Who’s Afraid of the Naturalistic Fallacy?

Oliver Curry, Centre Research Associate, Centre for Philosophy of Natural and Social Science, London School of Economics, UK WC2A 2AE, UK; Email: o.s.curry@lse.ac.uk.

Abstract: David Hume argued that values are the projections of natural human desires, and that moral values are the projections of desires that aim at the common good of society. Recent developments in game theory, evolutionary biology, animal behaviour and neuroscience explain why humans have such desires, and hence provide support for a Humean approach to moral psychology and moral philosophy. However, few philosophers have been willing to pursue this naturalistic approach to ethics for fear that it commits something called ‘the naturalistic fallacy’. This paper reviews several versions of the fallacy, and demonstrates that none of them present an obstacle to this updated, evolutionary version of Humean ethical naturalism.

Key words
Evolutionary ethics, naturalistic fallacy, is-ought gap, Hume, values.

Introduction: A Darwinian update of Hume

What is morality and where does it come from? In the history of moral philosophy there have been theological, cosmological, biological and sociological answers to this question. Some have argued that moral values are divine commands, some have argued that moral values are the products of rational reflection on objective truths about the universe, some have argued that moral values are a product of human nature, and some have argued that moral values are merely social conventions or local cultural norms.

David Hume provided the classical statement of the view that moral values are the product of certain natural human desires. Hume argued that human behaviour is a product of passion and reason. Passions set the ends or goals of action; and reason works out the best available means of achieving these ends. Under this view, passions determine what humans find agreeable, desirable and valuable. Values are projected onto the world of objects and events by the passions in much the same way that colors are projected onto the world by the visual system. For this reason, Hume is said to have a subjectivist or projectivist theory of value.

Whereas Hobbes argued that natural human passions were entirely selfish and that morality was an artificial invention, Hume argued that human nature included some passions – such as familial affection, sexual fidelity, sympathy and pride -- that promoted the common good. Hume called these moral passions, and argued that they constituted the basis of human morality. Hume applied the same subjectivist-projectivist argument to moral passions, and argued that “when you pronounce any action or character to be vicious, you mean nothing, but
that from the constitution of your nature you have a feeling or a sentiment of blame from the 
contemplation of it. Vice and virtue, therefore, may be compar'd to sounds, colours, heat and 
cold, which . . . are not qualities in objects, but perceptions in the mind” (Hume, 1739/1985, pp. 
520-521).

Recent developments in game theory, evolutionary biology, animal behaviour and 
neuroscience suggest that Hume was right to think that humans have natural dispositions to act 
‘in the common good’. Evolutionary theory leads us to expect that organisms will be social, 
cooperative and even altruistic under certain circumstances. Under the headings of kin altruism, 
coordination, reciprocity and conflict resolution, evolutionary theory can explain why and how 
some organisms care for their offspring and their wider families, aggregate in herds, work in 
teams, practice a division of labor, communicate, share food, trade favors, build alliances, punish 
cheats, exact revenge, settle disputes peacefully, provide altruistic displays of status, and respect 
property (Aureli and de Waal, 2000; Axelrod, 1984; Clutton-Brock and Parker, 1995; Crespi, 
2001; de Waal, 1996; Hamilton, 1964, 1971; Harcourt and de Waal, 1992; Hepper, 1991; 
Johnstone, 1998; Kummer and Cords, 1991; Maynard Smith and Price, 1973; Trivers, 1971; 
Zahavi and Zahavi, 1997). Given that some of these adaptations for cooperation can be found in 
every major taxon of the animal kingdom, and seem especially well-developed in primates, it is 
not unreasonable to suppose that they were present in the common ancestor that humans shared 
with chimpanzees, and also that humans have retained versions of these adaptations. The search 
for these human adaptations for cooperation is well underway (Baron-Cohen, 1995; Cosmides 
and Tooby, 1992; Daly and Wilson, 1988; Lieberman, Tooby, and Cosmides, 2003; 
Mazur and Booth, 1998; Pinker, 1994; Stone, Cosmides, Tooby, Kroll, and Knight, 2002; 
Sugiyama, Tooby, and Cosmides, 2002).

Let us assume, for argument’s sake, that humans are in possession of a suitably-modified 
suite of primate adaptations for cooperation. Such a discovery would update Hume’s psychology 
and moral philosophy in the following ways. “Passions” would be revealed as a certain kind of 
evolved motivational system (Lawrence and Calder, 2004); and moral passions would be 
revealed as evolved motivational systems for cooperation. And an updated psychology would 
lead to an updated meta-ethics. So, values would come to be seen as the proximate goals of 
adaptations; and moral values would come to be seen as the proximate goals of adaptations for 
cooperation. Looking further ahead, such a discovery would suggest that, as Hume envisaged, 
moral philosophy should begin with the investigation of the moral passions and, as such, should 
be seen as a branch of biology, psychology or anthropology.3

Few philosophers, however, have been willing to pursue the implications of this 
Darwinian update of Hume’s meta-ethics for fear that the thesis commits something called “the 
naturalistic fallacy”. As Michael Ruse puts it: “Everybody knows (or ‘knows’) that it 
[evolutionary ethics] has been the excuse for some of the worst kinds of fallacious arguments in 
the philosophical workbook . . . It has been enough for the student to murmur the magical phrase 
‘naturalistic fallacy’, and then he or she can move on to the next question, confident of having 
gained full marks on the exam.” (M. Ruse, 1995, p. 223). Although, as I will show, there are 
many versions of the naturalistic fallacy, it has come to be synonymous with the widespread 
belief that (someone, somewhere, has demonstrated conclusively that) the natural and the 
normative inhabit two entirely separate realms, and never the twain shall meet (Held, 2002). One 
consequence of this view is that contemporary moral philosophy has tended to neglect the 
empirical sciences (Doris and Stich, forthcoming). Another consequence is that contemporary
moral philosophers have tended to look somewhere other than ‘nature’ for their account of moral value.

