

Emotional Intuitions and Moral Play

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Brosnan's research on chimpanzees and capuchin monkeys provides invaluable clues to unlocking the complex nature of human morality. Elaborating upon her claims, we explore the role of emotions in basic social interactions, social regulation processes, and morality, all of which may be crucial to both human and nonhuman communities. We then turn to a conceptualization of teasing and play as forums for negotiating norms and the boundaries of acceptable behavior, and focus on the role of emotions in assessing the moral character of others. Finally, we consider points of convergence and departure between human responses to relative deprivation and those observed by Brosnan in primates. We conclude that work such as Brosnan's paves the way for fruitful collaborations between scholars of morality from diverse fields.

KEY WORDS: Emotion ; Morality; Moral judgment; Emotional intuitions; Play; Teasing; Relative deprivation; System justification.

Human concerns over what is just and good, or fair and moral, are the glue of social living and cooperative communities. What is the substance, and what are the origins, of these concerns and judgments? From Plato to the contemporary study of moral psychology, portrayals of human moral judgment and perceptions of fairness have prioritized highly controlled, complex, cognitive processes. Moral judgments, in this perspective, are guided by cognitive processes, such as perspective taking, cost–benefit analyses that determine conceptions of the greater good, or an imagining of a prior-to-society perspective on right and wrong. Judgments of justice, whether distributive, procedural, or restorative, likewise were cast in more cognitive terms. Perceptions of injustice are thought to be the end product of

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more complex cognitive assessments of inputs and outputs, ratios of inputs to outputs, intentionality (in the case of punitive justice), and the neutrality or lack of bias of an authority (in the case of procedural justice).

Brosnan's (2006) theorizing and data have altered treatments of human moral judgment and perceptions of justice. In response to this kind of groundbreaking research and other studies of grooming and reciprocity, food sharing, reconciliation, and caring, psychologists have arrived at a much different analysis of moral judgment and perceptions of justice (e.g., de Waal, 1996; Haidt, 2001; Keltner *et al.*, in press). This emergent view has been called an intuitionist view of moral judgment (Haidt, 2001). According to this perspective, moral judgments and perceptions of fairness emerge in the quotidian interactions of daily living—sharing food, rough and tumble play, gossip, negotiating close spaces, and so on. Moral judgments and perceptions of injustice are ultimately embodied phenomena involving emotional intuitions that trace their evolutionary roots to the kinds of interactions that Brosnan and her colleagues so richly capture.

In our commentary, we consider three themes in Brosnan's provocative article. We first elaborate upon a claim that guides much of her theorizing and research: that moral judgments and perceptions of fairness ultimately involve social emotions. We shall see that several social emotions contribute to different moral judgments. We then consider a remarkable observation Brosnan offers: that people negotiate moral concerns, and cultivate moral judgments, within play. We extend this claim to humans by considering our studies of teasing, a playful but morally substantive informal act, and consider how play contributes in other ways to moral judgment. Finally, we consider ways in which humans differ from other species, such as the chimpanzees and capuchins that Brosnan studies, in moral judgment and perceptions of justice.

FROM TEMPER TANTRUMS TO MORAL OUTRAGE: EMOTIONS AS MORAL INTUITIONS

Recently within moral psychology, a view has emerged that holds that moral judgments of right and wrong, fairness and virtue, are based in fast, automatic, emotional intuitions (Haidt, 2001). These emotional reactions provide gut feelings about right and wrong that are then elaborated upon through slower, deliberate, controlled cognitive processes such as the cost-benefit analysis of how many people will gain and how many will be harmed through different courses of action.

In Table I we summarize how emotions act as moral intuitions. Consistent with Brosnan's claims, the social emotions are central to many moral judgments. Anger, for example, is most closely related to the inequity

Table I. Emotions and their Associated Moral Concerns

Emotion	Moral concern
Anger	Rights, freedoms
Compassion	Harm, need
Contempt	Duties, obligations
Disgust	Purity, both sexual and spiritual
Gratitude	Reciprocity, equality
Guilt	Own transgression
Shame	Own characterological flaws
Awe, Elevation	Other's virtue

aversion that Brosnan documents. Within humans, anger is associated with violations of rights and fairness or justice, which together ensure the freedom, livelihood, and sanctity of the individual. Contempt is associated with the failure to adhere to roles and communal duties, in particular when the individual violates status-based expectations concerning the individual's place within a social hierarchy. Disgust is linked to deviations from purity, both bodily and spiritual, the natural order, and civility (Rozin *et al.*, 1999; Vasquez *et al.*, 2001). Compassion is linked to the perception of suffering (Batson and Shaw, 1991), and gratitude to the establishment of reciprocal relations (McCullough *et al.*, 2001).

