ANTHROPOLOGICAL PERSPECTIVES ON VIOLENCE: UNIVERSALS AND PARTICULARS

by Paul Heelas

Abstract. The problem addressed is how to establish the nature (grounds and consequences) of culturally formulated aggressive displays, for example, Balinese cockfights. Psychological and other research suggests that aggression can be under the control of nature, culture, or both. After surveying the evidence supporting both endogenous, in particular cathartic, and exogenous processes, the paper explores what is involved in establishing which process is operative in particular ethnographic cases. Special attention is paid to institutions which show coadaptation between biological and culture-dependent processes and regulations.

Explanations of aggression fall along a complicated spectrum, running from endogenous theories, formulated in terms of what is natural to man, to exogenous varieties, formulated in terms of sociocultural factors. At one extreme, violence is attributed to an innate deprivation drive, similar to hunger. Mankind's genetic program supposedly ensures automatic aggressive motivation, increased when satisfaction is absent and decreased by aggressive activity or display. At the other extreme, aggression is attributed to sociocultural learning processes and to associated cognitive operations. Aggression is increased if people are taught to attend to violence and the values of acting aggressively and is decreased if violence is presented in a negative light. Memories or conditioning replaces drives; culture replaces nature.

Does aggression follow the laws of nature or the rules of culture, or are both involved? I concentrate on two processes, one endogenous, the other exogenous. The former is catharsis: the hypothesis that part of our nature as evolved beings, part of our genetic program, is that

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aggressive arousal, however initiated, encourages aggressive display which in turn diminishes violence. You feel angry; you drive aggressively or watch a violent film; you feel more relaxed, are no longer inclined to behave in an angry fashion, and do not suffer from the strains of holding anger in check.[1] The latter, an exogenous process, is what I shall call enforcement. This is the hypothesis that aggressive display is encouraged by sociocultural factors, display often functioning to increase aggression. Our culture provides violent films; whether or not you feel angry, watching these films increases aggressive tendencies. The contrast between catharsis and enforcement is thus between aggressive display as due to the need to release drives (the consequence being decreased aggressive tendencies) and aggressive display as bound up with what is culturally provided, valued and taught (the consequence being the opposite).

Often working with similar experimental designs, psychologists claim to have found evidence for both processes. This apparently contradictory state of affairs can be resolved in two ways. One strategy is to argue that evidence which appears to support catharsis (for example, decrease in aggressive behavior after aggressive display) is actually due to a culture-dependent, exogenous, process (the negative values associated with aggressive display result in guilt, which inhibits subsequent aggressive behavior). Using the strategy of reinterpretation, a number of theorists have tried to claim that either endogenous or exogenous processes provide exhaustive explanations of aggressive display. The other strategy followed to resolve the contradiction that two opposed processes appear to be operative in similar experimental designs is to argue that both processes can occur but under different circumstances. In other words, attention is drawn to apparently slight but actually significant differences in experimental design.

Against those who follow the first course, claiming either that enodgenous theory alone is valid or that only exogenous theory is correct, I side with those who hold that both biological and cultural grounds and controls are equally valid. To elaborate on this important point, important because it bears on the theory of biocultural coadaptive evolution, I am not claiming that both processes are operative in all cases of aggressive display. I am claiming there is sufficient evidence, in particular from experimental social psychology, for us to maintain that either (or both in combination) are potential, psychologically possible, candidates for explaining particular cases of aggressive display. Potentially, they are thus of universal applicability.

For aggression to be studied in terms of biocultural coadaptive evolution, where roughly speaking the biological is held to influence the cultural and vice versa, both endogenous and exogenous processes

must be generally valid and applicable. If endogenous explanations always tell the whole story, culture, while adjusting to biological demands, cannot facilitate culture-dependent exogenous processes and so cannot have any role in determining the nature of aggression. If exogenous explanations tell the whole story, there is no possibility of endogenous processes exercising control.

Coadaptation occurs when endogenous processes influence cultural phenomena and so the role of culture-dependent exogenous processes, or when exogenous processes influence the endogenous. Thus not only must both processes be generally valid; they must also be open enough for them to influence one another.

In the first section of this essay I survey the evidence which shows that, whereas comprehensive or mutually exclusive endogenous and exogenous theories lack support, restricted varieties of these theories (varieties which are open and allow coadaptation) are valid. Not dwelling too long on this evidence—the reader is directed to relevant research findings—I then turn to a more detailed discussion of a rather neglected problem. Catharsis and enforcement, I shall show, are of universal applicability. Both being possible, the pressing problem, for those interested in how biocultural coadaptation occurs in the real world, is deciding which process or mixture of processes is operative in which particular ethnographic instances of aggressive display. My primary intention, in other words, is to address the problem of how to establish the nature (grounds and consequences) of everyday aggressive displays. To give a graphic example, should street violence among teenagers be attributed to what they learn at home, from the media, and from each other, or are the teenagers venting their frustrations?

Although experimental psychological research is essential in that it establishes that both processes can operate in the real world and tells us virtually all that is known about the nature of the evidence which counts for or against the processes being operative in particular cases, ethnographic material is also crucially important. We need to ascertain the ethnographic circumstances in order to use psychologically provided criteria to establish what is happening. Thus my anthropological approach to establishing the antecedents of aggressive displays and how they function is to concentrate on ethnographic material in the latter part of this essay.

In this connection, I endeavor to show that catharsis disrupts or overrides exogenous control in a particular ethnographic setting. Utku Eskimo dog beating demonstrates the impact of nature on culture. The need for catharsis explains the appearance of aggression in a nonaggressive society (something which exogenous theory cannot handle) and the effects of dog-beating. The Semai of Malaysia are cited to

make the converse point, the impact of culture on nature. Exogenous inputs provided by cultural rules result in the cognitive transformation of frustration into fear. What would be expected in terms of endogenous theory (frustration resulting in aggression) is thereby overridden: fear replaces anger and associated aggressive behavior. Finally, Balinese cockfighting is discussed in order to demonstrate the interplay of biological and culture-dependent processes. It appears that cockfights facilitate the venting of anger; it also appears that they encourage aggressive values and behavior.

In short, my aim is to elicit those features which allow us to conclude that a particular activity is grounded in and functions in terms of catharsis, enforcement, or both. With aggressive display in common to the processes, psychologists have found it difficult to decide whether violent sports, films, and the like are informed by catharsis or education. Just where it matters for policy making, doubt is encountered. Anthropologists also have arrived at different conclusions, some, such as Bronislaw Malinowski (in part influenced by the classic endogenous theorist Sigmund Freud), favoring catharsis, others, for example, A. R. Radcliffe-Brown (certainly influenced by the classic exogenous theorist Emile Durkheim), favoring enforcement.[2] Here indeed is murky territory where, for reasons to be elaborated, it is not easy to ascertain whether aggression follows the path of nature or of culture, or whether we need a new shift of insight and imagination in order to discern how both paths interact and interweave to constrain human behaviors into their outcome.

Finally, a word about biocultural coadaptive evolution. It is one thing to discuss coadaptation, that is, explaining cases of aggressive display as the result of endogenous processes overriding or modifying exogenous processes or vice versa, or both processes operating together. It is another to couch the discussion in terms of evolution. Other than the general point that aggression in nonhuman species is largely but not entirely under the control of endogenous processes, whereas the exogenous has a much greater role in human life, it is impossible to specify evolutionary changes. There is no evidence. All that can be done is to show that our genetic program facilitates culture-dependent processes as well as determining those of an endogenous variety and then to specify the balance or mix of the two in particular cases of aggression.

Possibilities Regarding Application

Writers such as Konrad Lorenz (1966) and Robert Ardrey (1966) belong to a long-standing school of thought which has attempted to develop endogenous theories to the virtual exclusion of the exogen-

ous.[3] They suggest that even the aggressive political policies of modern states are predetermined by the genetic constitution of Homo sapiens. More recently, sociobiology notwithstanding, the emphasis has changed. Attempts have been made to discount or minimize endogenous formulations. A. Bandura argues that, "The preoccupation with internal psychic agents and energized traits has been largely responsible for the limited progress in development of empirically sound principles of human behaviour" and has developed social learning theory.[4] R. Hinde suggests that "it seems possible and preferable to formulate behavioural theories in which concepts of energy, and of drives which energize behaviour, have no role" and refers to energy models rearing "their ugly heads."[5]

Is aggression programmed into our genes? Sociobiologists and ethnologists generally answer in the affirmative; behaviorists, social learning, and cognitive theorists favor cultural programming. There is a strong tendency to think in terms of either nature or nurture. Thus I. Eibl-Eibesfeldt, basically an endogenous theorist, has been provoked to comment, "it seems strange indeed that some proponents of learning theory models insist upon their exclusive validity with such monistic vehemence."[6] Also endogenous theorists have been attacked for their comprehensive genetic determinism.[7]

As already indicated, if either biology or culture provides an exhaustive account, biocultural coadaptation cannot get off the ground. It is true that, if biology provides an exhaustive explanation, culture will be constrained by or have to adapt to biological inputs. But this is not coadaptation in the sense of the endogenous influencing exogenous control of aggression: exogenous processes have to occur if they are to be influenced. If, on the other hand, exogenous processes provide an exhaustive explanation, endogenous processes such as catharsis are ruled out and so cannot be influenced. Thus for endogenous and exogenous approaches to be universally applicable (under appropriate circumstances), thereby allowing coadaptation, some of their more extreme formulations have to be rejected—those which result in the either/or situation and which prevent both approaches, in what I am calling their restricted forms, from being valid.

