



Empiricism and normative ethics: What do the biology and the psychology of morality have to do with ethics?

Owen Flanagan *, Aaron Ancell, Stephen Martin and Gordon Steenbergen

Department of Philosophy, Duke University, 201 West Duke Building,
Box 90743, Durham, NC 27708, USA

* Corresponding author's e-mail address: ojf@duke.edu

Accepted 15 September 2013; published online 27 November 2013

Abstract

What do the biology and psychology of morality have to do with normative ethics? Our answer is, a great deal. We argue that normative ethics is an ongoing, ever-evolving research program in what is best conceived as human ecology.

Keywords

empiricism, ethics, eudaimonia, flourishing, moral psychology, moral inference, Hume, naturalism.

“Moral science is not something with a separate province. It is physical, biological, and historical knowledge placed in a humane context where it will illuminate and guide the activities of men.” (Dewey, 1922: 204)

1. The question

What do the biology and the psychology of morality have to do with normative ethics? More generally, what does information from the *Geisteswissenschaften*, including the sciences that pertain to our evolutionary history, have to do with how we ought to be and to live, and to the nature of human flourishing? Our answer is a great deal. Ethics concerns the values, virtues, ends, norms, rules, and principles of human personal and social life, all of which are natural phenomena. It casts two lines of inquiry, one into what these features are, and another into what they ought to be. The first line of inquiry is descriptive-genealogical (Flanagan, 1991b, 1996a, 2006;

Flanagan et al., 2007a, b). It aims to identify, describe, explain, and predict the causes, conditions, constituents and effects of the ethical features of human personal and social life, and as such it depends on knowledge about human biology and psychology as well as history, sociology, and anthropology. The second line of inquiry is normative. It aims to say what the features of human personal and social life ought to be — which virtues, values, ends, and practices are good, right, correct, best. Many claim that descriptive-genealogical investigation is irrelevant to normative ethics, that nary the twain shall meet. We defend a modest empiricism: Normative ethics involves the sensible determination of the ends of ethical life and the means to achieve them, where the knowledge on which sensible determination depends is empirical knowledge, construed broadly to include practical local knowledge, accumulated cultural wisdom based on observation, and increasingly the wisdom of the human sciences.¹ Normative ethics is an ongoing, ever-evolving research program in what is best conceived as human ecology (Flanagan, 1996a, b, c, 2002), a project that is, in Dewey's words, 'ineradically empirical' (1922/1988, p. 295; see also Kitcher, 2011, 2014).

2. The view in a nutshell

Here is the positive view: First, regarding the ends of ethics, the inference to the best explanation is that the *summum bonum* picks out something that everyone sensibly wants — true happiness, flourishing, fulfillment, meaning,

¹ Some ethical knowledge is highly contextual and local knowledge, often a kind of know-how that is responsive to what needs to be done here and now in this particular situation among these people. Thus we distinguish between normative ethics as a reflective discipline and normative ethics as the set of practices, often unreflective, that govern moral life on the ground. The discipline is empirical in similar ways to structural engineering (Quine, 1979). Once some wisdom about natural regularities is in place and some experience with building structures starts to accumulate, the discipline of structural engineering emerges. Sensible ends are specified — there is food/work, etc. on the other side of the river — and then there are decisions about whether to build new roads and bridges based on predictions about the likely longevity of the resources on the other side, future demographics, traffic, load, cost-benefit analysis of materials, etc. Then we build. We learn from the experience, and so on. The ordinary on-the-ground ethical life of individuals and social groups is more akin to the dynamic lives of the roads and bridges, the water run-off changes and erosion caused by the construction, the wear and tear that the roads and bridges undergo, the effects the surfaces have on cars, and the effects the cars have on them, and so on. All natural, all empirical, all very complicated.

purpose, well-being — something in the vicinity of what Aristotle (1999) called *eudaimonia*.² Eudaimonia has subjective components, such as self-respect and self-esteem that are associated with feelings and first-person assessments of the quality of one's life; and objective components that normally involve being warranted in these feelings and judgments, with actually being a good friend, parent, teacher, merchant, fellow citizen. Why the end of having a good human life, eudaimonia, is sought by conscious gregarious social animals with fellow-feeling and reason is not rocket science and its general contours require no defense, although the details are dramatically underspecified until we are in a particular culture, living inside a particular human ecology. Once humans have satisfied the demands of fitness, and resources are above a certain threshold so that there is not or need not be a war of each against each, we turn to flourishing. Commonly, across all the earth, there is a hypertrophic extension of the end of eudaimonia conceived as the desire to live a good human life before we pass away. The *summum bonum* is then expressed as the desire not just for flourishing while alive or the well-being of those who come after us, but for eternal or everlasting flourishing or happiness for oneself — moksha, nirvana, heaven, survival. This too is understandable even if based on a false hope (Flanagan, 2002; Obeyesekere, 2002). In both cases, where eudaimonia is concerned with excellence in this life, or in the cases where there is judgment by God or the impersonal laws of karma, it is decency, reliability, and goodness in this life that matters. Common virtues — compassion, honesty, temperance, courage (Flanagan, 2002; Peterson & Seligman, 2004; Wong, 2006) are best understood as reliable means for achieving the end of living well, of being a good person, or possibly as components or constituents of a good human life. The ubiquity of certain virtues is explained as the outcome of a common human nature

