

Biology and the Foundation of Ethics

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Biology and Value Theory

Robert J. McShea and Daniel W. McShea

A THEORY OF VALUES

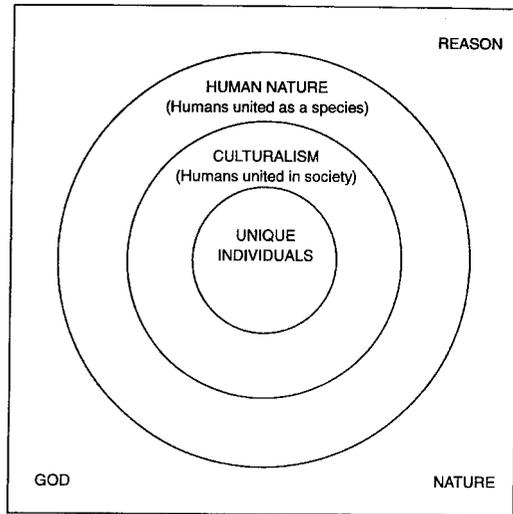
Although this century has produced more, and more varied, ethical and meta-ethical theory than any other, even our more educated and intelligent people are simply embarrassed when asked how they justify the value choices and commitments they make. We could well use a credible superstructure of facts and concepts within which we might carry on intersubjective and intercultural discussions of value differences, discussions that would offer some reasonable prospect of eventual agreement. What follows here is the outline of such a superstructure, a biologically based, naturalistic, species-universal, and prescriptive value theory (McShea, 1990). The theory is designed to answer such questions as these: Can a value statement be true? If so, in what sense and for whom? How can a value statement have prescriptive force?

The theory is an update of a philosophical ethical tradition that includes Aristotle, Spinoza, and especially Hume, who set forth a naturalistic, biologically based account of human nature and the meaning of life. Modern human nature theorists, with whom we would expect to find much common ground include Mackie (1977), Murphy (1982), Ruse (1986), and occasionally Midgley (1978), although most probably would not concur in the understanding of Hume on which the theory is based.

Six Value Bases

As the greatest success of science is not the discovery of this or that truth about things, but the learned ability to think scientifically, so the reward for the study of good value theory is not the discovery of moral laws or truths,

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The six possible bases for value judgments.

but the habit of leading an examined life (which is morality itself). Similarly, as we can distinguish real science from pseudoscience by noting the incoherences and empirical failures of the latter, so we can arrive at better value theory at least partly by comparative study of value theories in general.

What truth a value judgment may have cannot be self-evident; it must find its validation outside of itself. That is, it must have some external basis. There are only six possible bases for value judgments (see figure) (McShea 1990), and thus we can classify value theories according to which of the six bases they claim. Further, each theory must begin by defending its basis against the claims of the alternative value bases. We begin by doing just that.

First, it is necessary to acknowledge the existence of the nihilist value thesis, the claim that values have no basis at all, cannot be true, perhaps cannot even be false, but only meaningless. Value nihilists assume that values, in order to exist, must be objective, external to humans. They therefore argue, for example, against a God-based ethic by offering reasons to believe that God does not exist. But to defeat an emotivist value theory, such as the one to be defended here, they would have to show that humans do not have feelings, and this they do not even attempt. For other arguments against nihilists, see Hume (1902).

Of the six possible value bases, three are human, and three are humanly transcendent: God, Reason, and Nature. There are good reasons to think that none of these last three will do.

God, quite aside from the question of his existence, cannot serve to validate value judgments simply because we have not, after all these years, found a way to determine what it is that he wants us to do or not do. Hobbes asks those who believe that God has spoken to them directly how they can distinguish between "God spoke to me in a dream" and "I dreamed that God spoke to me." As for the greatest number of believers, who cannot claim that God speaks to them directly, they must rely not on his authority but on the authority of those who claim to speak to and for him (Hobbes 1960, p. 96). An old religious tradition reminds us that the Devil, or any clever charlatan, can perform "miracles" and quote sacred texts for his own purposes.

Reason, in the present context, must be taken to mean not a mushy "reasonableness" but strict logical entailment. Unfortunately for the prospects of a rational ethic, it is now well established that we cannot reason from value-free premises to normative conclusions. As Hume put it, "It is not irrational for me to prefer the utter destruction of myself and all of those I hold dear to the causing of the least inconvenience to an Indian" (Hume 1888, p. 469).

Nature, as in "natural law," cannot serve as a source of validation for value judgments. The is-ought, fact-value dichotomy forbids it, and our current worldview makes the resort to teleology in nature unacceptable. Finally, if the good is the natural, then the bad is the unnatural. But "unnatural" is only an indicator of personal disgust; it is not an objectively existing natural quality.

If we can find a basis for human value judgments, it will have to be found in the human sphere, and so we must decide what image of humanity will govern our thinking. We can understand members of our own species as unique, Cyclopean individuals, each generating his or her own beliefs, meanings, and values. Or we can see them as so thoroughly integrated into one of many diverse cultures that "the individual" becomes, as one major nineteenth-century philosopher put it, "a fiction" (Bradley 1962). Or we can understand the members of our species to be united by their possession of a common species perceptual system and common emotional psychology.