But what is “the naturalistic fallacy”? And does it really present a lethal challenge to a Humean-Darwinian meta-ethic? The purpose of this paper is to show that such fears are misplaced. None of the arguments that go by the name of “the naturalistic fallacy” constitute arguments against the Humean-Darwinian meta-ethics outlined above.¹

The naturalistic fallacies

The first thing that anyone wishing to investigate the naturalistic fallacy discovers is that there is not one but many arguments that go by this name. A survey of the literature reveals not one but (at least) eight alleged mistakes that carry the label “the naturalistic fallacy”:

1. Moving from is to ought (Hume’s fallacy).
2. Moving from facts to values.
3. Identifying good with its object (Moore’s fallacy).
4. Claiming that good is a natural property.
5. Going ‘in the direction of evolution’.
6. Assuming that what is natural is good.
7. Assuming that what currently exists ought to exist.
8. Substituting explanation for justification.

For example: 1) Daniel Dennett says that the naturalistic fallacy involves the derivation of "ought from is" (Dennett, 1995, p. 467).⁶ 2) Peter Singer assumes that the naturalistic fallacy involves "defining values in terms of facts" (Singer, 1981, p. 74). 3) Charles Pigden, meanwhile, argues that the naturalistic fallacy consists of confusing "the property of goodness with the things that possess that property or with some other property that good things possess" (Pigden, 1991, p. 426). 4) Simon Blackburn states that the naturalistic fallacy "consists of identifying an ethical concept with a 'natural' concept" (Blackburn, 1994, p. 255).⁵ 5) Robert Wright claims that the naturalistic fallacy involves "drawing values from evolution or, for that matter, from any aspect of observed nature" (Wright, 1994, p330). 6) Dylan Evans claims that “[a]rguing that something is good because it is natural is called the 'naturalistic fallacy'" (Evans and Zarate, 1999, p163).⁸ 7) David Buss states that "the naturalistic fallacy . . . maintains that whatever exists should exist" (Buss, 1994, p16).⁹ 8) William Rottschaefer claims that one version of the naturalistic fallacy is committed when “causal explanations are confused with or substituted for justifying reasons” (Rottschaefer, 1997, p8).¹⁰

My concern here is not with which is the ‘true’ fallacy. Rather, my aim is to bring all the versions of the argument into the light, so that we may examine them one by one, and thereby establish whether they constitute serious obstacles to a Humean-Darwinian meta-ethics.¹¹ Let’s begin with Hume’s fallacy.

1. Moving from is to ought (Hume’s fallacy).
Although Hume’s theory is primarily a meta-ethical account of the nature and ontological status of morality, it segues into normative or substantive ethics in the following way. The ends supplied by the passions provide the first premises of chains of means-end reasoning. For example, if you want to get to Grand Central Station, and if the Number 4 train takes you there, then you ought to take the Number 4 train. It follows from this view of human psychology – and in particular, from this instrumentalist account of reason – that, in the absence of any passions, desires, or ends, reason alone cannot tell you what you ought to do. Hume applied the same argument to morality. Moral passions provide the first premise of moral reasoning: if you want to punish cheats, and if Derek cheated, then you ought to punish Derek. In the absence of moral passions, reason alone cannot tell you what you morally ought to do. As Hume put it: “Morals excite passions, and produce or prevent actions. Reason itself is utterly impotent in this particular. The rules of morality, therefore, are not conclusions of our reason” (Hume, 1739/1985, p. 509).

At the beginning of his account of the moral passions – in a chapter entitled Moral distinctions not deriv’d from reason – Hume pauses to castigate rationalist moral philosophers who neglect to mention the passions, and who proceed instead as if one could derive ought statements using reason alone. Reading such philosophers, Hume is “surpriz’d to find, that instead of the usual copulations of propositions, is and is not, I meet with no proposition that is not connected with ought or ought not.” (Hume, 1739/1985, p. 521). Hume points out that these rationalist philosophers have not explained how reason is capable of such a feat. According to Hume, reason – or ‘the understanding’ – works by ‘relating’ ‘simple’ ideas to one another in order to form ‘complex’ ideas. There are seven ‘relations’: “resemblance, identity, relations of time and place, proportion in quantity or number, degrees in any quality, contrariety, and causation” (Hume, 1739/1985, p. 117). Rationalist philosophers, says Hume, have not “observ’d” or “explain’d” any additional relation that would allow them to move directly from is to ought, nor have they shown how such a move is possible by means of any of the other relations: “[A]s this ought, or ought not, expresses some new relation or affirmation, ‘tis necessary that shou’d be observ’d and explain’d; and at the same time that a reason should be given for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it.” (Hume, 1739/1985, p. 521).

Of course, one can take issue with Hume’s account of psychology. But the question under consideration here is whether this standard point about the components of means-end reasoning constitutes an argument against a Humean-Darwinian meta-ethic. And the answer is clearly: no. The claim that “means-end reasoning must include a statement of ends” is not an argument against the claim that “values (ends) are the product of certain natural passions”. It is simply the case that Hume’s straightforward point about the logic of moral arguments is neutral with regard to meta-ethical arguments about the nature or ontological status of moral values; and it is perfectly consistent with Hume’s own naturalistic view of the nature of moral value.

