

What Makes Us Moral: Crossing Boundaries of Biology,
by Neil Levy (Oneworld, 2004)

Reviewed by Richard Joyce in
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[penultimate draft]

“Beer Gut Gene Discovered” announced the *Sydney Morning Herald* in 2003 (January 9)—yet another media declaration that scientists have uncovered the “gene for” such-and-such. Claims such as these are, in the popular consciousness, often conflated with proposals from sociobiologists and evolutionary psychologists regarding the innateness of certain human traits: infanticide, rape, or intelligence correlated with gender or race. When these traits are nasty or politically disconcerting (as are the three listed) then those pressing the claims are usually quick to point out that to identify any such tendency as the manifestation of an evolutionary adaptation is in no sense to exonerate the behaviour or to justify any political arrangement designed to accommodate it. Often, however, though we may not be quite able to articulate where this defence fails, we are left feeling uneasy.

Neil Levy’s small but ambitious book, *What Makes Us Moral*, wades into this quagmire with the heartfelt intention of bringing some clarity to these consequential yet all too often confused issues. The result is an interesting and honest book: certainly not the “future classic” advertised on the bookflap, but a thought-provoking contribution nonetheless. The topic of the evolution of human morality lies at the intersection of many disciplines: not just evolutionary psychology and biology, but cross-cultural anthropology, economics, neuroscience, developmental and social psychology, genetics, primatology, and, of course, moral philosophy. The book is accessible to researchers from any of these fields—indeed, it can be read by a popular audience—for it is written in simple, jargon-free English. This resolve to write a book accessible to a general audience is to be praised, though it must be admitted that it results in some scene-setting which the more experienced reader will find all too familiar. We are, for example, given a potted chronicle of the impact of Darwinism, including the infamous debate between Bishop Wilberforce and Thomas Huxley, the Scopes “monkey trial,” and the history of the eugenics movement that ended in the Nazi death camps; we are treated to high school-level explanations of the process of natural selection and Mendelian genetics; kin selection and reciprocal altruism are covered in the customary manner (and group selection is rejected for the usual reasons), along with the inevitable discussion of the prisoner’s dilemma and Axelrod’s work on the tit-for-tat strategy. For a novice reader for whom these topics sound mysterious and interesting, *What Makes Us Moral* will be a readable and stimulating introduction. For those who’ve been through it all several times before, moments of impatience should be anticipated. Nevertheless, tolerance will be rewarded, for the author has some genuinely interesting arguments, and a sensible agenda to promote.

Levy’s concerns have a scientific and a philosophical component. The scientific component addresses the question of whether the speculative hypotheses concerning the adaptive function of various human psychological and behavioural traits (put

forward these days principally by evolutionary psychologists) are empirically well-founded. Though Levy is no *tabula rasa* theorist—accepting that humans have “built-in biases and heuristics of which we are largely unaware” (199)—his primary concern is to counter these evolutionary arguments by emphasising instead the malleability and culture-oriented aspect of human psychology. The philosophical component addresses the question of what practical implications might follow if certain psychological or behavioural traits can be given an adaptive explanation. In particular, might the discovery that human morality is an adaptation upset any of our moral judgements or moral institutions? Levy identifies three possibilities. First, such a discovery might have an unexpected or unpalatable positive normative output; we might realise that we have obligations that we didn’t know we have (and that we wish we didn’t have). Second, the discovery that moral judgement is an adaptation—that we think this way only because doing so helped our ancestors make more babies—might have an undermining effect, revealing morality to be an illusion. Third, an evolved human psychology might place a constraint on what social and political arrangements are possible for us; certain ways of organising our relations with each other which seem *prima facie* fair and just might turn out to be inaccessible utopias, due to the recalcitrant biased nature of the human mind.

To the first possibility Levy devotes the opening chapter of his book (which comprises five chapters in total), focusing on the Social Darwinist movement as espoused by Herbert Spencer, and picked up on by Andrew Carnegie, J.D. Rockefeller, and Adolf Hitler. Those of us who know that such views are misguided hogwash—not just offensive but scientifically misinformed—will be comforted to see the author agree at some length. Chapter 2 discusses the second possibility, though most of it is in fact concerned with outlining the descriptive hypothesis that human morality could be the product of natural selection; the metaethical issue of whether such an evolutionary history shows morality to be an illusion receives a fairly brisk treatment at the chapter’s close (an argument to which I’ll return below). The third possibility is more of a ubiquitous theme in the book; entwined in his general critique of evolutionary psychology (which comprises Chapters 3 and 4) is one of the author’s take-home messages: that a confirmed evolutionary psychology would indeed represent a constraint on human choice, and thus any claim that such research has no practical, moral or political implications is naive. In fact, Levy argues, evolutionary psychologists, if they are correct, “are identifying significant and perhaps (for all practical purposes) immovable obstacles that stand in the way of some of our most cherished hopes for peace, equality, harmony, and happiness” (131). (This too is an argument I will return to below.) Thankfully, Levy distances himself from the intellectually repugnant view that because evolutionary psychology may have uncomfortable social implications we should reject its findings in advance of examining them with an open mind (138-9), though it must be confessed that at times I thought I detected the whiff of such a rhetorical strategy in the air. He might have been better advised to have kept these two issues—whether evolutionary psychology is empirically supported, and whether evolutionary psychology has unsettling practical implications—more clearly separated.