The Unique Individual

Of those who claim to be philosophers, only Protagoras (each man is the measure of all things) and Sartre (being precedes essence, morality as authenticity) appear to defend the unique-individual value basis. Other thinkers and common sense agree that when each of us "does his own thing," or is authentically unique, then the lives of all of us will be nasty and very short. Quite a few perhaps excessively young-of-heart people think they believe in this value basis; they are mistaken.

Culturalism

For a long time, the dominant value position among educated people in the West has been culturalism, the thesis that all values are cultural in origin, scope, and authority. Culturalism rests on a single but extremely powerful intuition: Our location in cultural time and space dominates, or even determines, what we ordinarily think of as our private and personal internal lives. When we consider that the metaphysical arguments for culturalism, or organicism, that were so persuasive in the writings of Hegel, Marx, and Bradley do not carry much weight these days, and that contemporary culturalists do not bother to defend their position or even respond to very serious criticisms of it, we are led to suspect that we are dealing not with a theory but with a cultural prejudice, a faith.

Somehow, culturalism, also called ethical relativism, has come to be identified with liberal enlightenment, if not with simply being educated. It is said to undermine dogmatic, "outmoded," conventional morality, to imply toleration for social and other deviants within our own culture, and to imply sympathy for exotic and fragile alien cultures.

Now all right-thinking people are opposed to dogmatic and outmoded moral conventions, but the culturalists have a problem here in that, for them, all conventions are dogmatic, and arbitrary as well, and it is difficult to see where the value judgment involved in the word "outmoded" is based. As for toleration and sympathy, consider the following problem. Suppose that it is part of our culture to despise and attack social deviants or members of some other culture. And suppose we agree that this aspect of our culture is intolerable. If we are not culturalists, we have some arguments, more or less plausible, to support our view. But if we are culturalists, we have none. By their own principle, culturalists have no ground on which to stand to make a value judgment different from that of their culture. In fact, culturalism seems a natural basis for a deeply conservative view of politics and society. Worse, when we learn that our social and political values are completely the products of our ephemeral and local culture, we lose all faith in them. At that point, individuals become anomic, and societies anarchic.

Such dreadful consequences never happen, simply because culturalists do not even begin to mean what they say. They bravely generalize from their original intuition into the power of culture, but when faced with the anomalies of that generalization, they surreptitiously introduce just enough human nature theory to save the appearances.

Human Nature Value Theory

The remaining possible value basis, variously called the "emotive," "human nature," or "psychological" basis, is the one defended here. Its supporters

have to argue that feeling or emotion is the sole possible motivation to action, that all or almost all humans have the same evolved species-specific feelings, each one perhaps keyed to some general or stereotypical situation that has had survival and reproductive implications in the history of our species (although some caveats later). Our feelings are, to a first approximation, species-universal, and thus our evaluations (similarly species-universal) will at least roughly coincide with those of all other humans. Thus it ought to be possible to know enough about the circumstantial facts and about our own and others' feelings to be able to predict with fair success how we and others will feel, and therefore judge, in this or that envisioned situation.

Two disclaimers are necessary. First, feeling causes behavior, but does not uniquely determine behavior. Thus, our evaluations are universal, but behavior (including the verbal behavior associated with statements about values) varies widely. Later we will discuss the relationship between feeling and behavior.

Second, the human nature theory is a naturalistic theory and as such has been thought refutable on the ground that the languages of value and fact are radically disjunctive. The fact-value (or is-ought) disjunction is valid. One cannot reason, deductively or inductively, from an objective external fact to a value (although notice that by the same admirably strict criteria, one cannot reason from a fact to a fact either). But the fact-value dichotomy is an intellectual distinction, not a separation. In Kantian fashion we may say that facts without values are of no interest, and values without facts make no sense. If science, as Ayer would have had it, is the sum of what we know about the real world, then values, if not a part of the real world "out there," may have to be considered a branch of rhetoric, a kind of static or gibberish that degrades communication. On the other hand, if the universe can be understood only as value-free, as literally worthless, then knowledge about it, science, will also be worthless. Such paradoxes do not discredit the fact-value gap, but they do push us to discuss the *practical* relationship of facts to values.

Hume, having discovered the is-ought gap, went on to produce his practical solution to it by reminding us of the distinction (also made by Galileo) between the primary and secondary qualities of the world of human experience (Hume 1888). Some facts, such as the mass and extension of an object, are objective in that they do not depend for their existence on the presence of an observer. But some other facts, such as sound, color, and odor, *do* depend for their existence on the presence and attention of an appropriate observer and are therefore subjective. Thus the objective physical sciences - which pride themselves on speaking strictly - strictly speaking cannot allow or recognize subjective terms like "sound" and "color," but only objective terms like "sound

waves" and "light waves." Hume goes on to propose the idea that emotions are to values what the eye is to color, or the ear to sound, that values are subjective facts. "Good" and "red" are equally meaningless to a physicist *qua* physicist, but they are facts, however subjectively so, to an appropriate organism. This is how the connection is made between biology and value.

