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## *Is Darwin Right?*

Look in the *Oxford English Dictionary* and you will find at least three different meanings of the word ‘right’. In the first (adjectival) sense of the word — ‘correct’ — the answer to the question ‘is Darwin right’, is clearly ‘yes’. The views advanced by Larry Arnhart in *Darwinian Natural Right*<sup>1</sup> are also generally right,<sup>2</sup> at least from the perspective of this review. The book tackles a very broad and difficult subject and meets the many obstacles with admirable clarity, breadth, and scholarship. The fact that we disagree with Arnhart in some of the particulars is hardly surprising, given the scope of his undertaking. Not only is Arnhart’s synthesis of Aristotle, Hume and Darwin well supported by the textual citations, but the many *controversial* claims are both interesting and provocative. The book’s challenging central thesis warrants the attention of all ethicists, political theorists and evolutionary psychologists.

A second (substantive) meaning of ‘right’ provides Arnhart with his title. According to the *OED*, ‘right’ in this second sense is ‘the standard of permitted and forbidden action within a certain sphere; law; a rule or canon’. The dictionary goes on to elaborate: ‘that which is consonant with equity or the light of nature; and which is morally just or due’ — and this is where the controversial issues begin. Is morality derived from reason (abstract principles like ‘equity’) or *pace* G.E. Moore, ‘the light of nature’? Does any empirical science of ethics necessarily commit what Moore called the ‘naturalistic fallacy’? Can ethics properly begin with *descriptive* premises and arrive at *prescriptive* conclusions? According to most standard interpretations of a famous passage written by David Hume, any such derivation of ‘ought’ from ‘is’ is

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[1] Review of Larry Arnhart, *Darwinian Natural Right: The Biological Ethics of Human Nature* (SUNY Series in Philosophy and Biology), May 1998, ISBN 0791436942, \$24.95. Unless otherwise attributed, page numbers throughout this essay refer to this edition. The authors are grateful to James Blair and Paul Rogers for comments on an earlier draft of this essay. Due to space constraints the appendices (on religion and Hobbes) are only available on the web: <http://www.imprint.co.uk/arnhart>

[2] Unless you live in Kansas and definitely not ‘right-on’ in the sense of ‘politically correct’.

illicit.<sup>3</sup> So widely held is this interpretation of Hume's dictum that R.M. Hare dubbed it 'Hume's Law' and (unfortunately, in our opinion) the name has stuck. Arnhart rejects these constraints. He thinks that morality is an empirical rather than an abstract philosophical subject area and we will devote the greater part of this review essay to a discussion of that claim.

A third (adjectival) meaning of 'right' is derived from right-handedness and has come to be associated with politicians of a conservative disposition. Critics of sociobiology and evolutionary psychology like Stephen Jay Gould, Richard Lewontin and Steven Rose are (or were) 'more or less Marxist' (Brown, 2000, p. 58). Is a Darwinian approach to ethics of most interest to the political right? Arnhart has elsewhere (2000) suggested this might well be the case but not everyone would agree, including the editor of a special issue of this very journal published earlier this year.<sup>4</sup>

### Darwinian Natural Right

*Bring me my Bow of burning gold:*

*Bring me my Arrows of desire:* William Blake

The theme of Arnhart's book is 'the good is the desirable', and he attempts to find common ground between Aristotle's idea of 'natural right', Hume's idea of the natural moral sense and Darwin's idea of the moral sense as shaped by natural selection. Arnhart describes this as an 'empiricist' or naturalistic view of ethics, in sharp contrast with the 'transcendentalist' or Kantian view of ethics in which morality is viewed as an autonomous realm of rationality separated from natural desires.

Although it is often believed that the current wave of 'evolutionary psychology' is just 1960s sociobiology with a make-over, the debate over ethics and evolution is sharply divided on this topic. Prominent evolutionary psychologists like Richard Dawkins, David Buss, Steven Pinker and George C. Williams all claim that the moral realm of values transcends (or is at odds with) the natural realm of facts.

Be warned that if you wish, as I do, to build a society in which individuals cooperate generously and unselfishly towards a common good, you can expect little help from biological nature. Let us try to teach generosity and altruism, because we are born selfish (Dawkins, 1976, p. 3).

This denial that evolution can account for ethics belongs to a tradition of thought that goes back to T.H. Huxley's lecture *Evolution and Ethics* (1894). Huxley believed that human nature is essentially evil — a product of a nasty and unsympathetic natural world, which he famously described as 'red in tooth and claw' — and that ethical behaviour is only the result of cultural influences. Morality, he argued, is a human invention explicitly devised to control and combat selfish and competitive tendencies generated by the evolutionary process. By depicting morality in this way, Huxley was advocating that the search for the origins of morality should be de-coupled from evolution and conducted outside of biology.<sup>5</sup>

[3] A close relative of the 'naturalistic fallacy', this pattern of argument often goes by the same name.

[4] Katz (2000). See also Dickens (2000); Singer (2000).

[5] This viewpoint has been described as 'Calvinist sociobiology' by Franz de Waal, because it 'presumes an implicit acceptance of the doctrine of original sin and the natural depravity of human beings' (de Waal, 1996, pp. 13–20).

By contrast, sociobiologist E.O. Wilson's insistence that ethics is rooted in natural moral sentiments shaped by natural selection belongs to the tradition that goes back to Darwin's theory of the 'moral sense' in *The Descent of Man*. Huxley adopted a transcendental dualism derived ultimately from Kant, while Darwin adopted an empiricist naturalism derived from Hume and, before him, Aristotle.

Darwin's ethical naturalism was developed by Edward Westermarck who argued that ethics can be explained as a cultural expression of moral emotions rooted in human nature. Westermarck's theory of the incest taboo was one example of how a Darwinian could explain an ethical norm as rooted in natural emotions shaped by natural selection. It is not surprising therefore that Wilson uses Westermarck's account of the incest taboo to illustrate how Darwinian biology could explain the 'epigenetic rules' of ethics. Although evolutionary psychologists have generally accepted Westermarck's theory of incest avoidance, they would mostly say that the specifically moral content of the incest taboo as a norm transcends biological nature.