2. Moving from facts to values

Despite Hume’s naturalistic approach to ethics, and despite it being the case that Hume’s simple logical point about moving ‘from is to ought’ is entirely neutral with regard to the ontological status of moral values, Hume is widely regarded as having demonstrated a fundamental flaw in naturalistic ethics. How did this happen? Part of the explanation is that
Hume’s dictum is often presented in terms of the impossibility of moving from ‘facts to values’; and that this formulation tends to conflate ‘values’ and ‘oughts’. Let value refer to the first premise of a means-end syllogism, let fact refer to the second premise, and let ought refer to the conclusion. Hume argued, first, for a naturalistic account of value; and, second, that in the absence of values, facts alone are insufficient to arrive at oughts. However, if one presents this second argument – about moving ‘from facts to oughts’ – in terms of the impossibility of moving ‘from facts to values’ it can look as if Hume’s second argument contradicts his first.

So, for example, Peter Singer takes E. O. Wilson to task for committing the mistake of moving ‘from is to ought’ – specifically, for moving from the premise “Our genes came from a common pool and will return to a common pool” to the conclusion that “we ought not to do anything which imperils the human gene pool” (Singer, 1981, p. 80). Singer correctly points out that this argument is invalid as it stands – Wilson has neither made explicit, nor defended as a moral value, the premise: “We ought not to do anything which imperils the long-term survival of our genes”. Then, invoking nothing more than Hume’s "unbridgeable gulf between facts and values", Singer asserts that “ethical premises are not the kind of thing discovered by scientific investigation" and hence "[n]o science is ever going to discover ethical premises inherent in our biological nature” (Singer, 1981, p. 73, p. 77). But clearly, the demonstration that Wilson has neglected to provide or defend a particular value-premise does not constitute an argument against the more general Humean meta-ethical thesis that ‘values are the products of passions that are inherent to human nature’. Singer’s assertion does not follow from Hume’s dictum, and Singer provides no further arguments in its support.

3. Good is identical with its object (Moore’s fallacy)

As we have seen, Hume compared moral values to “sounds, colours, heat and cold” which “are not qualities in objects, but perceptions in the mind” (Hume, 1739/1985, pp. 520-521). George Edward Moore’s moral philosophy is exactly the same as Hume’s in this regard.

Moore argued that good is an “object of thought” that is evoked by certain features of the world (such as "the pleasures of human intercourse and the enjoyment of beautiful objects") (Moore, 1903, p. 188). Moore compared goodness to yellowness, in that both are subjective psychological entities and not objective features of the world. Moore sought to establish that good was an object of thought – and not an objective feature of the world – by employing the famous “open question” argument. According to this argument, whenever one claims that good is identical with external object X, it is always possible to ask "Is X good?" Hence good and X are not the same thing because we can conceive of them separately. We have, according to Moore, "two different notions before our minds" (Moore, 1903, p. 16). Moore also argued that good was a “simple” – as opposed to a “complex” – object of thought, in the sense that it was not composed of any parts (Baggini and Fosl, 2003, p. 204). Hence it was not possible to “define” good – by which Moore meant render a complex idea into the simple ideas of which it is composed. Good is a "simple, indefinable, unanalysable object of thought" (Moore, 1903, p. 21).

It follows from this account of good as an “object of thought” that it is a mistake to identify the thought good with the states of the world that evoked the thought, for the same reason that it is a mistake to identify the thought yellow with the objects in the world (for example, light of a certain wavelength) that evoke the thought. Moore called the mistake of
identifying an object of thought with its object a fallacy. And if the object – with which one mistakenly identified the thought – happened to be a natural object, as opposed to metaphysical
entity, then the error became the "naturalistic fallacy".16

The question here is not whether Moore made a good case for his moral philosophy.17 Rather, the question is whether Moore’s naturalistic fallacy constitutes an argument against Humean-Darwinian meta-ethics. Does Moore’s contention that “good is a subjective psychological entity and not an objective feature of the world” contradict the Humean-Darwinian thesis that moral values “are not qualities in objects, but perceptions in the mind”? No, it does not. Hume and Moore begin with exactly the same premise: that “good is a subjective psychological entity and not an objective feature of the world”. And both argue that the opposite view is mistaken. The main difference is that Hume calls the opposing view “vulgar” whereas Moore calls it “fallacious”.

4. Good is a natural property

Thus far, Moore’s moral philosophy is entirely neutral with regard to the ontological status of moral values. However, it is widely believed that Moore went on to argue that good – qua object of thought – was non-natural in the sense of being not part of the natural world. Hilary Putnam, for example, assumes that Moore demonstrated that: “Good was a 'non-natural' property, i.e. one totally outside the physicalist ontology of natural science.” (Putnam, 1981, p. 206). This has led to a literature in which some assume that it is a fallacy to claim that moral goodness is part of the natural world, and in which others point out that to begin by supposing that good is a non-natural property is merely to beg the question.18

If Moore had conclusively demonstrated that good was a non-natural property in this sense, then Humean-Darwinian meta-ethics would indeed be in trouble. However, Moore made no such argument. And there is no such argument to be found in the pages of Principia Ethica. This mistaken interpretation of Moore can be traced to his somewhat idiosyncratic use of the term “natural”. For Moore, the opposite of “natural” is “intuitive”, not “supernatural”.19 Moore used “natural” to refer to properties of the external world.20 He contrasted “natural” with “intuitive”, which he used to refer to properties of the mind – including “objects of thought” such as good. Hence when Moore claims that good is not a natural property, he is simply restating the point that good is an intuitive “object of thought” and not an objective feature of the outside world. Moore made no further arguments to the effect that moral goodness or intuitions were supernatural. On the contrary, Moore maintained that good was an “object of thought”, and that "in so far as . . . thoughts did exist, they too are natural objects" (Moore, 1903, p. 41). Neither did Moore see the "naturalistic" part of his fallacy as crucial: “Even if [good] were a natural object, that would not alter the nature of the fallacy nor diminish its importance one whit. All that I have said about it would remain quite equally true: only the name which I have called it ["the naturalistic fallacy"] would not be so appropriate as I think it is. And I do not care about the name: what I do care about is the fallacy.” (Moore, 1903, p. 14).