Animals, including humans, use an incredibly complex collection of evolved devices to receive information about the external and internal worlds and to interpret them (not in the interest of objective truth, but in the interest of individual survival). They react to those interpretations with feelings that have evolved to motivate the animal to some very general courses of action, as discussed later. We live in a world of commingled primary and secondary qualities, of hard rocks, interesting colors, and arousing passions. For us, the goodness and color of an orange are as real and as interesting as its specific gravity.

Given that secondary qualities are subjective facts, we must ask, subjective in relation to what? It seems clear that for species-normal humans, colors, sounds, and the elemental feelings are species-subjective facts and therefore objective facts for individual humans. The vast amount of interpersonal and intercultural emotional communication we observe seems to rule out the possibility that feelings can be unique in each individual or to each culture. We experience redness and parental concern not because we are that kind of unique person, nor because we are Americans, but because we are human.

Value judgments are the products of particular feelings experienced in the context of particular perceived facts. It follows that because all or most humans have about the same elemental feelings and live in much the same factual world, voluntary agreement on value judgments not only is possible but should be common. Even a common morality is possible, and when arrived at it will be apprehended as objectively true, even though, or rather because, it is species-subjective.

As scientific judgments are falsifiable predictions about future experience of the objective, external world, so value judgments are best understood as falsifiable predictions about future emotional experience in our species-subjective world. "Save for a rainy day" is a prediction that if we do not, we shall have some very unpleasant feelings later on. "Eat, drink, and be merry, for tomorrow we die," contradicts the rainy-day hypothesis. As is often the case with value judgments, it is not easy to determine conclusively which side is right, but there are defensible answers, for the variables are all facts about death and feelings. The human nature value theory is like all other serious value theories in that it tells us how to go about solving value problems, but does not guarantee that we shall actually solve them.

The human nature value theory may seem suspiciously pleasant. It says that you cannot act otherwise than on the urgings of your feelings and that the only curb on each feeling is the power of other feelings. Further, if your feelings have evolved to favor your interests, you may safely do whatever you feel like doing. Enjoy! Unfortunately, as the happy phrase "this is the best of all possible worlds" is inevitably followed by "of which every element is a necessary evil," so "do what you will" is inevitably followed by "but make very sure that it is what you *really will*." And in determining what you really will, fear promotes the use of intelligence, Hobbes's "the scout of the passions" and Freud's Ego or Reality Principle.

Incapacity or external restraint prevents infants from doing much harm to themselves or others, but every human over the age of two has had his or her fingers burned, has learned to delay action, to make sure that what he or she at first wants is also what will be wanted when further feelings have been consulted. This is not an instance of reason controlling passion - there are no such instances. The repeated experience of pain teaches us to value prudence; prudence counsels delay; during the interval of delay our present situation is located in larger factual and feeling contexts, and the probable consequences of various courses of action are explored. To each set of consequences, each scenario, we react with emotions, with feelings. This is a very simplified account. Introspection reveals complex swirls of feeling as the facts and probabilities of various scenarios are reassessed.

The human nature theory is poor at identifying moral absolutes; it is much better at identifying moral persons. Aristotle's argument that morality is what a moral person does is only superficially circular (Aristotle 1954). Central to being a moral person is a strong sense of identity, of one's self as importantly the same through time and space. My present self comments critically on my earlier actions and holds itself responsible before the judgments of my future self. A moral person is one who not only does what she wants to do - everyone does - but also is concerned that what she wants to do at any moment is also what she really wants to do in the light of this total spectrum of elemental feelings, each represented in the strength that it normally has. Hume refers to this collected self as the "calm state of passion," as "the parliament of the feelings" (Hume 1888).

The sense of identity is necessary for any long-range action or any action involving elements of danger or pain, for we must know beforehand that the "I" that will exist after the action will be the same "I" (more or less) that initiated and endured it. Identity is the internal gyroscope that makes it possible for us to repress, divert, or delay ephemeral present passions. Those who achieve a strong sense of identity will make great efforts to preserve it; we sense that with it we matter, are real, and that without it we are nothing. Nor

must this be thought of as a selfish morality, for some of the strongest feelings we have are interests in the welfare of other persons.

How a moral judgment can be prescriptive is sometimes thought to be a puzzle. Most simply, the sense of obligation begins at the point where we have delayed action until our major enduring feelings have had a chance to fight it out fairly and we have decided to act in a certain way. We feel obligated to take that action, however sadly we feel about the defeat of lesser passions. Not to do so would be to act contrary to our interests, to do what - overall - we would not want to do, to lapse into a chaos in which our best abilities would be negated. The cry of an endangered identity is heard in Luther's "Here I stand; I can do no other." Of course, he could have done other, but for him that would have represented the loss of himself, the disintegration of a self he had patiently built up over a lifetime.