Recent empirical studies have begun to flesh out this emotional intuition account of moral judgment. Three classes of findings stand out. First, emotional reactions figure directly into moral judgments of whether someone should punish another who has engaged in harmless but offensive acts (Haidt, 2001). Thus, anger is a strong determinant of punitive tendencies (e.g., Lerner *et al.*, 1998). In our own work we have begun to document that compassion alters the sense of common humanity with others, thus enabling altruistic behavior (Oveis *et al.*, 2006).

A second kind of study has documented emotion–morality associations at the level of conceptual knowledge or representation. For example, people associate violations of rights, obligations, and purity with the emotions of anger, contempt, and disgust, respectively (Rozin *et al.*, 1999; Vasquez *et al.*, 2001).

Finally, neuroscience is weighing in on the neural correlates of moral judgment (e.g., Greene and Haidt, 2002). For example, in one important study, emotionally evocative moral dilemmas stimulated emotion-relevant regions of the brain, whereas less emotionally evocative scenarios with similar implications for harm activate brain regions associated with working memory, and more deliberative reasoning (Greene *et al.*, 2001).

It is interesting to observe that the means by which moral psychologists and primate researchers like Brosnan arrive at this emotional intuitionist view differ. In studies of the social emotions in humans, researchers begin by

parsing the domain of actions that humans deem moral, typically according to certain criteria, such as that the relevant principle (e.g., right to expression) is universal, obligatory, and associated with sanctions, both good and bad. They then link these concerns, outlined in Table I, with different emotions. The work of Brosnan and others with nonhuman species, in contrast, begins with social interactions that are crucial to cooperative group living (for review, see de Waal, 1996). As a result, primatologists concentrate on some moral concerns that resemble those in Table I (sympathy, reciprocity, honoring norms), and some that differ (peacemaking is present, concerns over purity and duties and obligations are absent).

Comparing the moral reactions and emotions of nonhuman and human primates is useful for several reasons. For psychologists studying morality, tracing human moral concerns and perceptions of justice (e.g., rights or personal property have been unfairly encroached upon) to the behavioral exchanges in related primates (e.g., temper tantrums over not getting a preferred food) sheds light on the rudimentary elicitors of human moral concerns. All too often the study of human morality has sought to document universal abstract principles that guide moral judgment and perceptions of justice. What has largely been neglected is the notion that moral judgments and perceptions of justice arise within mundane social interactions—the sharing of food, occupying physical space with others, competing over affection from parents or with mates over rivals, patterns of touch following moral transgressions, and so on. Research like that of Brosnan should encourage psychologists to study moral judgment as it is situated in daily social interactions.

The same is true for understanding the elementary behaviors of human moral exchange, often lost sight of in the search for more complex principles that guide moral judgment. Moral judgments and perceptions of justice, Brosnan's work implies, are rooted in social interactions, most likely universal, that make up cooperative living in groups. Social interaction gives rise to moral judgment and perceptions of justice (e.g., Haidt, 2001). Consider touch and grooming. Touch and grooming are central to reciprocal exchanges in nonhuman species (e.g., Dunbar, 1996). By implication, one would expect the tactile system, and social interactions that revolve around touch, such as greeting gestures or patterns of soothing, to be central to human reciprocity and gratitude. Touch may in fact be a basic medium in which humans participate in a moral calculus of who shares and who does not, who is likely to cooperate in reciprocal alliances, and who is not. In part inspired by these claims, in our lab we have recently documented that with very brief touches to the arm humans are remarkably adept at communicating gratitude (Hertenstein *et al.*, 2006). Touch, in effect, serves as a reinforcer of morally valued actions. Reciprocal altruism and gratitude are in

part negotiated in touch-based interactions, much as hierarchical dynamics in both humans and nonhumans are negotiated in exchanges of gaze.

More generally, the lesson of the work of Brosnan and others for students of human moral judgment and perceptions of justice is to study the rudimentary interactions in nonhumans in which individuals negotiate matters of rights, harm, freedom, and so on. There one is likely to find the rudimentary elicitors of moral concerns, and the behavioral systems, such as grooming, in which those concerns are negotiated.

