

Original Article

## On the Naturalistic Fallacy: A Conceptual Basis for Evolutionary Ethics

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**Abstract:** In debates concerning evolutionary approaches to ethics the Naturalistic Fallacy (i.e., deriving values from facts or “ought” from “is”) is often invoked as a constraining principle. For example, Stephen Jay Gould asserts the most that evolutionary studies can hope to do is set out the conditions under which certain morals or values might have arisen, but it can say nothing about the validity of such values, on pain of committing the Naturalistic Fallacy. Such questions of moral validity, he continues, are best left in the domain of religion. This is a common critique of evolutionary ethics but it is based on an insufficient appreciation of the full implications of the Naturalistic Fallacy. Broadly conceived, the Naturalistic Fallacy rules out any attempt to treat morality as defined according to some pre-existent reality, whether that reality is expressed in natural or non-natural terms. Consequent to this is that morality must be treated as a product of natural human interactions. As such, any discipline which sheds light on the conditions under which values originate, and on the workings of moral psychology, may play a crucial role in questions of moral validity. The authors contend that rather than being a constraint on evolutionary approaches to ethics, the Naturalistic Fallacy, so understood, clears the way, conceptually, for just such an approach.

**Keywords:** evolutionary ethics, Stephen Jay Gould, moral philosophy, naturalistic fallacy.

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### Introduction

The title of this paper is intended to be a bit provocative in so far as The Naturalistic Fallacy (NF) is most often seen as an obstacle to evolutionary ethics rather than a basis for it. The NF prohibits deriving value statements from purely

factual statements about the way the world is. Since evolutionary studies seek to provide strictly factual statements about the world it seems, to many, to follow that such studies cannot provide the basis for an ethical system. There are many variations of this claim and a great debate on the topic. In order to focus on the salient aspects of this issue we will focus on one particular version of this objection, that presented by noted evolutionary thinker, the late Stephen Jay Gould.

Gould addresses the issue of evolution and ethics in his work entitled *Rocks of Ages: Science and Religion in the Fullness of Life* (1999). In that work he sets out a principle that sets the boundaries between science and religion, which he terms NOMA, i.e. Non-Overlapping Magisteria. A magisterium, Gould tells us, 'is a domain where one form of teaching holds the appropriate tools for meaningful discourse and resolution.' (5) Science and religion, according to Gould, each have their respective magisterium where their teaching is authoritative, and it follows, given the logic of magisteria, that neither has any authority to teach in the other's domain. The domain of science is the empirical world. As Gould says 'Science tries to document the factual character of the natural world, and to develop theories that coordinate and explain these facts.' (4) The domain of religion is 'the realm of human purposes, meanings, and values—subjects' he continues 'that the factual domain of science might illuminate, but can never resolve.' (4) The consequences of this setting of boundaries is that 'religion can no longer dictate the nature of factual conclusions residing properly within the magisterium of science' and that 'scientists cannot claim higher insight into moral truth from any superior knowledge of the world's empirical constitution.' (9-10)

It is this latter claim that directly concerns us here: that the superior knowledge of the empirical nature of the world does not provide a higher insight into ethics than that provided by non-empirical methods, such as religion. It is clear that the Naturalistic Fallacy lurks beneath this claim. Gould writes of ethics, that 'fruitful discussion must proceed under a different magisterium, far older than science,' a discussion 'about ethical "ought," rather than a search for any factual "is" about the material construction of the factual world.' (55)

Gould is really not adding anything new to this debate. (Nor, in all fairness, does he claim to be. In fact Gould includes a lengthy footnote admitting that he oversimplifies the topic, but justifies his use of the is/ought distinction as 'broad-scale treatment' of a 'central principle.' n55-57) Still, he does set out a useful schema for understanding the issue. There are empirical facts about the world and there are value judgments about those facts. Facts are ascertained via the scientific method; religion is barred from speaking about the empirical constitution of the world because it does not employ the scientific method. So far, so good. Then we see that science is barred from speaking about values; but religion is not similarly barred—and why? Because the line between facts and values is guarded by the NF and it is presumed that the NF prohibits any scientific approach to ethics but passes through any religious or philosophical approach (at least, any non-empirical philosophical approach. 59-60)