² Though it is widely thought inside the discipline of ethics that the moral good is the highest good, that the moral life is therefore the best life, and that moral goods always override other goods, many religious thinkers, Kierkegaard most famously, claim that religious goods can override the ethical. In the biblical story of Abraham and Isaac, God demands the 'teleological suspension of the ethical' (1937 [2006]). Contemporary philosophers like Williams (1972), McIntyre (1981 [2007]), and Wolf (1982) have also challenged the overridingness thesis on grounds that there are personal, epistemic, and aesthetic goods that compete with moral goods and which may, all things considered, tip the scales in favor of overriding one's duty. Most people think that at least sometimes the value of new projects or relationships warrant leaving a relationship one has vowed to remain in 'til death do us part'.

faced with common ecological problems across habitats, the most important of which involve various kinds of social dependency.³

The idea that normative ethics is an entirely autonomous line of inquiry, forever cut off from empirical scrutiny, grounded instead in some special metaphysics is itself explained by genealogy. The ‘project of the enlightenment’ (MacIntyre, 1981 [2007]) in the 18th century took upon itself the task of providing secular foundations and rationales for what was once theological ethics. The idea was to provide non-religious reasons for what were otherwise good values, virtues, norms and the like advanced by religion, for example, the Golden Rule. Unfortunately, those engaged in this sensible task also adopted, almost unconsciously, the expectation that ethics could be given what they used to call ‘apodictic’ grounds, foundations that would give ethics the security of the absolute necessity it (allegedly) had when it was conceived as God’s law. And the special foundation sought — a metaphysic of morals — is itself a leftover of the special status given to the set of concerns in terms of which the God(s) of Abraham were supposed to judge the quality of lives. But ethics cannot have such foundations. It can have sensible or reasonable foundations, not necessary ones. We will explain.

3. The ethical domain

The concepts of normative ethics are evaluative and evaluable. Among them are explicit values like freedom, equality, faith, honesty, loyalty, family and friendship, as well as virtues associated with various values. Liberalism values individual freedom, so it prizes and cultivates traits that promote it like independence, responsibility, equality, and respect for law. Classical and contemporary Confucianism by contrast values social order and harmony, and so emphasizes other virtues like elder respect, ritual propriety, graded partiality, and loyalty. Besides explicit values and the virtues associated with them,

³ There is a line of thinking in Philippa Foot (2001) that has both a Christian natural law (Geach, 1956; Anscombe, 1969) and secular form (Thompson, 1995; Foot, 2001) that can be read this way: there are certain natural goods we seek and these are necessary for well-being, and there are some means, for example, the virtues that are necessary for those ends. A modest empiricism recommends weakening the necessity to talk of normal and defensible ends and normal and reliable means, including virtues, for achieving them. And this way of speaking removes most of the distance between Foot’s strong cognitivism and Gibbard’s (1992) and Blackburn’s (1998) expressivism while maintaining the empiricism of both.

there are ultimate ends like happiness, fulfillment, flourishing, heaven and nirvana, each of which defines for a given value system why some values and virtues are to be preferred over others, as well as rules of conduct like the Ten Commandments or the Buddhist Noble Eightfold Path, which typically identify the means to those ends or possibly provide means as well as the recipe for what it is, morality-wise, to live a good human life. Finally, there are principles, like Kant's Categorical Imperative or J.S. Mill's principle of utility, which govern, or are intended to govern morality, and possibly to serve as algorithms to resolve tough choices.

Ethical terms like 'good' and 'bad' emerged originally in ordinary practice among distant ancestors, possibly unreflective ones who were merely conveying likes and dislikes, expressing and endorsing what we, or possibly only I, value. Reflection on the meaning, foundations, and uses of these terms is a recent invention, the product of ethical inquiry and theorizing, which are uniquely human endeavors. However, it would be a mistake to conclude that the ethical domain, conceived as the set of practices we designate as 'moral', is therefore limited to humans. Ethics has no sharp boundaries, except possibly from a point of view internal to an ethical system, which sharply distinguishes it from such nearby, also conventionally defined domains as etiquette and prudence. Dogs learn etiquette — no peeing indoors — as well as prudence — do not cross the street. Are no biting, no chewing, no humping rules matters of dog etiquette, dog prudence or dog proto-morality? Species continuities and adaptive problems across shared environments ensure the appearance of proto-ethical concepts and constructs within the broader field of ethology.

Consider for instance the values of cooperation, fairness and empathy, found to some degree, under specific circumstances, among non-human animals. The degree to which chimpanzees cooperate to coordinate attacks on rival groups is well-documented (de Waal, 1982), but in fact chimpanzees cooperate in other ways as well. Proctor et al. (2013a, b) demonstrate that, like humans, chimpanzees make generally equitable proposals to their partners in a standard economic game, contrary to the predictions of classical utility-based economic models.⁴ This suggests that both species value fairness despite immediate economic costs. Chimpanzees also appear to exhibit

⁴ Proctor et al.'s interpretation is not uncontroversial. See Jensen et al. (2006, 2007).

empathy, consoling group members who lose a fight through physical contact (de Waal & Aureli, 1996; De Waal, 2012).⁵

Non-human primates like capuchin monkeys (Brosnan & de Waal, 2003), chimpanzees, and bonobos are not the only species to exhibit proto-ethical behavior. Bates et al. (2008) conclude from thirty-five years of research on elephants that the attribution of empathy best explains several remarkable phenomena: (1) protection of the weak and sick, (2) comforting distressed individuals, (3) ‘babysitting’, in which a female elephant will temporarily oversee other young, often orphaned individuals, (4) ‘retrieval’, in which a female elephant will return a young individual to its mother if separated and (5) physically assisting individuals who are stuck or in trouble.

