

## Introduction

### Ostracism as a Social and Biological Phenomenon:

#### An Introduction

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*Ostracism refers to the general process of rejection and exclusion, observed in human groups and in many other species. It occurs as "shunning" in small homogenous groups like the Amish or as rejection among children. Ostracism in various forms is also deeply embedded in our own legal tradition, and is used in the formal and informal legal procedures of other cultures, used to maintain order, to punish deviance, and to increase social cohesion. Hence, it is plausible to hypothesize that human ostracism may have physiological substrates or biological functions in addition to cultural, moral, and legal dimensions. Biological research shows that human emotions (anger, fear, reassurance, self-confidence) involve responses of the limbic system as well as ideas or thoughts in the cerebral cortex and that human behavior continually integrates biological and cultural factors. The legal system expresses and channels human behavior. For this reason laws should be more effective if their functions complement (rather than ignore) the function of the behavior being regulated. To look at law as it affects human behavior in the light of the life sciences does not imply the intention of finding a universally valid "natural law," akin to theological or ideological doctrine. On the contrary, we find that humans can form radically different social systems due to the plasticity of their behavior. However, an interdisciplinary analysis of ostracism as a common area of behavior, combining biology, law, and the social sciences can produce insights that none of these fields alone can provide. Such an approach should increase our understanding of human nature and the functions of law.*

## INTRODUCTION

In recent years, human social and legal phenomena have been studied increasingly from the perspective of evolutionary biology; as Alexander demonstrates in this issue, approaching human behavior in the light of the life sciences need not entail reductionism nor ideologically

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biased analysis (see also Alexander 1979; Chagnon and Irons 1979; Stent 1980; White 1981; Masters 1982; Gruter and Bohannan 1983). For several reasons, ostracism and the behaviors related to it represent an exceptionally promising area for this approach. First, the process by which some individuals are isolated or excluded from interaction with other members of a social group is observed in many other species of animals as well as in virtually all known human societies. Hence, it is plausible to hypothesize that human ostracism may have physiological substrates or biological functions in addition to cultural, moral, and legal dimensions (McGuire and Raleigh; Kling; Alexander; this issue). Second, ethological studies of animal behavior have shown the complex interaction between cooperation, competition, and exclusion; particularly among nonhuman primates, phenomena like “scapegoating” and shunning seem to play an integral role in the maintenance of social order (de Waal; Raleigh and McGuire; Goodall; Lancaster; this issue). Finally, despite the widespread incidence of ostracism and related behaviors in human societies (see Parts III and IV, this issue), conventional social science has devoted less attention to such a phenomenon than to other aspects of human behavior.

As used in this issue, the term “ostracism” refers to the general process of social rejection or exclusion. Given the exploratory nature of our inquiries, no attempt has been made to develop a single definition that would apply to the many fields represented. For some, ostracism refers to “a pattern of social behavior in which one or more individuals are singled out and isolated from ongoing social relationships of which they would otherwise be apart” (Masters, this issue). For others, ostracism refers to “socially induced exclusion from vital resources necessary for life and reproduction” (Lancaster, this issue). Regardless of how the word is defined, many of the authors conclude that it is important to look at a wide variety of behaviors that involve rejection or isolation because phenomena ranging from informal shunning to intraspecific killing seem to have many characteristics in common.

In all the cases discussed in this issue, some individuals—usually presumed to diverge from group norms in some way—are the target of rejecting behavior by others. Ostracism therefore requires some form of shared or coordinated response by the members of a group who ignore, exclude, or move away from those targeted. From the perspective of the *ostracized* individual, such exclusion from social intercourse is very different from spontaneous decisions to leave or to divide the group. Hence voluntary “exit” from the group should be distinguished from ostracism as a form of “coerced” or “involuntary exit” (Masters, this issue).

Among humans, we at first think of ostracism in terms of its nonlegal manifestations, such as “shunning” in small homogenous groups like the Amish (Gruter, this issue, gives a good example). Among children (as illustrated by Barner-Barry, this issue), we frequently see informal but powerful punishment of what is perceived as a departure from group norms. In

human societies without centralized governments and bureaucracies, ostracism -including otherwise forbidden killing within the clan -is often a fundamental mechanism of social control (Boehm; Mahdi, this issue).

