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## **ADAPTATION AND MORAL REALISM**

**ABSTRACT:** Conventional wisdom has it that evolution makes a sham of morality, even if morality is an adaptation. I disagree. I argue that our best current adaptationist theory of meaning offers objective truth conditions for signaling systems of all sorts. The objectivity is, however, relative to species — specifically to the adaptive history of the signalling system in question. So while evolution may not provide the kind of species independent objective standards that (e.g.) Kantians desire, this should be enough for the practical work of adjudicating human differences. If you believe morality is an adaptation, you should be a moral realist.

[Text: 2978 words; Abstract: 98 words.]

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Suppose, as many naturalistically inclined philosophers and scientific materialists of other sorts do, that morality is an adaptation — a product of evolutionary process which has been preferred and refined by selection due to its having performed some useful function. What does this bode for moral realism? The current consensus seems to be that whatever this gives us, it is not moral realism. This, despite the fact that everyone seems to want to talk like a moral realist. What results from this tension differs from case to case. George C. Williams, the grand old man of gene selectionism, famously characterizes nature in the form of evolution as “the tenacious and powerful enemy” of all morality and goodness.(1994, 212) The most fashionable response is to insist that culture somehow emancipates us from the dictates of our genes.

The substantial cultural relativism that results from insisting that culture is the source of goodness provides the occasion for numerous subtle and/or counterintuitive maneuvers. I will be most directly concerned with bullet-biting line that Ruse & Wilson (1986) and Dawkins (1976) take to the effect that morality is an illusion foisted upon us by our genes. According to this line,

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there is no objective, species independent set of moral standards, but the illusion that there are such standards is generally a good thing. (Good for fitness, that is).

I beg to differ. My argument is simple. Apart from pointing out certain confusions regarding the use of "objective" and "illusion", all I want to say is that the current best theory of meaning built on the analysis of language as an adaptation works equally well for bee dances, beaver tail splashes, monkey warning cries, indicative/descriptive human language, and, of course, the systematic and (by presumption) adaptive noises we make as an essential part of our moral life. I refer primarily to Millikan's (1984, 1993) "biosemantics" or "teleosemantics", but also to the work of Dretske and others in which normative biological functions play a role in naturalistic semantics. Truth, on Millikan's version, does not *explain* the value of the true sentence or signal. Rather, truth of a signal just is the fact that the signal now stands in the kind of relation to the world which explains the historical contribution to fitness of the signaling system. There are true and false bee dances, true and false monkey warning cries, and if there is the kind of adaptive history we began by supposing, then there are (objectively) true and false moral imperatives. This truth and falsity does not require "special" moral facts (moral entities and/or moral properties) to serve as the truth conditions for moral statements, nor is this truth reducible to the truth of scientific descriptions of the adaptive history of morality. Happily, however, moral truth conditions can in principle be specified in scientific terms. Of course, whether any of this is true is an empirical question, with much of the evidence lost in the mists of history. My point is that, if you believe that morality is an adaptation, then you ought to believe that there objective standards that apply.

***Objectivity and Species-Independence***

One common misapprehension is that objective standards must be species independent. In short, ethical premises are the peculiar products of genetic history. And they can be understood solely as mechanisms that are adaptive for the species that possess them. It follows that the ethical code of one species cannot be translated into that of another. No abstract moral principles exist outside the particular nature of the individual species. (Ruse & Wilson, 1986)

Clearly, whatever functional norms attach to biological adaptations, they are not species independent, but rather contingent on the particular adaptive history of the faculty in question. From this it is supposed to follow that they are not objective standards. This view is, of course, consistent with the usual approach to moral objectivity. Kant was quite insistent that his imperatives were not derived from anthropology, but from the nature of reason and the will. Rational Martians were just as bound as we are. Peter Singer's (1975) extension of utilitarianism to animal rights makes clear that being human is not a prerequisite to consideration in the Benthamite calculus, it is pleasure and pain that is the issue. Anytime the principles that attempt to ground objective moral norms do not make reference to human nature, the standards cannot but be species independent.

Be this as it may, this does not mean that standards that apply to every human being everywhere simply because they are *human* beings are not objective in a sense adequate for moral realism. Human beings are equipped with a variety of adaptations, some shared with other species, some unique. To have an adaptation is to be capable of malfunction. Such malfunction consists not in failing to maximize inclusive fitness now, but in failing to perform in the ways which the feature in question has historically contributed. The standards for the proper functioning of an adaptation are objective, since they derive from the actual history of the feature

in question. If all human beings, due to common ancestry, share a particular adaptation, then there is a historically rooted set of standards that apply to them all. If the adapted systems in question are flexible enough, then it may be that different environments/cultures make different configurations or behaviors "proper". Nonetheless, the standards which allow this flexibility are objective both in the sense of being insensitive to opinions and convictions (in the appropriate ways) and in being common for all human beings.