I will now outline the claims of the two general approaches and show that, whereas there are reasons for rejecting their comprehensive or extreme claims, the processes of catharsis and enforcement are nevertheless well substantiated. In fact, one of the main reasons for rejecting the extreme formulations is to be found in the fact that both catharsis and enforcement have been demonstrated. Having pursued this argument, especially having defended the catharsis hypothesis against exogenously couched attacks, I will turn to particular ethnographic cases with evidence of what could be occurring.

EXTREME ENDOGENOUS AND EXOGENOUS APPROACHES. The two approaches in general differ in that the former treats aggression as being under the control of culture-independent (genetically determined and regulated) processes, whereas the latter treats aggression as being governed by culture-dependent (genetically endowed but culturally activated and regulated) processes.

In its most extreme form, endogenous (energy, psychodynamic, hydraulic) theory holds that aggression is entirely bound up with autonomous, self-contained, inner mechanisms whose existence does not rely on meaning systems. Environmental, including social, influences are denied a role. With inner, self-initiated and self-regulating (homeostatic) processes totally in control, sociocultural arrangements have nothing to do with the grounds and regulation of aggression. They are not even constrained by the biological to facilitate biological processes. What causes and regulates aggression is to be sought within, ultimately at the level of genetic instructions.

Extreme exogenous theory, in contrast, holds that aggression is entirely bound up with social and cultural life. Treating the individual as a *tabula rasa* or as a black box, endogenous processes cannot exercise control and, it goes without saying, cannot be constrained or modified by the social to facilitate social processes. People act aggressively because they have been taught to do so or because they reason out the instrumental values of violence.

Neither endogenous nor exogenous theorists have felt happy with these self-contained positions. What I shall call "strong" positions result; these are not so extreme but still essentially of an either/or variety.

Regarding endogenous theory, it is generally accepted that external stimulation or conditioning has a role in all basic behavior patterns.[8] If drives as basic as hunger are open to environmental influences, it is clearly implausible to maintain that the endogenous processes concerning aggression are entirely self-contained and regulated. Among other considerations, evidence (discussed later) that aggressive drives are stimulated by frustrating sociocultural circumstances has to be taken into account. Although such stimuli are exogenous in the sense of being external, they do not involve culture-dependent processes; rather than holding that people learn to respond aggressively to frustrations, it is maintained that the response is innate.[9]

As for strong exogenous theory, it is generally accepted that the individual is not a *tabula rasa* and that exogenous processes must be explained in terms of their being facilitated by genetically endogenous capacities. The important point is that the endogenous is not seen as exercising any culture-independent control of its own. Bandura, for example, writes of the exogenous social learning process: "people are

endowed with neurophysiological mechanisms that enable them to behave aggressively, but the activation of these mechanisms depends on appropriate stimulation and is subject to cognitive control. Therefore, the specific forms that aggressive behaviour takes, the frequency in which it is displayed, and the specific targets selected for attack are *largely determined* by social learning factors" (italics added).[10]

In short, strong theories allow, respectively, environmental stimuli and endogenous processes. However, because the stimuli are treated as being bound up with endogenous processes and because mechanisms of the variety mentioned by Bandura are seen as facilitating exogenous processes, the opposing processes are not allowed to exercise autonomously based control.

What then are the specific claims made by extreme (including strong) endogenous and exogenous theories, and how do they fare?

Endogenous theory holds that (1) aggression is entirely bound up with internal processes (extreme claim) or with internally based processes (strong claim); (2) drives are initiated endogenously (extreme claim) or are triggered by environmental circumstances (strong claim); (3) drives increase in intensity the longer they are not satisfied (the extreme claim of deprivation theory), or drives increase in intensity when environmental circumstances are frustrating (strong claim); (4) drives are appetitive, always seeking satisfaction; (5) drives persist or are stored until they are satisfied; (6) drives always result in aggressive display; (7) environmental triggers are not required to facilitate display (the extreme claim is that display occurs when tension reaches a certain level), or environmental triggers are required (the strong claim); (8) the greater the intensity of the drive, the greater the intensity of the display; and (9) display results in the cathartic reduction of the drive (physiological and emotional catharsis) and so of behavior.[11]

With the exception of strong claims (2) and (7) and claim (4) these claims are invalid. The main reason for this is that they allow no scope for demonstrated exogenous processes. They do not allow that openness which is required if exogenous processes are to have a role, if they are to override or interplay with endogenous processes. This is most apparent with respect to the first claim, which does not allow for the fact, substantiated later, that aggression is by no means always under biological control. The claims, in other words, are too direct and powerful. It is as though aggression is under genetic control as is skin pigmentation—little affected by environment-dependent processes.

Of particular relevance to the catharsis hypothesis, there is no evidence that drives persist until they are satisfied. Indeed there is counter-evidence: leaving to one side the possible role of exogenous processes in neutralizing drives noncathartically, it is a fact that time

alone can dissipate arousal. If drives need not persist until they are satisfied, they need not result in aggressive display. And finally, given the possible role of exogenous processes such as positive reinforcement, discussed later, display does not always result in decreased incidence of aggressive behavior.[12]

Turning to extreme (including strong) exogenous theory, the same major drawback is apparent, only now in reverse. In other words, the theory fails in that it cannot handle demonstrated endogenous processes. When Moyer, basically an endogenous theorist, wrote of his "reaction against the influential school of thought that proposes that aggressive behaviour is fundamentally different from other basic behaviours because it is *purely and simply a learned response* and is *never more than a reaction to external stimulation*" (italics added) he almost certainly had the work of Bandura and associates in mind.[13]

One of Bandura's main claims is that "new responses are acquired or the characteristics of existing response repertoires are modified as a function of observing the behaviour of others and its reinforcing consequences."[14] He does not deny the endogenous a role in the sense of facilitating culture-dependent processes: the behavioral modifications and changes which result from exposure to modelling stimuli are explained in terms of "control systems" such as vicarious classical conditioning, which, while largely dependent on cultural models for their effects, are genetically endowed capacities.[15] What he does deny is that aggression is under the control of either autonomous inner determinants of behavior or inner determinants which involve endogenously or innately construed responses to external stimuli. This is apparent in the general assertion that "from a social learning perspective, human nature is characterized as a vast potentiality that can be fashioned by direct and vicarious experiences into a variety of forms within biological limits."[16]

The extent to which Bandura is prepared to deny endogenous processes is seen in his attempt to interpret evidence apparently indicative of drives and catharsis in terms of fairly extreme exogenous theory. According to J. Dollard and associates frustration always results in aggression and aggression is always due to frustration.[17] Aggression is seen on analogy with the temperature of water in a basically self-contained or closed heating system: environmental factors inducing frustration trigger a *sui generis* process; frustration-induced drives are endogenously sustained until they are catharted via aggressive display. Bandura has to reinterpret evidence, presented in due course, that aggression is often associated with frustration, that drives appear to exist, and that display is associated with physiological catharsis. The connection between frustration and aggression is explained in terms of learning theory: "The manner in which individuals respond to condi-

tions regarded as frustrative is primarily determined by the patterns of behaviour that they have previously learned for coping with such situations."[18] As for drives and physiological catharsis, Bandura argues as follows:

> There is no disputing the fact that a person who is in a state of heightened emotionality resulting from stressful and frustrating events is apt to undergo some reduction in general arousal level as a function of observing aggressive performances. While such an outcome is generally interpreted as evidence of vicarious reduction in "pent-up" affects and impulses, a more plausible alternative interpretation is in terms of stimulus-change processes. . . . The persistence of elevated arousal . . . is attributable to the self-generated stimulation (brooding) rather than to the existence of an undischarged reservoir of "aggressive drive." If the person should become immersed in new activities that supercede the pre-occupying internal eliciting stimuli, a noticeable degree of "tension" reduction will, in all likelihood, take place.[19]

Rather than positing an endogenous drive, Bandura argues that arousal persists because it is under cognitive control—brooding. And instead of treating reduction of arousal as indicative of physiological and emotional catharsis, he argues for the cognitive, culture-dependent process of attentional shift. What matters is what people think about, including learned strategies and how culture directs them in such activities as funeral rites.