Value Statements and Judgments

There is only one possible motivation to make a value statement, and that is the occurrence of a feeling. Many different writers agree, and they are called emotivists. But they vary: The early view of Ayer was that all values are feelings, and he went on to note that feelings are different in each person and at different times in the same person. Ayer concluded that feelings and value judgments are therefore trivial and of no consequence. Other emotivists agree that feelings originate all values, but argue that it is up to reason, decency, or fear to control them. Here, however, we follow Hume in the opinion that all or almost all humans share a common spectrum of feelings, each arousable by a particular type of gestalt. Further, we agree with Hume that the feelings rule absolutely, with no hindrance from anything else. We are utterly incapable of doing anything other than what, finally, we want to do. If we seem often to do some things with great reluctance, it is because we have conflicting feelings, and the victorious feelings have won out by a rather narrow margin.

Given this understanding of the feelings, it is fairly easy to see how an individual can figure out for herself a working body of value judgments, or guides to action. She comes, in time, to understand the relative strengths of those feelings that are likely to come into conflict with each other, learns more (through personal and vicarious experiences) about the probable consequences of various actions in various circumstances: what a tangled web we weave when first we practice to deceive, that honesty is the best policy, and so on. This does not mean that an individual can achieve total certainty, even in personal morality, because there is always more to learn, there are always gray areas.

What is the point of making value judgments, or more precisely, what is the individual's ultimate goal here? It is not pleasure, nor even happiness. Rather, he is trying to avoid taking courses of action that would result in the actual defeat of feelings that in fact are the strongest and most enduring in him.

Such, in outline, is a contemporary version of the traditional human nature ethical theory. For a longer discussion, see McShea (1990). It is naturalistic, biological, and open-ended, without being vacuous. It also seems peculiarly suited to the present. Following Riesman's categorical division of morality into the customary or "other-directed," the "inner-directed," and the "autonomous" (Riesman 1962), we may say that almost everyone in the distant past was subject to a customary morality, that this has been partially replaced by inner-directed moralities, and that we are seeking a morality of autonomy. Both other-directed and inner-directed moralities have depended, in the first place, on long-term social stability or "backwardness," and, in the second place, on a kind of stern upbringing that is no longer prevalent and apparently cannot be revived. The general moral anarchy that might seem likely to follow those developments is unlikely to occur on a wide scale, for, given our native intelligence and feelings, we are a species that generates morality as needed. The aim here is merely to offer aid to those who are embarrassed about our contemporary confusions concerning the basis of our morality.

A THEORY OF FEELING

Underlying human nature ethical theory is a theory not of behavior but of motivation or feeling. Crucial to the theory is a clean conceptual separation between brain states (or brain activities), which include feelings and all of cognition, and behavior, which refers only to motor activity, physical movement, or action (and in humans includes speech).

In most animal species, behavior can be understood (at a high level of analysis) as a response to perceptions, to external stimuli. Flatworms undulate toward darkness in response to bright light. Honeybee foragers respond to food discoveries by returning to the hive and performing a complex dance that directs their fellow workers to the food. Tap a human's patella, and the knee will jerk. In such cases, the connection between stimulus and behavior is fairly tight, meaning that given the stimulus, the motor sequence of the response is fairly predictable and relatively invariant.

But now consider the following behavioral sequence: A lioness lies low and alert in the tall grass, not far from a herd of grazing zebras. The prey

have become restless, as several of her fellow huntresses have moved into positions along the herd's flanks. The attack is launched from one of the flanks, and she crouches as the herd wheels in her direction. She picks out a juvenile zebra headed her way and tenses for action. As it streaks by her, she springs, and misses.

Hunting behavior in lions is not a relatively invariant motor sequence like the described behaviors in flatworms and honeybees. No particular hunting behavior (i.e., no particular motor sequence) is hard-wired in lions. Indeed, it almost could not be, because too many variables are involved. The terrain is uneven and highly variable among hunting locales. The behaviors of individual prey animals are also highly variable and unpredictable in detail, especially on the run. In sum, each hunt is unique, and there can be no single preprogrammed sequence of physical movements that will work every time, or even most of the time.

Behavior of this kind is not preprogrammed at all, but rather is feeling-driven. In colloquial terms, a feeling is an emotional state, a state of arousal or passion, a state of dissatisfaction, of wanting, or of desiring - in other words, a motivated state. A "feeling" refers not only to a state of strong or uncontrolled passion, such as might result in an affective or energetic display of some kind, but also to a state of calm passion, one that might not produce any overt affect or behavior at all.

More formally, a feeling is an intermediate mental structure, undoubtedly a dynamical one, lying in the behavioral causal chain somewhere between stimulus and response - for the lion, between, say, the internal stimulus of hunger (or the external stimulus of sighting the zebra herd) and the almost limitless number of different motor sequences that can result. The crucial property of these structures is that they dictate the general character of the end result of a behavioral sequence, but not the sequence itself; they dictate ends, but not means. We propose that they constitute the proximate causes for many significant behaviors, including almost all social behaviors, in mammals (at least), including humans.