Arnhart claims that if Darwinism really is a comprehensive account of human behaviour, then Darwinians must defend a naturalistic account of ethics such as that developed by Darwin, Westermarck and Wilson, in contrast to the dualistic explanation favoured by most evolutionary psychologists.<sup>6</sup> This leads him to formulate ten propositions (pp. 6–7):

1. The good is the desirable, because all animals capable of voluntary movement pursue the satisfaction of their desires as guided by their information about the world.
2. Only human beings, however, can pursue happiness as a deliberate conception of the fullest satisfaction of their desires over a whole life, because only they have the cognitive capacities for reason and language that allow them to formulate a plan of life, so that they can judge present actions in the light of past experience and future expectations.
3. Human beings are by nature social and political animals, because the species-specific behavioural repertoire of *Homo sapiens* includes inborn desires and cognitive capacities that are fulfilled in social and political life.
4. The fulfilment of these natural potentials requires social learning and moral habituation; and although the specific content of this learning and habituation will vary according to the social and physical circumstances of each human group, the natural repertoire of desires and cognitive capacities will structure this variability.
5. We can judge divergent ways of life by how well they nurture the natural desires and cognitive capacities of human beings in different circumstances, but deciding what should be done in particular cases requires prudential judgments that respect the social practices of the group.
6. Rather than identifying morality with altruistic selflessness, we should see that human beings are moved by self-love, and as social animals they are moved to love others with whom they are bonded as extensions of themselves.
7. Two of the primary forms of human sociality are the familial bond between parents and children and the conjugal bond between husband and wife.

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[6] Readers of this journal will be aware that Steven Pinker also adopts the closet dualist view that consciousness is likewise beyond naturalistic explanation, using an argument derived from Colin McGinn.

8. Human beings have a natural moral sense that emerges as a joint product of moral emotions such as sympathy and anger and moral principles such as kinship and reciprocity.
9. Modern Darwinian biology supports this understanding of the ethical and social nature of human beings by showing how it could have arisen by natural selection through evolutionary history.
10. Consequently, a Darwinian understanding of human nature supports a modern version of Aristotelian natural right.

### Objections

This is all highly controversial. The immediate objection is that Arnhart's theory contravenes the prime orthodoxy of the social sciences: human cultures are quintessentially diverse and definitions of 'the good' are at the best arbitrary and, at the worst, a reflection of the distribution of power within a society. According to the 'standard social science model' (SSSM) there is no such thing as 'human nature' and even basic appetites are moulded by cultural forces (social constructivism).

It is not possible to understand how such a profoundly unbiological (and counter-intuitive) point of view became ubiquitous in the social sciences without a brief review of the intellectual history of the twentieth century. Although it was Herbert Spencer, a conservative liberal, who first coined the term 'sociology', Spencer's organic, universalist and biological view of society — immensely popular in late-Victorian England and America — soon went into sharp decline. This was partly on account of increasing ethnographic evidence for the sheer diversity of human cultures and partly on account of the growing influence of the view of Spencer's contemporary Karl Marx that there was no such thing as human nature, only human history. Despite the rearguard efforts of the likes of Pitirim Sorokin at Harvard, within a few generations Marx's viewpoint prevailed in most social science faculties and remained firmly ensconced until the fall of the Berlin Wall. Social Darwinism and eugenics also became tarred by the Nazi brush<sup>7</sup> so it is unsurprising that relativism and social constructivism became the only show in town (MacIntyre, 1982).

The other influence on the social sciences was the new behaviourism emanating from psychology departments at the beginning of the twentieth century. Under the influence of Watson and Skinner psychology eschewed any reference to innatism through the adoption of a radical learning paradigm. The language of conditioning and reinforcement left no place for any talk of universals like a biological 'human nature'. The so-called 'cognitive revolution' of the second half of the century altered this not one iota. The widespread adoption of the computer model, and the spread of structuralism and functionalism — with the associated notion that the 'substrate' was of no particular importance — left no place for a natural history approach to human cognition.<sup>8</sup>

Given this political and intellectual climate, it is unsurprising that the first wave of biological naturalism to hit the social sciences — the sociobiology of the 1960s —

[7] It is more than coincidental that Gould, Lewontin and Rose, the three most vocal critics of sociobiology, are all Jewish (Brown, 2000, p. 58).

[8] Lévi-Strauss's *La Pensée Sauvage* (1966) is a prime example of the static ahistorical approach favoured by the structuralists.

should have met with such fierce resistance.<sup>9</sup> But the climate had changed dramatically by the 1990s. The political meltdown of Eastern Europe and the victory of market capitalism meant that only a few diehards were left to stem the rising tide of naturalism in the social sciences. And the belated realization that the ‘problem of consciousness’ was still ignored by science led the Churchlands to start a campaign for the inclusion of neurobiology within the cognitive sciences. Although all sorts of Cartesian snares have been laid to entrap these poachers and intruders, the technology-driven growth of cognitive neuroscience will ensure that the social sciences of the twenty-first century will no longer escape the strictures of naturalism.

### The ‘Naturalistic Fallacy’

Given the widespread view that the problem of *consciousness* will eventually yield to naturalistic explanation, why is it then that *ethics* — one of the fruits of human consciousness — is still seen as the domain of philosophers, rather than social scientists? The philosopher G.E. Moore advanced one of the most influential expressions of this view in his famous book *Principia Ethica* (1903). Moore contended that moral philosophers, and particularly the Utilitarians, were logically confused. According to Moore’s famous ‘open question argument’, the word ‘good’ cannot be defined in terms of natural qualities, as it always makes sense to ask (i.e. it is ‘an open question’) whether anything possessing natural qualities is *good*. Moore claimed that goodness is a simple, unanalysable, non-natural quality and he charged that any attempt to reduce goodness to any more basic concept, whether natural (e.g. pleasure, for Utilitarians) or *non-natural* (e.g. God’s nature, for religious ethicists) committed what he called the ‘naturalistic fallacy’. This term has gained a somewhat broader meaning than Moore originally had in mind; it has become applied generally to any attempt to derive values from facts.<sup>10</sup>

Evolutionary psychologists by and large accept Moore’s argument, as documented by Ullica Segerstrale’s account of the 1996 convention of the Human Behavior and Evolution Society. The keynote address, which deeply disturbed many in the audience, was given by E.O. Wilson. Segerstrale writes (2000, p. 363):

What baffled and annoyed many — including the conference organizers — was Wilson’s insistence that there was only one science, and that the humanities should learn from science, because science prescribes the correct values for us! It seemed that after a twenty-year pause, Wilson had again shamelessly reiterated in public that controversial point from his first chapter in *Sociobiology* — the extrapolation from *is* to *ought* — and with a new vehemence.