Much of the confusion surrounding “the naturalistic fallacy” stems from the fact that Moore made several different arguments against Herbert Spencer’s version of evolutionary ethics.21 If Moore’s classic naturalistic fallacy presents no obstacles to a Humean-Darwin meta-ethic, then perhaps one of his other arguments against evolutionary ethics does.
Fallacies 5, 6, and 7

In his critique of Spencer, Moore argued that: the direction of evolution is not necessarily good (5); and that the moral worth of something is not decided by its being natural (6). Perhaps as a spin-off of fallacy number five, some people have also claimed that it is a fallacy to argue that what currently exists (perhaps because it is ‘natural’) ought to exist (7). Under this view, statements such as “evolution is a progressive force, and we ought to help it on its way – and prevent humankind from becoming ‘less evolved’ – by practicing various forms of eugenics”; “males are naturally more promiscuous than females, and therefore it is morally acceptable for them to be more promiscuous”; or “males have always been more promiscuous than females, therefore one ought not to change the natural order of things”, are taken to be examples of fallacious or invalid arguments.

Let us accept, without further argument, that “fallacies” 5, 6 and 7 are valid objections to spurious uses of evolutionary theory. The question here is whether any of these objections constitute arguments against the Humean-Darwinian meta-ethical thesis that “moral values are the products of certain natural human passions”. And again, the answer is: no. First, according to the orthodox evolutionary theory on which the Humean-Darwinian thesis is based, evolution has no direction. And so the notions of ‘moving in the direction of evolution’ or of being ‘more or less evolved’ have no content, and play no role in the thesis. Second, the Humean-Darwinian thesis argues that ‘all moral values are natural phenomena’, but it does not argue, and nor does it follow, that ‘all natural phenomena are moral’ or even ‘all natural values are moral’. As we have seen, according to the Humean-Darwinian thesis the test of whether a passion is moral is whether it promotes ‘the common good’, not whether it is natural. And besides, to a naturalist, all possible states of the universe are equally natural, and therefore ‘naturalness’ cannot act as a criterion of anything (Radcliffe Richards, 2001, p. 246). Third, according to the Humean-Darwinian thesis, the ‘moral goodness’ of an institution has to do with whether or not it promotes the common good, not whether it exists or not. A biological explanation of a given state of affairs does not justify it any more than a sociological explanation does. This brings us on to the final version of the naturalistic fallacy: that objection that Humean-Darwinian ethics can explain, but not justify moral values.

8. Explanation and justification

Let us, for the sake of argument, suppose that the Humean-Darwinian thesis is correct, and that moral values are the projections of certain human passions. Some critics of this thesis have argued that even if the naturalistic or evolutionary theories may be able to explain and describe the nature and content of moral value, they cannot justify those moral values. Since the true business of ethics involves the justification of moral values, so the argument goes, there are certain aspects of ethics that will forever remain beyond the reach of naturalistic approaches. In short, there is more to ethics than evolution.

For example, Christine Korsgaard writes: "When we seek a philosophical foundation for morality we are not looking merely for an explanation of moral practices. We are asking what justifies the claims that morality makes on us." (Korsgaard, 1996, pp. 9-10). She continues: "People who take up the study of moral philosophy do not merely want to know why those peculiar animals, human beings, think that they ought to do certain things. We want to know
what, if anything, we really ought to do.” (Korsgaard, 1996, p. 13). Korsgaard calls this “the normative question”. And, as Paul Farber notes, "to go beyond description, to enter the arena of the normative, that is, to say what ought to be, involves an important shift that requires justification. Here, sociobiology provides no new basis, no new foundation, no new hope." (Farber, 1994, p. 156).

However, objections of this kind rest on two faulty assumptions. First, the normative objection misconstrues the Humean-Darwinian argument. It supposes that the Humean-Darwinian thesis is merely an explanation or description of what people happen to do or think. If this were the case, then the call for justification would be in order: one could attempt to justify particular opinions and practices with reference to some higher-order moral value. However, like all meta-ethical theories, the explicandum of the Humean-Darwinian thesis is not ‘what people happen to think or do’. Rather, the explicandum is the nature and ontological status of moral values.23

Second, the normative objection assumes that the question “Are moral values morally justified?” is capable of a coherent answer (and that it is the job of meta-ethics to provide such an answer). However, this assumption would seem to be unwarranted. To recall an earlier distinction, you can justify ought statements with reference to certain values, but what are you supposed to justify values by? What you need is some super-ordinate criterion of justification. And yet it is exactly the existence of such super-ordinate criteria that any meta-ethical theory denies. If there were super-ordinate criteria, then one would have a different meta-ethical theory (and you would be back to square one). Clearly, one cannot go on justifying statements forever, one must come to a stop somewhere. And where one comes to a stop constitutes one’s meta-ethical theory. Theologians stop at divine commands, relativists stop at social conventions, Humeans stop at certain passions. As Hume puts it:

Ask a man why he uses exercise; he will answer, because he desires to keep his health. If you then enquire, why he desires health, he will readily reply, because sickness is painful. If you push your enquiries farther, and desire reason why he hates pain, it is impossible he can ever give any. This is an ultimate end, and is never referred to any other object. . . And beyond this it is an absurdity to ask for a reason. It is impossible there can be a progress in infinitum; and that one thing can always be a reason why another is desired. Something must be desirable on its own account, and because of its immediate accord or agreement with human sentiment and affection. (Hume, 1777, pp. 244-245).