Because the customs of a modern industrial society usually frown on such practices, however, we tend to forget that ostracism is also deeply embedded in our own legal tradition (Zippelius, this issue). In particular, formal punishments such as imprisonment (or, in authoritarian societies, internal exile) could be described as transformations of traditional ostracism into sanctions channeled by legal procedure and enforced by governmental bureaucracies (Kort; Masters, this issue). Finally, since racial prejudice, scapegoating, and xenophobia persist -and in some cases may even be exacerbated -in modern societies, one can hardly say that ostracism is no longer relevant to human social behavior (Alexander; Rehlinger; Anawalt, this issue).

We do not, of course, intend to justify racism, genocide, or oppression. Although varied forms of social rejection are found among nonhuman primates or preschool children, in traditional societies, and even in complex legal systems, each kind of ostracism has a different scientific and moral status. No one should conclude that human murders -and still less, wars - are either inevitable or desirable merely because a few cases of intraspecific killing among nonhuman primates have been observed. On the contrary by studying the biological bases and consequences of various forms of social rejection, we can identify some of the differences between ostracism in various settings. As a result, hopefully we can contribute to an improved understanding of the way legal institutions channel and civilize behavior which, in other contexts, can turn into violence and conflict.

It might seem paradoxical that, in democratic societies, punishment by diffuse social sanctions seems too arbitrary to be legitimate. But there are good reasons for our general dislike of ostracism and coercive social rejection as forms of punishment. Informal ostracism threatens the norms of equality and the principle of a "rule of law." In the modern nation-state, where the mass media and propaganda magnify the effects of stereotypes and provide powerful means for manipulating public opinion, the danger that social rejection can easily become a tool of oppression is all too real. Awareness of the ways that ostracism has been used by authoritarian or totalitarian regimes as diverse as Hitler's Germany, Stalin's Russia, and Amin's Uganda (to mention obvious examples) reinforces this fear of arbitrary coercion.

From this perspective, contemporary attitudes toward ostracism reflect our reliance on legal procedures for the maintenance of order and the punishment of deviance. But this only strengthens the point, made previously, that many legal principles in our own society can be interpreted as transformations of ostracism, in which specialized institutions of the state whether courts, police, prisons, or mental institutions have a monopoly on the legitimate use of ostracism or ostracism-like exclusion of the undesirable, the unusual, or the deviant. It follows that a broad treatment of

the biological origins and functions of ostracism could help us to understand not only the occurrence of unwanted and undesirable forms of prejudice, but also the foundations and character of legal processes that can channel and civilize ostracism into equitable procedures.

Most scientists have assumed that laws and cultures represent a *substitution* of human learning for animal instinct; in this view, because social norms simply replace behavioral mechanisms found in other species, biology is not relevant to phenomena like ostracism. As Kling and McGuire and Raleigh show (see this issue), however, the structure and chemistry of the human brain are directly involved in our social behavior; without denying the role of ideas and attitudes, we now know that human leadership, bonding, and obedience can also be affected by the functional state of neurotransmitter systems like serotonin, or lesions in the amygdala or temporal lobe. In place of the old "layer cake" approach to human nature, according to which culture is superimposed upon—and largely supersedes—the physiological or natural influences present in other species, it is now evident that human behavior continually integrates biological and cultural factors.

Among those who approach ostracism as a biological as well as cultural phenomenon, there is general agreement that human behavior is highly variable from one culture or individual to another; that our social actions are largely based on learning and experience; that popularized treatments of humans as animals are risky; and that ideological bias is a danger that careful scholarship should avoid. Although some critics might fear that analyzing ostracism in terms of contemporary biology could encourage unjust practices of scapegoating and stereotyping (cf. Lewontin, Rose and Kamin 1984), it is equally dangerous to disregard the existence of relevant research: one can hardly understand human nature while ignoring the latest findings of the life sciences (Alexander 1979; White 1981; Gruter and Bohannan 1983). In short, far from reducing human behavior to genes or instincts, a biological study of a social behavior like ostracism must focus on the specificity of humans and the distinct features of our cultural systems.

This approach has already proven extremely valuable in putting the emergence of human cultures and legal institutions in an evolutionary perspective (Gruter and Bohannan 1983). Paradoxically enough, analysis of the biological foundation of human behavior leads to a deeper appreciation of *both* the continuities *and* the differences between humans and other species. In so doing, moreover, we can discover—and hopefully understand more precisely those features of human behavior that are indeed unique.