Thus the proximate cause of hunting in lions is a feeling. Of course, survival is also a cause of hunting, in the sense that survival was why the hunting motivations evolved in lions, but it is a cause fairly far removed from the action. It is not the reason that a particular lion chooses to hunt at a given moment. More proximately, the cause of hunting is likely to be hunger, but this, too, is somewhat in the background; the lion does not actually experience hunger during the hunt, or at least she need not. More proximately yet, a lion hunts because she wants to. She experiences a motivation, a feeling, or an inclination to hunt.

Actually, the lion probably experiences a complex of several elemental feelings, including a certain amount of fellow feeling, an inclination to be near to and interact with her pridemates, and perhaps some desire to elevate or maintain her social rank within the pride by performing well during the hunt. Other feelings may be involved; stalking and pursuit may be desirable for their own sakes and may have special and distinct motivations. The feelings are numerous, and many may be in play at once.

It may be helpful here to say what feelings are not. A feeling in our sense is not a mood (i.e., not feeling in the sense of "feeling good"), nor is it a means of communication. It is not a presentiment, intuition, insight, or extrarational understanding of any kind. Feelings in these last senses are sources of facts (or falsehoods) and thus are not motivations, although like all facts they can arouse motivations. Further, feeling is not cognition, nor any aspect of it nor adjunct to it, such as learning or memory. Of course, hunting in lions requires a considerable amount of cognitive machinery and power. A lion must learn how to advance silently toward a herd, to estimate and remember the abilities and propensities of her pridemates as well as those of the prey, to calculate the angles in heading off prey, and so on. But these are the tools of hunting, not the causes of hunting; they explain how a lion is able to do what she does, not why she chooses to do it.

Apparently, almost all organisms have some preprogrammed behavior. Sunflowers follow the sun across the sky. Soft-bottom-dwelling clams burrow rapidly when disturbed. Humans blink in response to sudden loud noises. Long-chain, preprogrammed behavior is best known in the social insects, but it is present in other groups as well. In mammals, long-chain preprogramming seems to be absent, and instead much behavior - at least the more complex or compound behaviors - seems to be feeling-driven. These generalizations are obviously speculative; we cannot know for certain what a lion feels during a hunt, nor can we know that a honeybee's behavior is entirely dispassionate. But in any case, nothing depends on their correctness (at least for nonhuman species), because the point is just to explain what we mean by feeling.

We leave for another occasion a discussion of the relationships between feeling (as we use the term) and terms from the historical literature of psychology and ethology with overlapping meanings, such as instinct and drive. We also defer a comprehensive discussion of the relationships between our view and other theories of behavior (although see the later discussion). The present analysis draws on many sources, but its main inspiration has been studies of instinct by Fletcher (1966) and studies of the feelings by Solomon (1976), as well as Wimsatt's (1986) notion of entrenchment and Salthe's (1993) interpretation of development.

Situation Dependence

A mother cat faced with the approach of a large dog toward the hiding place of her litter could experience what might be called a brood-defensive feeling. Whether or not she experiences that feeling will depend on the situation and on how she interprets it. A defensive feeling might not be evoked if the dog's distance from the kittens is still large, or if the dog seems friendly, or if the cat knows from past experience that this particular dog has little interest in kittens. Under the right circumstances, she might well feel playful rather than defensive. Feelings are emotive reactions to situations, and which feelings are evoked depends on the details of the situation.

Notice that the use of awkward expressions, such as "brood-defensive feeling," is a symptom of the inadequacy of language for describing feelings. As with colors, it is much easier to point to them than to describe them. For example, we might say "I mean by 'red' the color you see when you look at this paint chip." Similarly, "I mean by 'parental feeling' the feeling you experience when your child is crying." Obviously, this would not work if we did not all have very similar visual responses to the various wavelengths of light, and likewise very similar feeling reactions to classic, evocative situations.

Now suppose that the dog's approach to the cat and her litter is hostile. In addition to a brood-defensive feeling, the cat may experience a fear for her own safety. If so, she experiences both feelings at once, or nearly so, and the result is likely to be an internal conflict, a struggle for dominance between the two feelings, one perhaps urging her to run, and the other to stay and fight. She is torn. One feeling will inevitably be stronger than the other and will eventually triumph and cause some behavior. Which feeling will be stronger? The answer is once again that it depends on the details of the situation, such as the proximity of the dog and her past experiences with it. Just as the situation determines which feelings will be evoked, so it determines the relative strength of each one.

Likewise for humans. Obviously, we have greater cognitive powers than cats, which gives us the ability to pursue longer and more detailed imaginative sequences, to react with feeling to a wider range of possible situations. We also seem to be able to invest situations with a greater variety of interpretations or meanings, perhaps in turn evoking a greater range of feelings. But a period of indecision is for us, as for the cat, nothing more nor less than a struggle of feelings for dominance. And behavior results for us, again as for the cat, only as a result of a triumph of one feeling, or a coalition of feelings, over all others.