It is here that we see a confusion which needs to be addressed to fully appreciate the role of the NF in ethical theory. While it is true that the NF does prohibit a certain scientific approach to ethics, it does not follow that it prohibits any scientific approach. Furthermore, a deeper reading of the NF shows that it does not allow *all* religious or philosophical approaches to ethics, but places a constraint on this magisterium, as well. The thesis here is that once this confusion is cleared away we will see that not only is an evolutionary approach to ethics permissible, but it may in fact be indispensable. In order to justify this final claim we must first delve into the NF.

## **II) Understanding the Naturalistic Fallacy**

We find the first historical reference to the Naturalistic Fallacy in David Hume's *Treatise of Human Nature* in which he states:

In every system of morality, which I have hitherto met with, I have always remark'd, that the author proceeds for some time in the ordinary way of reasoning, and establishes the being of a God, or makes observations concerning human affairs: when of a sudden I am surpriz'd to find, that instead of the usual copulations of propositions, *is*, and *is not*, I meet with no propositions that is not connected with an *ought*, or an *ought not*. This change is imperceptible; but is, however, of the last consequence. For as this *ought*, or *ought not*, expresses some new relation or affirmation, 'tis necessary that it 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. (469)

Scholars have generally taken this to mean that one cannot make logical inferences of value from observations of natural facts—at least, not without the inclusion of an additional (suppressed or hidden) premise. “Is” does not imply “ought”, as they say. It has also been referred to as the Fact/Value Gap, but it reached its greatest popularity as the Naturalistic Fallacy in the *Principia Ethica* of G. E. Moore. Moore maintained that any attempt to define “good” in naturalistic terms was fallacious. But as with many scholars, the intended meaning of an idea can become lost, misrepresented, caricatured, etc., if we ignore the primary sources.

Few realize that there is a feature in Moore's ethical system which is often overlooked and that is his claim that metaphysicians also commit the naturalistic fallacy. Understandably so, Moore dubbed his famous fallacy in order to reveal the problems associated with defining Good in naturalistic terms. However, Moore stretches the boundaries of this fallacy by claiming that it applies to those who define Good in metaphysical terms, as well.

In the first chapter of his *Principia*, Moore states that any attempt to define Good in terms of natural properties commits the naturalistic fallacy. This, he believed, was

due to the unique nature of Good, which is, he claimed, indefinable. “Good”...is incapable of any definition...“good” has no definition because it is simple and has no parts. It is one of those innumerable objects of thought which are themselves incapable of definition, because they are the ultimate terms by reference to which whatever *is* capable of definition must be defined.’ (9-10)

Now, although Moore realizes that Good is not actually indefinable i.e. that no definition of it is possible, he is trying to point out that its elusive nature is the substantive to which any adjective of “good” must apply. In other words, although we may experience many good things, that which is Good about these things is not found in their properties. To offer any definition of Good we may ask, says Moore, whether that definition is good. This, of course, is Moore's open question argument. ‘If “good” was definable it was a complex, and so it could be asked of any definiens if it was good. After all, a definition should not be merely "analytic," it should give information about the *definiendum*; therefore whatever definition is offered, it may always be asked, with significance, of the complex so defined, whether it is itself good.’ (Hill, 99) Good is what it is and not another thing; anyone attempting to define it through the use of any natural properties commits the naturalistic fallacy.

In the fourth chapter of the *Principia*, Moore goes on to state that any metaphysical definition of Good commits the naturalistic fallacy as well. Unlike naturalists, metaphysicians did not believe that ethics could be explained in terms of natural properties but instead believed, like Moore, that Good was a super-sensible property. Unlike Moore, however, the metaphysicians came under attack because they tried to define Good as actually existing super-sensible objects. (Warnock, 28) This is somewhat confusing due to the fact that Moore earlier defined Good as super-sensible and known only through intuition yet he also maintains that goodness does not exist. The main difficulty with Moore's definition of Good seems to lie in its precarious mode of existence. There is a similarity here between Moore's theory of Good and Plato's theory of Forms.

