 14, 43, 47, 55, 60, 64, 67, 82, 110, 119, 122, 123, 139, 140, 144, 159, 167, 172, 180, 182, 185, 188, 190, 191, 193–194; ethos, 12, 33, 43, 50, 60, 66–72, 78–79, 83–84, 86, 88–89, 91, 98–100, 102–106, 108–112, 117, 121–124, 138, 142–145, 172, 186, 190; moral codes, 15, 140, 229; sharing ethic [*see also* Cooperation], 67, 70; values, ethical, 68; moral outrage, 72; honor, 95–96, 118–119; female role in moral communities, 140; protomorality, 172; ethics, 171, 188; preaching, 199, 227
- Moral sanctions: social sanctions, 9, 10, 13, 84–85, 122; execution, 9, 10, 36, 47, 59, 74, 79–88, 112–113, 121–122, 147, 179–180, 190, 241; ridicule, 9, 44, 46, 61, 73–77, 79, 84–85, 88, 116–118, 121–122, 212, 214–215, 241; ostracism, 9, 44, 55–58, 69, 77, 117–119, 241; social pressure, 9, 45, 76, 103, 201; social control, 10, 43–44, 46–47, 55, 59, 60, 62–64, 66–67, 72–73, 75, 79, 91, 121, 188, 190, 192, 212, 214, 227, 234, 241, 245; public opinion, 33, 69, 74–75, 113–117, 124, 144, 168, 207, 237, 240–241; moralistic aggression, 43, 44, 45, 58, 142, 188; criticism as social control, 43, 66, 70, 73–75, 77, 79, 84–85, 117, 118, 122, 124, 214–215, 239, 240; conformity, 44, 60, 207, 214, 244; shunning, 59, 74, 78, 118–119; gossip, 73–74, 86, 113, 117–118, 187, 190–191, 212, 214, 240, 242, 246; capital punishment, 81–82, 112, 119, 180, 227; execution by kin, 83, 119, 121–122; sanctioning, statistical patterns, 122–123; social coercion, 199
- Moral transgressions, 43; political upstarts, 7, 8, 9, 10, 11, 43–48, 51, 55, 57, 58, 60, 69, 74–75, 77–79, 85–87, 100, 103, 116–122, 140, 143, 173, 187, 193, 232, 235, 239, 240, 253; deviance, 9, 44, 47, 61, 67, 72–74, 80, 84, 113, 121, 159–160, 187–188, 191, 194, 216, 245–246; adultery, 35, 80, 82, 93, 110, 138, 141, 194; witchcraft, 36, 49, 82, 83, 84, 162, 263, 272; sorcery, 36, 75, 79, 83, 110; greed, 39, 43, 49, 107; murder, 43, 53, 68, 73, 79, 81–83, 86, 100, 140, 179, 194, 245, 249; recidivist killers, 43, 79–83, 86, 88; incest, 47, 85, 140, 194; stinginess, 56, 61, 68, 70, 73, 246; lying, 69, 98, 194; theft, 69, 73, 85, 135, 194, 214; proscriptions, 70, 140, 185, 245, 250; deviant colonies (Inuit), 73; cheating, 85, 194, 203, 212, 214–216; rape, 92, 194, 245, 249; deception, tactical, 182; freeloading, *see* Free-riders
- Morgan, Lewis H., 4, 30, 98
- Morocco, 92
- Morris, Desmond, 229
- Multi-level selection. *See* Natural selection
- Murdock, George Peter, 247
- Murphy, Robert F., 120
- Mustard [chimpanzee], 18, 19, 22–24, 28
- Mwanza, Ndunda, 153
- Myers, Fred R., 68, 70, 74–75
- Nakamura, M., 156
- Nambikuara, 108
- Nandi, 120
- Natural selection: genes, 2, 7, 12, 13, 41, 42, 86, 132, 181, 198, 202, 204, 205–207, 209–210, 222, 230, 231, 242;