The process of decision making illustrates a second conceptual separation we are making, that between feeling and rationality (in addition to that

between feeling and behavior). By "rationality" we mean logical entailment, or calculation, of the sort useful in inferring consequences, estimating risks, and so on. Consider an extreme case: Suppose I contemplate driving my car down the highway at twice the local speed limit. If I am rational and well informed, I shall assess the risk and conclude that I am likely to crash and die. But my rationality has no further comment, because it is value-free and has no preferences, even for life over death. The preferences are the feelings. The imagined crash scene evokes an aversive feeling, a strong motivation to avoid such consequences, and as a result I will probably decide not to drive so fast. The feeling does not follow logically from the imagined consequences, but only experientially.

Thus, in our conceptual scheme, a decision can be said to be rational only in the sense that (and only when) our feelings have been provided with a competent evaluation of the facts and assessment of the likely consequences. But neither the preferences for this or that consequence nor the resulting decision can be rational (or irrational, for that matter), because rationality delivers no impetus, it has no driving force, so to speak, and thus it cannot drive decision any more than it can drive behavior. Only feelings can do that.

This reasoning should make it clear that a feeling is not just one of many specialized brain mechanisms on the same functional level as the various cognitive devices (Barkow, Cosmides, and Tooby 1992). In other words, a feeling is not just one of many possible causes of behavior, along with one or more of the various cognitive devices, such as rationality, perhaps. Rather, feelings as we understand them are the *only* possible causes of complex behavior (in mammals, we speculate), and cognition is a set of specialized interpretative devices that act *only* under the direction of, and in the service of, the feelings.

Diversity and Independence of Feelings

The feelings are many. It is possible, of course, to produce a fairly short list that might seem comprehensive - fear, love, anger, sympathy, embarrassment, and so on - but we would argue that each of these has many different situation-specific subtypes or modes. The feeling produced in us by the rumble of thunder overhead is different from the feeling produced by a prolonged stare from a rival. Conventionally, the two might be lumped together under fear, but they are qualitatively different. That is, we experience them differently. And each has a very different range of behavioral options that will satisfy it.

A reductionist might argue that all are reducible to two elemental motivations: pleasure and pain. But pleasure and pain are not feelings per se; rather, they measure the degree of satisfaction of a feeling. Consider the

desire for social recognition. One might be said to feel pleasure to the extent that this feeling is satisfied, and pain to the extent that it is not. But in any case, the desire for social recognition is a feeling that demands satisfaction on its own account, independent of any associated pain or pleasure.

Feeling and Behavior

Just as the object of a game does not uniquely determine the specific moves of the players, feelings do not uniquely determine behavior. (Indeed, satisfaction of the feelings is the "object" of behavior in roughly the same sense.) The cat in which a brood-defensive feeling has won out over fear for her own safety as the dog approaches her litter has many behavioral options. She might fight the dog, but she might also run to try to distract the dog's attention from her kittens. It depends on her previous experiences, on her past successes and failures with various strategies for protecting her kittens from dogs, on her limited ability to predict the consequences of alternative behaviors, and perhaps on her training, if she has had any, from other cats (or even from humans).

Likewise, in humans, feeling causes behavior but does not specify behavior. Thus, two hypothetical humans with identical feeling profiles, but having been raised in different cultures and having had different life experiences, would interpret a given situation in different terms and ultimately would present their identical feeling profiles with very different imaginative scenarios. The result is that they could be counted on to react to the situation, to behave, differently. Indeed, for humans, so vast is the range of possible imaginative worlds to which the feelings might be required to respond that behavior is effectively unconstrained. There is no behavior - including verbal behavior - of which humans are physically capable that some human will not, in some context, perform on the basis of some feeling.

Thus, we expect that there will be essentially no species-universal complex behaviors in humans. This claim might appear to be contradicted by the various lists of human universals that have been compiled, some plausible and convincingly argued (e.g., Brown 1991). In fact, it is not, because few of the entries on such lists are actually behaviors in the sense specified here, that is, they are not motor activities. Consider these commonly cited candidates for human universals: a desire for enhanced social status, a tendency to develop a belief in the supernatural, and strong mother-infant bonding. A desire for enhanced social status is a motivation, not a behavior. Cognitive tendencies and belief systems are not behaviors either; of course, speech about a belief is a motor activity, but speech, like the belief systems themselves, varies widely. What unites the various beliefs, what could be truly

universal, is the common bundle of feelings they satisfy. Finally, bonding is not a behavior either. Rather, it is a summary term covering many different culture-specific behaviors, and again what unites them is the bundle of universal feelings satisfied.

The Feeling Profile

The feeling profile is the range and configuration of feelings that normal members of a species experience. In other words, the profile is a specification of the feelings that are evoked, each appropriately weighted according to the intensity with which it is experienced, in the full range of problematic situations that members of the species normally encounter.

Although we are the heirs to almost three thousand years of attempts to list, describe, and organize our understanding of the human feelings, we seem no better off than at the beginning. That is not surprising, for emotions, values, and secondary qualities in general are *qualia*, permanently out of focus for the quantifying eye, for the concept-oriented analytical mind. Thus, while it might seem appropriate here to try to describe in detail the human feeling profile, at least for illustrative purposes, it is clear that such an attempt could not succeed.