Hume, and numerous other philosophers, have concluded that when you get to this point, the call for justification is “senseless”, “unanswerable” or “mistaken”, and all that remains to be done is explain the origins and ontological status of moral values.24 Korsgaard provides no reason for overturning this conclusion. She begins by clearly stating the difficulties that one encounters when attempting to answer the normative question:

So we are faced with a dilemma. . . . If we try to derive [the authority of morality] from some supposedly normative consideration, such as gratitude or contract, we must in turn explain why that consideration is normative, or where its authority comes from. Either its authority comes from morality, in which case we have argued in a circle, or it comes from something else, in which case the question arises again, and we are faced with an infinite regress. (Korsgaard, 1996, p. 30).
And, faced with the option of either circularity or infinite regression, she opts for circularity. Korsgaard’s answer to the normative question is “reflective endorsement”. Reflective endorsement is the view that values are justified if, having reflected upon them, we approve or endorse them. Because Korsgaard is a Humean to the extent that she takes moral values to be the expression of a moral sense, reflective endorsement involves the moral sense approving of itself. In other words, the criterion that Korsgaard proposes as a measure of whether moral values are justified is those same moral values. So, morality is moral if: "The moral sense approves of its own origins and workings and so approves of itself." (Korsgaard, 1996, pp. 62-63). Unfortunately, Korsgaard does not explain how the values embodied in the moral sense can be used as a standard of justification when it is exactly the justifiability of these values that is at issue.

In case this is all rather abstract, let me re-state the point by way of an analogy. Suppose that instead of being about morality and why people find certain things morally good and bad, this article had been about sweetness, and why people find certain things sweet and certain things sour. The Humean-Darwinian would have argued that humans have an evolved digestive system that distinguishes between good and bad sources of nutrition and energy; and that the human ‘sweet tooth’ is an evolved preference for foods with high sugar-content over foods with low sugar-content. If one accepted this premise, it would make no sense to complain that evolution may have explained why humans find certain things sweet, but it cannot tell us whether these things are really sweet or not. It follows from the premises of the argument that there is no criterion of sweetness independent of human psychology, and hence this question cannot arise.

Of course, one may object to the premise, and claim that there really is such a thing as sweetness that human psychology is latching on to. But then this would be a different argument. One would have to make the case for an independent criterion of sweetness, and not merely assume it. Applying this to morality: The Humean-Darwinian argues that humans are equipped with a suite of adaptations for cooperation, that these adaptations constitute what have been called the moral passions or moral sentiments, and that these adaptations determine what people deem morally good and bad. If one accepts this argument, it makes no sense to complain that evolution may have explained why humans find certain things morally good, but it cannot tell us whether these things are really morally good or not. It follows from the premises of the argument that there is no criterion of ‘moral goodness’ independent of human psychology, and hence this question cannot arise. Of course, one may object to the premise, and claim that there really is such a thing as ‘goodness’ that human psychology is latching on to. But then this would be a different argument. One would have to make the case for an independent criterion, and not merely assume it.

In summary, the normative question mistakes the Humean-Darwinian thesis for an argument about what people believe, when it is in fact an argument about the ontological status of moral values; and the normative question presupposes, incorrectly, that it makes sense to morally evaluate moral values. Given that it is not possible to answer a senseless question, the failure of Humean-Darwinian meta-ethics to answer the normative question does not count against the thesis. In time, the ‘failure’ of Humean-Darwinian ethics to provide a justification of moral values may come to be seen as a strength rather than a weakness.
Conclusion

This article has discussed eight different versions of the "naturalistic fallacy", and shown that none of them constitute obstacles to Humean-Darwinian meta-ethics. Of course, there may be other versions of the naturalistic fallacy, or other arguments altogether, that succeed in establishing that moral values inhabit a realm distinct from the natural, rendering Humean-Darwinian and other naturalistic meta-ethics untenable. What would such an argument look like? Presumably, such an argument must establish that there is something other than the natural world, that moral values reside there, and that such entities can somehow exert an influence this world. Any such arguments would seem to be mystical, dualist, transcendental, supernatural or theological in flavour. In the absence of any such arguments, we can conclude that the Humean-Darwinian version of ethical naturalism remains a "live option".26

The naturalistic fallacy, by contrast, seems to have become something of a superstition. It is dimly understood and widely feared, and its ritual incantation is an obligatory part of the apprenticeship of moral philosophers and biologists alike. But if the arguments presented above are correct, then it is surely time to dispense with this superstition. To that end I make the following recommendation: Whenever someone uses the term "naturalistic fallacy", ask them "Which one?", and insist that they explain the arguments behind their accusation. It is only by bringing the 'fallacy' out into the open that we can break the mysterious spell that it continues to cast over ethics.

Acknowledgements: Thanks to Helena Cronin, Rosalind Arden, Janet Radcliffe Richards, and members of the LSE Political Theory Research Seminar and Darwin@LSE's Work in Progress group for invaluable feedback on this article. This research was supported by the Arts and Humanities Research Board.