Moore believed the central problem with the metaphysicians involved their attempt to equate Good with some super-sensible property such as the true self or the real will. (Warnock, 32) In this respect they seem, *prima facie*, to have committed the naturalistic fallacy (though not because they have equated Good with a natural property). As Frankena points out, Moore tends to confuse matters by lumping natural and metaphysical properties into one class. Perhaps Frankena is correct in claiming that Moore should have called it the ‘definist fallacy’ i.e. the fallacy is committed when the attempt is made to define Good as a natural or a metaphysical property. (Cited in Warnock, 13) Mary Warnock points out that Moore didn't care much for the name: ‘It does not matter what we call it provided we recognize it when we meet it; the true fallacy is the attempt to define the indefinable.’ (Warnock, 13) Nevertheless, an important distinction can be made between committing the naturalistic fallacy by equating Good with a natural property and committing the naturalistic fallacy by equating Good with a metaphysical property. What Moore is asserting is that any argument of the form:

- (1) “Reality is of this nature” → “This is good in itself”  
(where → designates “implies”)

commits the naturalistic fallacy (NF). Since this differs in type from the attempt to define Good in terms of natural properties, we shall distinguish it by calling it the metaphysical fallacy (MF). Though it differs in type (or species) from that of defining Good in terms of natural properties, we may consider it, as does Moore, to belong to the overall genus of the naturalistic fallacy.

It has been suggested that Moore treats Good and the naturalistic fallacy in this manner because if naturalistic or metaphysical definitions were synonymously identified with Good, the autonomy of ethics would be destroyed: ‘If Good is identified with some empirically verifiable biological tendency (say, what is more evolved) Ethics becomes a branch of biology. If Good is defined in psychological terms (say, whatever anyone prefers) Ethics becomes a branch of psychology. And so on.’ (Regan, 201-202) If naturalistic or metaphysical definitions were synonymous with Good, Regan states, Moore believed our freedom to judge intrinsic value would be lost. For example, if Good means “more evolved” then there could be no room for individual judgment about what sort of things ought to exist for their own sakes. In this way, those that are most knowledgeable about what things are more evolved (i.e. biologists), would become our authorities. The same holds true if Good is defined in psychological or metaphysical terms. If Good is not defined in either naturalistic or metaphysical terms, the autonomy of the individual is assured:

At the deepest level it is the autonomy of the individual judgment about what has intrinsic value, not the autonomy of the Science of Morals...*Individuals* must judge for themselves what things ought to exist, what things are worth having for their own sakes. No natural science can do this. No metaphysical system can do this. (Regan, 204)

Moore here articulates a more general concern over evolutionary ethics—that such an ethics will somehow dictate to the individual what and how he or she ought to value. However, we will later argue that an evolutionary ethics based on a deeper understanding of the NF rules out any such concern. For now we can see that extending the NF to metaphysical definitions of the good poses a problem for Gould’s insistence on the exclusivity of the Religious Magisteria concerning ethics, and, we believe, creates an opening for evolutionary ethics.

### **III) Implications of the Naturalistic/Metaphysical Fallacy**

Given this understanding of the Naturalistic Fallacy we can see that certain moves from facts to values are ruled out. For example, any attempt to read a value statement directly from a simple statement of fact would be to commit the NF. An instance of such a fallacious move can be found in a 1984 article by philosopher Michael Levin

entitled “Why Homosexuality is Abnormal.” In support of the notion that there is something “unnatural” about homosexuality Levin writes,

The erect penis fits the vagina, and fits it better than any other natural orifice; penis and vagina seem made for each other. This intuition ultimately derives from, or is another way of capturing, the idea that the penis is not *for* inserting into the anus of another man—that so using the penis is not the way it is *supposed*, even *intended*, to be used. [italics in the original] (251)

Here the NF comes into play and asks the key question: Even though x (the penis) evolved to do y (be inserted into the vagina) why ought we to do y, instead of z? To reply that y is the evolved function of x, and z is not, is merely to restate the original premise. It is a circular argument, and is without merit.