There are, however, difficulties with this comprehensively exogenous theory. As we shall see, aggression as a learned response to frustration runs counter to the evidence assembled by L. Berkowitz to support his theory that the connection basically involves an involuntary reaction. Then one could argue that brooding owes as much to sustained arousal as vice versa. Moreover, the primacy of arousal is suggested by the commonplace experience of a hurt which keeps returning however hard we try to forget it. Another objection is that aggressive display, in the absence of attentional shift, frequently results in physiological and emotional catharsis.[20] Finally, it is strange that Bandura should introduce attentional shift when he is discussing what happens when people observe aggressive performances—surely the kind of activity which results in greater attention to aggression itself.

Just as extreme endogenous theory fails in that it cannot allow for what is valid in exogenous theory, so the same applies to extreme exogenous theory. On the one hand there is evidence that what I am calling restricted exogenous formulations are valid; on the other restricted endogenous formulations also are substantiated. We now examine the evidence for this in greater detail.

RESTRICTED ENDOGENOUS AND EXOGENOUS THEORIES. The claims of the two general approaches have to be curtailed to allow for evidence that neither endogenous nor exogenous processes can be discounted *in*

toto. If both can be operative, they must be envisaged in such ways that either can interrupt, override, or influence the other. For example, assuming that attentional shift is applicable to certain contexts, it can no longer be held that catharsis is the only way of dissipating aggressive arousal.

But it is not as though the curtailments are defensive resorts. The same evidence which demands the curtailments also supports them: the theory of catharsis, for example, is much more successful when it is formulated in such a fashion as to allow exogenous processes a possible role in the management of aggression. It is not the case that cathartic and enforcement processes, on which I now concentrate, stand or fall with respect to the fates of the extreme and strong approaches. Thus the theory that aroused states naturally demand satisfaction is in no way diminished if the idea of innate deprivation drives is rejected: the theory holds that states of arousal are an integral component of the catharsis process, not that drives are endogenously produced.

Before turning to the two restricted processes, I should also point out that I here concentrate on laboratory evidence. Another source of evidence, provided by ethnographic findings which strongly suggest that both the processes can be operative, is discussed later.

Restricted catharsis theory. The catharsis hypothesis, that aggressive arousal (a more appropriate term than "drive") encourages aggressive display which in turn diminishes violence, is validated when it is shown, first and most generally, that aggression is often bound up with endogenous processes; second, that aggressive arousal is appetitive encouraging the likelihood of aggressive display; third, that aggressive display can result in physiological, emotional, and behavioral catharsis; and, finally, that catharsis can result in improved mental and physical well-being.

The first of these claims is supported by a rapidly increasing corpus of research. Moyer draws on findings from research involving direct brain stimulation, surgical lesioning, hormone therapy, and drug induction to substantiate his claim that there are "innate physiological mechanisms that when activated, lead . . . to the expression of hostile responses. . . ."[21] More recently, F. Goodwin has suggested that children repeatedly confronted with situations prompting aggressive behavior come to produce high levels of norepinephrine and low levels of serotonin.[22] In adults this pattern is correlated with above-average levels of aggression.[23]

The second claim is clearly supported by this evidence but is treated separately because it has been most closely examined by social psychologists. Assuming that aggressive arousal has not dissipated through time and that exogenous processes such as attentional shift have not

intruded, arousal results in aggressive display. Berkowitz presents a modified or, in my terms, restricted version of the original frustration-aggression hypothesis of Dollard and associates: frustration does not always result in aggression; but, if exogenous processes do not intrude (people learning not to respond aggressively to thwarting circumstances), aggression is the involuntary reaction. This authority on the subject concludes that "the evidence accumulated in the last three decades supports the essential validity of the frustration-aggression hypothesis."[24]

The third claim is best substantiated with regard to physiological and emotional catharsis. Bandura, we have seen, does not deny the occurrence of vicariously induced arousal reduction, and, as we have also indicated, his theory of attentional shift does not provide an adequate alternative explanation to cathartic reduction. It is significant that even such exogenously inclined theorists as Geen and associates hold that arousal catharsis can occur when exogenous processes are functioning to enhance aggressive behavior.[25]

Postponing discussion of behavioral catharsis for a moment, we are left with the claim that aggressive display can result in improved mental and physical well-being. Regarding the latter, K. Bowers and P. Kelly write of the "growing appreciation of how psychologically produced stress reactions can enhance vulnerability of disease, especially via imbalances in immune responsiveness."[26] Given that physiological catharsis involves tension reduction, a good case can be made that it can benefit health. Concerning mental well-being, participant reports of improved feelings support the claim, rather extremely put by Freud, that "a satisfaction of an instinct spells happiness for us."[27] Reports of improved subjective well-being are found in the experimental literature and in ethnographic studies.[28]

Restricted enforcement theory. The enforcement hypothesis (that aggressive display is encouraged by sociocultural factors, display often functioning to increase aggression) involves demonstrating that aggressive display can encourage aggressive arousal, behavior, and values and that this encouragement explains why aggression can spread across various sociocultural contexts. Experimental work has provided ample evidence both of enforcement as the result of engagement in or exposure to aggressive display and of this enforcement being carried over into other contexts. I will consider first the immediate enforcement consequences of aggressive display and then the evidence that enforcement processes can account for the extension of violence through a culture.

Although S. Schachter's (1971) exogenously oriented theory of the emotions has recently come under attack from more endogenous

viewpoints, it is clear that emotional arousal is influenced, if not to some extent constituted, by socially provided models and apprisal schemes.[29] Bandura cites the evidence for vicarious emotional arousal, and other investigators have reported increases of arousal when subjects are directly involved in certain kinds of aggressive display.[30] Berkowitz, for example, discusses how anxiety and guilt can arise when display runs counter to social norms, both these states involving frustration and so encouraging aggressive tendencies.[31] Thus under certain conditions aggressive display results in the enhancement of arousal rather than in catharsis.

Turning to the relationship between aggressive display and consequent behavior, where I also discuss the evidence for behavioral catharsis, there is evidence that both enforcement and behavioral catharsis can occur. Neither process provides a comprehensive explanation. Their relevance is determined by the presence of particular features in aggressive display; their scope is restricted by whether or not particular conditions are in evidence.

The most common experimental design in studying the impact of aggressive display on aggressive behavior is to anger subjects, allow them to hurt their annoyer, and then see whether they are more or less likely to hurt the annoyer when afforded a second opportunity. Psychologists claim to have found evidence to support a number of explanations, including the following findings. First, aggressive behavior decreases after aggressive display, and this is attributed to decrease in arousal.[32] Second, aggressive behavior decreases after aggressive display and arousal catharsis, and this is attributed to increased inhibitions. Thus Geen and associates reinterpret an experiment by A. Doob and L. Wood, which apparently supports the position just outlined, on the basis that "reduction in aggression may be caused by more than just lowered aggressive instigation."[33] One of the reinterpreters' exogenously couched suggestions is that subjects "may have been restrained from aggressing by fear or guilt over further unwarranted aggression."[34] Third, aggressive behavior increases after aggressive display and arousal catharsis, and this is attributed to decreased inhibitions. Thus Geen and associates claim that "when an experimental situation is arranged to minimize restraints against aggression, the opposite to catharsis occurs."[35]

Working with similar experimental designs, evidence is thus found for comprehensive catharsis (both arousal and behavioral), for arousal catharsis operating together with a learning process which results in guilt, and for arousal catharsis operating together with a learning context which results in decrease of guilt and restraint.

Increases in aggressive behavior after aggressive display supports exogenous theory; endogenous theory cannot handle this finding.

Decreases in aggressive behavior, however, apparently can be handled by either exogenous or endogenous theory. If evidence which apparently indicates behavioral catharsis can in fact be better explained in terms of an exogenous process, the catharsis hypothesis suffers considerably. Geen et al., for example, argue that Doob and Wood's experiment actually demonstrates an exogenous, inhibitory effect on the grounds that the experiment involved women and that angered subjects were given too powerful a means, namely electric shocks, for attacking the annoyer.[36]

Strategies of this variety, designed to reinterpret evidence indicative of behavioral catharsis so as to support strong exogenous theory, fail if it can be shown that the conditions on which exogenous processes depend are absent V. Konečni and E. Ebbesen, for example, have tried to devise experiments in which conditions likely to encourage inhibition are absent. Since it is difficult to ensure that exogenous processes are not intruding, the validity of behavioral catharsis remains open to debate. However, bearing in mind the evidence already cited to the effect that aggressive display is often bound up with appetitive arousal, a good case can be made for the fact that satisfaction of arousal takes away an important incentive to behave aggressively.