Received 1 October 2005; Revision received 1 June 2006; Accepted 1 July 2006.

References

Arnhart, L. (1998). Darwinian Natural Right: The biological ethics of human nature: SUNY Press.
Aureli, F., and de Waal, F. B. M. (Eds.). (2000). Natural conflict resolution. Berkeley: University of California Press.
Axelrod, R. (1984). The Evolution of Cooperation. New York: Basic Books.
Baggini, J., and Fosl, P. S. (2003). The Philosopher's Toolkit: A compendium of philosophical concepts and methods. Oxford: Blackwell Publishing.
Baron-Cohen, S. (1995). Mindblindness: An essay on autism and theory of mind. Cambridge, Massachusetts: MIT Press.
Beckstrom, J. H. (1993). Darwinism Applied: Evolutionary paths to social goals. Westport, Connecticut: Praeger Publishers.
Blackburn, S. (1994). Oxford Dictionary of Philosophy. Oxford: Oxford University Press.
Blackburn, S. (1998). Ruling Passions. Oxford: Clarendon Press.
Buss, D. M. (1994). The Evolution of Desire: Strategies of human mating. New York: Basic Books/HarperCollins.
Clutton-Brock, T. H., and Parker, G. A. (1995). Punishment in animal societies. *Nature, 373*, 209-216.

Cosmides, L., and Tooby, J. (1992). Cognitive adaptations for social exchange. In J. Barkow, L. Cosmides and J. Tooby (Eds.), *The Adapted Mind: Evolutionary Psychology and the Generation of Culture* (pp. 163-228). New York: Oxford University Press.

Crespi, B. J. (2001). The evolution of social behaviour in microorganisms. *Trends in Ecology and Evolution, 16*(4), 178-183.

Curry, O. (2005). *Morality as Natural History: An adaptationist account of ethics*. PhD Thesis, London School of Economics, London. (http://eprints.lse.ac.uk/archive/00000441/)

Daly, M., and Wilson, M. (1988). *Homicide*. New York: Aldine de Gruyter.

Dawkins, R. (1998). *Unweaving the Rainbow: Science, delusion and the appetite for wonder*. London: Penguin Books.

de Waal, F. (1996). *Good Natured: The origins of right and wrong in humans and other animals*. Cambridge, Massachusetts: Harvard University Press.

Dennett, D. C. (1995). *Darwin's Dangerous Idea: Evolution and the meanings of life*. London: Allen Lane, The Penguin Press.

Doris, J. M., and Stich, S. P. ((forthcoming)). As a Matter of Fact: Empirical perspectives on ethics. In F. Jackson and M. Smith (Eds.), *The Oxford Handbook of Contemporary Analytic Philosophy*. Oxford: OUP.

Evans, D., and Zarate, O. (1999). *Introducing: Evolutionary Psychology*: Icon Books.

Farber, P. L. (1994). *The Temptations of Evolutionary Ethics*. Berkeley: University of California Press.

Flew, A. (1978). From Is to Ought. In A. L. Caplan (Ed.), *The Sociobiology Debate: Readings on ethical and scientific issues* (pp. 142-162). New York: Harper and Row.

Frankena, W. K. (1939). The Naturalistic Fallacy. *Mind, 48*, 464-477.

Frankena, W. K. (1957). Ethical Naturalism Renovated. *The Review of Metaphysics, 10*, 457-473.

Greene, J. (2003). From neural ‘is’ to moral ‘ought’: what are the moral implications of neuroscientific moral psychology? *Nature Reviews: Neuroscience, 4*(October), 847-850.

Hamilton, W. D. (1964). The genetical evolution of social behaviour. *Journal of Theoretical Biology, 7*, 1-16, 17-52.

Hamilton, W. D. (1971). Geometry for the Selfish Herd. *Journal of Theoretical Biology, 31*, 295-311.

Harcourt, A., and de Waal, F. B. M. (Eds.). (1992). *Coalitions and Alliances in Humans and Other Animals*. Oxford: Oxford University Press.

Held, V. (2002). Moral Subjects: The natural and the normative. *Proceedings and Addresses of the American Philosophical Association, 76*(2), 7-24.

Hepper, P. G. (Ed.). (1991). *Kin Recognition*. Cambridge: Cambridge University Press.

Hume, D. (1739/1985). *A Treatise of Human Nature*: Penguin Classics.

Hume, D. (1777). *An Enquiry Concerning the Principle of Morals*.

Johnstone, R. A. (1998). Game theory and communication. In L. A. Dugatkin and H. K. Reeve (Eds.), *Game Theory and Animal Behavior* (pp. 94-117). Oxford: Oxford University Press.

Korsgaard, C. M. (1996). *The Sources of Normativity*. Cambridge: Cambridge University Press.

Kummer, H., and Cords, M. (1991). Cues of ownership in long-tailed macaques, *Macaca fascicularis*. *Animal Behaviour, 42*, 529-549.
Lawrence, A. D., and Calder, A. J. (2004). Homologizing Human Emotions. In D. Evans and P. Cruse (Eds.), *Emotions, Evolution and Rationality* (pp. 15-47). Oxford: Oxford University Press.

Lieberman, D., Tooby, J., and Cosmides, L. (2003). Does morality have a biological basis? An empirical test of the factors governing moral sentiments relating to incest. *Proceedings of the Royal Society, February* 28.

MacIntyre, A. C. (1959). Hume on "Is and "Ought". *The Philosophical Review*, 68(4), 451-468.

MacIntyre, A. C. (1966). *A Short History of Ethics*. New York: MacMillan.