Now Levin, being a professional philosopher, does not present such a simplistic argument as this, but it is not merely professional philosophers who moralize and the NF can be a useful tool in assessing popular moral arguments, which are often more socially influential than philosophical arguments. Of course, we are here most interested in the role of the NF in moral philosophy and it does play a role in assessing Levin’s larger position.

While he does not mention the NF, Levin goes to great lengths throughout the article to avoid suspicion of this charge. He begins by stating that homosexuality is abnormal ‘not because it is immoral or sinful...but for a purely mechanical reason. It is a misuse of bodily parts.’ (251) Still, for Levin, the evolution-determined function of the penis clearly sets the boundaries for the normative use of the penis. (256-258) Levin does not argue, overtly at least, that since evolution shaped the penis to do x that to do ~x is immoral. His argument is that the use of the penis in accord with its evolutionary purpose is conducive to happiness, and to act counter to what is conducive to our happiness is abnormal. He attempts to presents this conclusion as a prudential assessment, rather than a moral one but he undermines such an interpretation. He writes.

Homosexual acts involve the use of the genitals for what they aren’t for, and it is a *bad* or at least *unwise* thing to use a part of the body for what it isn’t for. Calling homosexual acts “unnatural” is indeed to sum up this entire line of reasoning. “Unnatural” carries disapprobative connotations, and any explication of it should capture this. [italics in the original] (253)

His argument comes down to: homosexuality is bad because it makes us unhappy, and it makes us unhappy because it is unnatural—i.e. contrary to the design of nature. With this formulation Levin may be able to avoid the more egregious violation of the NF previously discussed, but he falls into a variation of the fallacy, nonetheless, i.e. he uses a natural description to make a moral prescription.

It may be legitimate to argue that one ought not to act in a way incompatible with

one's happiness and so one ought not to do x because x is incompatible with happiness. But then one must support the premise that "x is incompatible with happiness." Levin's primary support for this premise is that 'Nature is interested in making its creatures like what is (inclusively) good for them.' (259) Therefore using our bodily parts (not merely the penis) for the purpose for which they were intended/evolved will lead to a life that is, on whole, more enjoyable, and a life so lived will be a happier life. (260) Levin's explication of this position is marred by an equivocation between "enjoyment" and "happiness" but more importantly he seems to rule out, by definition, any sense of happiness generated by using body parts in an "unnatural" manner. 'Homosexuality' he asserts 'is likely to cause unhappiness because it leaves unfulfilled an innate and innately rewarding desire.' (261) This "innate desire" is not simply to experience sexual release, or to ejaculate, but to 'introduce semen into the vagina.' (261) Any other means of release will fail to truly satisfy this desire.

Levin is here treading on treacherous grounds, not only logically, but empirically. There are more serious problems with this line of reasoning than violating the NF, but that this is an example of the NF we can see by posing the question: What if an individual does not find vaginal sex innately rewarding, but instead finds anal sex or even no sex more rewarding? In such instances it follows that fulfilling the natural function of the penis will not be enjoyable, and will not conduce to happiness. Therefore, one ought not to act in the way nature intended for to do so would violate the principle that one ought not to do what is incompatible with happiness. (It is, perhaps, telling that Levin allows that volitionally celibate individuals, such as Catholic priests, do not face the same problem in being happy as homosexuals do—despite their similar violation of the natural impulse. 271)

It is, we believe, arguments like Levin's which cause the most anxiety over evolutionary ethics. The concern seems to be that if we allow evolutionary thinking into our ethics we are going to end up with a reactionary moral system which supports an oppressive patriarchal value system in which woman are consigned to the kitchen, homosexuals to the closets, the poor and disadvantaged to the fringes of society, all in the name of the natural moral order. The Naturalistic Fallacy cuts off any such strategy by pointing out that simply because something has played a certain role in the evolution of the species it does not follow that it ought to continue to play that role, or that it can play no other role. How we ought to behave is a moral question which cannot simply be read out of the world of facts.

Curiously, this is just the point that opponents of evolutionary ethics, such as Gould, want to make, and it is a valid point. However, it does not do all the work Gould and others attribute to it. For one, it does not hand ethics over to religion and metaphysics—as we can see from an examination of the MF.