More evidence for enforcement and behavioral catharsis and the conditions under which they occur is provided by research on television violence and viewer aggression. Having cited evidence which appears to show that such vicarious exposure increases aggression, R. Kaplan and R. Singer conclude that this occurs "only if the following three conditions are met: (a) the subjects are angered prior to exposure to television, (b) the violence on teleivision is justified, and (c) there are disinhibitory cues associated with the potential target of aggression."[37] Under other circumstances, however, reduction in aggressive behavior indicates behavioral catharsis.[38]

It is impossible here to do full justice to the evidence which supports enforcement theory.[39] Some of the processes which have been isolated to account for aggressive display increasing aggressive behavior include the five following. First, aggressive display activities teach people how to be aggressive and encourage them to be aggressive if the display shows the values of aggression. Bandura suggests that "when aggression is rewarded in certain contexts but not in others, the level of aggressive responding can be altered simply by changing the contextual events that signal probable outcomes."[40] Second, reinforcement occurs but now it involves physiological catharsis. For example, people come to associate the pleasures of physiological catharsis with behaving aggressively, and so they are encouraged to act aggressively in the future.[41] Third, there is Berkowitz's guilt-anxiety process already discussed. Fourth, aggressive displays result in disinhibition, desensitiz-

ing, and habituating people to violence.[42] Fifth, the need for cognitive consistency is operative; Konečni and Ebbesen write of an experiment that "once having verbally expressed their dislike for the annoying confederate, subjects felt compelled to do so five minutes later irrespective of their true opinion at that time."[43] However, it must be emphasized that display does not always result in increased aggressive behavior, which is why the enforcement hypothesis is of a restricted variety.

Finally, mention must be made of the other aspect of the enforcement hypothesis, namely, that aggressive display is encouraged by sociocultural factors. Endogenous theory, it will be recalled, treats aggressive display as the natural consequence of whatever might have triggered off aggressive arousal. Children behave aggressively because parents frustrate their desires. Exogenous theory, on the other hand, treats aggressive display and how it can spread through a culture as the learned consequence of prior forms of aggressive display. Children behave aggressively because of what they have learned from their parents.

Given the nature of the psychological processes involved in enforcement activities, it is not surprising to find what Berkowitz calls a "generalization effect," namely, that involvement in a particular case of aggressive display can result in increased aggressive tendencies in other contexts.[44] Thus he writes that "rewards exert such a profound influence on behaviour partly because their consequences spread" and that "reinforcing one type of aggressive act heightens the probability that other kinds of aggression would occur."[45] Other evidence for what I prefer to call the extension effect is provided by Bandura and R. Walters, by the finding already cited that physiological catharsis reinforces aggressive behavior and so increases the likelihood of aggression seeking behavior, and by Bandura's finding that social learning processes can result in the adoption of aggressive responses to previously neutral phenomena.[46]

From a more sociological viewpoint, R. Sipes has attempted to show that "there is a strain toward consistency in each culture, with similar values and behaviour patterns, such as aggressiveness, tending to manifest in more than one area of culture."[47] His evidence is that there is a positive correlation between war and warlike sports. The "propensity for consistency" is explained "as an outgrowth of group interaction mechanics and requirements."[48] Thus, besides the psychological extension processes already discussed (including the need for cognitive consistency), we can presumably include considerations of the kind that a society which values war is likely to encourage warlike sports, aggressive initiation rituals, and the like in order to train youths to fight.

The appearance of aggressive institutions in a society, such as the spate of extremely violent films (especially in video form) currently afflicting us, quite possibly owes much to enforcement processes. Concerning violent films, people have learned to enjoy violence, thus encouraging the film industry. However, given what has already been said about the validity of the frustration-aggression hypothesis, given that even Bandura is prepared to admit that "frustration or anger arousal is a facilitative . . . condition for aggression," and given that, as we shall see, ethnographic evidence counts against comprehensive reliance on learning processes, the basis for aggressive display must sometimes be sought at the endogenous level.[49]

Conditions Regarding Applications

Extreme and strong claims, we have seen, take the form of positing generally operative processes whose occurrence is determined by simple conditions: for example, whenever there is aggressive display there is subsequent cathartic reduction in aggressive behavior. If indeed one approach or the other told the whole story the task of deciding what is occuring in particular real world cases of aggressive display would be easy. For the extreme endogenous theorist the playing fields of Eton function cathartically; for the extreme exogenous theorist they instil combativeness, if not aggression.[50]

However, we also have seen that extreme and strong claims founder in that they run up against evidence which cannot be explained away or reinterpreted. Restricted theories are designed to solve this problem, but using restricted theories increases the problem of establishing what is occurring in particular cases. For both kinds of restricted theory to be valid, they must apply to different conditions. Whether or not the playing fields of Eton are functioning cathartically now depends on whether or not appropriate conditions are in evidence: the application of the theory of behavioral catharsis is only justified when conditions likely to facilitate exogenous processes (such as inhibition) do not intrude. In other words, that restricted processes only occur under certain conditions and allow the possibility of intrusion from one side or the other means that great care must be taken in examining the evidence.

Having shown what is psychologically possible, how are we to make the leap from what has been shown to occur in carefully devised experiments, where variables can be isolated to some extent, manipulated, and their consequences measured, to more complicated and less accessible real world institutions? I will consider first the ways in which experimental psychological evidence can be applied to ethnographic

material to discern conditions of application and then turn to detailed ethnographic evidence.

PSYCHOLOGICAL CRITERIA AND ETHNOGRAPHIC CIRCUMSTANCES. Psychological research provides the following criteria for inferring whether catharsis or enforcement is occurring. First, there are criteria provided by the relationship between antecedent states of affairs and aggressive display. The catharsis process is likely to occur if there is high prior arousal or frustration; the enforcement process is likely if aggressive display is found in conjunction with other aggressive activities. In the real world aggressive displays are most likely to be caused by the need for catharsis when there is *discontinuity* between the display activities and sociocultural norms. These norms limit or prevent the expression of aggression in everyday life; aggressive tendencies and frustrations are likely; hence the appearance of aggressive displays in specific contexts—contexts which stand in contrast to nonaggressive normality. Endogenous processes are clearly well-suited to cases where cultural values are overridden or contradicted: it is because of these values that aggressive tendencies require satisfaction in distinct contexts. Aggressive display is a reaction to normal restraints; it provides compensation.

Exogenous theory, on the other hand, with its emphasis on extension processes and replication, cannot explain such disjunctions and reactions to normal learning experience. It comes into its own when there is *continuity* between aggressive activities and cultural values and norms as a whole. These norms encourage the expression of aggression and teach people to be aggressive. Furthermore, since lapses from being aggressive are likely, reinforcement in contexts which are bound up with what is normal is also likely, thus maintaining the social order.[51]

Second, there are criteria provided by the nature of aggressive display. Aggressive tendencies are likely to be decreased when models facilitating aggressive display do not justify or otherwise reinforce aggression; aggressive tendencies are likely to be increased when facilitating models encourage comprehensive disinhibition, draw attention to, remind people of, and in general reinforce and justify aggression. Cathartic models have to facilitate release or display (otherwise catharsis could not occur) and have to provide satisfaction. They must be relatively neutral, that is, sufficient to facilitate release but not positive enough to justify aggression, which happens when what one is attacking is of such a variety as to bear out the values of aggression. Enforcement, on the other hand, is suggested when models do not merely encourage disinhibition but vividly present aggression in a positive light. When aggressive displays replicate or add to culturally valued aggression, they are unlikely to discourage aggression. How-

ever, when aggressive displays contradict sociocultural values, they are unlikely to encourage aggressive tendencies which would only enhance frustrations on returning to everyday life.

Third, there are criteria provided by the consequences of aggressive display. Decrease in physiological arousal provides direct evidence of physiological catharsis and indicates that behavioral catharsis could be occurring, although exogenous processes can intrude to enhance aggressive behavior while there is physiological decline; increase in physiological arousal provides strong evidence for reinforcement. Decrease in aggressive behavior could count in favor of behavioral catharsis but could also indicate the operation of the exogenous process of inhibition. As with the behavioral consequences of physiological arousal, our attention is directed to the nature of aggressive display if we want to establish whether exogenous processes are intruding. Inhibition, for example, is unlikely when aggressive release is condoned. From a more ethnographic viewpoint, display contexts which stand in contrast to what is culturally valued are unlikely to encourage aggression, for if they did aggression would spread and the contexts would cease to be distinctive; contexts which are bound up with what is culturally valued are unlikely to discourage aggression, for if they did they could not be bound up with the exemplification of violence.