We hope the kind of inquiry represented in Table I is just as useful to those interested in understanding nonhuman morality. Here one can begin to ask several questions. For example, humans clearly moralize issues of bodily, mental, and spiritual purity. When asked to list central moral rules or moral transgressions, people in many parts of the world refer to issues of contamination (e.g., coming into contact with someone who is undesirable), hygiene, and sexual purity. The same is true of duties and obligations. Is the same true of nonhuman primates? Do chimpanzees punish others for impure acts or violations of duties? And if they do not, why do they not? Are there species-specific characteristics or facets of social organization that make humans care about purity or duties while chimpanzees do not?

We consider these kinds of questions to be essential to understanding the evolution of morality and justice. Importing the insights of studies of nonhuman morality into the study of human moral judgment will help illuminate the commonalities of moral concerns across mammals, and the origins of the human moral sense. At the same time, this line of inquiry will help reveal the uniqueness of human morality.

MORAL PLAY

In the astute observations of scholars like Brosnan, one cannot help but be struck by similarities between humans and nonhumans. The strategically irrational temper tantrum, the well timed conciliatory gesture, and the preferential groom observed in nonhuman primates are readily seen in human social interaction. And often turning to other species reveals entirely original insights about the functions of human social interaction. We have already suggested that studies of nonhuman grooming have revealed a new perspective on reciprocity and touch in humans. Brosnan's discussion of play and morality is another example of where turning to animals (nonhuman) reveals unappreciated functions of human behavior.

Her claim, drawing upon the research of Bekoff, is that play is a forum for learning moral principles. As wolves, dogs, and nonhuman primates play, they learn how to cooperate and negotiate. They fulfill the difficult but important task of identifying and ultimately ostracizing those unworthy of

upstanding moral status within a group. Thus, wolves and domestic dogs who fail to self-handicap in playful aggression are ostracized, and actually suffer fitness consequences.

Play, then, is moral. On the surface, this assertion is oxymoronic. Morality by its very nature is serious, associated with institutionalized sanctions, codified and obligatory, and formal. Play on the other hand is at its core not serious; it is not typically tied to sanctions, it is impromptu and informal. Yet Brosnan (and Bekoff) have it exactly right; play is moral. A little human psychology helps illuminate why this is so. The critical concept is the idea that emotions are commitment devices, they are indicators of moral worthiness, and play allows for the provocation and exploration of others' social emotions.

As the economist Frank first argued (1988), in many realms of social life, social actors face the commitment problem: they must identify other individuals who will remain committed to them, even in contexts that allow for self-interested courses of action (such as infidelity in romantic relations or defection within reciprocal alliances). The solution is that social actors search for commitment devices that signal devotion and commitment and a willingness to subordinate self-interest in the service of others. Thus, nonverbal signs of romantic love between potential mates are crucial displays of long term commitment (Gonzaga *et al.*, 2001). These signs are even more reliable indicators of commitment if they are involuntary and less likely to be strategically manipulated. This is why Frank has prioritized emotions as commitment devices, and why we have prioritized emotions as moral intuitions.

All of this brings us to play. Spontaneous interactions are critical to the identification of emotional commitments. They allow the nonverbal displays of moral emotions—compassion, anger, gratitude, disgust, and so on—to be involuntarily revealed and conscientiously assessed. Consider the example of flirting, where potential romantic partners are seeking to ascertain others' emotional commitments. When people flirt, they do not formally query each other about their respective romantic interest; instead, they engage in unstructured, informal interactions that are more likely to give rise to spontaneous displays of love and desire. And this is why play is so important to morality. Not only does it allow individuals to learn basic patterns of behavior that are morally relevant, such as reciprocity, the avoidance of harm, apologies and reconciliation; it also allows individuals to assess the moral character of others through the provocation of the social emotions, emotions like embarrassment, or anger, or compassion.

In our own research we have studied a complex member of the play family—teasing. The conclusions we draw from these studies and others like them resemble Brosnan's summary of the consequences for wolves and domestic dogs that play in inappropriate ways. We define teasing as a playful

provocation that comments on some counternormative attribute or action of some individual. A tease includes an aggressive element, such as a biting remark or poke in the ribs, as well as playful off-record markers, such as odd phrasing, shifts in intonation, laughs, or repetition, that signal that the tease is to be taken in the spirit of play (Keltner *et al.*, 1998; see Brown and Levinson, 1987). While many have assumed that teasing at its core is simply not serious, or purely aggressive, upon closer examination it reveals many moral facets, as Brosnan would readily suggest. People tease their children, their workplace colleagues, and family members most typically about deviations from social norms and morals. Even physical forms of teasing, such as certain kinds of tickling, occur in response to counternormative behavior. Teasing identifies moral transgressions.