The scientific component of Levy’s case is, in my opinion, the more successful, though his critique of evolutionary psychology is perhaps not as far-reaching as he

intends. Chapter 3 outlines a number of claims that have been made by evolutionary psychologists: that men are naturally more inclined towards promiscuity than women (Trivers' work on parental investment), that some motivations in favour of infanticide and child abuse are adaptations, or at least the by-product of adaptations (Daly and Wilson's research on step-parents and abuse), that rape is a male adaptive conditional strategy (Thornhill and Palmer's work), that the human female brain is more wired for empathy than the male brain (Baron-Cohen's research). Chapter 4 takes on these claims in turn, and does a fairly effective job of criticising each. But of course evolutionary psychology turns on much more than just these particular issues. All the specific hypotheses mentioned could turn out to be groundless while the research program as a whole remains robust and viable. So numerous are the claims made on behalf of "evolutionary psychology" that many of them are sure to be problematic—some are likely to be downright silly—and perhaps this field attracts more than its fair share of silliness. Frequently Levy makes assertions of the form "Evolutionary psychologists claim that..." when in fact it is at best *some* evolutionary psychologists who make the claim in question, and at worst just *one* researcher who has managed to get his possibly wacky evolutionary speculations into print. (Compare "Philosophers claim that...")

Levy is aware of the limitations of a piecemeal approach, and thus in the final section of Chapter 4 attempts to launch a more general critique of evolutionary psychology. He is keen to resurrect the so-called "Standard Social Science Model" (SSSM) of the human mind—a label that evolutionary psychologists cannot utter but with contempt. According to the straw-man SSSM (the one so easily scoffed at), the human mind is a blank slate that is engraved solely by environmental experience. According to Levy's sensible version of the SSSM, by contrast, many human preferences and desires are indeed shaped by evolution, but culture determines much of the detail of how these desires play out in concrete form. "In general, and for many of the most significant aspects of human life, nature only sets boundaries: social norms and history settle what the way of life will be within them" (164). Unfortunately, Levy has not really allowed himself space to develop this hypothesis in any detail, raising the question of whether he was wise to devote his earlier energies to responding piecemeal to the more sensational offerings from evolutionary psychologists (rape as an adaptation, etc.). Absent from his discussion—perhaps also as a result of being pressed for space—is any acknowledgement that there is in fact an enormous literature in opposition to evolutionary psychology (a section on "further reading" at the end of the book cites just three works by critics of evolutionary psychology), so Levy doesn't really succeed in situating his view in a live academic context. His most interesting contribution to this debate is his attempt to explain the apparent universals observed in many areas of human life without recourse to nativist theorising. Many such universals, he argues (drawing on Brian Skyrms' work), are the result of coordination problems being solved by strategies that enjoy a only small natural advantage over competitor solutions, but whose tie-breaking advantage may then become massively amplified, thus stabilising the strategy across many environments. A relatively modest initial asymmetry, such as the physical difference between men and women, can lay the foundation for an entire edifice of asymmetrical genderised social norms, thus explaining the ubiquity of human patriarchy.

Given that Levy's laudable intention is to champion a sensible middle ground between two unproductively dichotomised views, it is a little surprising that he contributes to the polarisation by describing his own position as a version of "the SSSM." (After all, one could not reasonably claim his view to be orthodoxy among the social sciences.) But regardless of what we label his position, it is a viable alternative to the more extreme "massively modular" vision of the human mind advocated by many evolutionary psychologists, and it is a hypothesis that deserves to be developed. However, what is lacking in Levy's presentation is any discussion of what evidence might be sought, what research undertaken, in order to decide between the two hypotheses. Evolutionary hypotheses are notoriously accused of being just-so stories: rich with creativity and broad plausibility, light on evidence. Levy has outlined an alternative—a worthwhile undertaking, to be sure—but has offered no hard evidence that should tempt us to think it actually true. One would like, at least, some idea of where we should look to locate such evidence (neuroscience? developmental psychology?).