ETHNOGRAPHIC EVIDENCE. To infer from the laboratory to the field relies quite heavily on the strategy of arguing: "x" experimental design and "y" sociocultural activity have features and consequences in common (e.g., a particular form of aggressive activity resulting in the decline of aggressive behavior); catharsis has been demonstrated under laboratory conditions; so, by inference, catharsis is operative in the field context.[52] But can ethnographic research provide adequate information as to the nature of aggressive display, its consequences, and its antecedents to allow this strategy to be used?

Naturalistic "experimental" research, attempting to measure antecedents such as frustration levels and consequences such as incidence of aggressive behavior, seems to hold promise. If one could show, for example, that a particular instance of aggressive display actually diminishes violent behavior, one could at least rule out the possibility of exogenous enforcement processes being operative.

Consider the claim that soccer matches provide a setting for young hooligans to dissipate their aggression through ritualized "aggro," the result being that they are less inclined to be aggressive on returning to everyday life.[53] To test this one could either do a longitudinal study (measuring the incidence of aggressive behavior before and after display), a controlled study (comparing aggression levels after a match with what happens when, for instance, a match has been postponed), or

both. Whichever design is adopted, one would somehow have to chase around after fans to observe how often they behave aggressively. One also would have to devise a scale for assessing the weight or comparative significance of particular acts of aggression. How, for example, is having a violent familial argument to be weighted in comparison with throwing stones at an empty house?[54]

The difficulties are considerable, but the fact remains that the more accurately aggressive behavior, frustration, anger, and physiological arousal are measured, the better the position we are in to ascertain which psychological process is operative. Physiological arousal is not easily measured in the field, but with some ingenuity this should not be impossible: one could, for example, take urine samples from soccer fans from stadium latrines before and during a match and then from their homes afterwards.[55] R. Ness (1981) has employed psychological techniques in the field to measure postritual emotional levels, including anger, and on this basis has gone some way in establishing which processes are operative in the rituals—one being catharsis.[56] Also, as we shall see, good ethnographic fieldwork, including participant reports indicative of psychological processes, can provide a relatively exact idea of the incidence of frustration and aggressive behavior.

Inferring from the laboratory to the field in the fashion I have been discussing is often rendered difficult if not impossible by virtue of the fact that few anthropologists have attempted to measure, at least sufficiently exactly, the psychologically significant factors.[57] However, this does not rule out using ethnographic material to demonstrate, in accord with psychological evidence, catharsis and enforcement. My intention in the following section is not simply to illustrate what is involved in settling what is occurring in three particular cases by using psychological criteria. I also want to argue that ethnographic evidence helps support the very theories which are applied. In other words, and thinking only of the Utku example, exogenous theory is unable to account for dog-beating. Ethnographic material comes to the aid of those psychologists who argue for the endogenous catharsis process.[58]

The strategy on which I concentrate does not rely on exact measurement, although this would help greatly. It primarily involves the disjunction-conjunction criterion. By way of introduction, this is how F. Hsu describes his methodology in explaining Chinese customs which contradict the basic institutions of traditional society:

> In the absence of conclusive psychological evidence, I have used an alternative, but less exact, methodology to explain some of these conflicts. First I ascertained the basic orientations of certain cultural patterns. Then I looked for customs and conditions which are contrary to such basic orientations, but nevertheless somehow function smoothly as a part of these cultural patterns.

Whenever such customs and conditions operate in this manner, my inference is that they correspond to certain psychological needs which have to be satisfied in a roundabout way. I call these secondary institutions and conditions "safety valves," in the sense that they prevent the culture patterns from breaking down due to inner conflicts.[59]

So we turn to the evidence which appears to demand explanation in terms of either endogenous or exogenous processes; we move, in a manner of speaking, from psychological possibilities to ethnographic necessities.

Ethnographic Demonstrations of Dogs, Tigers, and Cocks

OF DOGS. Why do Utku Eskimo savage their dogs? Chained dogs, often innocent and unannoying, are treated ferociously. J. Briggs, the ethnographer on whom I rely, writes that "they beat them with boots, rocks, frozen fish, hammers, tentpoles, or anything else that came to hand."[60] And Utku dog-beaters enjoy themselves, Briggs observing "gleaming eyes and smiles of delight as dogs cowered and whined with bruises and bloody heads."[61] Not too remarkable, one might think, until one realizes that the Utku generally abhor anger and regard "the maintenance of equanimity under trying circumstances [to be] *the* essential sign of maturity, of adulthood."[62]

So why do Utku unexpectedly break their code of nonviolence in their treatment of dogs? I argue that the only answer is to assume that dog-beating satisfies aggressive tendencies—tendencies which cannot be released and satisfied in any other way.

There is reasonably good evidence that Utku get frustrated. Thus Briggs reports that "hostility was subtly expressed and often strongly denied, but it was there."[63] Cooped up for the winter, in small isolated groups and not able to express their irritation, who would doubt that the Utku come to feel tense?

Given that the Utku break their code to beat dogs, given that the amount of violence directed at dogs is disproportionate to what they might have done, and given that their aggression is irrational since dogs are valuable to Utku, it is even harder not to conclude that dogs serve as scapegoats, that frustrations which cannot be handled in everyday life are displaced onto these hate objects. And it is significant that dogs are used. Dogs can purge potentially dangerous but socially useful displacements in a safe way. Because dogs are distinct from people, there is little tendency for Utku to think that what can be done to dogs should be done to people. That dog-beating does not encourage aggression is borne out by the fact that the discontinuity between this activity and sociocultural life as a whole shows no signs of being threatened by a carry-over effect.

There is more evidence in favor of the cathartic mechanism. It is interesting that indigenous or folk psychologies of widely diverse cultures contain the language of catharsis. The significant Utku term is *qiquq*, translated by Briggs as "literally, to be clogged up with foreign matter; metaphorically, to be on the point of tears, to feel hostile."[64] It variously refers to blocked primus nipples and the like, people behaving in sulky, withdrawn fashion, and people when they are about to engage in emotional display. The term refers to immediately precathartic states of arousal or frustration. The Utku also have expressions which indicate they are aware of the values of cathartic venting. Thus they say "that a man who *never* lost his temper could kill if he ever did become angry."[65] Such a man should free himself on dogs, not by suddenly lashing out at his kin.

These notions and expressions must have some basis in experience, and the only plausible basis is that they are bound up with what the ethnography as a whole suggests, the psychodynamics of catharsis.

Exogenous theories fare badly if they are applied to explain this material. They cannot explain why the Utku have a single arena for aggression which stands in stark contrast to normally tabooed aggressive display. Exogenous theories, we have seen, predict consistency across various domains of sociocultural life. Positive reinforcement and models teaching attitudes towards aggression, together with cognitive consistency theory, mean that what is taught in one context should at least to some extent be carried over into other domains. Thus wide-ranging taboos on violence and the existence of many models teaching the dangers of aggression predicts that the Utku should have comprehensive taboos against aggression—including how they treat their dogs. Moreover, given that Utku do beat their dogs, exogenous theory predicts that this teaching process—for that is how it now must be regarded—should result in the propagation of violence. Contrary to these predictions, however, dog-beating both occurs and does not encourage aggression in everyday life. It is certainly difficult to understand why the Utku should beat their dogs when what really matters, according to the exogenous theorist, is the cultural control of aggression. How, in short, can dog-beating be attributed to a learning process couched in terms of cultural values, and how can it be maintained that dog-beating either teaches Utku to be unaggressive or teaches them the values of aggression?[66]

To summarize, Utku dog-beating makes sense in terms of endogenous but not exogenous theory.[67] It is because the endogenous overrides the exogenous that aggression appears in a culture which in general taboos it.

OF TIGERS. My second example, which for reasons of space cannot be presented in detail, involves ethnographic material which only makes sense if it is held that exogenous processes override endogenous ones. Semai culture is more comprehensively nonviolent than Utku culture, this in the sense that there are no specific contexts in which aggression is tolerated.[68] Since it would be rash to claim that the Semai do not experience frustration, we have to account for the fact that the endogenous process of frustration resulting in cathartic display is not operative. Building on the theorizing of C. Robarchek, a good case can be made of explaining the difference between the Utku and the Semai by appealing to the more comprehensive and well-developed cultural learning models of the latter society. These are what function to override the endogenous process by transforming frustration into fear rather than allowing it expression as angry aggression.