Mackie, J. L. (1980). *Hume's Moral Theory*. London: Routledge and Kegan Paul Ltd.

Maynard Smith, J., and Price, G. R. (1973). The logic of animal conflict. *Nature*, 246, 15-18.

Mazur, A., and Booth, A. (1998). Testosterone and dominance in men. *Behavioral and Brain Sciences*, 21, 353-397.

Moore, G. E. (1903). *Principia Ethica*: Cambridge University Press.

Murphy, J. G. (1982). *Evolution, Morality, and the Meaning of Life*. Totowa, NJ: Rowman and Littlefield.

Nagel, T. (1970). *The Possibility of Altruism*: Clarendon Press.

O'Hear, A. (1985). *What Philosophy Is*: Penguin.

Pigden, C. R. (1991). Naturalism. In P. Singer (Ed.), *A Companion to Ethics* (pp. 421-431): Blackwell.

Pinker, S. (1994). *The Language Instinct: How the mind creates language*. New York: William Morrow and Company.

Putnam, H. (1981). *Reason, Truth and History*. Cambridge: Cambridge University Press.

Radcliffe Richards, J. (2001). *Human Nature After Darwin: A philosophical introduction*. London: Routledge.

Ridley, M. (1996). *The Origins of Virtue*: Penguin.

Rottschaefer, W. A. (1997). *The Scientific Naturalization of Ethics*.

Ruse, M. (1987). Darwinism and Determinism. *Zygon*, 22(4), 419-442.

Ruse, M. (1995). *Evolutionary Naturalism: Selected essays*. London: Routledge.

Singer, P. (1981). *The Expanding Circle: Ethics and Sociobiology*: Straus and Giroux.

Stone, V. E., Cosmides, L., Tooby, J., Kroll, N., and Knight, R. T. (2002). Selective impairment of reasoning about social exchange in a patient with bilateral limbic system damage. *Proceedings of the National Academy of Sciences*, 99(17), 11531-11536.

Sturgeon, N. L. (2003). Moore on Ethical Naturalism. *Ethics*, 113, 528-556.

Sugiyama, L. S., Tooby, J., and Cosmides, L. (2002). Cross-cultural evidence of cognitive adaptations for social exchange among the Shiwiar of Ecuadorean Amazonia. *Proceedings of the National Academy of Sciences*, 99(17), 11537-11542.

Trivers, R. L. (1971). The evolution of reciprocal altruism. *Quarterly Review of Biology*, 46, 35-57.

Wright, R. (1994). *The Moral Animal: The new science of evolutionary psychology*. New York: Pantheon Books.

Zahavi, A., and Zahavi, A. (1997). *The Handicap Principle: A missing piece of Darwin's puzzle*. Oxford: Oxford University Press.

---

1 Hume used various synonyms for 'the common good': the "publick interest"; the "public good"; a "common end"; "the general interests of society"; "the good of mankind" (Hume, 1739/1985, p. 532, p. 580, p. 590, p. 620, p. 628). Simon Blackburn notes: "the great naturalists, theorists who have sought to understand ethical thought as part of the
natural world – notably Hobbes and Hume – are also inclined towards ethical rules whose authority eventually derives from promoting the common good, or, perhaps, avoiding the common bad." (Blackburn, 1998, p. 46). As this quote demonstrates, Hobbes and Hume agree on the function of morality, even though they disagree on its ontological status.

2 As Richard Dawkins puts it: "The position I have always adopted is that much of animal nature is indeed altruistic, cooperative, and even attended by benevolent subjective emotions, but that this follows from, rather than contradicts, selfishness at the genetic level. Animals are sometimes nice and sometimes nasty, since either can suit the self-interest of genes at different times." (Dawkins, 1998, p. 212).

3 As John Mackie puts it: "It is not for nothing that his work is entitled A Treatise of Human Nature, and subtitled, An attempt to introduce the experimental method of reasoning into moral subjects; it is an attempt to study and explain moral phenomena (as well as human knowledge and emotions) in the same sort of way in which Newton and his followers studied and explained the physical world." (Mackie, 1980, p. 6). Or, as Ernest C. Mossner's introduction to the Treatise puts it, Hume's moral philosophy was "an attempt to establish a purely naturalistic ethics based on the facts of human nature" (Hume, 1739/1985, p. 19).

4 The work of Michael Ruse is the notable exception to this rule. See, for example: (M. Ruse, 1995).

5 For a fuller account of the Humean-Darwinian approach to ethics, see: (Curry, 2005).

6 And Frans de Waal claims that the naturalistic fallacy "has to do with the impossibility of translating 'is' language (how things are) into 'ought' language (how things ought to be)" (de Waal, 1996, p. 38).

7 Larry Arnhart maintains that the naturalistic fallacy is the mistaken attempt to "to define 'good' in natural terms" (Arnhart, 1998, p. 82). Anthony O'Hear claims that to deny that "goodness could consist in no natural property" is to commit the naturalistic fallacy. (O'Hear, 1985, p. 258).

8 Emphasis added. According to Anthony Flew, to commit the naturalistic fallacy is to offer "some supposedly neutral descriptive statement about what is allegedly natural as if it could by itself entail some conclusion about what is in some way commendable". (Flew, 1978, p. 148). Matt Ridley hedges his bets: "The naturalistic fallacy . . . is to argue that what is natural is moral: deducing an 'ought' from and 'is'." (Ridley, 1996, p. 257). As does Joshua Greene: the naturalistic fallacy is "the mistake of identifying that which is natural with that which is right or good (or more broadly, the mistake of identifying moral properties with natural properties)." (Greene, 2003, p. 847).