- sociobiology, 2, 12, 14, 203, 225, 247;
 reproductive success, 3, 7, 76, 126, 130,
 132–133, 156, 159, 163, 175, 182, 200,
 202, 205, 207–208, 210–211, 220, 253;
 levels of selection, 12, 14, 15; phenotypic
 variation, 12, 205, 207–209, 212, 214,
 217, 224; preadaptations, 14, 149, 159,
 173, 176, 181, 194; group selection, 14,
 197–199, 204–212, 217, 219, 221;
 reciprocal altruism, 15, 184, 199, 202,
 203; inclusive fitness, 41, 199–200, 202,
 220, 229; sexual selection, 131, 174, 175,
 176; kin selection, 184, 199, 202, 220;
 rate of evolution, 196; free-riders, 198,
 203, 205, 206, 212–217, 224, 243;
 individual selection, 199, 203, 204,
 206–210, 217; parasitic selection,
 220–221; pleiotropic effects, 220–221,
 223, 229
- Navajos, 47–51
- Netsilik, 47, 60, 81, 83, 184, 211, 216, 243
- New Guinea, 36, 83, 95, 97, 100, 103, 109,
 111, 113–117, 120–121
- Nilotes, 105
- Nishida, Toshisada, 23, 25, 29, 34, 130, 136,
 156, 160, 187, 222, 238, 280
- Nixon, Richard, 11, 242
- Nuer, 92, 98–99, 105
- Ona, 62
- Opler, Marvin K., 78
- Ortiz, Sutti, 48, 129
- Ottoman Empire, 98–101
- Pakistanis, 117
- Paleolithic, 1, 3, 12, 14, 15, 91, 95, 137, 197,
 199, 201, 203, 205–207, 197–224, 229,
 236, 242, 256
- Palmer, Craig T., 37, 211
- Patrilocality, 6. *See also* Fraternal interest
 groups
- Peristiany, Jean G., 96
- Peterson, Dale, 2, 13, 23, 129, 132–136,
 150–151, 155, 176, 204, 238, 249
- Peterson, J., 8
- Peterson, Nicholas, 45, 138, 213
- Philippines, 8
- Philosophers, indigenous, 45, 87, 164
- Philosophy, 4, 116, 200, 204, 225, 226
- Pilbeam, David, 175
- Pinker, Stephen, 228
- Plains Indians, 108
- Pleistocene, 14
- Pokot, 120
- Policemen, 98, 109, 146, 224, 249
- Political intelligence. *See* Cognition
- Popper, Karl, 85
- Pospisil, Leopold, 111, 119, 121
- Postmodernist School of Anthropology, 247
- Potts, Richard, 37, 95, 150, 195, 218–219,
 222, 228
- Power, 4, 5, 6, 7, 27, 67; influence, 4, 6, 8, 9,
 27, 29, 31, 34, 44, 54, 61, 71, 76, 97, 100,
 104, 111, 120–121, 124, 136, 154, 202,
 245; coercive, 4, 7, 27, 39, 41, 79, 97, 100,
 105, 145–146, 160, 199–200, 202, 237,
 241, 256; authority, 5–7, 10–11, 14, 18,
 26, 27, 30–36, 39, 53, 60–62, 66, 68–69,
 71, 76, 80; female power, 5–9; ambition,
 8, 10, 22–23, 25, 107, 163, 238, 248;
 abuse of, 11, 83, 145, 241–242, 251, 252;
 defined, 86–88, 91–93, 97–98, 100–101,
 105–112, 116, 119–121, 141–142,
 144–145, 166, 172, 195, 252, 255–256
- Power, Margaret, 131, 134
- Preadaptive potential, 152
- Predators, 29, 127, 131, 136, 158, 159–163,
 167, 176, 181, 182, 183, 200, 243;
 predator defense, 158–159
- Pregnancy, 7
- Price, T. Douglas, 143
- Primates, 1, 3, 7, 33–35, 125, 127, 146, 158,
 174, 182, 237; monkeys, 2, 34, 126, 133,
 138, 167, 171, 252; squirrel monkeys,
 126, 133, 171, 252. *See also* Apes;
 Hamadryas
- Primatology, 2
- Promiscuous breeding, 17, 26, 127
- Psychotics, 7
- Pulliam, H. Ronald, 162, 228
- Pusey, Anne E., 25, 130, 156
- Python, 28
- Quain, Buell, 120
- Radcliffe-Brown, A. R., 33
- Rasmussen, Knud, 82
- Rayner, Steven, 38, 227