4. Weak and strong theses

Psychology and biology are very much engaged in what was once thought almost exclusively the philosophers’ and theologians’ domain. Consider a brief catalog of descriptive-genealogical theses. Weak non-imperialistic theories and hypotheses about how science matters to ethics include these: Moral judgments and norms align with variable cultural practices in their surface structure, but at deep levels they pertain to the same domains of life (Shweder et al., 1997, 2002); Moral judgment, like other kinds of judgment, uses a dual process system, sometimes processing quickly and intuitively using reptilian parts of the brain, other times slowly and deliberately using neo-mammalian parts (Greene, 2007); In virtue of having a common ancestor, the socio-moral aspects of bonobo and chimpanzee life tell us useful things about our pro- and anti-social natures (de Waal, 1982, 1996, 2006, 2008, 2012, 2013); Children cannot lie until they are approximately three years old because they do not have the necessary theory of mind (Gopnik, 2009); Children show pro-social helping behavior in the absence of any external rewards at very young ages (Rheingold, 1982; Warneken & Tomasello, 2006; Dunfield et al., 2011).

Then there are strong theses, some of which contradict each other: Ethics should be taken from the hands of the philosophers and biologized (Wilson, 1975); The moral adequacy of the highest stage of reasoning about

⁵ Bonobos also exhibit empathy, or proto-empathy, through touching and embracing. See Clay and de Waal (2013).

justice can be inferred from stages of cognitive development (Kant and Rawls win over Mill, Hobbes, Aristotle and the hedonist, in descending order) (Kohlberg, 1973); The neuroscience of decision-making counts against the rule- or principle-based moral theories of Mill and Kant (Churchland, 2011) and in favor of Aristotle's virtue theory (Casebeer, 2003); Science reveals both that humans are generally wired to be 'nice' and that life is meaningless (Rosenberg, 2012); Social psychology reveals that there are no such things as virtue or character traits (Harman, 1999; Doris, 2002); The connectionist computational architecture of the mind favors moral progress over time (Churchland, 1989, 1996a, b, c); There are in human nature several distinct moral foundations or modules (justice, care, disgust, etc.) that are differently tuned up-down/wide-narrow in different cultures and there is no rational way to judge different ways of tuning the modules/foundations (Haidt, 2012); Morality is built upon or out of the neural systems designed to care for kin and this counts against impartial moral theories, such as Peter Singer's (Churchland, 2011).

We could go on. Empirical theorizing about ethics is ubiquitous and increasingly no longer the private turf of ethicists, either philosophical or theological. But there is, the traditional philosopher, the rearguard, will say, this rub. The strong hypotheses above cross the line, they transgress, they make normative inferences from facts; they go from 'is' to 'ought'. And this violates logic, the intellectual division of labor, her majesty the Queen's edicts, and God only knows what else. But this is silly, a red herring. No rational person, scientist or philosopher, tries to derive ought's from is's.

5. From 'is' to 'ought'

Consider four enthymematic arguments. (1) Elephants show fellow-feeling, therefore they should continue to do so. (2) Mammalian care-taking of babies is an adaptation. Human and other mammals should continue caring for their newborns. (3) God disapproves of murder, therefore thou shalt not kill. (4) Humans do not like to be killed, therefore you should not kill them. Not one of the normative conclusions in 1–4 follows deductively. So what? This does not show that the conclusions are false, or even that they are indefensible. It does not even show that they are bad arguments.

But still some will assert that the facts cited have nothing to do with the conclusion and, thus, that the biology and psychology of morality, or any

thoroughly descriptive-genealogical account of moral behavior, has nothing to do with what moral behaviors one ought to endorse. And they will do so on the basis of the Humean point that there is a logical difference between facts and values. So, consider Hume. At the end of the first book of his *Treatise on Human Nature* (1739 [2007]), Hume warns against what he finds to be the common practice of deducing ought-conclusions from is-premises. But what does this warning come to exactly? Some have interpreted Hume as having severed any possible connection between facts and values, or at least as having shown that empirical facts are irrelevant to normative ethical inquiry. But in fact, Hume is best read as making a very limited claim, mainly that moral claims are not, strictly speaking, logically deducible, where deduction means derivable or demonstrable using only the laws of deductive logic, from claims about how the world is (Flanagan, 1996a, 2002, 2006; Flanagan et al., 2007a). This does not suggest let alone imply that empirical facts are irrelevant to moral inquiry, only that empirical facts are by themselves insufficient to derive normative conclusions. This is made clear by the fact that Hume himself continues on in the *Treatise* to develop a sophisticated moral theory grounded in empirical observations of human sentiments.

So what does the prohibition on deducing values from facts come to? First, note that in each example above (1–4), we can easily make the argument deductively valid and thus demonstrative by adding a premise to the effect that: It is good for elephants to love their fellow elephants and they should do what is good; or, that it is right to do what God ordains or to refrain from doing what people hate, and so on. The alleged problem then simply devolves into the problem of defending that premise, which itself expresses a normative or value judgment. But why should that worry us? The values expressed are sensible and defensible (Gibbard, 1992; Blackburn, 1998). Elephants, humans, etc. are creatures who have wants, desires, goals and ends. Ethics is one of the spheres of life where gregarious social animals negotiate such things as mutual satisfaction of their aims and interests. And some ends — sharing with family and compatriots, peace, harmony, civility — are just not worth questioning once we are inside ‘the ethical project’ (Kitcher, 2011).

Furthermore, Hume’s warning is one about deducing ought-claims from is-claims, but deduction is not the only sensible kind of reasoning. If non-deductive reasoning were irrational, nearly every body of inferential practices, ordinary common sense ones as well as all the empirical sciences, would be irrational. Hume rules out deduction, but this still leaves us with the

full range of ampliative inferences we regularly use across a wide range of respectable epistemic endeavors. These are the same sorts of inferences we use anywhere there is a need to project beyond available information: in physical geodesy, where the earth's shape and density distributions must be inferred from variations in surface gravity; in medical imaging, where internal structures must be inferred from the scattering of particles, and in the brain's visual system, where information about the environmental sources of equivocal retinal projections must be inferred from those projections themselves. Ethics is no different. We use information about sensible desires, ends, interests, about the circumstances at hand, together with information from past outcomes (both successes and failures), from our own experience and from the wisdom codified in the ethical traditions in which we are situated, and we do the best we can under those circumstances (see Churchland, 1996a, b, 1998; Flanagan, 1996c).