People negotiate matters of justice through teasing. Among the Kaluli in Papua New Guinea and the Basotho in South Africa, for example, teasing frequently concerns violations of norms concerning the distribution of food and other goods (Demuth, 1986; Schieffelin, 1986, 1990). Eder's (1991) study of high school girls found that teasing focused explicitly on violations of rules regarding physical contact amongst the group members and desirable fashion.

The ability to tease effectively relates to the individual's ability to be integrated into social groups. As with Bekoff's wolves and domestic dogs, human adolescents who tease ineffectively, in particular with greater than usual hostility, routinely are the most rejected children in the peer groups, whereas individuals who show a real knack for the playful tease tend to occupy higher positions in social groups (for review, see Keltner *et al.*, 2001).

We have relied on Brosnan's claims about moral play to re-examine what is known about a pervasive form of human play—teasing. We claim that while nonserious, at the same time teasing allows individuals to cultivate and assess the moral inclinations of others. We suspect the same is true of other kinds of play. In rough and tumble play children are likely exploring boundaries between harm and pleasure, control and submission, for example. This analysis likewise sheds light on what amounts to a universal in anthropology—the fool personifies morally inappropriate behavior in playful fashion for all to consume and enjoy (Apte, 1985). In play, moral principles are clarified.

ELABORATION OF PRIMORDIAL MORALITY TO HUMAN MORALITY

In psychology, we often turn to nonhuman predecessors for clues about the origin and function of human behavior. Brosnan presents a strong case for the presence of rudimentary moral responses (such as variations on the

inequity response) in chimpanzees and capuchin monkeys, from which we can draw significant inferences about the evolution of moral judgment and emotion more broadly. Of course, there remain substantial differences between the social and moral processes of humans and those of other animals. Where do the moral and justice-related reactions of humans and nonhuman primates converge and how do they depart? Our claim that emotions act as moral intuitions helps provide a partial answer to this question, which we consider with reference to the inequity response in humans.

First, there are clear parallels between the nonhuman primate inequity aversion and findings from human research on relative deprivation (Crosby, 1976; Walker and Pettigrew, 1984), which speak to the evolution of anger as an intuitive marker of injustice. "Relative deprivation" refers to the observation that people report feeling less satisfied with their status and life circumstances when they compare themselves with better-off individuals than with equally well-off peers. A common response to relative deprivation is anger, an emotion resulting from perceived breaches of equitable relations or obstructions of justice and fairness, which motivates punishing offenders to restore equality and prevent future infractions. In Brosnan's capuchin monkeys and chimpanzees, one observes anger displays in response to their own relative deprivation: the primates were happy to consume a desirable food item, but showed anger-like behaviors (e.g., active rejection of the food item) when they witnessed a conspecific receive a superior reward. Anger-based moral concerns, such as freedom, justice, and equality are central to a conceptualization of morality across human cultures (Vasquez *et al.*, 2001) and form the basis of numerous institutionalized policies such as equal opportunity employment. It is fascinating to observe in temper tantrums of nonhuman primates the underpinnings of a moral code often considered to be the product of careful, rational reasoning by many philosophers and psychologists.

Yet the human response to inequity involves layers of interpretation, attributions of blame, and multidimensional social comparisons, all complex cognitive processes that may be unique to humans. Thus, chronically disadvantaged people will often justify their own poverty, powerlessness, or lower-status positions through in-group stereotyping and derogation in order to maintain the status quo (Jost and Banaji, 1994). That is, rather than invoking anger and protest, certain power and resource imbalances are legitimized by the very groups that seem to lose the most. This phenomenon of "system justification" is thought to arise in part from complex motivations such as the belief in a just world (Lerner, 1980), or the preference for inaction and lack of change (e.g., Greenwald, 1980). One possibility is that there are certain responses to inequity, such as system justification, which may be as pervasive as anger and protest, which are unique to humans.

It is noteworthy, however, that there are nonhuman species in which low-status group members will settle for fewer resources to avoid the even less desirable alternative of leaving the group. This may present one evolutionary foundation for partiality to the status quo. Complex responses like system justification may have their origins in the tolerant, deferential behavior of subordinate nonhuman primates. This possibility raises interesting questions about the origins of the tolerance of inequity, so prevalent in humans. These speculations, and the other questions we have raised in our commentary, reveal the fruitful nature of the collaboration between moral psychologists and those studying moral-like responses in nonhuman primates.

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