Let me now turn to the more philosophical component of *What Makes Us Moral*. Above I outlined three possibilities identified by the author regarding ways in which evolutionary findings might have practical impact. In what remains I will offer some critical remarks concerning his discussion of the second and third possibilities.

In order to discuss the evolution of something we need to have a pretty good grasp of what that thing is. All too often discussions purportedly about "the evolution of morality" give no indication of whether "morality" denotes *prosocial behaviour*, or *social sentiments*, or *moral judgements*—resulting in a heap of confusion. Levy is an exception to this rule—making it clear that he is referring to the evolution of *moral judgement*, and going to some effort to spell out what is distinctive about this phenomenon. Morality, he thinks, has both Kantian and Humean elements. It is a system of prescriptions that are held to be unconditionally binding upon all rational agents (thus satisfying Kant), and these prescriptions are supposed to be intrinsically motivating (thus Hume). In addition, morality has a contentful constraint: It concerns the welfare of others, roughly speaking. I'm sure Levy is well aware that for each of these items there are numerous moral philosophers who will roar in protest, and his desire to sidestep this labyrinth of argumentation is understandable—but it has to be admitted that the result is somewhat dogmatic. If one is inclined simply to doubt that morality has (say) a Kantian element—as many respectable philosophers are—then one won't find any arguments here to persuade the reader otherwise.

In any case, Levy goes on to identify the usual puzzle: How could something so authoritatively *other-promoting* evolve by natural selection? Surely natural selection is a process that will always favour the selfish over those motivated by the welfare of others? We now know how the answer to this puzzle begins (though perhaps we don't yet know the whole answer): The processes of kin selection and reciprocal altruism (so-called) can result in organisms that behave in ways helpful to their fellows. Note, though, that neither process results in *evolutionary altruism*: the tendency for an organism to reduce its own reproductive fitness while raising another's. (Evolutionary altruism requires group selection, which Levy dismisses on the grounds that the circumstances conducive to its occurrence are unlikely to transpire in nature.) In acting helpfully due to either kin selection or reciprocity, an organism is advancing its

own fitness relative to a counterpart who does not act helpfully, and thus such behaviour is evolutionarily selfish.

For some reason this troubles Levy; he worries that altruism is only “altruism” (78). But it is difficult to see what the worry is. Let us begin by identifying three things that might pass under the name of “altruism.” The first, evolutionary altruism, I’ve just mentioned: It is a term of art concerning the relative reproductive fitness of organisms, and it is quite possible that there is no such thing. Second, we might just mean (somewhat vaguely), *helpful behaviour*—such that bees and ants are altruistic in this sense.¹ Third—and in line with vernacular English—we might mean actions that are performed with a certain other-promoting motivation (such that the terms “selfish and “altruistic” in this sense cannot be applied to bees and ants, but only to creatures with a degree of cognitive sophistication). If it turned out that all human social behaviour is really selfish in the latter psychological sense, this would indeed be a blow to our aspirations for morality. But the discovery that it’s all selfish *in the evolutionary sense* has no impact at all. The important thing to realise is that there is no reliable connection between the evolutionary and psychological types of selfishness. From the fact that a pattern of helpful behaviour is to be explained by the forces of reciprocity, for example—and from the fact that the behaviour is therefore evolutionarily selfish—*nothing* follows about the motivations of the creatures designed to engage in the exchange. Reciprocal partners may enter into such exchanges for selfish motives, for altruistic motives, from a sense of moral duty, or their exchanges may be mere conditioned or hardwired reflexes properly described neither as “selfish” nor “altruistic” in the psychological sense. There are no grounds for insisting that such creatures must be “*really* selfish” in any psychological sense, that they are “really” motivated (at some subconscious level, perhaps) by their genetic interests, and that they are just self-deceived in this matter. Evolutionarily selfish creatures can be as sincerely altruistic, loving, and morally motivated as you please.