6. The foundations of moral inference

If moral inquiry cannot be, and therefore should not be, the attempt to deduce normative conclusions from factual premises, how, then, should one figure out what to do and how to live? Patricia Churchland (2009) argues that decisions about what to do are and ought to be made using what she calls 'inferences to the best decision'. Inferences to the best decision, like inferences to the best explanation in the sciences, hold a decision or an action to be justified by virtue of its relative superiority to other alternatives and live options (see also Thagard & Verbeurgt, 1998). What to do, how to be, and how to live is determined by comparison to other options and in response to the situation at hand.

The particular complications of moral decision-making suggest human beings are likely to make specific sorts of errors in judgment and action, even by their own lights.⁶ The complications are consequences of the sheer

⁶ Consider an example of how we actually make practical decisions, in this case about how to distribute scarce resources. In an fMRI study by Hsu et al. (2008), subjects were scanned as they made decisions about how to distribute a fixed number of meals among children in a northern Ugandan orphanage. Participants were forced to choose between a less efficient but equitable distribution (fewer total meals to more children), and an efficient but inequitable distribution (greater number of meals to fewer children; Hsu et al., 2008). It turns out that what explains individual decisions to distribute resources in a particular way is, at least in

complexity of calculating what is best to do for oneself and others. Because of this complexity, the brain is liable to either (a) make computational errors when trying to run calculations fully, for example in the attempt to take into account all of the pros and cons of getting married or waging war, or (b) apply shortcuts and rules of thumb to reduce computational complexity, but at the risk of missing some relevant information and making mistakes. For example, stereotyping is an efficient method for deciding how to interact with a member of an outgroup, but it does so at the cost of violating moral rules or principles that one might otherwise endorse. These mistakes can only be remedied if we realize that we make them, understand why we do so, and figure out how to correct ourselves for the better.

Churchland advocates inferences to the best decision to solve problems an individual encounters in the course of moral reasoning, specifically for its sensitivity as a method to biological, psychological, and ecological constraints on choices. The virtues of inferences to the best decision scale up to the theoretical level, where the question is how to conduct normative ethical inquiry, and it is in many respects familiar as a methodological principle within ethics. It is characteristic of what Rawls (1951, 1971) called ‘reflective equilibrium’ in ethics and political philosophy, a kind of consistency reasoning where one tries to bring one’s current judgment about a situation into coherence with one’s judgments about similar cases.⁷ Some think reflective equilibrium is distinctive in ethics and reveals that ethics does not relate or describe factual truths. It is true that ethics does not relate or describe factual truths. It normally expresses values, recommends and endorses actions, practices, and virtues, and judges actions to be good, bad, right, wrong. But the method of seeking reflective equilibrium is not distinctive of ethics. Self-prediction as well as prediction of the behavior of others turns on assumptions that like cases will be treated (perceived, understood and valued)

part, the extent to which they have an aversive affective response to perceptions of inequity. Based on this finding, we can ask questions about how the mechanisms responsible for how we actually make such decisions figure in how we ought to make them. When are perceptions of inequity relevant to how goods ought to be distributed? Is aversion to inequity a reliable mechanism for achieving our ethical interests and concerns regarding distribution? When does it fail?

⁷ Wilfrid Sellars makes a similar methodological point about the sciences in that what is characteristic of scientific rationality is the capacity for self-correction by dint of thorough-going revisability, the ability “to put *any* claim in jeopardy, though not *all* at once” (Sellars, 1997, p. 79).

in similar ways (Goodman, 1955 [1983]). If I call things that walk and talk like a duck, a duck, then that new thing that walks and talks like a duck is a duck. If this was the way to the water hole yesterday, then I judge it to be the way today. If I invite you to dinner because you are a polite, affable, and interesting guest, then I expect those traits this time. Likewise, if you and I believe that all humans deserve equal treatment but find ourselves stumped or resistant to treating a person of some unfamiliar ethnicity *e* as an equal, then we will have an ethical cramp, which will be resolved either by thinking of some reason why persons of type-*e* are not persons, or why they are persons, but for some other non-arbitrary reason, do not deserve equal treatment, or by judging them to be persons and abiding our principles and extending equal treatment despite our feelings (which we can now work to dissipate).

7. Impartial ethics

What can be said by appeal to broadly empirical, sensible decision procedures like abductive reasoning and methodologies like reflective equilibrium, about how normative ethics ought to be conducted, and which ends and goods humans ought to pursue?

Empirical findings about and reflection on our biological or first nature can tell us about the biological roots of the goods we tend to seek and possibly about reliable means to achieve these goods in their original evolutionary ecologies (many of which antedate hominid evolution). But it would be a mistake to think that investigation into first nature can tell us by itself what the rationally defensible goods and practices ought to be for highly cultured beings living in worlds radically different from the worlds of our ancestors. Consider Patricia Smith Churchland's (2011) critique of impartial ethical theories, for example, Peter Singer's consequentialism (Singer, 1972). On Churchland's view, human ethical behavior is rooted proximately in the neurobiological mechanisms for care of offspring, which manifests itself as other-regarding concern for members of one's immediate family and clan, which is then extended more widely. But there are limits to how far one can extend this other-regarding concern. Since the neurobiological mechanisms of caring were 'designed' to be partial, complete impartiality seems beyond our reach. So, the demands of Singer's impartial consequentialism fall to considerations of evolutionary and psychobiological realism.