### ***Genetic Determination and Objectivity as Illusion***

To say, as Ruse & Wilson (1986) do, that moral objectivity is an *illusion* foisted on us by our genes, strikes me either as confused or disingenuous in this context. Richard Dawkins has been arguing for some time (e.g. 1975) that reality is also an illusion foisted on us by our genes, or more fashionably, that our everyday reality is really "virtual reality." (1995) Now, aside from the helpful reminder of the foundational problem of epistemology (that we have no direct access to the things-in-themselves), this is neither news, nor is it an epistemologically helpful way to put things. True though it may be that a naive realist may construe the term "illusion" to refer to cases in which we do not directly apprehend the object of our consideration, this is surely not how we ordinarily use the term. The difference between true perception and illusion is just the difference between the proper functioning of our perceptual systems and certain characteristic kinds of malfunction. The malfunction involved is not a mistake in our response to stimuli, but the fact that the environment is causing perceptions in us even though the world is not the way it is supposed to be when we have the perception in question. The point being, if the term "illusion" is not to be vacuous, then there is no reason to believe that moral objectivity is an illusion just because we are

genetically "programmed" to believe that there are objective moral standards.

### ***Teleosemantics and Moral Truth***

The main problem I want to address here is the general lack of awareness of the basic mechanisms by which adapted biological functions can generate objective semantic maps between signals and states of the world, which is to say, by which they can generate objective truth conditions. So let me say a little bit about how such maps get generated in general, and how and in what conditions such maps might exist for moral language.<sup>1</sup>

A concrete example will provide analogical cases suitable to the argument presented here. Cheney and Seyfarth (1990) describe a signaling system in vervet monkeys in Kenya. The vervet monkeys have to deal with three kinds of predators, eagles, snakes, and leopards. There are specific strategies appropriate to each kind of predator. The thing to do for eagles is to look up into the sky. The thing to do for snakes is to stand up and look around on the ground. The thing to do for leopards is to run up a tree. Predictably, the vervet sentries issue three different danger signals, depending on the kind of threat perceived. The rest of the troop responds appropriately to the signals issued. The coordination required between threats, signals sent, and evasive responses

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<sup>1</sup> [ For more detailed treatment, especially regarding human indicative language/belief and animal signaling systems, see Wright (1973), Dretske (1986, 1995), Millikan (1984,1993), Godfrey-Smith (1994,1996), Harms (1997), Neander (1995), Skyrms (1996), and Davies (1994). Lots of work remains to be done, of course, but progress has been substantial. ]

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upon hearing the danger signal establishes the truth conditions for the signals. [See Skyrms 1996, ch 5, for a game theoretic analysis of this kind of signaling system.] If we let signal A be the usual signal sent when a leopard is detected and which elicits the appropriate evasive maneuvers, then A is true just in case there is actually a leopard there. A token of A is false just in case there is no leopard there.

Notice that truth conditions are determined directly by the conditions for correct functioning of the signaling system. Having truth conditions does not depend on the prior existence of some sort of indicative meaning. When the sentry cries "A", does this have the same content as "there is a leopard here now!"? Or is it an imperative, like, "everyone run up a tree now!"? Probably neither. The vervet signals seem to occupy some middle ground between our familiar indicative and imperative modes of speech. The point is that truth in signaling systems is prior to indicative content. If you prefer not to call this truth, I won't quibble. What matters is that there are objective conditions for the correctness of the issuance of a particular signal at a particular time and place.

Suppose, now, that our vervets have another signaling system. Let's suppose that troops are territorial and are supposed to attack members of other troops. However, since the other troops are composed of members of the same species, individuals can make mistakes about whether a given vervet is a member of its own troop or some other. So when a vervet accidentally attacks a member of its own troop, other members of the troop screech at it, causing it to desist. Supposing that this system of behavioral control is an adaptation, then it seems that there is a matter of fact as to whether the system is doing its job (in the historically adaptive manner), which is to say, whether or not the particular screech tokens are true. They are true just in case the

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vervet being attacked is a member of the same troop. They are false just in case it is not. Notice that if this behavioral control system is common property of all vervets, then there is an objective set of standards governing the correct issuance of these particular screeches, and these standards are the same for all troops of vervet monkeys. Whether or not the screech is correctly issued for some particular victim of course depends on in which troop it is being attacked.

Suppose, again, that vervet females get confused and pick up and carry the offspring of some other. Suppose that the adapted response is for the mother to hiss loudly at the offender, which gets the offspring returned. If this response is there in order to keep mothers and offspring sorted out correctly, then, again, there are objective truth conditions for this kind of hiss. The hiss is true just in case the female has picked up the offspring of some other. It is false just in case she has not.