After the conference, the local organizer — John Beckstrom — wrote a letter to Wilson expressing the displeasure of the HBES membership:

I hope I misunderstood you. Among other things, you seemed to be (1) promoting the use of evolutionary history of human behavior in establishing values for the humanities and society in general and (2) denigrating philosophers who point out the follies of the

[9] A group of Maoist student protesters assaulted Wilson at a scientific meeting uttering the cry ‘E.O. Wilson, you can’t hide / We charge you with genocide’ (Brown, 2000, p. 72).

[10] The ‘fact–value’ distinction was first given its familiar modern form by Max Weber (1904) with regard to the newly emerging social sciences. However, within Anglo-American philosophy, the most influential discussions in ethics have predominantly responded to the related concerns addressed by Hume and Moore.

Naturalistic Fallacy. In other words, you seemed to be advocating normative uses of sociobiology. If you were, I would have to oppose vigorously your position and I expect many in attendance with whom I later discussed your speech would do likewise.

The irony is that many, if not most, contemporary moral philosophers subscribe neither to Moore's 'open question argument', nor to the celebrated 'fallacy'. Gilbert Harman, in his 1977 book *The Nature of Morality*, stated

. . . as it stands the open question argument is invalid. An analogous argument could be used on someone who was ignorant of the chemical composition of water to 'prove' to him that water is not H<sub>2</sub>O. This person will agree that it is not an open question whether water is water but it is an open question, at least for him, whether water is H<sub>2</sub>O. Since this argument would not show that water is not H<sub>2</sub>O, the open question argument in ethics cannot be used as it stands . . . (in Cahn & Markie, 1998, pp. 545–6).

Oliver Curry (2000) offers a similar argument: 'If one approaches ethics with the view that ethical properties are natural properties (what else could they be?),<sup>11</sup> then it is not an error to deduce ethical conclusions from natural premises'. And Bernard Williams calls the 'naturalistic fallacy' a 'spectacular misnomer':

It is hard to think of any other widely used phrase in the history of philosophy that is such a spectacular misnomer. In the first place, it is not clear why those criticized were committing a fallacy (which is a mistake in inference) as opposed to making what in Moore's view was an error, or else simply redefining a word. More important, the phrase appropriated to a misconceived purpose the useful word 'naturalism.' A naturalistic view of ethics was previously contrasted with a supernaturalistic view, and it meant a view according to which ethics was to be understood in worldly terms, without reference to God or any transcendental authority. It meant the kind of ethical view that stems from the general attitude that man is part of nature. . . . What causes even more confusion is that not everyone who, according to Moore, committed this [so-called] fallacy was also a naturalist in the broad and useful sense. Some of the most conspicuous offenders were antinaturalist in the broad and useful sense, such as those who defined goodness in terms of what is commanded or willed by God (Williams, 1985, pp.121–2).

Or, as three other prominent ethicists stated in a recent article:

It has been known for the last fifty years that Moore discovered no *fallacy* at all. Moreover, Moore's accident-prone deployment of his famous 'open question argument' in defending his claims made appeal to a now defunct intuitionistic Platonism. . . . To grant Moore all of the resources he deploys or assumes in his official presentation of the open question argument would suffice to bring the whole enterprise of conceptual analysis to a standstill and show nothing about Good in particular. (Darwall *et al.*, 1997).

Why, then, are most social scientists so afraid of this nonexistent 'fallacy'? Understandably, nobody wants to be guilty of committing a *fallacy*, a relatively elementary but devastating error in logic. This is probably why the 'spectacular misnomer', as Williams calls it, is uncannily resistant to the demise it so heartily deserves.

[11] However to Moore it is just as much a mistake to say that there can be a behavioural definition of 'the good' as it is to claim that the phenomenal property of 'yellowness' (the Liberal Party had not at the time been eclipsed by the party of the Red Flag) can be completely specified by the wavelength of light and the principles of neurophysiology (Moore, 1903, p. 10). In this sense his remarks on ethics can be seen to prefigure the debate on visual qualia that is so familiar to readers of this journal. Perhaps it is no coincidence that prominent Darwinians such as Daniel Dennett and Nicholas Humphrey are disinclined to accept that the problem of qualia is beyond the scope of naturalistic explanation, but we cannot say whether these two authors would agree that ethics is equally amenable to reductive naturalism.

The bottom line is that the term ‘naturalistic fallacy’ is *itself* fallacious. Ethics is about human behaviour and, as is true of any other aspect of human behaviour, it is fully amenable to empirical analysis. As long as the spectres of the ‘naturalistic fallacy’ and the ‘is–ought gap’ continue to haunt the discussions of social scientists, we will be stymied in our efforts to advance a scientific understanding of those aspects of human behaviour concerned with morals and other kinds of values.<sup>12</sup>

As the resources of cognitive neuroscience continue to expand, it becomes increasingly apparent that *all* human behaviour, including those kinds that are commonly characterized as having significant moral dimensions, arises from the complex information-processing capacities of the human brain. The philosophers and social scientists who continue to preach the doctrine of an unbridgeable gulf forever separating facts and values have simply not devoted sufficient attention to the burgeoning literature investigating features of human neurocognition that are deeply interconnected with moral judgment and social rationality.

David Hume’s famous dictum, usually interpreted as prohibiting any derivation of an ‘ought’ from an ‘is’, is generally assumed to support Moore’s argument against the ‘naturalistic fallacy’. If this were true then it would be devastating to Arnhart’s case. However, as Arnhart points out (p. 70):

The common interpretation of Hume as having separated *is* and *ought* depends on only one paragraph in his *Treatise of Human Nature* (1888, 469–70). Some Hume scholars have shown that if one considers carefully both the textual and historical contexts of this paragraph, one sees that the common interpretation is wrong (Buckle 1991, 282–84; Capaldi 1966, 1989; Martin 1991). The textual context makes clear that Hume’s claim is that moral distinctions are derived not from pure reason alone but from a moral sense. The historical context makes clear that Hume is restating Francis Hutcheson’s criticisms of some early modern rationalists such as Samuel Clarke and William Wollaston, who believed that moral distinctions could be derived from abstract reasoning about structures in the universe that were completely independent of human nature.