But an inclination's basis in our first nature does not alone explain why it cannot, if it cannot, be overridden upon reflection. There are many things

that first nature inclines us to do that we think we ought not, as thoughtful, reflective, cultured beings, do. Many — from Jesus to Buddha to John Stuart Mill — have suggested that human flourishing is best served when we consider the interests of everyone as having an equal claim, despite our biological tendency to direct other-regarding concern narrowly or inequitably.⁸ Whether it is, as a matter of fact, psychologically unrealistic to suppose that human flourishing is best served when we give impartial consideration to everyone's interests is, indeed, an empirical question. However, it is just not a question answered by facts about first nature alone.

8. The metaphysics of morals is a bad idea

The assumption of a developmental component to human nature, identified by Aristotle (1999) and called our second nature by Burnyeat (1980), is particularly crucial to moral psychology because the degree to which humans are receptive to cultural norms determines the possibilities or constraint space for moral education, including moral self-cultivation, which is the presumed final, application stage of any putative ethical theory. Focusing too much on our first nature obscures the importance of culture to what it is that makes for a good and fulfilling life, and it neglects the role of the social sciences in contributing to normative ethics.

As an example of how conditions and components of well-being and goodness depend not only on our first nature, but on the culture into which we are born, consider the value placed on sacredness in the Middle East. Ginges et al. (2007) conducted experiments with Palestinian and Israeli participants to investigate the role of sacredness in the ongoing conflict in Israel. They found that violent opposition to compromise actually increased when a pro-

⁸ A lot depends here on whether the principle is interpreted as recommending a heuristic where there is equal *consideration* of interests before action or whether the principle recommends or demands actually acting upon the equal interests of all. Jainism and Buddhism are traditions that recommend something like impartial consideration of the good of all sentient beings without anything like the incredible demand that these interests actually be taken into account practically. This of course invites the response that talk and thought are cheap. P.S. Churchland is focused on action, action-guiding-ness; but wide, even impartial 'consideration' might have good practical effects in certain contexts, in future worlds, and among future persons even if it does not right now, in this situation.

posed peace plan involved material compensation for giving up something considered sacred. However, opposition to compromise decreased when a proposed peace plan involved both sides giving up something sacred. This illustrates how empirical facts can help us determine the best means of reaching our normative ends. In this case, it provides facts that help us determine how to resolve a longstanding violent political conflict. The results of Ginges et al. (2007) also suggest that promoting well-being requires careful attention not just to what material resources people have, but also to the things people value that material resources cannot buy or compensate them for. If people value some things as sacred, then protecting those things may do more to promote those people's well-being than would simply giving them more material resources.

As the skeptic will notice, this does not show that the empirical sciences contribute to the concerns and interests humans ought to have. At best it shows that the empirical sciences are instrumentally relevant to normative ethics, on grounds that normative ethics is concerned with the means to flourish within biological and ecological constraints, and biological and ecological constraints are matters of empirical fact. But if the empirical sciences can contribute knowledge of the causes and conditions of human interests and concerns, and if the interests and concerns of the good life are the ends that human beings ought to have, then the empirical sciences can contribute to the determination of human interests and concerns, in addition to the means we ought to take to achieve them.

The skeptic will continue to ask how one is to justify ethical attention to well-being or flourishing or even just being good. But seeking justification for attention to these things, while not conceptually incoherent, or vulnerable to a knockdown argument, is nonetheless practically misguided (Kitcher, 2011). It is just as misguided as questioning astronomy's attention to the skies. The basic assumption that astronomy should describe, predict, and explain the movements of celestial bodies has not been abandoned despite the gradual broadening of its evidential basis to include information previously thought to be irrelevant to it, like terrestrial physics. Similarly, the basic assumption, one confirmed by empirical investigation, that humans seek meaning, fulfillment, and flourishing beyond their own biological needs, is sufficient to justify attention to the ends, causes and conditions of well-being.

9. Jonathan Haidt's objection to ethical rationality

To deny that empirical inquiry can contribute to ethics in the way we have described has the disastrous consequence of encouraging the belief that those who offer descriptive-genealogical accounts are limited to investigating and evaluating the means to achieving antecedently established ethical ends. Consider recent work by Jonathan Haidt as an example. Haidt (2012) proposes that there are six 'foundations of intuitive ethics'. These foundations are innate psychological mechanisms (Haidt & Joseph, 2004, 2007) which generate moral intuitions in the domains of: (1) care/harm; (2) fairness/cheating; (3) liberty/oppression; (4) loyalty/betrayal; (5) authority/subversion; and (6) sanctity/degradation.⁹ The relative sensitivity of these foundations varies between individuals, which is supposed to explain much of the observed diversity in moral opinions. Examples abound. Some people have a very sensitive loyalty/betrayal foundation which makes them more likely to condemn actions like flag burning than people in whom that foundation is less sensitive (Koleva et al., 2012).