If truth in simple signaling systems were all there is to biofunctional semantics, the literature would not be as large nor as difficult as it is. One of the reasons that the teleosemantic literature on meaning *is* so difficult is that what one needs to do is to work up in complexity from these simple kinds of signaling systems to ones with the characteristics of human indicative language. Human language is fantastically sophisticated in biological terms, and a theory of meaning that hopes to account for the way truth and content work in such a system requires a lot more moving parts. Thankfully, all that is not necessary for my argument here. All that is necessary is to realize that, in principle, any adapted signaling system can have objective truth conditions for the issuance of signals, and that this does not depend on the possibility of assigning descriptive content to the signals in question. What it does depend on is whether the signal fulfills

or does not fulfill its historical role in the function for which the issuing system was selected.

Consequently, human moral imperatives can have objective truth or falsity even though they express no descriptive/propositional content in the way that factual claims do. You may if you wish quibble about whether this is really truth, but remember, what is at issue is not whether or not moral language can be translated into scientific language (i.e. whether it expresses *propositions*), but whether there exist objective standards for the correct issuance of moral claims and imperatives. This does not require a *separate* realm of moral facts inaccessible to scientific enquiry. What it requires is that morality is an adaptation, and that the way that the moral hardware has paid its bills is by getting certain sorts of signals sent and responses made in particular kinds of circumstances. The imperative is true if those circumstances obtain, false if not. My statement/imperative "you shouldn't do that" is morally true if the issuance of this fulfills at least my end of the function of the moral regulatory system. If you choose not to respond, then the failure is yours, much as if a vervet ran under a bush instead of up a tree upon hearing the signal A.

### ***Objections?***

Of course, you will have a number of worries at this point. I will address the most predictable of them here.

1. *Conflicts*: The first thing one usually gets is examples which purport to show that moral norms cannot be biological norms, since morality often requires one to violate biological norms. The prevalence of this sort of objection is rather baffling, since it only takes a moments reflection to realize that biofunctional norms conflict all the time. My eyes are supposed to see. My eyelids

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are supposed to protect my eyes. I cannot see when my eyes are protected, and I cannot protect my eyes when I am seeing.

2. A similar class of objections has the form: "just because I have X in order to Y, this does not make it moral for me to Y with X." To be sure, but who ever said that was the case? The proposal is that moral truth derives from the historical conditions for fulfillment of a specific function. There are other functions which have nothing to do with the function of morality, and thus whose fulfillment is orthogonal to that of morality.

4. *Disquotation*: I seem to be claiming that naturalism can specify the truth conditions for moral utterances, so science would seem to be able to say "'M' is true", where 'M' is some moral claim. Isn't saying that "'M' is true" just the same as saying 'M' truly?

No. Upon observing a vervet sentry crying 'A', I may observe that a leopard is indeed present, and determine that the cry is true. But this is not to make the cry. Indeed, not being a vervet monkey I cannot *truly* make the cry, since I am not part of that signaling system. There is no biological function that I have that involves warning vervet monkeys of leopards. Similarly, if descriptive and moral language are part of two different signaling systems carried by human beings, there is no reason to assume that fulfilling the function of one entails fulfilling the function of the other.

Of course, human signaling behavior is largely integrated, but it is quite notable that integrating moral and factual knowledge has proven difficult. There is nothing mysterious about this. Disquotation fails between signaling systems.

5. *Why think that evolution prefers truth?* Since falsehoods can be adaptive in particular

circumstances, then truth just is not the same as fitness enhancement. This is all the more the case for moral truths, which may often require an individual to sacrifice reproductive success for the greater good.

Again, the proposal is that moral truth derives from the fulfillment of the historical conditions for the satisfaction of a particular function of a particular signaling system. There is more than one way to skin a cat, and more than one way to exploit a given signaling system for gains in reproductive fitness. Not all of these are consistent with the particular historical function which sets the truth conditions for moral language. The important point is that semantics are determined by a particular function or range of functions. The fact that *other* functions (e.g. deception) can be fulfilled parasitically on the original semantics does not change the semantic rules, since the original function is not modified. There is a large literature that indicates that group adaptations in general have problems with cheating. To say that cheating on a cooperative strategy is adaptive is not to say that it is not recognizable as cheating from a biological point of view. This is just why the prisoner's dilemma is so interesting with respect to the evolution of altruism.

Whether or not the historical facts turn out to be such as to account fully for our moral life, putting objective standards where we think they are and flexibility where we expect it, is an open question. I am optimistic about this, but whatever the case, it is time to stop apologizing for the fact that the evolutionary view of human nature makes a sham of morality, or leaves it an utter mystery. It most certainly need not, and it probably does not. On the contrary, biofunctional semantics suggests a robust grounding for moral realism in the natural world.

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