The famous paragraph from Hume (1739/1985, p. 521) reads as follows:

In every system of morality, which I have hitherto met with . . . the author proceeds for some time in the ordinary ways 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 proposition that is not connected with ought or ought not. . . . [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. . . . [T]his small attention wou’d subvert all the vulgar systems of morality.

But Hume’s text is open to a variety of interpretations, for example (Curry, 2000):

‘Ought’, thought Hume, was merely short-hand for saying ‘is what our moral sense dictates in a given circumstance’<sup>13</sup> Moral judgments, then, are ‘factual judgments about the species-typical pattern of moral sentiments in specified circumstances’ and they are ‘accurate when they correctly report what our moral sentiments would be in a given set of circumstances’ (Arnhart, 1995, p. 389).

[12] One of this review’s authors (Hughes) defends a fully scientific approach to ethics in his paper ‘A Normative Science Manifesto’ (2000).

[13] ‘Ought-propositions cannot ever be deduced from is-propositions. But the reason for this is that sentences expressing ought-propositions are paraphrases of certain sentences expressing is-propositions, and paraphrasing is not deducing’ (Yalden-Thomson, 1978).

Curry's take on Hume's intentions is entirely consistent with the interpretation suggested by Arnhart, who says, 'If we accept the common view of Hume as having argued that we cannot infer what *ought* to be from what *is* the case, then it would seem that he contradicts himself by deriving morality from the natural inclinations of human beings. . . . [T]he dichotomy between *is* and *ought* falsely attributed to Hume was actually first formulated by Immanuel Kant' (p. 73).

However, this is a decidedly non-standard interpretation of Hume's intentions in the famous passage. Many philosophers would claim that excessive conceptual contortions are required to hold Hume to a position that actually *denies* the apparent import of the passage. Hume practised irony, but he generally said what he meant. As Arnhart points out, several philosophers have contested the standard interpretation of the passage, however, others have argued persuasively in the opposite direction (for papers on both sides, see Hudson, 1969). Most would agree with Arnhart's perspective that Hume's ethical views are fundamentally consistent with Darwinian naturalism, but that does not necessarily mean that the ordinary understanding of Hume's dictum is mistaken. Barry Stroud, a prominent Hume scholar, offers a slightly different analysis of the same passage.

Although many claims have been made both for and about this passage, Hume seems primarily concerned to re-emphasize the point that it is because of the special character of moral judgments that they cannot be 'perceiv'd by reason'. We undoubtedly make transitions from beliefs about the way things are to the judgment that things ought to be a certain way. That is to say, we observe actions and discover by reasoning some of their other characteristics and their consequences, and then we immediately and quite naturally arrive at moral judgments or conclusions. But if we understand the peculiar nature of these 'conclusions' — if we recognize their 'active' or motivational force — we see that the transitions by which they are reached are not ones that reason determines us to make. Once we come to have certain beliefs about the way things are, then, because of natural human dispositions we come to feel certain sentiments which we express in moral judgments.

Hume takes himself to have explained the only way in which such transitions can occur. Because of the 'active' power of moral judgments, we arrive at them from other beliefs only by the interposition of a feeling or preference, since feeling or preference must be present for action to take place. Given what he takes to be the undeniability of those facts, Hume expresses the conviction that anyone else who tries to explain how we arrive at moral judgments will come to agree with him. . . . That is why some 'small attention' to the question he raises would subvert all the vulgar systems of morality. He sees his 'subversive' answer to it as the only possible answer (Stroud, 1977, pp. 187–8).

Stroud's view has the virtue of being both naturalistic (as Hume certainly intended) and also consistent with the general consensus about Hume's intentions, *vis-à-vis* morality and the passions. According to Stroud's interpretation, Hume *did* argue that one cannot derive an 'ought' from an 'is', because the transition requires the involvement of the passions, not reason. According to that perspective, Hume *accepts* the fact-value dichotomy and assumes that *moral sentiments* (i.e. passions) are necessary to bridge the gulf. That much is clearly a naturalistic view, and is compatible both with Darwin and with Arnhart's interpretation of Darwinian ethics.

In contrast with both Arnhart and Curry, this approach lets Hume off the 'naturalistic fallacy' hook, but does not deny that he viewed the transition from 'is' to 'ought' as illicit. Instead, it recognizes that, for Hume, the necessary (and generally

missing) steps in that transition involve *moral sentiments*, not rational deductions. For Hume, you *cannot* get from statements of fact to statements of value without including reference to the passions. In other words, Hume really *did* believe that you cannot derive an ‘ought’ from an ‘is’. He thought that human nature was organized in such a way that the source of the moral sentiments was not to be found in the intellect, but in the passions (roughly emotion and motivation).

Arnhart and other ethical naturalists could employ an alternative approach to resolving the apparent contradiction between Hume’s naturalism and his famous ‘is–ought’ dichotomy. Modern approaches to ethical theory (unknown to Hume) frequently divide the subject into substantive (or normative) ethics and metaethics. The former category includes practical moral discussions of what one should or should not do in various situations; the latter debates more theoretical questions such as how one might justify or explain one’s normative convictions. By clearly recognizing this distinction, we can explain how Hume, as a bona fide ethical naturalist, could argue coherently against deriving ‘ought’ from ‘is’. The apparent inconsistency in Hume’s position evaporates when one sees that the focus of the famous passage is not metaethics, but substantive ethics. In this paragraph, Hume was simply not addressing questions about whether or not human moral systems can be fully founded in nature. Undoubtedly he would concur with the Darwinian perspective, because he believed that moral sentiments are central to ethics and are part of human nature.