Consider the Semai concept *pehunan*, referring to a "state of being unfulfilled, unsatisfied, or frustrated in regard to some specific and strongly felt want." As Robarchek continues, "The conditions for the occurrence of *pehunan* are virtually identical with Dollard's and Berkowitz's definition of frustration: interference with an instigated goal-response sequence."[69] But people in this state, so it is believed, are not simply frustrated; they also have incurred *pehunan*, that is, they are in grave danger of attack by animals (in particular tigers) and supernaturals, and their lives are at risk.

Applying S. Schachter's reasonably well-established exogenous theory of the emotions, punishment models of the *pehunan* variety make a deep mark: "in those instances where frustration does occur, the resultant emotion in the frustrated party is not anger but is rather fear of the danger to which he has become vulnerable."[70] Rather than feeling angry and acting aggressively, the Semai have been taught to feel afraid and to direct their behavior to dealing with the source of danger by, for example, securing spells and charms.

In summary, Semai culture does not contain marked discontinuities of the variety discussed in connection with the Utku. This favors the application of exogenous theory: endogenous theory is unable to account for the facts whereas exogenous theory is able to explain the enforcement of fear and so the presence of comprehensive taboos against aggression.

OF COCKS. I now turn to cocks, specifically those appearing in the arenas made famous by C. Geertz in his article "Deep Play: Notes on the Balinese Cockfight."[71] At a fight, as Geertz captures the moment, "cocks fly almost immediately at one another in a wing-beating, head-

thrusting, leg-kicking explosion of animal fury so pure, so absolute, and in its way so beautiful as to be almost abstract, a Platonic concept of hate."[72] These displays of violence are deeply relished by participants. However, we are told that "in the normal course of things the Balinese are shy to the point of obsessiveness of open conflict."[73]

It appears as though we have another example of catharsis. Geertz writes that the wild, aggressive, features of the cockfight make it "seem a contradiction, a reversal, even a subversion" of everyday values.[74] Thus it appears that by contradicting the norm cockfights provide compensation for those aggressive tendencies which the norm cannot satisfy. It is as though cockfighting satisfies aggressive tendencies by means of vicarious wish-fulfillment: my cock is doing to its antagonist what I really would like to be doing to my rival.

Given the discontinuities which exist between cockfighting and everyday contexts, given the fact that Balinese are unable to express their anger readily and get frustrated, and given the oft-reported psychological finding that aggressive display is frequently associated with physiological catharsis, it seems clear that the cockfight is not devoid of endogenous processes. However, we have seen that physiological catharsis can be associated with exogenous processes which enhance and enforce aggressive behavior.[75] Closer examination of cockfighting and of Balinese society suggests that in conjunction with immediate arousal or physiological catharsis the activity has the longer term effect of teaching the values of aggression and so encouraging aggressive behavior.

Cockfights replicate social values and relationships. They serve to dramatize and articulate what Geertz describes as "the status bloodbath" of everyday life.[76] Geertz emphasizes that cocks are "symbolic expressions or magnifications of their owner's self."[77] This means that it is actually the owners, fighting via their extended forms as cocks, who are in the arenas. And their fighting has to do with what Geertz identifies as "the moral backbone of the society," namely the "hierarchy of pride."[78] The general pattern of Balinese society, we are told, is "of a tiered hierarchy of status rivalries between highly corporate but various[ly] based groupings."[79] The cockfights are organized in terms of these rivalries. Matches are grounded in society, cocks fighting for kin groups; those participants taking the lead in elaborate betting rituals are political leaders; less important gamblers put their stake on the cock of their own kin group; and so on. When a cock wins, it accords status to those identified with it and casts humiliation on the opposition. In this fashion kin group and village rivalries and hostilities are activated.[80]

Continuities between cocks and humans mean that cockfights are models of status rivalry. However, the fights do not simply display or

replicate aggressive tendencies in the social process; they also function as models for the teaching of aggression. They activate hostilities by drawing attention to them and, more importantly, by drawing attention to the values of aggression. They provide what Geertz calls an "art form," able to add to what is going on in society. This is how he puts it: "art forms *generate* and *regenerate* the very subjectivity they pretend only to display.... Cockfights are not merely reflections of a preexisting sensibility analogically represented; they are *positive agents* in the *creation* and *maintenance* of such a sensibility" (italics added).[81]

That fights provide participants with a complex model conveying the nature and values of aggression is supported, among other considerations, by the following. First, the ritualized event reminds participants of one of their great culture heroes, a prince called "the Cockfighter." He is "the archetype of status virtue, the arrogant, resolute, honour-mad player with real fire."[82] He spells out and justifies competitive aggression. Second, participants are also aware that cockfights are essentially blood sacrifices. Violence is again justified in that it serves the end of satisfying demons. Third, since cocks are associated with animality, the demonic, the realms of uncontrolled hatred, cruelty, and violence, as well as social and human domains, participants are faced with a much richer view of aggression than they normally encounter. In Geertz's words, "Balinese go to cockfights to find out what a man usually composed, aloof, almost obsessively self-absorbed, a kind of moral autocosm, feels like when, attacked, tormented, challenged, insulted, and driven in result to the extremes of fury, he has totally triumphed or been brought totally low."[83] Cockfighting, we might say, is paradigmatic in that it exemplifies and justifies aggressive themes which, while belonging to Balinese cultural tradition, go beyond everyday attitudes to aggression.

With aggressive display in common, enforcement and catharsis processes can be confused. I will now contrast Balinese cockfighting with Utku dog-beating to summarize how they can be distinguished.

Aggressive display, it will be recalled, is most likely to take a cathartic form when there is discontinuity between the display and sociocultural norms. When the norm is to regard aggression as undesirable and to taboo it, it is likely to be released, but in a hedged-off context. Aggressive display is also likely to take a cathartic form, decreasing the likelihood of subsequent aggressive behavior, when the trigger facilitating the display is relatively neutral. A powerful hate object might well encourage aggression (as a response to threat), as could a trigger which emphasizes the values of aggression. Utku dogs are not beaten because they threaten, and neither does dog-beating do much to show that aggression is justified.

Enforcement activities, on the other hand, can reasonably be held to reinforce or amplify socioculturally valued aggression. For enforcement activities to enhance what is generally sanctioned, there must be continuities between the activities and the broader sociocultural environment. Whereas Utku dogs release or provide compensation for what is generally suppressed, Balinese cocks spell out rivalries which are already acknowledged. This does not indicate catharsis. Cockfights are not hedged-off arenas, occurring because of a need for catharsis; they are part and parcel of social and cultural life, with the consequence that cockfighting aggression is socially and culturally valued and identified with. Identification means that cockfights are positive models: they justify and elaborate on the themes of aggression.

Just as the exogenous theorist cannot explain Utku dog-beating, so the endogenous theorist cannot apply catharsis theory to explain most of the features of Balinese cockfighting. Recalling the psychological evidence presented earlier as to the role of cultural models in teaching aggression, it would be difficult to argue that the positive models "of" and "for" provided by cockfights do other than enforce aggressive tendencies. However, this is not to deny that physiological catharsis might well also be operative. The facts that Balinese culture values aggression, that Balinese society is competitive, and that the Balinese have to exercise restraint in their everyday life, suggests that they get frustrated, relieve some of their frustrations through cockfights, and learn aggressive tendencies at the same time. These ethnographic circumstances bring to mind those experimental designs showing physiological reinforcement—designs where, as Berkowitz puts it, "providing an opportunity to express hostility may lessen the frustration-engendered instigation to aggression but... also evoke and/or strengthen a person's habitual hostile tendencies."[84]

Conclusion

A theory of biocultural coadaptation must consider, first, whether there are biological and culture-dependent processes of potential relevance in explaining particular cases and, second, how to set about specifying which processes are actually operative in various contexts. Scientific, especially psychological, evidence shows that the grounds and management of aggression cannot be comprehensively explained in terms of either biologically or socially conceived theories. Both are of universal applicability, and which should be applied to explain the relationship between the endogenous and the exogenous in particular cases depends on detailed evidence. Ethnographic material, combined with experimentally derived knowledge of what is psychologically probable under various circumstances, shows that Utku dog-beating is

informed by catharsis and results in the reduction of violence, that Semai rules enforce fear rather than anger and also result in the reduction of violence, and that Balinese cockfighting is primarily informed by the enforcement of violence and results in its amplification. In the first case the endogenous overrides the exogenous; in the second the situation is reversed; and in the third there is interplay.

If aggression can follow both the laws of nature and the rules of culture, there is no easy either/or answer to what is happening in particular circumstances. The answers I have suggested employing the Utku, Semai, and Balinese examples are, I should emphasize, provisional. Ethnographic and psychological inquiry could well prompt revision.[85] However, this would not worry me: ultimately this essay has to do with *ways* of exploring the hold of cathartic and enforcement processes in social life; with *ways* of establishing biocultural processes as they operate to constrain human behavior.