Given this, it was irksome to read Levy interpret my own “melancholy” view as holding that morality is a myth because really it’s all disguised selfishness (78-9). Certainly I have argued that morality is a myth, but my grounds for this conclusion had nothing to do with problems over altruism and selfishness. Rather, the argument is that we can give an evolutionary account of the origin of our moral judgements—an account that, moreover, may be empirically supported—which at no point presupposes their truth. Thus moral judgements are shown not to be false, but to be epistemologically unjustified. To this Levy responds that Michael Ruse and I are “measuring morality against an inappropriate standard” (79) in that we expect morality to be “out there,” as part of the furniture of the universe. Levy likens this dialectic to that concerning the existence of colour: Colours exist, he says, but not independently of our perceptual equipment. I remain unmoved by the analogy, since in fact I’m inclined to doubt that colours exist. Levy would respond that “we can all agree upon them [the colours], and we have much the same experience of them, ... [and] the fact that we can use colors for such important tasks as controlling traffic demonstrates that we have no qualms about their existence” (80). But this, it seems to me, is lamentably weak as an existential test. Scientists of the eighteenth century had

¹ This is the sense in which what Trivers dubbed “reciprocal altruism” is altruism.

no problem identifying escaping phlogiston: Anyone could point to an open flame and declare “There’s the phlogiston escaping!” If someone pointed to a bowl of water and said “This contains phlogiston” she would be making a mistake. Phlogiston theory could be successfully employed for all sorts of important tasks, such as cooking food or keeping warm. All this, yet there was no phlogiston! If it is possible for an individual to make a mistake about what the world is like, then we must allow that it is possible for a community of individuals to make such a mistake. Using collective agreement as an existential test, as Levy seems to, would belie this platitude.

Levy goes on to admit that his arguments here would, if successful, vindicate only some of morality: “If morality is real in so far as, and because, the emotions that underlie it are real and generally shared, then it is only its Humean side that is vindicated” (82). The Kantian element also stands in need of defence. (It is worth noting that the “inappropriate standard” to which Levy accuses me of holding morality is really nothing more ontologically extravagant than seeing the satisfaction of the Kantian component as vital. The “objectivity” with which I think moral judgements are imbued has less to do with their “out-there-ness” and more to do with the unconditional authority of the prescriptions.) Unfortunately, at this crucial point in proceedings Levy’s metaethical argument begins to fragment and unravel. He claims that even if we were unable to accommodate the Kantian aspect of morality, “evolution will have undermined not morality *per se*, but at least our commonsense concept of it” (82). But this sudden softening on the Kantian desideratum seems unaccountable. When earlier he defined morality for us, the Kantian element was front and centre; no hint was given that it is a negotiable and dispensable aspect of moral judgement, that it might be extirpated while leaving us with something still deserving of the name “morality.” (After all, without the Kantian element it is unclear that there is anything distinctive about the moral realm.) Furthermore, when Levy proceeds to attempt to accommodate the Kantian intuition (83ff.), what he in fact focuses on is *the sphere* of moral concern; no attempt is made to defend the distinctive *authority* of a Kantian moral prescription. Though the two properties may be related, their connection is at best an obscure one. Moreover, he reverts to a genealogical mood—setting himself the task of explaining why natural selection may have furnished us with these Kantian intuitions (concerning which he has some genuinely interesting speculations)—seemingly having forgotten that the Kantian element of morality stands in need not merely of explanation, but *vindication*. We are, in the end, left waiting for a vindication that never comes. Despite the chapter closing with a section boldly entitled “Evolved morality is real morality,” we are in fact supplied with no reason to think that it is “real”—if by this is meant that moral pronouncements might actually be *true*. Indeed, in supplying an evolutionary genealogy of the Kantian element of morality Levy contributes to exactly the argument he set out to counter. If we have a complete, empirically confirmed explanation for why humans are inclined to categorise certain actions as unconditionally forbidden (say), but this explanation at no point presupposes that any such categorisations are true, then we should be left doubting whether they are in fact true at all.

Let me finally turn to the third way that Levy identifies of evolutionary explanations possibly having practical ramifications: that such findings indicate

constraints on human choice, thus implying that certain social and political arrangements are better than others. Evolutionary psychologists are usually quick to deny that they are endorsing “genetic determinism”—the thesis that certain phenotypic traits of an organism are the product solely of its genotype. (Of course, nobody sensible has ever been a genetic determinist, for not even the number of legs that a person has is determined solely by the genotype.) Levy’s recurrent line here is that although his opponents may not be genetic determinists, they are still claiming that the genotype contributes the lion’s share to the phenotype—“that we understand human behaviour better by focusing on genes, mental modules, and evolved desires, than by looking at cultures and social norms” (129)—and this he interprets as implying that phenotype can be altered “only through great effort, and at great cost” (130). But it is doubtful that evolutionary psychologists are committed even to this watered down version of determinism.