Given Hume’s view that a desire or aversion is involved in the production of every action, his conception of morality has the consequence that a desire or aversion is somehow involved in the making of every moral judgment. But for Hume desires or aversions are themselves feelings or sentiments, and that is why he says you can never find the vice until you look into your own breast and find a ‘sentiment of disapprobation’ towards the action. That sentiment, of course, is not discovered by reasoning, but by being felt. It is a sentiment that occurs in the mind whenever we observe or contemplate actions or characters that have certain characteristics, and if we never got such feelings there would be no such thing as morality. Morality is thus based on feeling or sentiment, not reason (Stroud, 1977, p. 179).

This view of Hume’s approach to morality is consistent with both Darwin and with Arnhart’s main thesis. Emotions and motivation evolved as constituent parts of human biology. Identifying his views with Hume’s, Arnhart says, ‘a reason for action is a complex psychological state in which the conative component (a desire) plays the primary role, and the cognitive component (a belief) plays the secondary role’ (pp. 19–20). Hume would certainly have endorsed a Darwinian approach to naturalistic ethics; for him the passions and the moral sentiments are a natural part of human psychology. However, he was not (in the famous paragraph) addressing the question of whether moral principles could ever be derived from non-moral premises. Rather, he was lamenting the common tendency in ‘the vulgar systems of morality’ to slide from statements of fact to moral assertions, without acknowledging the addition of a moral component (which, for Hume, could only originate in the passions).

An ethical system can affirm the ‘is–ought’ gap and still be fully naturalistic, so long as the distinction between substantive ethics and metaethics is clearly understood and honoured. Hume’s system was one such. Metaethically, he had no problem with founding ‘oughts’ in human nature. With respect to substantive ethics, however, he claimed that one cannot properly derive an ‘ought’ from an ‘is’.

### Desire and its Discontents

Of course, Hume might have been wrong — indeed we believe that in this matter he probably *was* wrong. We think that his theory of human nature suffers from many of the basic flaws that have plagued folk psychology for centuries. His views on moral motivation relied on an artificial dichotomy between passion and reason. Consequently, he drastically oversimplified the psychology of motivation and his account of the connections among reason, emotion, and action were schematic to the point of caricature. His psychology was seriously infected with residual dualism; it would have been nearly impossible for him to avoid that. The fundamental distinction between reason and passion, so basic to his moral system, has been shown to be a false dichotomy (Damasio, 1994; 1999; Rolls, 1999; Panksepp, 1998). In order to develop an adequate account of the relationships between action and reason, we require a much more finely variegated analysis of the microstructure of motivation than anything to be found in Hume's psychological theory.

Arnhart's reliance upon Hume's inadequate, folk-psychological theories of moral motivation leads to one of the most serious problems with his account. The first and most foundational of Arnhart's 'ten propositions' equates the good with the desirable:

1. The good is the desirable, because all animals capable of voluntary movement pursue the satisfaction of their desires as guided by their information about the world (p. 6).

This view is clearly consistent with the priority that Hume attached to the moral sentiments; however, it suffers from the same flaws. 'Desire' and 'desirability' are relatively abstract theoretical concepts. Folk psychological theories generally give 'desire' a central role in the mental economy, but the term has little other than heuristic value as a descriptor of neurocognitive information processing. Consider the complex interactions among perception, memory, attention, emotion, and motor control that are implicitly assumed whenever we talk about acting upon some desire or other. Furthermore, many of the 'twenty natural desires' Arnhart describes incorporate complex combinations of individual and social components, as he freely admits (pp. 29–36). We don't doubt that these 'desires' are deeply rooted in the biology of human nature, nor that they evolved according to Darwinian principles. Our concern is ontological; Arnhart treats desires as natural kinds, fundamentally real psychological entities. We think that his approach accords insufficient attention to neurobiological realism.

The problems associated with Arnhart's accepting a basically folk psychological account of beliefs and desires could be resolved via relatively painless revisions by thickening the theoretical commitments to cognitive neuroscience. The term 'desire' can be understood as a theoretical cipher or variable, an abstract placeholder to be fleshed out with the appropriate neurobiological particulars in each specific case. To do so would require significant revisions to the rather anaemic model of motivation and would seriously undercut the apparently happy three-way marriage that Arnhart portrays among Darwin, Hume, and Aristotle. A truly Darwinian ethics must make neurobiological realism central to its psychological commitments. The timeworn, artificial dichotomies between reason and passion, essential to Hume's moral

psychology, are empirically inadequate. Nevertheless, Arnhart's basic naturalistic project could be preserved, even if Hume's contributions were significantly curtailed.

One of the most widely-discussed books on this topic is Antonio Damasio's *Descartes' Error* (1994). Damasio examined the clinical records of the unfortunate Phineas Gage, who suffered a massive injury to the pre-frontal area of his brain and underwent serious personality changes as a consequence. Although the damage was in an area that is normally associated with emotion, Damasio discovered that, in contemporary patients with similar lesions, the ability to take rational decisions regarding social and ethical behaviour was severely impaired by the damage to their social-emotional brain. 'Descartes' [and Kant's] error', according to Damasio, was to separate our rational souls from their physical and social context.

Of course it was Freud who overturned the viewpoint, common since antiquity, according to which the rational is a completely independent force. 'Evidently, it is a force that is stronger in some people than in others, and, when it comes to action, it is less often frustrated in some agents than in others. But the old idea was that there is no interfering with its inner working' (Pears, 1984). Although the Freudian view of irrationality, with its posit of the dynamic unconscious and other such sub-agents is now dismissed by psychologists, nevertheless after Freud there was no escaping the fact that reason had descended from the Platonic realms and was now incarnate. Damasio's work has contributed to the reclamation of rationality down from the Platonic realm to embodied, culture-specific behaviour, no longer in a position to act as a 'god's eye' arbiter for the onward march of civilisation. Modern neurology tells us that reason is embodied and cannot be separated from social and affective processes.

Arnhart devotes a chapter to the study of psychopathy that draws heavily on Damasio's discovery of the interdependence of reason and emotion. Central to his case is the growing evidence that psychopathy is characterized by an *absence* of emotion — a 'poverty of desire' — hence the fact that psychopaths typically push experience to the limit in order to feel anything at all. Psychopaths appear to lack empathy for suffering in their victims precisely on account of their own lack of feelings.