- Read, Kenneth E., 111
 Reagan, Ronald, 11
 Redfield, Robert, 226
 Reproductive physiology, 8
 Reputation, 7, 54, 74, 80, 82, 107, 246. *See also* Status
 Richards, Audrey, 113
 Richerson, Peter J., 95, 112, 207, 213, 229, 244–245, 247
 Riches, David, 79
 Ridley, Matt, 229–230
 Rosman, Abraham, 88
 Rousseau, Jean-Jacques, 2, 32, 84, 149, 225–227, 256
 Rubel, Paula G., 88
 Ruyle, Eugene E., 225, 228–229, 247
- Sackschewsky, M., 97, 113, 115–117
 Sahlins, Marshall, 2, 30, 40, 90, 92, 141
 Salzman, Philip, 37, 88
 Sanctions. *See* Moral sanctions
 Sanday, Peggy, 6
 Satan [chimpanzee], 27, 28
 Schaller, George, 159
 Schjelderup-Ebbe, T., 162, 171
 Schneider, Harold, 103–106, 112, 117, 120, 124, 128, 142
 Segmentary society. *See* Coalitions
 Self-aggrandizement. *See* Competition
 Sepik River Basin, 102
 Serbia, 5, 16, 65
 Serbs, 98, 106
 Service, Elman, 6, 30, 32–33, 50, 60, 84, 87, 90–91, 95, 97, 141, 144–146, 153, 227
 Sexual dimorphism. *See* Dimorphism
 Shamans, 7, 83, 88
 Sharing. *See* Cooperation; Morality
 Sharp, Henry, 41
 Sharp, R. Lauriston, 32, 36, 226
 Shavante, 117
 Shea, John J., 181
 Shostak, Marjorie, 137, 217
 Silberbauer, George, 76, 78, 113, 169
 Simon, Herbert, 185, 220
 Siriono, 77
 Slaves. *See* Despotism
 Slobodin, Richard, 37, 71
 Smuts, Barbara, 6–7, 25, 130, 210, 249
- Sober, Elliott, 2, 14, 60, 129, 172, 199, 200, 204–205, 210–211, 219, 221, 225, 229, 231, 236, 246
 Social dominance hierarchy. *See* Hierarchies
 Social harmony, 84, 226–227, 246
 Socialization, 249. *See also* Child-rearing
 Social sanctions. *See* Moral sanctions
 Sociobiology. *See* Natural selection
 Soltis, Joseph, 95, 112
 Sorenson, E. R., 228
 Sororal interest groups, 6
 Spencer, Baldwin, 82
 Stanford, Craig B., 13, 131, 150, 167, 192
 Stark, Oded, 204
 State level societies, 1, 5, 6, 98, 100–101, 242, 254
 States. *See* Civilized societies
 Status, 1, 4, 6, 7, 8, 18, 19, 25, 32, 38, 56, 96, 99, 100, 102, 103, 112, 121, 131, 143, 164, 171. *See also* Competition
 Status rivalry. *See* Competition
 Stent, Gunther S., 229
 Steward, Julian H., 42, 67, 128–129
 Strehlow, T. G. H., 77
 Strier, Karen B., 125
 Submission, 15, 22–24, 36, 39–41, 65, 104–105, 126, 131, 140, 147, 151, 154, 162–163, 169, 174, 202, 231–232, 235, 237–238, 242, 251, 238; appeasement, 24, 25, 41, 163, 169, 232; flight, 24, 39, 41, 141, 163, 169, 180, 232; avoidance, 80, 141, 257
 Sussman, Robert, 129, 227, 230–231, 248, 250
- Tabula rasa. *See* Human nature, blank slate
 Tairora, 117
 Tait, David, 31–32
 Takahata, Y., 130
 Tanaka, Jiro, 209
 Tanzania, 16
 Teit, James, 70, 78
 Teleki, Geza, 192
 Territoriality: of chimpanzees, 17, 26, 34; as resource defense, 158; patrols [chimpanzee], 17, 26–28, 39, 91, 136, 158, 160, 167, 176; of humans, 37, 91, 130, 131, 136, 151–153, 219, 221, 222,