The profile is expected to be species-specific, in the sense that variations in the range and configuration of feelings are expected to be large among species (perhaps less among closely related species than among distantly related ones) and relatively small within species. Further, the human profile is expected to be unique, but no more or less so than the profile of any mammalian species. Every species has a unique feeling profile.

The profile may be adaptive in the sense that each feeling is (or was) functional in a specific problematic situation faced by individuals in a species' evolutionary history and that it may have evolved (presumably on account of its selective advantages) for that reason. Importantly, however, the claim that the feeling profile is adaptive for individuals is not a claim that all feelings are narrowly self-serving. At least in social species, many (if not most) of the problematic situations undoubtedly have been social, and to manage them effectively, a certain amount of genuine (situation-specific) sympathy for conspecifics undoubtedly has been advantageous. In any case, the argument here is not historically based. The role of the feelings in driving behavior does not depend on their adaptedness, either now or in the past, nor on any aspect of their evolutionary history.

The human feeling profile undoubtedly has changed on evolutionary time scales, but probably has not changed much in historical time, either within any culture or across cultures generally. This is an empirical claim, but we

shall give no evidence for it here; later we shall offer some *theoretical* reasons to think it might be true.

In any case, the point is not to deny that *any* local or short-time-scale variation occurs. Among human individuals of a given culture, significant and randomly distributed differences in feeling profiles must exist because of differences in genes and in life experiences. And slight systematic differences may well exist among individuals of different ages, between the sexes, and even among cultures, although these probably are small compared with interspecies differences. The point of stressing the sense in which the profile is universal within a species - perhaps of overstressing it - is to emphasize that differences in feeling profiles are unnecessary to account for the enormous variations in *behavior* both verbal and nonverbal among cultures.

The Entrenchment of the Feeling Profile

Development in organisms is at least partly hierarchical. Early in development, an organism consists of a relatively small number of structures that interact to give rise to more structures, that in turn give rise to others, in a widening cascade (Wimsatt, 1986). As a result, early developmental steps have more consequences, and more significant consequences, than later steps, and thus deleterious natural variation occurring in the early steps will be more strongly opposed by natural selection. In Wimsatt's (1986) terms, the early steps and the structures arising from them are "generatively entrenched."

In this view, structures that are generatively entrenched tend to be more general. They are the organism's foundation, so to speak, onto which the later and more specific features will be built (Salthe 1993). Such general and relatively invariant features are known as "bodyplans." In insects, for example, six-leggedness is a feature of the bodyplan. In vertebrates, the vertebral column is part of the bodyplan. In principle, the same concept could be invoked to describe the common and invariant features of a much lower taxon. For example, at the species level, in humans, bipedality might be a bodyplan feature.

We propose that feelings or motivations are the generatively entrenched structures of what might be called a species-level "behavioral bodyplan." They are general outlines of behavior, just as the bodyplan in its usual sense is a general outline of physical structure. And just as bodyplan structures are less variable among individuals of a given species than are the later-arising structures, feelings are less variable than behaviors. Behaviors vary enormously, both among individuals and within a single individual in the course of its lifetime. But feeling profiles do not. Members of a species share a common motivational structure for the same reason, and in the same sense, that they share a common early physical development.

The Nature-Nurture Problem

This understanding of motivation, we argue, accommodates both of the extreme positions in the timeless nature-nurture debate. The central insight of the "nurturists," the culturalists, is that human behavior varies enormously from one culture to the next, that behavior is almost completely plastic to environmental influences. This view is part of what has been called the standard social-science model of psychology (Barkow et al. 1992). The "nurturists" contend that these differences are superficial, that beneath an outer layer of culturally conditioned responses lies a solid inner core, a human nature that is everywhere the same. Reductionist nurturists go further, arguing that the details of the structure of this inner core are coded explicitly in the genes.

Both views have serious shortcomings. One of the most serious for the culturalists is that they cannot account for communication among cultures. Communication among disparate cultures would be impossible (not merely difficult, as we observe it to be) if no common basis for understanding existed, if different cultures produced brains that were as different as those of different species of animals, as different, say, as humans and blue whales. Culturalists take the common basis for understanding for granted. They ignore the fact that communication (except of the most superficial sort) requires a long list of situation-specific common interests, and thus a common feeling profile - a profile we almost certainly do not share with blue whales.

One of the most serious problems for the nurturists is that they cannot account for the enormous differences between cultures. If a universal human nature exists, why is all socially interesting human behavior so variable? Why do the things that people say and do, and how they interpret the world, vary so much from one culture to the next?

The problem for both positions is the oversimplified and flawed model of behavioral causation that is usually invoked or assumed. For both, genes and environment (which includes culture as well as the unique experiences of individuals) combine in some unspecified way in the course of development to produce the brain. And the brain reacts to various present stimuli (externally or internally generated) by producing behavior. Culturalists emphasize the contribution of the environment to the structuring of the brain, while downplaying the genes, and nurturists reverse that emphasis.