He draws heavily on Ann Rule's 1989 study of the serial killer Ted Bundy. Not only did Bundy lack the natural moral emotions of sympathy, guilt or shame, he was in fact an 'emotional robot, programmed by himself to reflect the responses that he has found society demands' (Rule, 1989, p. 403). Psychopathy is four to seven times more prevalent among men than among women, and Arnhart speculates that it 'might be an extreme manifestation of typically masculine traits' (p. 215). He goes on to suggest an adaptationist account of psychopathy in terms of an 'evolutionary niche for Machiavellians' (p. 219).

Arnhart argues that it is precisely because psychopaths cannot develop the moral emotions that they are incapable of ethical behaviour. Since they lack the moral sentiments that make moral persuasion possible, our only appeal with such people is force and fear. Arnhart rejects the standard liberal argument that such people cannot be blamed for their behaviour so punishment is inappropriate. To Arnhart it is the moral emotions that make us human, and society has to defend itself from 'dysfunctional deviations from human normalcy' (p. 229). The law of Moses required that such people be taken to the gates of the city and stoned to death; the State of Florida used a slightly more high-tech approach with Ted Bundy, but the outcome was the same.

Given the growing evidence from cognitive neuroscience regarding the seamless link between rationality, the moral emotions and the development and integrity of the pre-frontal cortex, it's hard to understand why so many philosophers, remaining under the spell of Kant, still argue that morality requires a purely rational logic of universal rules:

Psychopaths show us that that cannot be true. There is no evidence that psychopaths have any deficit in their capacity for abstract rationality or pure logic. Their immorality comes not from any defect of abstract reason, but from their emotional poverty. They cannot be moral, because they lack the social emotions — such as sympathy, guilt, and shame — that sustain moral conduct (p. 229).

If anything the cool rational strategy advocated by Kant 'has far more to do with the way patients with prefrontal damage go about deciding than with how normals usually operate' (Damasio, 1994, p. 172).<sup>14</sup>

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The centrality of 'desirability' to Arnhart's project presents another — and deeper — problem. Even if Arnhart were to fully update his theoretical taxonomy to more accurately reflect the complex interactions among 'beliefs' and 'desires', he would still face a very serious challenge that arises from equating 'the good' with 'the desirable'. Aside from all of the terminological problems that spring from any attempt to treat 'the desirable' as a single, homogeneous psychologically salient construct, the proposed equation gives very short shrift to the issue of moral conflicts.

Arnhart gestures towards this problem, but he fails to resolve it. Nor could he have done any better, given his basic commitment to what he takes to be the fundamental naturalistic equation between goodness and desirability. In one of the passages where he struggles with this problem, he writes:

What human beings happen to desire at any moment is not always desirable, therefore, insofar as it does not always promote their flourishing. The common experience of regretting what we have done reminds us that we often mistakenly desire what is not truly desirable: for example, we might discover that satisfying some present desire impedes the satisfaction of some future desire; or we might find that in pursuing some narrowly selfish desires, we have failed to cultivate those social bonds of affection and cooperation that we need to satisfy our social desires. Learning how to manage our desires over a complete life in a manner that is appropriate for our individual and social circumstances requires proper habituation and prudent reflection (p. 82).

Earlier, he lists 'four sources of moral disagreement': (1) fallible beliefs about circumstances; (2) fallible beliefs about desires; (3) variable circumstances; and (4) variable desires. He is not attempting to sweep these problems under the rug. He does recognize and acknowledge the *fact* of moral disagreements and conflicts. However, he does not seem to identify the severity of the problem for his basic normative

[14] However a recent paper by Blair and Cipolotti (2000) suggests that Damasio and Arnhart are wrong to claim that psychopathy is characterized by an absence of emotion and that there are important differences between patients with orbitofrontal trauma who present symptoms of 'acquired sociopathy' and developmental psychopaths. Psychopaths show skin conductance responses to very threatening or disgusting images. However the authors acknowledge that developmental psychopaths do have a specific emotional impairment, often connected with a dysfunction within the neuro-cognitive system that responds to the sad and frightened faces of others.

principle, the foundational equation between goodness and desirability. Under each of the four headings he points to problems associated with the variable contents of ‘desirability’: (1): ‘we have differing views of the relevant circumstances’; (2): ‘we are often unsure about what we truly desire; (3): ‘although the pattern of natural human desires is universal, satisfying those desires in different individual and social circumstances requires different patterns of conduct appropriate to the circumstances; (4): ‘there is both normal and abnormal variation in human desires’. The common element among all of these sources of disagreement is the fact (as he acknowledges) that ‘desirability’ is *very* far from uniform across persons, times, and cultures. The upshot is that some versions of the desirable are incommensurable with others, resulting in conflicts that cannot be reconciled by any universal moral code, able to go beyond the intrinsically conflicting versions of what is desirable. He comes closest to admitting the depth of this problem in Chapter Six, ‘Man and Woman’.

But if I am right about this, if human beings are not bound together by a universal sentiment of disinterested humanitarianism, then deep conflicts of interest between individuals or between groups can create moral tragedies in which there is no universal moral principle or sentiment to resolve the conflict ... The only alternative, which I do not regard as a realistic alternative, is to invoke some transcendental norm of impartial justice (such as Christian charity) that is beyond the order of nature (p. 149).

If the good is the desirable, then, even according to his own analysis, there will be multiple and incommensurable instances of the good. The deep problem that his equation cannot resolve enters at exactly this point. When goods collide, how are the collisions to be reconciled? In the natural world, the way that such conflicts are typically resolved boils down to the efficient use of force and dominance. Obviously, humans too often employ just such means, but any overriding commitments that we have to the Aristotelian principle of *eudaimonia* (well-being) will lead us to reject the rule of force as an ultimate arbiter of moral conflicts.

Humanity’s dual evolutionary heritage instils in us behavioural mandates that descend from both *biology* and *culture*. This fact constantly confronts us with contradictory requirements; primeval urges compete with social and cultural constraints, frequently forcing us into profound conflicts of interest. One of the sad ironies of human life is the fact that our species has been so successful—in reproductive terms — that we now face massive ecological and social burdens forced by the exponentially increasing human population. Biological evolution has bequeathed us a neurocognitive legacy that, all too often, is radically incompatible with the contingencies of human life on earth in the twenty-first century. If we have nothing other than the inherently subjective measure of ‘desirability’ to serve as the ultimate criterion for value, then we have no principled basis upon which to answer the unavoidable question ‘whose desires?’.