This sort of variability prompts us to ask whether some ways of weighting the foundations are better than others. While Haidt does call for tolerance of those whose configuration of foundations differs from our own, and in that regard makes some normative claims (e.g., that harmony is better than conflict and disharmony), he resists arguing that any particular developmental trajectory or configuration of moral foundations is morally better than any other (Haidt, 2012). Sometimes, he outright denies that there are any reasons one can give that favor one moral configuration over another. Indeed, Haidt claims that most philosophers are confused about this. Moral debates are resolved, if they are, in the way philosophers like Thrasymachus, and at times, Nietzsche and Foucault, have suggested: by power, either raw political power as when might makes right, or by the power of seemingly benign socializa-

⁹ Like other phenotypes, Haidt's moral foundations are taken to be distributed normally across human populations. They are also informationally encapsulated to a point, meaning that a given individual may be highly sensitive to violations triggering one foundation, while remaining insensitive to those triggering another. For example, Haidt (2012) and Graham et al. (2009) suggest that for American liberals, the care/harm and fairness/cheating foundations are far more sensitive than the other four foundations, whereas for American conservatives, all six foundations are weighted more or less equally.

tion.¹⁰ You can fight for your view or brainwash people into believing it, but you cannot say anything rational on its behalf.

Is this view credible? Consider the role of disgust in moral judgment (Haidt et al., 1993; Wheatley & Haidt, 2005). Haidt's claim is that there is nothing rational to say about various extensions of the initial disgust foundation. But there is. Disgust to contaminants makes sense because these things really are dangerous. Evolutionarily, the disgust response system is designed to generate an adverse reaction, repulsion, to certain potentially dangerous contaminants, e.g., excrement, germs, pollutants and poisons. But it is extended in some communities to ground judgments that, for example, homosexuality is wrong because it is disgusting or that members of certain races are slime. But there is a difference: homosexuals and members of different races may disgust you and your people but they are not in fact dangerous.

The point here is a familiar one: Even if disgust is an adaptation in the original evolutionary environment, it does not follow either that it is an adaptation in all current environments or that its extensions are adaptive, in the non-biological senses of being well-suited to contemporary life or sensible or rational as an extended phenotype. The exploitation of any evolved psychobiological trait outside of the environment in which it was selected to operate must be critically assessed. This is what ethics is for.^{11,12}

To provide a positive example of how such assessment works, consider the extension of the compassion/care foundation and the justice/harm foundation beyond kith and kin and our local communities. Unlike the extensions of disgust to people and practices that are not in fact contaminating, these extensions do make sense because over world-historical time we have come to

¹⁰ Haidt calls this process 'Glaucanian' from the character Glaucon in Plato's *Republic*. He should call it 'Thrasymachean' since Thrasymachus, the sophist, defends the view that justice (maybe all of morality) is whatever those in power say it is. Glaucon, Plato's brother, explores the idea without endorsing it.

¹¹ Several philosophers have made persuasive arguments against using disgust as a basis for moral judgment (see, for example, Knapp, 2003; Nussbaum, 2004; Kelly, 2011). Others have tried to defend a legitimate normative role for disgust (Plakias, 2013).

¹² When Quine suggested that epistemology be naturalized (1969) there was an outcry that this spelled doom for normative epistemology. But this was an over-reaction. We continue to judge the practices of logic, statistics, and probability theory in terms of whether they lead to warranted belief, good predictions, and so on (Flanagan, 2006).

understand that our fate is a shared one, and also that some of the very same reasons that make us care so deeply for loved ones are true of others — they have interests, they suffer, and so on. We care sensibly about consistency, and so for good and defensible reasons we extend or tune up the original cognitive, affective, conative settings to extend more widely.

10. Conclusion: A modest empiricism

There is another unfortunate consequence of denying the contribution of the sciences, of human ecology broadly conceived, to normative ethics. It suggests that special, esoteric expertise is necessary for saying anything serious or meaningful about what ought to be done or how to be and to live, and thus that moral inquiry calls for and somehow involves resources that are not empirical. At a practical level the skeptic does more harm than good by leaving ethics to those much more likely to be under delusions about the sources of ethical normativity.

We should not conclude from the relevance of the biology, psychology and the other human sciences to normative ethics that the study of morality is for the sciences alone. Ethics, by its very nature, is within public domain. Much of the negotiation of how to be good and to live well involves local knowledge, fine-grained attention to the particularities of the self, one's loved ones, and one's community. The study of well-being and the good life (Flanagan, 2007) ought to welcome contributions from any field of inquiry that endorses the idea that ethics is an empirical inquiry into sensible and humane ends for living well and sensible and sensitive means to achieve them.

References

- Anscombe, G.E.M. (1969/1981). On promising and its justice. — *Collected Philosophical Papers*. University of Minnesota Press, Minneapolis, MN, p. 10-21.
- Aristotle (1999). *Nicomachean ethics* (Irwin, T., ed.). — Hackett, Indianapolis, IN.
- Bates, L.A., Lee, P.C., Njiraini, N., Poole, J.H., Sayialel, K., Sayialel, S., Moss, C.J. & Byrne, R.W. (2008). Do elephants show empathy? — *J. Conscious. Stud.* 15: 204-225.
- Blackburn, S. (1998). *Ruling passions*. — Clarendon Press, Oxford.
- Brosnan, S. & de Waal, F. (2003). Monkey's reject unequal pay. — *Nature* 425: 297-299.
- Burnyeat, M.F. (1980). Aristotle on learning to be good. — In: *Essays on Aristotle's ethics* (Rorty, A., ed.). University of California Press, Berkeley, CA, p. 69-92.
- Churchland, P.M. (1989). *A neurocomputational perspective: the nature of mind and the structure of science*. — MIT Press, Cambridge, MA, p. 192-215.