The Metaphysical Fallacy holds that value statements cannot be derived from a simple statement of religious or metaphysical "fact." As an example let's explore an aspect of Immanuel Kant's ethics. Kant developed a dualistic view of humans as phenomenal beings, with passions, needs and desires, and noumenal beings, capable

of grasping the laws of pure reason. (1788) Morality, for Kant, is derived from these intellectually grasped laws of pure reason. This is, of course, the Categorical Imperative (in its various manifestations).

The question to consider here is, what grounds the Categorical Imperative, not as a rule of reason (we can grant Kant that) but as a moral law? Why ought one to follow the Categorical Imperative? Or in Moore's terms, why is it good to follow the Categorical Imperative? Kant addressed this question and deemed it unanswerable: 'it is wholly impossible to explain how and why the *universality of a maxim as a law* [italics in original]—and therefore morality—should interest us.' However he then asserts that this interest is connected to the fact that the law has 'sprung from our will as intelligence and so from *our proper self*.' [emphasis added] (1785,128-129) Our essential nature as rational beings is the foundation for the moral force of the rule of reason. In effect, Kant is arguing:

p1 Humans are Essentially Rational Beings,  
p2 Pure Practical Reason dictates certain rules for behavior  
C—We ought to follow these rules.

The argument is, of course, much more complicated but this will serve, I believe, without too much harm being done to Kant.

Now we ask the Open Question. When we ask Kant why we ought to follow the dictates of rationality, his answer, ultimately, is because it is an expression of our rational nature. Even if we were to grant the notion of an essential nature, it seems we can still ask why we ought to fulfill that nature? If it is supposedly good to do so, a justification seems called for. Kant, however, absolutely rejects any consequential justification of ethics. We cannot claim, for example, that we will be happier if we follow the dictates of reason. We are simply obliged by virtue of our rational natures to act rationally.

We can now notice a circularity lurking in the argument: We ought to do x because it is rational, and we ought to be rational because we are, *essentially*, rational beings—in effect this is to derive an "ought" (act according to rationality) from an "is" (we are rational). Whether the "is" is an empirical statement or a metaphysical statement, it is an invalid move. This is not to deny that we must be rational in order to engage in moral discourse. Kant is correct in emphasizing the necessity of rationality as a pre-condition of any moral deliberation. He goes astray, however, in deriving the principles of morality strictly from the notion of rationality, per se.<sup>1</sup> He in effect identifies the "good" with the "rational," which not only begs the question of reason's moral authority, but rules out of consideration, *a priori*, emotional and consequential concerns.

The Metaphysical Fallacy prohibits certain religious/philosophical attempts at developing an ethics, just as the Naturalistic Fallacy prohibits certain scientific attempts at developing an ethics. This is, in fact, what we believe the Naturalistic fallacy does: it does not demarcate the boundaries between science and ethics, or

between science and religion—it invalidates certain attempts at developing an ethics. Specifically, it invalidates ethical arguments of the form

X is the natural function of Y; therefore one ought to do X

It also rules out:

X is an expression of Ultimate Reality; therefore X is morally correct

We can see, then, that Gould’s NOMA is mistaken in placing ethics under the magisterium of religion. Religious and metaphysical systems can be just as misguided in their approach to ethics as scientific approaches can be. However, our goal was not to critique religion, but to argue for a positive role for evolution in ethical theorizing, and to that we must now turn.

#### **IV) The Naturalistic Fallacy and Evolutionary Ethics**

The message to be taken from this understanding of the NF is that no factual statement about the world—be it empirical or metaphysical—entails a value statement. The deeper message is that values are not to be *found*, at all, whether in the natural universe, or in some transcendent realm. Now, this may seem an unpalatable conclusion that does not bode well for any ethical system, much less an evolutionary one, but we do not believe this is to be the case. Moral dilemmas exist; values conflict; “what ought we to do?” is still a meaningful question. There needs to be some way of dealing with these ethical concerns, even after the NF/MF has done its work.