Morality requires exactly such an answer. By what means are we to understand the *proper* way to assess conflicting claims about whose version of desirability is ‘best’? Arnhart’s basic moral principle, that the good is the desirable, is simply inadequate as an arbiter among profoundly incommensurable desires. During his discussion of the common objections to a Darwinian ethical system, Arnhart notes that ‘While a naturalist explanation of morality would assume a moral universalism founded on the unity of human nature, a culturalist explanation of morality would assume a moral relativism founded on the diversity of cultural traditions’ (p. 9). He rejects moral

relativism, but does not explain how we are to determine which version of ‘the desirable’ is best. If we are to avoid the pitfalls of relativism, we require objective, quantifiable criteria by which we can adjudicate among competing moralities. Such criteria are not to found in the idea that ‘the good is the desirable’, because we can never establish a single, ultimate standard of desirability against which competing claims can be measured. What might seem to be self-evidently desirable for one person, immersed in one particular sociocultural, economic, and political situation, will inevitably strike many others as equally self-evidently *wrong*. Desirability is always, in the final analysis, a profoundly subjective, and hence relative matter. Who decides which version is right, and how are they to decide?

One way that Arnhart might escape this problem is to expand his reliance upon Aristotle’s conception of *eudaimonia* (well-being, flourishing). He nods in that direction several times, but the centrality of his emphasis on desire interferes with his fully embracing *eudaimonia* as a foundation for ethics, as Aristotle did explicitly. As we noted earlier, Arnhart starts his book by summarizing ten basic propositions of ‘Darwinian natural right’. Proposition 5 states ‘We can judge divergent ways of life by how well they nurture the natural desires and cognitive capacities of human beings in different circumstances ...’ (p. 6). Implicit within this idea is the suggestion that we can assess competing moral systems by weighing their relative contributions to human flourishing. This is a promising option and is fully consistent with the basic naturalistic tenor of the project. The problem is that, for such an adjudicatory procedure to be possible, it would have to ultimately appeal to considerations beyond desirability. It might be considered virtually truistic to note that conditions that support human flourishing are desirable. However (and this is the crux of the matter), determinations regarding which conditions promote human flourishing are *not* ultimately based upon which conditions are desirable. Rather, they depend upon measures of health and well-being that apply universally to human beings in virtue of their common biological structures (Hughes, 2000).

The incommensurability of conflicting versions of the good is a fundamentally political issue. If it cannot be resolved in a consensual manner then we can confidently expect the Leviathan to raise its sleeping head as the influence of religion and other traditional forms of arbitration and consensus building declines.

### Political Entailments

What are the political implications, if any, of the view that the ultimate source of morality is human biology? The application of our scientific understanding of neurology and psychology to society is fraught with perils — indeed Antonio Damasio is quick to caution his readers against following the earlier example of the Social Darwinists in drawing political inferences from science. He argues that science is descriptive and politics is prescriptive and that the two should be kept quite separate.

As remarked earlier the three most vocal critics of sociobiology — Stephen Jay Gould, Richard Lewontin and Steven Rose — all share a leftist political orientation. Steven and Hilary Rose describe evolutionary psychology as ‘transparently part of a right-wing libertarian attack on collectivity, above all the welfare state’ (Rose and Rose, 2000). And in many respects one has to sympathize with their critique —

ethical and political philosophy has to take issue with all forms of single factor reductionism: in the words of R.M. McShea (1986):

If we hold fast to and develop the modest but powerful notion of man as a part of nature we will be preserved from such stilted and dangerous nonsense as is involved in seeing him as crucially Rational, as cosmically important, as driven immanently toward survival, creative labour, Freedom, pleasure, or some mystic fulfilment of his Spirit or of History.

Political philosophy is ‘structurally normative’ (*ibid*, p. 210) and our theories in this field have always been shaped by our overall cosmology. James Rutherford makes a similar point:

A new Darwinism, which recognizes both natural and cultural evolution, rejects the false exclusionary dichotomies of nature versus nurture, fact versus value, and nature versus free will (Arnhart, 1995). If facts are not related to values, for example, the phrase ‘political science’ is an oxymoron (Rutherford, 1999, p. 94).

These arguments would tend to underwrite Arnhart’s naturalistic approach to morality, but it is not at all clear that this has any particular implications for politics. However, if the discussion is extended to include the philosophy of law, some clear entailments do arise.

The ‘progressive’ (leftist) approach to jurisprudence is founded on principles such as the extension of equality and universal human rights. But the concept of equality has no foundation in the natural world: it is an abstract mathematical notion, and part of the Enlightenment project to reduce politics to abstract universal principles. Descartes believed that a mathematical description of the natural world (*res extensa*) was possible, but the only way of achieving it was to create a separate realm for human subjectivity (*res cogitans*) on the far side of the ‘Cartesian divide’. Descartes banished human desires, thoughts and volitions to a transcendental self, thereby freeing science to reconstruct the physical world along rational lines, free from the constraints that would arise from a naturalistic or embodied approach to cognition.

The concept of universal human rights can in turn be traced to Kant’s intellectual wrestling with the ‘problem of modernity’. How can we account for our sense of freedom, rationality and personal agency in a deterministic Newtonian universe? Kant’s answer was to draw a distinction between the physical world and the spiritual ‘kingdom of ends’. As human beings are also inhabitants of the latter, we are capable of acting as autonomous moral agents, beyond the demands and constraints of our ordinary physical and psychological makeup. As the ‘kingdom of ends’ was not subject to the contingencies of history and culture, this paved the way for a universal system of human rights and values.

Unfortunately Kant vacillates between the view that the transcendental subject is merely a logical necessity and the view that it is a distinct noumenal thing (in the earlier sense of Descartes).<sup>15</sup> Despite this ambiguity, Kant’s transcendental philosophy has had profound consequences for jurisprudence. The notion of human beings as

[15] This very ambiguity, allied to Kant’s tortuous prose style, is one of the reasons why the Kantian project has not been subject to the same attacks as Descartes’ legacy. ‘Cartesianism’ and ‘dualism’ are now pejorative terms in the philosophy of mind, whereas Kant still lives on through the highly influential writings of John Rawls.

ends in themselves — and the subject of universal human rights — is derived from these uncertain Kantian foundations.