Consider the most distinctively human forms of ostracism—namely, legal sanctions, such as imprisonment in a constitutional society where carefully observed judicial procedures scrupulously protect the rights of the accused. According to the conventional wisdom, the life sciences can tell us nothing about such behavior, because it is clearly a learned, cultural response dependent on history, tradition, and political institutions. Yet even granting the *human* character of the law as a social institution, why do some

cases generate passionate desires that the criminal be punished or equally passionate attacks on the injustice of the system?

It is easy to assert that legal institutions replace the informal process of ostracism and social rejection (against which the target has little if any means of appeal) with rational and fair procedures. Candor requires us to admit, however, that phylogenetically ancient responses remain present in the emotions and social practices of citizens in “developed” constitutional societies like our own; anger, fear, and resentment – or reassurance and self-confidence – involve responses of the limbic system as well as ideas or thoughts in the cerebral cortex. This means that the findings of the life sciences can no longer be ignored when we discuss the issues of law and human nature that are of fundamental in our tradition of political thought.

Can modern biology help us explain why the strategy of increasing social cohesion by finding an internal scapegoat or an external enemy is so widespread and so effective? Is the feeling of outrage against the criminal entirely a “cultural” phenomenon, or was there an element of truth in the traditional concept that fairness and justice have a “natural” foundation? Do legal procedures work merely because they make punishment “legitimate,” or is the process of ostracizing deviants also a way of increasing the solidarity of the group – or reasons derived from our evolutionary origins? How deep are the continuities between ostracism as a social control mechanism in primate bands, in groups of human children, in pre-industrial, face-to-face societies, and in our own legal system?

Such questions are particularly appropriate as a means of gaining fresh perspective on our own political traditions. The principles of Western democracy are often traced to political theorists like Hobbes, Locke, Spinoza, and Rousseau, who argued that all men have “natural rights.” In the words of the *Declaration of Independence*: “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, and that among these are Life, Liberty, and the pursuit of Happiness.” Today, many prefer to speak of “civil rights” or “human rights” instead of the “natural rights” of 17<sup>th</sup> and 18<sup>th</sup> century thinkers. Is the current view more accurate, or were our founding fathers justified in attributing the fundamental “rights of man” to human nature?

We cannot hope and do not pretend to resolve such questions. There is a general agreement among the contributors to this issue that contemporary biology cannot reveal a universally valid “natural law” to guide our legal and political decisions and institutions. One of the characteristics of human nature most clearly confirmed by evolutionary biology is the plasticity of our species – particularly as represented by the human ability to adapt to diverse ecological and social environments. Other animals tend to form distinct species when spreading into radically different environments. In contrast, humans have survived and elaborated lasting social systems from the arctic tundra, to the tropical equator without diverging into separate species. Within any one society, moreover, individuals behave in widely

different ways depending on the particular status and situation in which they find themselves.

A study of human social behavior from the perspective of the life sciences therefore does not and cannot determine the limits of our species behavior. It follows that contemporary evolutionary biology cannot be used to arrive at a universally valid definition of the way humans ought to live: today's life sciences are not conceptually suited to become the basis of a "natural law" akin to the theological doctrines of the past. Biological research, however, shows that the human brain is not the "blank sheet" of paper imagined by philosophers like Hobbes and Locke; rather, many of our responses involve a complex integration of emotional and cognitive responses in ways that are paralleled by the behavior of other primates. As a result, we can -perhaps to a degree never before possible- gain scientific insights into the nature of our own behavior and the reasons for principles that were long accepted on philosophic grounds alone.

One reason that contemporary evolutionary biology is not likely to restore traditional "natural law" doctrines lies in the conception of species now accepted in the life sciences. Whereas natural law teachings have usually presumed that there is an "essence" or unchanging basis of "human nature," modern biology has abandoned the notion that each kind of animal has a more or less fixed nature; instead of unchanging essences, biologists think of a species as a population subject to changes in space and time (Mayr 1963; Gould 1977). Even a single organism is no longer viewed as having a fixed nature, since the genotype (or genetic complement) of each living being is seen as establishing its 'reaction range' in all possible environments (Simpson 1958).

Because this way of looking at animals is not generally understood in the social sciences, an illustration from the research described in more detail below may be of interest. For instance, as Kling (this issue) shows, there are specific sites in the brains of monkeys (and humans) that seem to be associated with such social behavior as social bonding or grooming; when precise locations in the amygdala are removed, for example, an animal's social behavior is immediately affected. Yet the specific behavior that will result from the experimental removal of a particular section of the brain *varies*, depending on the environment in which the animal is placed. The same physiological condition will therefore have quite different results, depending on the social environment as well as the physiological condition of an animal.