To see how to proceed we need to adjust our traditional notions of the subject of moral philosophy. The notion that ethical truths are “out there” waiting to be discovered is itself the remnant of a pre-scientific mode of thought. It stems back to a time when not only ethics, but science itself was under the magisterium of religion. The progress of modern science can be viewed as a process of freeing the study of nature from religious/ metaphysical constraints and establishing its own magisterium. For example, our understanding of species increased dramatically once we surrendered the notion that there are fixed essences embodied by species, and saw instead that species are what they are because of a complex, dynamic process of interaction between individuals and their environments.

This provides an important lesson for understanding ethics. While the universe is value-neutral in the sense of not entailing any moral imperatives, it does contain the conditions that give rise to valuing and to creatures who make value judgments. These value judgments are not the expression of some pre-existing moral essence but rather arise from the complex interactions between individuals and the environment. In effect, morality is not “out there” waiting to be found, it is constructed by individuals-who-value, who live in an environment which provides the conditions for

both satisfying and frustrating our desires, and who must live with others who may or may not value the same things, in the same way. Morality is both the result of and a contributor to complex social interactions.

This approach should not be construed as an endorsement of a non-cognitivist or anti-realist approach to ethics. In one sense this critique of the NF/MF is neutral on these meta-ethical issues. However, the goal of this critique is to clear the conceptual ground for an evolutionary ethics and such an ethics is aligned more consistently with cognitivist /realist approaches. Although in making this claim we would do well to keep in mind Simon Blackburn's warning that "realism" and "cognitivism" are 'terms of art that philosophers can define pretty much at will.' (120) In saying that values are not "out there" we do not mean to imply that values are therefore simply expressions of subjective attitudes or emotions.<sup>2</sup> What is being denied is any strict identification of a factual description of some property of the world with a normative evaluation of that property.

A complete inventory of the universe would not yield any property which in and of itself could be labeled "good" or "bad." But that inventory would contain creatures (e.g. humans) that have needs, desires, interests, etc., which in relationship to other things on the list yield satisfactions/dissatisfactions, which constitute "values." A "value" is not an object in the world, but is shorthand for an objective relationship between creatures with interests and other components of the universe.<sup>3</sup>

To view ethics in this way is to see it as an attempt to evaluate and critique certain responses to complex social situations, not as an attempt to divine some pre-existing moral order. It is to view ethics as a practical discipline. This is not a radically new view of ethics. It was first suggested by Aristotle, and it has been more recently advocated by Michael Ruse and E. O. Wilson, who have urged us to see morality as an "applied science." (1986) It is also the approach to ethics developed by John Dewey (1898, 1902, 1925, 1929)—who, though woefully under-appreciated, has much to offer evolutionary ethics and who is, in fact, the guiding light behind much of this article.<sup>4</sup>

Given this view of ethics, it becomes essential to gain greater insight into the conditions that underlie value judgment, their development and their consequences. These are empirical questions and so fall under the magisterium of science. Any science which helps us to understand and assess morally problematic situations has something to contribute to moral philosophy. Evolution, as a scientific study of human cognition, emotions and predispositions—core elements of moral situations—rather than being barred becomes a most valuable tool in the study of ethics.<sup>5</sup>

## **V) Conclusion**

Before concluding, we need to deal with the most common objection to this position, and again we can allow Gould to speak for the opposition. It is quite reasonable, Gould says, to accept that science can highlight the conditions of moral experience or the history of moral systems, what he calls the 'anthropology of

morals,' but it can go no further. Factual information can contribute nothing to normative ethics; or as Gould puts it 'science can say nothing about the morality of morals.' (65-66) John Dewey responded to just this type of criticism, one hundred years ago. Here is his formulation of the criticism of what he calls the "historical method," i.e. an evolutionary approach to ethics in which the cultural as well as natural development of morality is assessed.<sup>6</sup>

The opponent argues thus: It is of course true that morality has a history; that is, we can trace different moral practices, beliefs, customs, demands, opinions, various forms of outward manifestation. We can say that here such and such moral practices obtained, and then gave way in this point or that. This indeed is a branch of history, and an interesting one....But when this is said and done the result remains history, not ethics. What ethics deals with is the moral worth of these various practices, beliefs, etc....The historian of ethics can at most supply only data; the distinctive work of the ethical writer is still all to be done. (1902, 22)