The issues discussed in this essay are extraordinarily complicated. One reason is that, although aggression must owe something to biology (minimally to a biological capacity), we are so designed that what we learn and how we exercise our emergent powers, including our powers of self-regulation, can readily result in endogenous processes being overridden. Unlike more noticeable endogenous processes, such as those involved with hunger and sex, what aggression owes to nature is often obscured by what it owes to culture. Validating endogenous operations is not easy.

Another complication is that institutionalized aggressive display can be explained from four points of view: in terms of what gives rise to an institution, what gives rise to some of its features, what prompts people to engage in the institution, and how it functions. There is thus the possibility that endogenous theory explains, for example, some of the features of an institution and how it functions, but not all the features and not why people participate in it.[86] Such interplay is difficult to tease out.

Finally, to make a related point, ethnographic evidence is even more open to reinterpretation than is, as we have seen, experimental evidence. The anthropological literature on rituals of rebellion and witchcraft contains many examples of endogenous and exogenous theorists struggling to construe the evidence in such a way as to rule out rival explanations.[87]

For these and other reasons we are a long way from establishing how biocultural coadaptation occurs in what are widely diversified sociocultural contexts. As for evolution, all we can conclude is that endogenous processes show the impact of our evolved nature on culture and that both endogenous and exogenous processes apparently have survi-

val value. Concerning catharsis, it is not that violence is so innate as to demand expression to prevent disturbance in individual and social systems; rather it is that under some circumstances aggressive arousal naturally tends to encourage the appearance of what R. Fox calls "inherent [culture-independent] rules of violence," that is, aggressive arousal prompts engagement in or the appearance of display so devised as to release and dissipate aggression in a safe fashion.[88] One is reminded of graffiti found in London which informs us that "a little bit of violence never did anyone any harm." Aggressive activity certainly appears to help Utku to survive in their small isolated groups without too much threat of violent outbursts.

Concerning enforcement activities, they appear to help the Balinese cooperate in their social life by encouraging them to be competitive. One also can think of how aggression engendering rituals aid the survival of members of war-like societies. What is perhaps curious is that it is the endogenous domain which provides a process for diminishing violence whereas what is learned is so often the advantages and pleasures of aggression. It is true that culture also can teach the disadvantages of violence and thereby limit it, but it also is true that there is no evidence for any natural aggressive drive, endogenous processes generally functioning to increase aggression when *socially* induced frustrations occur. It is as though our evolved capacity for culture has swung the balance from natural control to cultural enhancement.

It is possible to speculate further. There is a certain amount of evidence that relatively safe, cathartic aggressive displays are most characteristic of small communities.[89] As Fox puts it while discussing ritualized fighting, "men, left to themselves, will, within (and even between) the small communities that are their natural environment, manage to come up with elaborate bluff and threat operations that will satisfy pride while doing a minimum of damage."[90] Could it be the case that enforcement activities, such as those provided by army training camps, are more frequent in those cultures in which, for some reason, men have not been left to themselves?

NOTES

1. In the words of William Blake:

> I was angry with my friend:
> I told my wrath, my wrath did end.
> I was angry with my foe:
> I told it not, my wrath did grow.

2. See G. Homans, "Anxiety and Ritual: The Theories of Malinowski and Radcliffe-Brown," in *Reader in Comparative Religion*, ed. W. Lessa and E. Vogt, 3rd ed. (London: Harper & Row, 1972), pp. 83-88.

3. Konrad Lorenz, *On Aggression* (New York: Harcourt, Brace & World, 1966); Robert Ardrey, *The Territorial Imperative* (New York: Atheneum, 1976).

4. A. Bandura, *Principles of Behavior Modification* (New York: Holt, Rinehart & Winston, 1969), p. 15. See also idem, *Social Learning Theory* (New York: Prentice Hall, 1977), p. vi.

5. R. Hinde, "Energy Models of Motivation," *Symposia for the Society of Experimental Biology* 14 (1960): 212; idem, "The Study of Aggression: Determinants, Consequences, Goals and Functions," in *Origins of Aggression*, ed. W. Hartup and J. de Wit (The Hague: Mouton, 1978), p. 8.

6. I. Eibl-Eibesfeldt, "Phylogenetic Adaptation as Determinants of Aggressive Behavior in Man," in *Origins of Aggression*, ed. W. Hartup and J. de Wit (The Hague: Mouton, 1978), p. 29.

7. See, for example, E. Leach, "Don't say 'Boo' to a Goose," *New York Review of Books* (15 December 1966): 8-12.

8. J. Flynn et al. find that "eating, sexual behaviour and attack can be controlled . . . even in cats." "Anatomical Pathways for Attack Behavior in Cats," in *Human Ethology*, ed. M. von Cranach et al. (Cambridge: University Press, 1979), p. 315. See also K. Moyer, *The Physiology of Hostility* (Chicago: Markham, 1971), pp. 21, 23.

9. See L. Berkowitz, *A Survey of Social Psychology* (London: Holt, Rinehart & Winston, 1980), p. 346. And see below, p. 385.

10. A. Bandura, "Psychological Mechanisms of Aggression," in *Human Ethology*, ed. M. von Cranach et al. (Cambridge: University Press, 1979), p. 321.

11. A typical formulation including both extreme and strong claims is provided by R. Brown and R. Herrnstein in their discussion of drive theory: "exogenous stimuli (stimuli coming from the outside) throw off the central regulator and activate appetitive behaviour (aggression) that will continue until a consummatory response . . . restores the central state (the aggressive drive) to normal, allowing for a change of direction in behaviour," *Psychology* (London: Methuen, 1975), p. 202.

12. For further criticisms, in particular of innate deprivation theory, see Hinde.

13. Moyer, p. 11.

14. A. Bandura, "Vicarious Processes: A Case of No-trial Learning," in *Advances in Experimental Social Psychology*, ed. L. Berkowitz (London: Academic Press, 1965), 2:1-55.

15. Bandura, *Principles* (n. 4 above), p. 19. See also idem, "Vicarious Processes," p. 18.

16. Bandura, *Social Learning Theory* (n. 4 above), p. 13.

17. J. Dollard et al., *Frustration and Aggression* (London: Yale University Press, 1969).

18. Bandura, *Principles* (n. 4 above), p. 383. See also idem, "Psychological Mechanisms," pp. 330-31.

19. Bandura, "Vicarious Processes," pp. 27-28.

20. See, for example, R. Geen et al., "The Facilitation of Aggression by Aggression: Evidence Against the Catharsis Hypothesis," *Journal of Personality and Social Psychology* 31 (1975): 721-26.

21. Moyer (n. 8 above), p. 124.

22. F. Goodwin, see Report in *Science News* 113 (3 June 1978): 356. Cf., Berkowitz (n. 9 above), p. 363.

23. For evidence from the fields of genetics, neurophysiology, human ethology, etc., see the bibliography provided by D. Sawin and L. Sawin, "Origins of Aggressive Behavior: A Selected Bibliography," in *Origins of Aggression*, ed. W. Hartup and J. de Wit (The Hague: Mouton, 1978), pp. 305-54. Especially see J. Hokanson, "Psychophysiological Evaluation of the Catharsis Hypothesis," in *The Dynamics of Aggression*, ed. E. Megargee and T. Hokanson (New York: Harper & Row, 1970). See also I. Eibl-Eisbesfeldt (n. 6 above), and idem, "Ritual and Ritualization from a Biological Perspective," in *Human Ethology*, ed. M. von Cranach et al. (Cambridge: University Press, 1979), pp. 3-55.

24. Berkowitz (n. 9 above), p. 344.

25. Geen et al., p. 725.

26. K. Bowers and P. Kelly, "Stress, Disease, Psychotherapy, and Hypnosis," *Journal of Abnormal Psychology* 88 (1979): 490.

27. S. Freud, *Civilization and Its Discontents* (London: Hogarth Press, 1975), p. 15.

28. M. Rosaldo, *Knowledge and Passion* (Cambridge: University Press, 1980), p. 19.

29. S. Schachter, *Emotion, Obesity, and Crime* (London: Academic Press, 1971). The recent endogenous emphasis in the psychological study of emotions casts further doubt on Bandura's argument that arousal only persists because of appropriate cognitive control. See H. Leventhal, "Towards a Comprehensive Theory of Emotion," in *Advances in Experimental Social Psychology*, ed. L. Berkowitz (London: Academic Press, 1980), 13:140-94; Berkowitz (n. 9 above).