This complexity is characteristic of all biological phenomena. Specific genes often have different effects, depending on the environment in which they are "expressed." Hence the relevant focus of attention is no longer the presumed essence of an animal, but rather the *interactions* between species and their environments. For example, as Lancaster shows, the behavioral repertoire of primates generally differs depending on the ecological setting in which they live. It follows that biologists rarely speak of a single

pattern of behavior as the only "natural" response of a species - unless, of course, it can be proven that this response is invariant across all environments and hence a functional requisite of continued life.

Most social behaviors in *Homo sapiens* are to some extent variable, depending on the environment in which humans find themselves; is a plastic and adaptable animal, a human being is capable of adjusting a wide variety of behaviors to the physical and social setting. Although this realization limits the extent to which a biological approach to human nature could lead to the discovery of a single "natural" way of life suited to mankind, it changes the premises for social and political thought. Because human nature is now best described in terms of a range of characteristic responses to different environments the life sciences can provide us with better empirical *foundations* for political thought. Instead of *answers*, the biologists can give better *questions* and *assumptions*, while leaving to us the difficult task of drawing conclusions.

Consider again Kling's finding that a given lesion to the brain will produce different social deficits, depending on the precise environmental setting in which the animal is placed. While illustrating the variability of biological traits, depending on the environment, this experimental evidence also bears on the philosophical issues that have been the basis of Western political thought. Since the pre-Socratics, political thinkers have debated whether or not humans "naturally" engage in social cooperation and form human social groups (Masters 1977). Kling's data indicate that some dimensions of social behavior are indeed species-specific because they have localized substrates in the brain and do not appear to be entirely a product of education and training.

Such empirical data can have critical effects on the way we think about human justice. For example, in Anglo-Saxon law, the criminal is presumed to be innocent until proven guilty. Legal procedure provides certain safeguards for those accused of crimes; in addition to preventing arbitrary arrest without cause, the rights to be informed of the charges, to secure adequate counsel, and to a fair trial are all presumed to be essential to a just society. These rights are clearly violated by the practice, often observed in authoritarian regimes, of holding an accused criminal in solitary confinement, precluding all contact with the outside world prior to trial.

Although it is easy enough to attack the denial of the confined prisoner's legal rights on traditional grounds, biological research throws new light on the consequences of totally isolating the accused from all contact with the outside world. As McGuire and Raleigh (this issue) have demonstrated when a dominant primate male is prevented from seeing other males, the result is a physiological change that can alter behavior and even social status; prolonged removal to an isolated cage, or even being placed behind a one-way mirror, produces a drop in whole blood serotonin levels, with a corresponding increase in submissive behavior. If such responses are characteristic of humans as well as of nonhuman primates, an interesting issue arises. In

highly developed legal systems, it is evident that solitary confinement makes defense difficult for the prisoner, especially if he is relatively uninformed and in need of legal counsel. The biological research presented by McGuire and Raleigh adds the possibility that such arbitrary pretrial procedures coerce the detainee - even if he is well -informed of legal rights and procedures -by reducing the physiological capacities associated with the effective self -defense.

As this example suggests, contemporary research in the life sciences has the potential of improving our understanding of legal and political institutions that are often taken for granted. The protection of the law occasionally breaks down under the pressure of social hysteria: one thinks, for example, of cases of lynching in American history. Accepted legal norms seek to channel the emotional responses associated with social ostracism in order to reduce the probability of violence against scapegoats. However, in the legal process we also use a kind of institutionalized or controlled ostracism. Instead of asking whether or not individuals are ever subjected to social rejection and isolation in a civilized society, we need to understand more fully the specific consequences of different forms of ostracism, the evolutionary and physiological roots of social isolation, and the means by which negative effects can be minimized.

Such a study can have practical as well as theoretical benefits: laws are usually more effective if their functions complement (rather than ignore) the functions of the behavior being regulated. When we speak of effectiveness in the legal context, we have to distinguish between the functions of specific laws and the overall functions of the legal system as a whole. In the West today, we expect legal punishment to serve three main functions: protection of the group (or the innocent individual), deterrence, and rehabilitation of the deviant. What, then, are the functional consequences of ostracism, both for the target of social rejection and for the group involved?