- Churchland, P.M. (1996a). Flanagan on moral knowledge. — In: *The Churchlands and their critics* (McCauley, M., ed.). Blackwell, Cambridge.
- Churchland, P.M. (1996b). The neural representation of the social world. — In: *Mind and morals* (May, L., Freidman, M. & Clark, A., eds). MIT Press, Cambridge, p. 91-108.
- Churchland, P.M. (1998). Toward a cognitive neurobiology of the moral virtues: moral reasoning. — *Topoi* 17: 83-96.
- Churchland, P.S. (2009). Inference to the best decision. — In: *The Oxford handbook of philosophy and neuroscience* (Bickle, J., ed.). Oxford University Press, Oxford, p. 419-430.
- Churchland, P.S. (2011). *Braintrust: what neuroscience tells us about morality*. — Princeton University Press, Princeton, NJ.
- Clay, Z. & de Waal, F.B.M. (2013). Bonobos respond to distress in others: consolation across the age spectrum. — *PLoS One* 8: e55206.
- de Waal, F. (1996). *Good natured: the origins of right and wrong in humans and other animals*. — Harvard University Press, Cambridge, MA.
- de Waal, F. (2006). *Primates and philosophers: how morality evolved*. — Princeton University Press, Princeton, NJ.
- de Waal, F. (2008). Putting the altruism back into altruism: the evolution of empathy. — *Annu. Rev. Psychol.* 59: 279-300.
- de Waal, F. (2012). The antiquity of empathy. — *Science* 336: 874-876.
- de Waal, F. (2013). *The bonobo and the atheist: in search of humanism among primates*. — W.W. Norton, New York, NY.
- de Waal, F.B.M. (1982). *Chimpanzee politics*. — Jonathan Cape, London.
- de Waal, F.B.M. & Aureli, F. (1996). Consolation, reconciliation, and a possible cognitive difference between macaques and chimpanzees. — In: *Reaching into thought: the minds of the great apes* (Russon, A.E., Bard, K.A. & Taylor Parker, S., eds). Cambridge University Press, Cambridge, p. 80-110.
- Dewey, J. (1922). *Human nature and conduct: an introduction to social psychology*. — Henry Holt, New York, NY.
- Doris, J.M. (2002). *Lack of character: personality and moral behavior*. — Cambridge University Press, Cambridge.
- Dunfield, K., Kuhlmeier, V.A., O'Connell, L. & Kelley, E. (2011). Examining the diversity of prosocial behavior: helping, sharing, and comforting in infancy. — *Infancy* 16: 227-247.
- Flanagan, O. (1991b). *Varieties of moral personality: ethics and psychological realism*. — Harvard University Press, Cambridge.
- Flanagan, O. (1996a). Ethics naturalized: ethics as human ecology. — In: *Mind and morals: essays on cognitive science and ethics* (May, L., Friedman, M. & Clark, A., eds). MIT Press, Cambridge, MA, p. 19-44.
- Flanagan, O. (1996b). *Self expressions: mind, morals and the meaning of life*. — Oxford University Press, Oxford.
- Flanagan, O. (1996c). The moral network. — In: *The Churchlands and their critics* (McCauley, R., ed.). Wiley-Blackwell, Hoboken, NJ, p. 192-216.

- Flanagan, O. (2002). *The problem of the soul: two visions of mind and how to reconcile them*. — Basic Books, New York, NY.
- Flanagan, O. (2006). Varieties of naturalism: the many meanings of naturalism. — In: *The Oxford handbook of religion and science* (Clayton, P. & Simpson, Z., eds). Oxford University Press, Oxford, p. 430-452.
- Flanagan, O. (2007). *The really hard problem: meaning in a material world*. — MIT Press, Cambridge, MA.
- Flanagan, O., Sarkissian, H. & Wong, D. (2007a). Naturalizing ethics. — In: *Moral psychology, Vol. 1: the evolution of morality: adaptations and innateness* (Sinnott-Armstrong, W., ed.). MIT Press, Cambridge, MA, p. 1-25.
- Flanagan, O., Sarkissian, H. & Wong, D. (2007b). What is the nature of morality: a response to Casebeer, Railton and Ruse. — In: *Moral psychology, Vol. 1: the evolution of morality: adaptations and innateness* (Sinnott-Armstrong, W., ed.). MIT Press, Cambridge, MA, p. 45-52.
- Foot, P. (2001). *Natural goodness*. — Clarendon Press, Oxford.
- Geach, P. (1956). Good and evil. — *Analysis* 17: 35-42.
- Gibbard, A. (1992). *Wise choices, apt feelings: a theory of normative judgment*. — Harvard University Press, Cambridge, MA.
- Ginges, J., Atran, S., Medin, D. & Shikaki, K. (2007). Sacred bounds on rational resolution of violent political conflict. — *Proc. Natl. Acad. Sci. USA* 104: 7357-7360.
- Goodman, N. (1955/1983). *Fact, fiction, and forecast*. — Harvard University Press, Cambridge, MA.
- Gopnik, A. (2009). *The philosophical baby*. — Houghton Mifflin, New York, NY.
- Graham, J., Haidt, J. & Nosek, B. (2009). Liberals and conservatives rely on different sets of moral foundations. — *J. Personal. Soc. Psychol.* 96: 1029-1046.
- Greene, J.D. (2007). The secret joke of Kant's soul. — In: *Moral psychology, Vol. 3: the neuroscience of morality: emotion, disease, and development* (Sinnott-Armstrong, W., ed.). MIT Press, Cambridge, MA, p. 35-80.
- Haidt, J. (2012). *The righteous mind: why good people are divided by politics and religion*. — Pantheon, New York, NY.
- Haidt, J. & Joseph, C. (2004). Intuitive ethics: how innately prepared intuitions generate culturally variable virtues. — *Daedalus* 133: 55-66.
- Haidt, J. & Joseph, C. (2007). The moral mind: how 5 sets of innate moral intuitions guide the development of many culture-specific virtues, and perhaps even modules. — In: *The innate mind, Vol. 3* (Carruthers, P., Laurence, S. & Stich, S., eds). Oxford University Press, Oxford, p. 367-391.
- Haidt, J., Koller, S.H. & Dias, M.G. (1993). Affect, culture, and morality, or is it wrong to eat your dog? — *J. Pers. Soc. Psychol.* 65: 613-628.
- Harman, G. (1999). Moral philosophy meets social psychology: virtue ethics and the fundamental attribution error. — *Proc. Aristotel. Soc.* 99: 315-331.
- Hsu, M., Anen, C. & Quartz, S.R. (2008). The right and the good: distributive justice and neural encoding of equity and efficiency. — *Science* 320: 1092-1095.