The problem with this objection is that it misconstrues the purpose of the historical/evolutionary approach to ethics, and the nature of ethical deliberation. Dewey's imaginary critic, and Gould, are correct that this process will not reveal the "Good", or the "Right" (as those terms are understood in traditional philosophical jargon.) But this is not the purpose of such an approach. For Dewey, we engage in moral inquiry *because* there is no clear, objective moral truth at hand. We investigate in order to better understand the conditions of human valuations and so be better equipped to understand and resolve those dilemmas which we must face. He writes, 'It might be true that objective history does not create moral values as such, and yet be true that there is no way of settling questions of valid ethical significance in detail apart from historical consideration.' (23)

Dewey believes moral dilemmas are problematic situations in which there is a question about what to do. They arise when there is a disjunct between the desires/interests of an agent and the enviroing conditions in which one finds oneself. Such situations call for deliberation in order to reach a judgment that "x" is the right/good thing to do. For Dewey, to claim "x" is "good" is not to commit the naturalistic fallacy of identifying a natural property with a moral evaluation. It is to judge that "x" will resolve the problematic situation. (1925a, 1925b, 1929, 1939b) From Dewey's perspective the entire situation is composed of natural elements, and so the moral conclusion must follow from naturalistic premises. But, as should be clear at this point, such conclusions are not violations of Moore's injunction; nor is Dewey's approach subject to the Open Question criticism. To say "x resolves the dilemma, but is x good?" is confused. Once we have established that "x" resolves the dilemma to then ask if it is good is either redundant, or it is to ask for further evaluation of the proposed resolution—i.e. it is to ask "does x truly resolve the dilemma?" "does it resolve the dilemma in the short run but create greater long term problems?" "does it

resolve the problem by frustrating other significant interests?" etc. These are all fair questions, indeed important questions. They do not imply, however, that there is some fallacy lurking beneath the moral judgment, they merely seek to continue the process of moral inquiry in a meta-ethically and epistemically responsible way.

In order to resolve a problematic situation, to make a moral judgment, we need to have a clear grasp of the situation at hand and the possible consequences of various options. Whatever contributes to our understanding of the situation, contributes to our judgment of what we may construe as the good in that situation. As Dewey says, 'Whatever modifies the judgment...modifies conduct. To control our judgments of conduct...is in so far forth to direct conduct itself.' (38) In other words, whatever contributes to that moral judgment has normative and not merely descriptive significance. Evolutionary studies clearly can make such a contribution.

This is not to imply that evolution will have something to offer each dilemma; our moral experience is too complicated to make any such generalized claim. The point is that evolutionary studies, by helping to uncover the workings of human emotions and cognition provide a wealth of resources that can inform, in a practical way, our moral deliberations. Philosophers/ethicists can no longer turn a blind eye to the evolutionary sciences and related disciplines uncovering relevant information regarding human nature. We believe that the attribution of such information to the field of ethics is a clearly defined epistemically responsible method for framing ethical concepts.

So, in conclusion, rather than excluding evolutionary considerations from ethics the Naturalistic Fallacy actually opens up space for evolution to contribute to moral philosophy. The deeper lesson of the Naturalistic Fallacy is that ethics is not about identifying pre-existing moral definitions. It is, instead, an ongoing process of deliberation concerning what is right/good to do. Given this, any discipline which contributes to an understanding of the human condition, contributes to this process. Evolutionary studies aspire to offer insights into the physical, psychological and social aspects of human existence and, to the degree that these insights are valid, may prove invaluable to our moral thinking.<sup>7</sup>