9 John Beckstrom concurs: "The fact that something exists and has existed for a very longtime does not call for society's endorsement. To say that it does is to commit the 'naturalistic fallacy'." (Beckstrom, 1993, p. 2).

10 This fallacy is sometimes rolled together with the 'the genetic fallacy' (Baggini and Fosl, 2003, pp. 89-92).

11 Note that the authors listed above do not necessarily endorse the 'fallacies' that they are discussing, nor do they necessarily consider them insurmountable obstacles to an evolutionary ethics.

12 "Reason alone can never be a motive to any action of the will". "[R]eason alone can never produce any action, or give rise to volition". (Hume, 1739/1985, p. 460, p. 462).

13 Or, as Alisdair MacIntyre puts it: "we can connect the facts of the situation with what we ought to do only by means of one of those concepts which Hume treats under the heading of the passions" (MacIntyre, 1959, pp. 465-466).

14 More specifically, Singer argues that no "facts about our evolutionary history, our biology or the origins of altruism", "can compel me to accept any value, or any conclusion about what I ought to do" (p. 75).

15 "[A] definition states what are the parts which invariably compose a certain whole; and in this sense 'good' has no definition because it is simple and has no parts." (Moore, 1903, p. 9).

16 Moore's fallacy is not peculiar to ethics: "The naturalistic fallacy has been quite as commonly committed with regard to beauty as with regard to good." (Moore, 1903, p. 201).

17 For a critical overview, see: (Sturgeon, 2003).

18 As Michael Ruse comments: "Why should one claim that goodness is a non-natural property? Surely that is to presuppose the very point at issue?" (M. Ruse, 1995, p. 230). And as WK Frankena observes, "the charge of committing the naturalistic fallacy can be made, if at all, only as a conclusion from the discussion and not as an instrument of deciding it." (Frankena, 1939, p. 465).

19 "Naturalism has had two meanings in twentieth-century discussions relating to ethics. In a wider sense 'naturalism' has stood for a general philosophical point of view the essence of which is a denial of supernaturalism . . . . But since the publication of G. E. Moore's Principia Ethica in 1903 . . . 'naturalism' has had also a more special meaning when used in ethics; it has meant any ethical theory which holds that an ethical judgment is simply a true or false ascription of a definable and natural (or empirical) property to an action, object, or person. Opposed to ethical naturalism in this usage is not supernaturalism, but a pair of positions: (a) intuitionism, also called 'non-naturalism',
which holds that an ethical judgment is a true or false ascription to something of an indefinable and non-natural (or non-empirical) property, and (b) non-cognitivism, which in its extreme form claims that an ethical judgment is not a true or false ascription of any property to anything, but something very different, like an interjection, a command, a wish, a resolution, or a prescription." (Frankena, 1957, p. 457).

20 As Sturgeon puts it, for Moore: "Natural objects and qualities . . . are objects of experience (sec. 25, pp. 38-39), of perception; they are what we can 'touch and see and feel' (sec. 66, pp. 110-111)." "[N]atural qualities are ones that we can know about by 'empirical observation and induction' (sec. 25, p. 39)." (Sturgeon, 2003, p. 541).

21 In this paper I will not be concerned with the question of whether Moore accurately represented Spencer's moral philosophy. See (MacIntyre, 1966, p. 251).

22 As Hume puts it: "[N]othing can be more unphilosophical than those systems, which assert, that virtue is the same with what is natural, and vice with what is unnatural. For in the sense of the word, Nature, as opposed to miracles, both vice and virtue are equally natural . . ." (Hume, 1739/1985, p. 526).

23 If moral values were the products of human passions, then the Humean-Darwinian thesis would, in addition, partly explain why people thought they ought to do certain things.

24 Thomas Nagel has written: "Denial that justification is the appropriate final defence of ethics suggests the familiar view that the question 'Why should I be moral?' is senseless or in principle unanswerable. Strictly the suggestion is correct . . . I believe that an explanation can be discovered for the basic principles of ethics, even though it is not a justification. . . . Psychology . . . may therefore be the appropriate field in which to make progress in ethical theory." (Nagel, 1970, p. 5). Michael Ruse writes: "evolution explains (not justifies) morality in the sense of showing where it came from. Furthermore, once such an explanation is given, one sees that the traditional call for justification is mistaken. There can be no ultimate support for morality in the sense of reasoned absolute foundations." (M Ruse, 1987, p. 427). "The view of reason adopted by sociobiology is Humean . . . an instrument that allows us to calculate the best means to the attainment of our ends. . . . What it cannot do, however, is evaluate the ends finally accepted as ultimate, for these are given by the passions and, at this level, reason is a slave of the passions. And where do these basic passions come from? Evolutionary biology surely has, at least, part of the answer to this question." (Murphy, 1982, p. 100).

25 One of the things that seems to unite the various naturalistic fallacies is that they are motivated by a disagreement with the basic premise of ethical naturalism; they dispute the claim that values are merely the product of natural human passions. 'The naturalistic fallacy' is often invoked in an attempt to soften up evolutionary ethical naturalism before a replacement meta-ethic is proposed. However, one needs to make an argument in favor of these alternative sources of value, and not merely smuggle it in under the guise of a logical fallacy.

26 As Charles Pigden comments: "[T]here is no need for naturalists to evade the arguments of Moore and Hume . . . Insofar as they are valid, Hume's arguments, and Moore's too, are compatible with naturalism. Formal attempts to refute naturalism having failed, it remains a live option." (Pigden, 1991, pp. 427-428).