The agony of being shunned or excluded from social contacts with kin, and the desperation of the individual deprived of support by neighbors, is apparent in two cases described in this issue. Despair caused Andy Yoder to file a lawsuit against his former friend after he acted in defiance of the community rules to help his polio -stricken child (Grueter, this issue). We may assume that the polio -stricken chimpanzee, McGregor, shunned by his former companions, felt similar agony and despair (Goodall, this issue). Although circumstances and reasons for the act of ostracism in these two incidents differ greatly, in both cases the individual was shunned by his former friends in reply to unaccepted or strange behavior.

Is this a biologically based reaction that might explain the prevalence of xenophobia or other forms of discrimination against outsiders who look or act differently? The action of Andy Yoder's Amish neighbors was meant to inflict suffering because he had disobeyed religious norms and had to be punished. In McGregor's case, no such intention can be inferred, but the consequences for the target were similar.

Although ostracism seems to be used as punishment by children when they ostracize a peer, the functional consequences in such instances may well be different. In the case reported by Barner Barry (this issue), we might speculate that such peer treatment has an ameliorative effect, improving or “rehabilitating” the individual subjected to social rejection. In contrast, ostracism as practiced by the Montenegrans or Pathan Hill tribes – the cases reported by Boehm (this issue) and Mahdi (this issue) – seems important primarily for its deterrent effects. In all these cases, however, ostracism also fulfills the third important function of legal intervention – namely, protecting the cohesion, safety, or harmony of a community.

Ostracism, whether as an instrument used by the law or as a behavior punished by the law, can therefore have quite diverse effects. It may serve as a useful legal means in supporting group cohesion, continuity of cultural values, and protection of individual safety. It can also hurt and create injustice, as seen in indiscriminate forms of social rejection.

This dual role, which Frans de Waal (this issue) calls the “double-edged sword” of ostracism, is characteristic of many human social behavior patterns. Such ambivalent effects can be directed toward desired ends with more precision if we understand the biological functions of the behavior in question. Steps in this direction are helped by new findings in the neurosciences and by studies of nonhuman primates. These insights at the frontiers of biological research provide a scientific perspective on the workings of today’s laws in practically every important area.

This issue is devoted to beginning such an inquiry. It is organized in four main sections. *Part I* deals with historical and conceptual aspects of ostracism. To put such phenomena in an evolutionary context, *Part II* explores the biological origins and functions of ostracism and gives examples of ostracism and related kinds of social rejection among nonhuman primates, showing the ambivalent effects of exclusion and increased social cohesion that can result. *Part III* turns to conflicts caused by ostracism among humans, focusing on face-to-face groups ranging from preschool children to traditional Montenegrans and Pathan society as well as modern Western law. In *Part IV*, the relationship of ostracism to formal legal procedures in the modern nation-state is discussed. Such problems as procedural fairness to individuals and legal devices for reducing coercive ostracism as well as recent changes in child custody and property law are explored. Finally, the broader role of ostracism in the social and political life of complex modern societies is considered, indicating ways in which social rejection of outsiders can be better understood and perhaps channeled into legal and human practices.

Since this material is appearing as a special issue of *Ethology and Sociobiology*, we would like to introduce here in closing the concept of “Ethology of Law” as a new scientific approach to the study of law. Until recently, traditional legal education had been very narrowly defined, to the detriment of lawyers and the general public. During the past two decades

anthropology of law and sociology of law were included in law school courses, and their information, theories, and methodology became available to lawyers as a research tool. During the last few years the biologically based behavioral sciences, especially ethology, evolutionary biology, sociobiology, and neurobiology, have addressed themselves to topics that have traditionally been within the realm of the normative sciences. It is suggested here that "ethology of law" as a concept could be used to discuss specifically legal aspects of nonnative problems within the biobehavioral sciences. Ethology of law should encompass the facts of law, the data concerning the social and cultural basis of human behavior, and the insights into the biological basis of human behavior. It should interface with sociology of law and anthropology of law. The transitions between the three fields of research should be fluid, interwoven, and complementary.

This issue is presented as a first step in such an interdisciplinary analysis. Our focus was on ostracism as a common, albeit often neglected, area of human behavior. We do not pretend to have dealt with our subject exhaustively, but we hope we have demonstrated that an interdisciplinary approach combining biology, law, and the social sciences can produce insights that none of these fields alone can provide. If we have succeeded in this, perhaps our work will be the basis of further research and will lead to a deeper understanding of human nature and the functions of law.

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