30. Bandura (n. 14 above), pp. 34-37.

31. L. Berkowitz, *Aggression: A Social Psychological Analysis* (London: McGraw-Hill, 1962), p. 214.

32. V. Konečni and E. Ebbesen, "Disinhibition Versus the Cathartic Effect: Artifact and Substance," *Journal of Personality and Social Psychology* 34 (1976): 363.

33. Geen et al. (n. 20 above), p. 721; A. Doob and L. Wood, "Catharsis and Aggression," in *Journal of Personality and Social Psychology* 22 (1972): 156-62.

34. Geen et al. (n. 20 above), p. 722.

35. Ibid., p. 725. The fourth option, that aggressive behavior increases after aggressive display and attributing this to increased arousal, is not discussed here because it involves rather different experimental designs—not simply decreasing or increasing inhibitions, but positively encouraging arousal.

36. Ibid., p. 722.

37. R. Kaplan and R. Singer, "Television Violence and Viewer Aggression: A Reexamination of the Evidence," *Journal of Social Issues* 32 (1976): 48. See also Konečni and Ebbesen, p. 363.

38. Kaplan and Singer, pp. 52-56.

39. Bandura (n. 10 above), provides a useful summary of social learning theory and evidence supporting it. For more information on the extent to which aggression is bound up with exogenous processes and culture, see M. Billing, *Social Psychology and Intergroup Relations* (London: Academic Press, 1976); Berkowitz (n. 9 above); and T. Wills, "Downward Comparison Principles in Social Psychology," in *Psychological Bulletin* 90 (1981): 245-71.

40. Bandura, "Social Learning Theory" (n. 4 above), p. 63.

41. Berkowitz (n. 31 above) and Geen et al. (n. 20 above), p. 725.

42. Bandura (n. 10 above), p. 323.

43. Konečni and Ebbesen, p. 364. See also Geen et al. (n. 20 above) and Berkowitz (n. 31 above), p. 214.

44. Berkowitz (n. 9 above), p. 361.

45. Ibid., p. 360.

46. A. Bandura and R. Walters, *Social Learning and Personality Development* (New York: Holt, 1963); Bandura (n. 14 above), p. 37.

47. R. Sipes, "War, Sports and Aggression: An Empirical Test of Two Rival Theories," in *American Anthropologist* 75 (1973): 65.

48. Ibid., p. 80.

49. Bandura (n. 10 above), p. 331.

50. It is true that both parties would have to ponder in that the former would have to consider the possibility that aggression is increased (games being frustrating), the latter that aggression is decreased (the games teaching that aggression is bad). But these possibilities are not likely.

51. A. MacIntrye helps us see why the continuity-discontinuity criterion is important in deciding between psychodynamic explanations and those involving cognitive and learning processes. He writes that "the explanation of rational belief terminates with an account of the appropriate norms and procedures; the explanation of irrational belief must be in terms of causal generalizations which connect antecedent conditions specified in terms of social structures or psychological states—or both—with the genesis of beliefs" (*Against the Self-Images of the Age* [London: Duckworth, 1971], p. 247). Does one act for a reason or does one act to produce catharsis? The latter is suggested by discontinuity by virtue of the fact that one cannot explain irrational activities by making appeal to the workings of reason or norms extended through teaching processes.

52. For a more general discussion of what is involved in extending laboratory findings to other, more natural, situations, see L. Berkowitz and E. Donnerstein, "External Validity is More Than Skin Deep," *American Psychologist* 37 (March 1982): 245-57.

53. P. Marsh, *Aggro: The Illusion of Violence* (London: Dent, 1978).

54. See P. Heelas, "Anthropology, Violence and Catharsis," in *Aggression and Violence*, ed. P. Marsh (Oxford: B. Blackwell, 1982), pp. 48-61.

55. See R. Bolton, "Aggression and Hypoglycemia Among the Qolla: A Study in Psychobiological Anthropology," in *Physiology of Aggression and Implications for Control: An Anthology of Readings*, ed. K. Moyer (New York: Raven Press, 1976), pp. 189-217; and J. Loudon, "Psychogenic Disorder and Social Conflict Among the Zulu," in *Culture and Mental Health*, ed. M. Opler (New York: Macmillan, 1959), pp. 351-69.

56. R. Ness, "The Impact of Indigenous Healing Activity: An Empirical Study of Two Fundamentalist Churches," *Social Health and Medicine* 14B (1981): 167-80.

57. See R. Needham, *Primordial Characters* (Charlottesville: University Press of Virginia, 1978), pp. 28-29.

58. For other ways in which ethnographic material can be used to support psychological theorizing, see Bandura (n. 10 above), pp. 323, 328; Eibl-Eibesfeldt (n. 23 above); and A. Montagu, *Learning Non-Aggression* (Oxford: University Press, 1978). I do not think, however, that there is adequate evidence for the catharsis hypothesis, for example, to be supported by correlations, such as between frustration and witchcraft accusations. There is not space to discuss the many difficulties facing those who attempt to use correlatory evidence to support or reject psychological theories, such as Sipes (n. 47 above).

59. F. Hsu, *Under the Ancestor's Shadow* (Stanford, Calif.: University Press, 1971), p. 248. See also V. Turner, *The Forest of Symbols* (London: Cornell University Press, 1970), pp. 55-57.

60. J. Briggs, *Never in Anger* (Cambridge, Mass.: Harvard University Press, 1970), p. 46.

61. Ibid.

62. Ibid., p. 4.

63. Ibid., p. 181.

64. Ibid., p. 329.

65. Ibid., p. 47.

66. The exogenous theorist might simply argue that dog-beating is due to rational considerations, that dog-beating is instrumental aggression. It is indeed likely that some violence is called for if Utku dogs are to be kept under control. But it is a strange sort of discipline when economically valuable dogs are injured and when dog-beaters so obviously enjoy beating exercises. Peace-loving Utku can have no good reasons for maltreating, not merely disciplining, dogs. It is hard to imagine that they could not have devised less aggressive ways of managing their dogs if it were not for the fact that they require some way of managing their emotions.

67. K. Lorenz discusses Polar expeditions and other isolated groups, claiming they are frequently torn apart by quarrels because members experience an unfortunate damming up of aggression. The wise individual, he writes, "finds an outlet by creeping out of the barracks (tent, igloo) and smashing a not too expensive object with as resounding a crash as the occasion merits." Lorenz (n. 3 above), pp. 55-56. But it must be said that Utku dog-beating is not entirely informed by endogenous processes: Utku learn that dogs can be beaten, and it is likely that inhibitory processes (for example, due to feeling guilty on returning from a dog-beating session) help explain the decline in aggressive behavior.

68. See R. Dentan, *The Semai* (New York: Holt, Rinehart & Winston, 1968) and C. Robarchek, "Frustration, Aggression and the Nonviolent Semai," *American Ethnologist* (1978), pp. 762-79.

69. Robarchek, p. 767.

70. Ibid., p. 769.

71. C. Geertz, "Deep Play: Notes on the Balinese Cockfight," *Daedalus* (1972): 1-37.

72. Ibid., p. 9.

73. Ibid., p. 25.
74. Ibid.
75. See p. 387 earlier in this article.
76. Geertz, p. 18.
77. Ibid., p. 6.
78. Ibid., p. 25.
79. Ibid., p. 18.
80. Ibid., p. 21.
81. Ibid., p. 28.
82. Ibid., p. 23.
83. Ibid., p. 27.
84. Berkowitz (n. 31 above), p. 227.
85. Since writing this paper, I have arrived at a rather different explanation of Semai punishment models, attaching more importance to endogenous emotional arousal but not radically diverging from the position given here. See P. Heelas, "Indigenous Representations of the Emotions: The Chewong," *Journal of the Anthropological Society of Oxford* 14 (1983): 87-103.
86. See, e.g., M. Gluckman, *Order and Rebellion in Tribal Africa* (London: Cohen and West, 1963), pp. 126-27; Turner (n. 59 above), pp. 48-58.
87. See, e.g., T. Beidelman, "Swazi Royal Ritual," *Africa* 36 (1966): 373-405; M. Gluckman, *Order and Rebellion*; idem, "Psychological, Sociological and Anthropological Explanations of Witchcraft and Gossip: A Clarification," *Man* 3 (1968): 20-34; and J. Kennedy, "Psychological and Social Explanations of Witchcraft," *Man* 2 (1967): 216-25.
88. R. Fox, "The Inherent Rules of Violence," in *Social Rules and Social Behaviour*, ed. P. Collett (Oxford: B. Blackwell, 1977), p. 136.
89. See Eibl-Eibesfeldt (n. 23 above) and Marsh (n. 53 above).
90. R. Fox, *Encounter with Anthropology* (Harmondsworth, England: Penguin, 1975), p. 139.