First, consider the claim that evolved traits are *difficult* to alter. The fact that Levy persists in pushing this point despite the fact that evolutionary psychologists have denied it on numerous occasions leads one to suspect that they must be talking past each other. The diagnosis of the misunderstanding, I think, is that there are competing and non-equivalent notions of *innateness* in play. Even though Levy doesn’t discuss matters using the word “innate,” I believe light is shed on the dialectic by considering the useful disambiguation of the concept offered by Paul Griffiths.² Sometimes innate traits are considered to be those that are essential to being a member of a kind, sometimes they are those that can be given an adaptive explanation, sometimes they are those that exhibit developmental fixity in the face of environmental variation. In assuming evolved traits to be hard-to-alter, Levy is employing something like this last notion of innateness, having apparently drawn inspiration from Philip Kitcher’s *Vaulting Ambition* (1985), where it is claimed that sociobiologists predict that variation in many human traits will be relatively flat across the range of environments that are practically accessible. But the sociobiologists and evolutionary psychologists, I hazard to suggest, typically have in mind the second notion: that a trait is innate if it is an adaptation. And according to this view, innate traits may possibly be altered *easily* through environmental variation, especially if that variation is a type that did not occur in the historical environment in which the natural selection of that trait took place (e.g., Pleistocene Africa). As Griffiths reminds us: “There is no intrinsic tendency for evolved traits to be buffered against variation in environmental inputs to development. ... The constructive role of environmental factors in the development of evolved traits should come as no surprise. Selection cannot favour a trait that compensates for the loss of a developmental input that is, as a matter of fact, reliably available.”³

Levy seems dimly aware of the existence of this competing notion of innateness, but it is casually consigned to a couple of footnotes. First, in footnote 95, he cites Richard Dawkins’ claim that genetic influences may be easily altered by environmental factors. (In fact, in paraphrasing Dawkins, Levy has him conceding that genetic dispositions may “even, quite conceivably” be altered by environmental

² Paul Griffiths, “What is Innateness?” *Monist* 85 (2002): 70-85.

³ *Ibid.*: 74-75.

factors; but actually there is no such dampening qualification in Dawkins.) Second, in footnote 125, he cites Janet Radcliffe Richards' assertion (in *Human Nature After Darwin* [2000]) that adaptations may be no more difficult to alter or eradicate than traits that are the result of socialization. Levy grudgingly concedes that this is "true, in the abstract." But instead of acknowledging and investigating the competing notion of innateness that underlies Dawkins' and Richards' remarks, he insists that evolutionary psychologists' own arguments show a commitment to adapted traits being robust, hard-to-alter traits. Their central claim, he observes, "is that these traits have proved impossible to eradicate across all environments so far, including environments in which the elimination of the trait has been an explicit aim ... The evidence of universality is explicitly advanced as evidence that the preferences in question are hard to alter" (225). But Levy's reasoning is fallacious on this point. Even if recalcitrance in the face of environmental variation can be used as evidence of a trait's being an evolutionary adaptation, it would not follow that all evolved traits exhibit such recalcitrance. Yet it is this latter general claim that lies at the heart of Levy's argument.

We should also give consideration to the second aspect of Levy's claim: that evolved traits will be *costly* to alter. His argument here seems based on generalizing from a particular example of how an (allegedly) evolved disposition can be altered. Apparently men the world over show a marked preference for a certain waist-to-hip ratio (WTR) in the female figure. But there is an exception: Men of the Yomybato tribe of Peru prefer the highest possible WTR. One hypothesis on behalf of evolutionary psychology is that the Yomybato have traditionally lived in an impoverished environment, where large fat reserves were a good indicator of fertility. Levy concludes that we could thus alter men's WTR preferences in general "only in one direction, and only by taking steps which would be disastrous and immoral: that is, by causing widespread famine" (p.130). Why he concludes that the alteration could go only in one direction is unclear. Why he thinks that the only way to accomplish it is via *famine* is also unclear. And, most importantly, even if it is true that the only way to alter men's WTR preferences would involve "great cost," no grounds are supplied for thinking that what holds for this single case can be generalised to the conclusion that such alterations must *always* be costly. Even if it would take great effort to alter a particular trait, there is no obvious reason for doubting that the means might be congenial and worthwhile. (It might be claimed that *effort* must necessarily involve some cost. But then just about anything counts as costly: making a cup of tea, getting out of bed in the morning, etc. If this is the kind of "costliness" that Levy has in mind, it is hardly a kind we should be troubled by.)

Evolutionary psychologists are not committed to the view that evolved traits may be altered "only through great effort, and at great cost." Some evolved psychological traits may be easy to shift through environmental influence, some may be moved only with great and unpleasant effort, some may be altered through great but desirable effort, and some may refuse to budge come hell or high water. All must be decided empirically on a case by case basis. Might a successful evolutionary psychology have political implications? Sure it could. Should we expect that it will? The jury awaits the empirical data.