We suggest a different model. Stimuli are analyzed by the brain's cognitive structure to produce an interpretation or an understanding of a life situation in the form of narratives, images, or any of a number of devices. And it is this understanding that evokes the feelings. In any given situation, multiple feelings may be evoked, but eventually one feeling or coalition of feelings triumphs over all others and causes some behavior. In the terms of

Wimsatt's model, most of the content of the narratives and images that constitute our understanding is shallowly entrenched and therefore expected to be highly variable both within and among cultures. Fikentscher (1995) has called the cultural component of this cognitive variation the "modes of thought." More deeply entrenched and thus less variable is the feeling profile.

Importantly, both feelings and behavior have essential genetic and environmental (i.e., cultural) components, and differences in their contributions are not significant in this context. Indeed, information from the environment that is "expected" during development (e.g., during "critical periods") may be deeply entrenched and just as essential to the production of a normal feeling profile as any genetic information.

Thus one of the main virtues of our model is that it ignores the often misleading opposition between genes and environment (Oyama, 1985) and yet accommodates the central insights of both naturists and nurturists. That is, the naturists are right in that there does exist a core, universal human nature that is fairly impervious to cultural influence. However, this core consists not of universal behaviors - for there are almost none - but of universal motivations, a common feeling profile.

And the culturalists are also right in that all complex and socially interesting human behavior is enormously variable. In moving from one culture to the next, we may shift from one culturally structured system of interpretation and suite of behavioral options (i.e., one mode of thought) to a radically different one. The result is that in different cultures, entirely different worlds are served up to the feelings, and very different behaviors result.

To put it another way, culture can interact with the feelings to make people say and do almost anything. But this observation in no way contradicts the naturist insight. Behind the difference in behavior lies a common and relatively invariant feeling profile. And it is this common profile that gives us a basis for shared values.

SUMMARY

We offer for further discussion, and in abbreviated form, two theories: a theory of motivation and a metaethical theory.

Feelings

We argue that in mammals, at least, much behavior is caused by mental structures intermediate between stimulus and response. These structures are feelings or motivations. They cause behavior by providing general goals, but

without specifying particular actions. The feelings are many, distinct, and situation-specific; the complete repertoire of feelings that members of a species normally experience, each weighted according to its situation-specific intensity, is the species feeling profile.

Mammals use their perceptual apparatus and intelligence to interpret the world and to anticipate future events. These interpretations and anticipations in turn evoke feelings, which motivate behavior. In any given situation - real or imagined - a number of feelings may be evoked, orienting the animal to a number of different purposes at once. The ensuing struggle among feelings for supremacy is the essence of decision making, and behavior (including verbal behavior in humans) is the result of the triumph of one feeling, or coalition of feelings, over all others.

Differences in how situations are interpreted, in how they are presented to the feeling profile, vary significantly among individuals, ultimately producing differences in behavior. In humans (at least), interpretative schemes, or modes of thought, also vary systematically among groups, accounting for cultural differences in behavior. But all of these variations in behavior are completely consistent with a species-universal feeling profile. Indeed, if the profile is somewhat entrenched in development, as we argue here, it is expected to vary little within a species.

The theory is obviously incomplete: What sort of mental structures are feelings? How are they represented physically in the brain? What is the mechanism by which feelings cause behavior? How can we detect feelings in other species? We can answer none of these now.

Metaethics

Of the six possible bases for validation of value judgments - God, Nature, Reason, the unique individual, culture, and human nature - we argue that only the last is defensible. The central claim of the human-nature position is that a sensible personal morality would constitute a lifelong strategy, one aimed at optimal satisfaction of our strongest and most enduring feelings. (Of course, if each desire, even the most trivial, could be instantly satisfied without prejudice to future claims of other desires, then morality would be of no use or interest.) In other words, morality is doing what you want, what *you really* want, that is, what you want consistently over a lifetime. And because the feeling profile varies little among humans, there is good reason to think that agreement on values, on wants, is possible among individuals and across cultures.

At the metaethical level, this essay seems to have two strong points and two weak ones. The strong points are (1) the revival of Hume's analogy of

the feelings to secondary physical qualities and the consequent escape from the naturalistic fallacy and the fact-value, or is-ought, gap and (2) the establishment of the feelings, combined with a sense of identity providing continuity over a lifetime, as the basis of a personal morality. The weak points are: (1) Because we cannot pretend to precision in talking about the feelings, the most that any theory based on them can claim is that it is the most reasonable of the alternatives. Any kind of proof is out of the question. (2) If it happens to be the case that the radical uncertainties of our futures, the power of present passions, and cultural biases render all attempts to implement the theory in practice a waste of time, then the human-nature theory could be both true and useless.

In sum, the key to both theories is the feeling profile, a set of structures as fundamental to human nature as opposable thumbs, a bipedal gait, or any feature of our morphology. Arguably, the profile may be more fundamental: Imagine a human and a blue whale, with their feeling profiles switched. (Assume that the whale is conversant and intelligent, and that we share a common language with it.) With which would we find more common interests, with which more shared values? As we began to interact with them, to exchange views, their physical appearances and behaviors would begin to diminish in importance. We would soon notice just how little we had in common with the one in human form and begin to recognize the whale with human feelings as one of our own. More than any merely physical features, or any pattern of behavior, our feeling profile is human nature.

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