- 223; as social boundary defense, 153,
222; as perimeter defense, 153, 222
- Theft, tolerated, 233
- Thoden van Velzen, H. U. E., 5, 96
- Thomas, Elizabeth Marshall, 33, 226
- Tiger, Lionel, 2, 33, 40, 152, 225, 229–230,
247
- Tikopia, 237
- Tilley, Christopher F., 37, 211
- Tinbergen, Niko, 162
- Tinkle, D. W., 2, 221
- Tiv, 92
- Tolowa, 88
- Tooby, John, 14, 150, 204, 228–230
- Tool-use, 13, 177
- Tozzer Library (Harvard), 64
- Triage, 243, 244
- Tribal republics, 4, 90, 98–101, 237, 255;
Iroquois Confederacy, 4, 98, 108, 254,
257; Montenegrin Confederacy, 98–101
- Tribal societies, 5, 6, 10, 11, 12, 13, 32;
clans, 5, 6, 93–94, 96, 99–100, 107–108,
112, 114–116, 118–119, 157; similarity of
tribesmen to foragers, 38; defined,
90–91, 92; tribesmen, 90–124
- Trivers, Robert L., 14, 44, 172, 184, 199, 202
- Tuden, Arthur, 107
- Turkey hens, 200–201, 230
- Turnbull, Colin M., 36, 75, 77, 215
- Turner, Victor, 107
- Turton, David, 239
- Tutin, Caroline E., 153
- Uehara, Shigeo, 238
- Universal People, 248–251
- Universals, biocultural, 128, 140, 145, 147,
170, 251–252
- Universals, cultural, 7, 36–39, 60, 68–69, 77,
85, 86, 107, 122, 129, 185, 229, 241, 246,
247–252
- Upper Paleolithic. *See* Paleolithic
- Ute, 78
- Utku, 44, 47, 50–51, 60, 73, 77–78, 119
- Values, 43, 66, 67, 68, 188, 233, 234, 240,
244, 251; in ethos, 66, 190, 203; as
independent variable, 67; political, 67,
69, 118, 122, 235
- van de Velde, Franz, 184
- van Hoof, Jan A. R. A. M., 125
- van Schaik, Carel P., 125
- van Wetering, W., 5, 96
- Variance-reduction. *See* Hunting
- Variation, phenotypic, 12, 205, 207–209,
212, 214, 217, 224
- Vehrencamp, Sandra L., 2, 30, 125–128,
130–134, 136–137, 139–141, 145–147,
170, 173, 208, 232
- von Fürer-Haimendorf, Christoph, 80
- Waa vocalization, 25, 163–169, 172, 188,
239, 241
- Wade, Michael, 204, 211
- Wagner, Gunter, 106–107
- Wape, 102–103
- Warfare. *See* Conflict
- Washburn, Sherwood L., 174
- Watson, James B., 117
- Watts, David, 29, 131, 155, 157
- Weapons. *See* Conflict
- Weatherford, Jack M., 4
- Weber, Max, 5, 39
- Westermarck, Edward, 60, 229
- Weyer, E., 82
- Whallon, Robert, 172
- Wheeler, Peter E., 175
- White, Leslie, 33, 247
- Whiten, Andrew, 2, 10, 66, 86, 88, 154, 182,
191, 193, 207, 213–214, 225
- Wiessner, Polly, 40, 46–47, 76–77, 86, 199,
207, 212–214
- Wilkie [chimpanzee], 23
- Williams, B. J., 77
- Williams, George C., 14, 212
- Williams, Jennifer, 25, 130, 156
- Wilson, David S., 2, 14, 60, 129, 172,
199–200, 204–205, 210–211, 219, 221,
224–225, 229, 231, 236, 246
- Wilson, Edward O., 2, 14, 129, 147, 162,
198–199, 202, 204–205, 221, 225,
228–230
- Wilson, James Q., 220, 225, 228–230
- Wilson, Margo, 81, 95, 221, 227, 229–230,
233
- Wissler, Clark, 247
- Wolpoff, Milford H., 133, 150

- Woodburn, James, 37, 64–65, 75, 82, 88,
117, 143, 152–153, 177
- Wrangham, Richard, 2, 13, 23, 91, 129–130,
132–136, 150–151, 155, 176, 189, 204,
238, 249
- Wright, Robert, 229–230
- Wynne-Edwards, V. C., 212
- Yamigawa, Juichi, 153
- Yanomamo, 92–93, 96, 106
- Yaruro, 121
- Yokuts, 78
- Yumoto, Takakazu, 153
- Yurok, coastal, 88
- Zvelebil, Marek, 40



ARE humans by nature hierarchical or egalitarian? *Hierarchy in the Forest* addresses this question by examining the evolutionary origins of social and political behavior. Tracing our contradictory egalitarian and despotic traits to their roots in chimpanzee, bonobo, gorilla, and early human societies, Christopher Boehm extends the domain of biological anthropology and evolutionary biology into a new realm: the evolutionary basis of genuine altruism.

"This well-written book . . . raises two general questions: 'What is an egalitarian society?' and 'How have these societies evolved?' . . . [Boehm] takes the reader on a journey from the Arctic to the Americas, from Australia to Africa, in search of hunter-gatherer and tribal societies that emanate the egalitarian ethos—one that promotes generosity, altruism and sharing but forbids upstartism, aggression and egoism. Throughout this journey, Boehm tantalizes the reader with vivid anthropological accounts . . . An interesting and thought-provoking book that is surely an important contribution to perspectives on human sociality and politics."

—Ryan Earley, *American Scientist*

"[The arguments] are original, persuasive and richly supported by examples from Boehm's personal experience, observations, and mastery of ethnographic literature."

—Adrienne Zihman, *Nature*

Christopher Boehm is Professor of Anthropology and Director of the Jane Goodall Research Center at the University of Southern California.

HARVARD UNIVERSITY PRESS
Cambridge, Massachusetts / London, England
www.hup.harvard.edu

COVER PHOTO: © Michael Nichols / Aurora / PNI
COVER DESIGN: Patrick Ciano