**Received 31 October, 2003, Revision received 9 February, 2004, Accepted 9 March, 2004.**

## Notes

- 1 For a more detailed discussion of Kant's ethics from an evolutionary perspective see Teehan (2003).
- 2 Simon Blackburn has developed a naturalistic approach to ethics which also seeks to overcome the constraints of the naturalistic fallacy. His theory, which cannot be given its due here, bears apparent kinship with the approach developed in this paper, but differs in relation to the cognitivist/realist issue. While appropriately wary of such labels, Blackburn accepts that his theory falls near the non-cognitivist/anti-realist end of the spectrum (although he prefers the term "quasi-

realism”). Ethical propositions are properly seen as projections of our concerns and attitudes, rather than as references to some property of the world. As such there are no truth conditions applicable to ethical propositions. (1998) As it stands this is in agreement with the Deweyan position underlying this paper, but it does not go far enough in assessing ethical propositions. Dewey would agree that ethical propositions are rooted in human concerns but he would insist they are more than projections. They are themselves practical judgments which address those concerns. (1925, 1945) To use an example from Blackburn, to say “fat is bad” is not to identify “fat” with some objective moral quality “badness” but neither is it simply an expression of a subjective attitude. If it were, then for Dewey it would not be an ethical proposition. (1945, p. 684) As an ethical proposition “fat is bad” works against, is inconsistent with, somehow conflicts with some desired state of affairs (which is also a real property of the world). Such a proposition is open to a cognitive assessment, despite the fact that non-cognitive factors play an essential role in moral judgments (here Dewey and Blackburn are in agreement.) Much more can and should be said on this issue than can fit within the scope of this paper.

3. DiCarlo has mentioned elsewhere (“Problem Solving and Religion in the EEA: An Endorphin Rush?” presented at the New England Institute Cognitive Science and Evolutionary Psychology Conference, August, 2003, Portland, Maine) that an evolutionary concept of human value begins with the drive to maintain bio-mimetic equilibria in order to achieve survival-reproductive value. As a starting point for acknowledged value, that which would have best favored survival and reproduction would have garnered the most value. The eventual emergence of non-conscious humans to conscious, socially-active language users, created the environment in which humans were capable of measuring ideas with actions in terms of their own survival strategies. Hence, the emergence of consciously recognized ‘value’ in terms of survival and reproduction. See also diCarlo 2002/3, 2000 (a) (b).
- 4 It is worth noting some recent works on evolution and ethics consistent with a Deweyan approach. Larry Arnhart (1998) makes a compelling case for an Aristotelian evolutionary ethics which shares much with Dewey’s approach—not surprising, given Dewey’s affinity with Aristotle. Also, Robert Hinde (2002) has quite effectively set out the role biology may play in moral philosophy, given that moral philosophy is concerned with ethical deliberations, rather than with a search for absolutes. Most significantly, William Casebeer (2003) sets out, in effective detail, the case for an Aristotelian/Deweyan ethics grounded in evolutionary biology and cognitive science consonant with the ethical approach being developed in this paper. His work also contains a critique of the NF, but from a different, though complementary, angle.
- 5 One way in which we can see this in application is to briefly consider diCarlo’s ‘Relations of Natural Systems’ project. This is essentially a multi-disciplinary web-based approach to understanding human behaviour by examining our species

and its environmental interactions as a complex synthesis of relational systems. It is anticipated that though the understanding of such interactive systems may not provide us with “oughts” it will certainly clarify matters in terms of the “is’s” i.e. the physical substrates. And we believe this to be epistemically responsible. For we are now taking the initiative to ask the other humanities, social and natural sciences what makes humans “tick” at various levels. Such a synthetic view—in conjunction with a clear understanding of the NF/MF--will shed light on the origin and development of human values.

- 6 Dewey’s conception of an evolutionary account of ethics is not a strictly biological approach. His concern is to study the developmental history of moral judgments, which on a certain level may not include biological considerations. But Dewey’s naturalism sees “culture” as an outgrowth of the needs, desires and predispositions of humans who are the product of natural evolution. Therefore “natural” evolution and “cultural” evolution are points on a continuum and are both part of a full appreciation of human experience. The contemporary evolutionary study of ethics seems a continuation of the project Dewey is defending in his 1902 essay. For a further discussion of Dewey’s views on evolution see, Teehan, 2002.
- 7 Perhaps, the role to be played is even more urgent. Dewey warns, ‘A culture which permits science to destroy traditional values but which distrusts its power to create new ones is a culture which is destroying itself.’ (1939, p. 172)

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