- Hume, D., Norton, D.F. & Norton, M.J. (1739/2007). *A treatise of human nature*. — Oxford University Press, Oxford.
- Jensen, K., Call, J. & Tomasello, M. (2007). Chimpanzees are rational maximizers in an ultimatum game. — *Science* 318: 107–109.
- Jensen, K., Hare, B., Call, J. & Tomasello, M. (2006). What's in it for me? Self-regard precludes altruism and spite in chimpanzees. — *Proc. Roy. Soc. Lond. B: Biol. Sci.* 273: 1013–1021.
- Kelly, D. (2011). *Yuck!: the nature and moral significance of disgust*. — MIT Press, Cambridge, MA.
- Kierkegaard, S., Evans, C.S. & Walsh, S. (1937 [2006]). *Fear and trembling*. — Cambridge University Press, Cambridge.
- Kitcher, P. (2011). *The ethical project*. — Harvard University Press, Cambridge, MA.
- Kitcher, P. (2014). Is a naturalized ethics possible? — *Behaviour* 151: 245–260.
- Knapp, C. (2003). De-moralizing disgustingness. — *Philos. Phenomenol. Res.* 66: 253–278.
- Kohlberg, L. (1973). The claim to moral adequacy of a highest stage of moral judgment. — *J. Philos.* 70: 630–646.
- Koleva, S.P., Graham, J., Iyer, R., Ditto, P.H. & Haidt, J. (2012). Tracing the threads: how five moral concerns (especially Purity) help explain culture war attitudes. — *J. Res. Personal.* 46: 184–194.
- MacIntyre, A. (1981 [2007]). *After virtue*, 3rd edn. — University of Notre Dame Press, Notre Dame, IN.
- Nussbaum, M. (2004). *Hiding from humanity: disgust, shame and the law*. — Princeton University Press, Princeton, NJ.
- Obeyesekere, G. (2002). *Imagining karma: ethical transformation in Amerindian, Buddhist, and Greek Rebirth*. — University of California Press, Berkeley, CA.
- Peterson, C. & Seligman, M. (2004). *Character strengths and virtues: a handbook and classification*. — Oxford University Press, Oxford.
- Plakias, A. (2013). The good and the gross. — *Ethic. Theor. Moral Pract.* 16: 261–278.
- Proctor, D., Williamson, R.A., de Waal, F.B. & Brosnan, S.F. (2013a). Chimpanzees play the ultimatum game. — *Proc. Natl. Acad. Sci. USA* 110: 2070–2075.
- Proctor, D., Williamson, R.A., de Waal, F.B. & Brosnan, S.F. (2013b). Reply to Jensen et al.: equitable offers are not rationally maximizing. — *Proc. Natl. Acad. Sci. USA* 110: E1838.
- Quine, W.V. (1969). Epistemology naturalized. — In: *Ontological relativity and other essays*. Columbia University Press, New York, NY.
- Quine, W.V. (1979). On the nature of moral values. — *Critic. Inq.* 5: 471–480.
- Rawls, J. (1951). Outline for a decision procedure for ethics. — *Philos. Rev.* 60: 177–197.
- Rawls, J. (1971). *A theory of justice*. — Harvard University Press, Cambridge MA.
- Rheingold, H. (1982). Little children's participation in the work of adults, a nascent prosocial behavior. — *Child Dev.* 53: 114–125.
- Sellars, W., Rorty, R. & Brandom, R. (1997). *Empiricism and the philosophy of mind*. — Harvard University Press, Cambridge, MA.

- Shweder, R.A. (2002). The nature of morality: the category of bad acts. — *Med. Ethics* 9: 6-7.
- Shweder, R.A., Much, N.C., Mahapatra, M. & Park, L. (1997). The “big three” of morality (autonomy, community, and divinity), and the “big three” explanations of suffering. — In: *Morality and health* (Brandt, A. & Rozin, P., eds). Routledge, New York, NY, p. 119-169.
- Singer, P. (1972). Famine, affluence, and morality. — *Philos. Publ. Affairs* 1: 229-243.
- Thagard, P. & Verbeurgt, K. (1998). Coherence as constraint satisfaction. — *Cogn. Sci.* 22: 1-24.
- Thompson, M. (1995). The representation of life. — In: *Virtues and reasons: Philippa Foot and moral theory* (Hursthouse, R., Lawrence, L. & Quinn, W., eds). Oxford University Press, New York, NY, p. 247-296.
- Warneken, F. & Tomasello, M. (2006). Altruistic helping in human infants and young chimpanzees. — *Science* 311: 1301-1303.
- Wheatley, T. & Haidt, J. (2005). Hypnotic disgust makes moral judgments more severe. — *Psychol. Sci.* 16: 780-784.
- Williams, B. (1972). *Morality: an introduction to ethics*. — Cambridge University Press, New York, NY.
- Wilson, E. (1975 [1980]). *Sociobiology: the new synthesis*. — Harvard University Press, Cambridge, MA.
- Wolf, S. (1982). Moral saints. — *J. Philos.* 79: 419-439.
- Wong, D. (2006). *Natural moralities: a defense of pluralistic relativism*. — Oxford University Press, Oxford.