Such rationalist arguments tend to be the province of the left. By contrast, conservatism has its philosophical origins in the naturalism of the Scottish Enlightenment. Michael Oakeshott, the greatest conservative philosopher of the twentieth century, argued that the roots of conservative thought lie not, as widely believed, in the political sociology of Edmund Burke, but rather in the moral psychology of David Hume (Oakeshott, 1956, p. 435). Hume believed that all our beliefs and values are grounded in human passions. There is such a thing as natural moral sentiment, and the task of government is to ensure that society is aligned with this naturalistic source of morality. In the same way that Adam Smith showed how economic order could emerge naturally, through the operation of the ‘invisible hand’, Hume provided an equally naturalistic grounding for morality.

Conservatives, of course, believe that politics is a highly limited activity and that it’s not the business of democratic governments to tell people what to think. Concepts like ‘right’ and ‘wrong’ arise out of natural moral sentiment and the business of government is to codify natural moral sentiment into laws. The conservative approach to law in general is not that of a reforming or progressive instrument. Sir James Stephen’s *History of the Criminal Law of England* (1883) recounts that the object of criminal law is simply to give formal expression to the natural sentiment of anger produced by an act of wrongdoing. There would be no law without a natural passion for vengeance, just as there would be no marriage without sexual desire. Arnhart also endorses De Waal’s ethological theory of the evolution of the concept of justice: ‘The human sense of vengeance — the desire to get even — is the earliest and deepest expression of the human sense of justice’ (p. 79).

Public opinion in modern social democracies tends to be positioned well to the right of the media and political classes, particularly over issues like law and order, immigration and minority rights. So whenever politicians respond to public concerns over these issues they are accused by their liberal opponents of populism, opportunism and ‘saloon bar politics’. This became clear recently in the United Kingdom when the (Labour) Home Secretary — who is often seen as further to the right than his Conservative counterpart — was lambasted in the *Guardian* over his plans to allow victims and their relatives to have some influence over sentencing policy. This is an integral part of Islamic law, but is anathema to the modern western concept of ‘justice’ as an impersonal force, best symbolised by the blindfolded statue on the roof of the Old Bailey, Britain’s most senior criminal court.

The internationalist/universalist agenda is usually associated with the left and is ultimately derived from St. Matthew’s transformation of the Mosaic commandment to love your neighbour (and hate your enemy) into loving your enemy as yourself, as ‘God sends rain on the righteous and the unrighteous’. Unfortunately this requires ‘perfection’ (Matt. 5.48), whereas Arnhart prefers the more attainable teaching of Aristotle and Aquinas that love for others, as a natural extension of self-love (born of parental nurturing),<sup>16</sup> is naturally more for those most like us than it is for strangers.

[16] Population biologists would explain parental nurturing in *Homo sapiens* as the natural consequence of the pursuit of *K*-strategy — the production of fewer offspring that require the investment of high levels of energy in each (p. 103). Aristotle, Aquinas, Darwin and Arnhart are in agreement that this is the prime source of the natural moral sentiments.

What the right sees as ‘patriotic pride’ the left dismisses as xenophobia and tribalism. But if Arnhart is right, empathy for those outside the tribe comes from travelling, not Christian asceticism or categorical imperatives.

It would appear to be the case that the implications of Arnhart’s case for Darwinism in ethics and jurisprudence are inherently weighted towards the political right. Is this perhaps the reason that Wilson’s keynote speech at the 1996 HBES meeting was met by such a hostile response? Many of the theorists in evolutionary psychology, Richard Dawkins being an obvious case, like to view themselves as centre-left politically, and it is hard to see how this would be compatible with ethical naturalism. Arnhart has been described as a ‘right-wing neo-Thomist’ (private correspondence) and certainly the title of his (2000) paper ‘Why conservatives need Charles Darwin’ would give credence to this view.

Some thinkers on the left have made an effort to reverse the colonisation of Darwinism by right-wing forces. Peter Singer makes a bold attempt with his new book *A Darwinian Left*, but he can never really break free from Kant. For example, as his reviewer in *Scientific American* says: ‘To Singer, and to me, the core of the Left is a set of values, most notably that worth is intrinsic and doesn’t depend on success or power’ (Van Valen, 2000).

Given Singer’s controversial views on the (lack of) intrinsic worth of disabled foetuses this is a strange remark. The other problem is that this view is heavily dependent on the Kantian reworking of Christian principles. The work of Damasio (1994) and others would imply that the ‘worth’ of an individual (as an autonomous moral agent) is in proportion to the development of pre-frontal cortex and it’s hard to imagine what a non-transcendental theory of absolute worth might look like. Singer then concludes with a listing of ‘what a Darwinian left would do’, much of which could have been culled from any manifesto for ‘compassionate conservatism’.

Left-leaning political philosophy has tended to comprise a fusion of the Kantian notion of intrinsic value (and its derivative, universal human rights), together with the Hobbesian and Lockean view that denies a natural human sociality and argues that ‘the moral inclinations are utterly artificial products of the social contract’ (p. 72). In combination with the twentieth-century move towards collectivism the left tends to rely on the power of the state to construct and enforce morality. It is hard to see how this essentially top-down model can be reconciled with the (Aristotelian and Darwinian) view that human sociality is an indirect product of the natural affection produced by the parent-child bond.<sup>17</sup> In the same way that left-leaning politicians have dismissed the workings of the invisible hand in politics, they have been equally sceptical about the emergence of morality independently of state guidelines. For similar reasons the left tend to support the view that sexual roles are largely socially constructed and the product of power relationships in society. Given the published work by sociobiologists in all these areas it is hard therefore to imagine exactly what a Darwinian left would look like, notwithstanding Professor Singer’s efforts.

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[17] Often the subject of left-wing attack, as in the Kibbutz movement and the failed experiment of the Oneida Community.

**THOUGHTS ON DARWINIAN NATURAL RIGHT:  
A RESPONSE TO SUTHERLAND AND HUGHES**

*Larry Arnhart*<sup>18</sup>

Ethics is a product of human consciousness. Animals act in a goal-directed manner to satisfy their desires based on their information about the changing environments in which they live. Animal movement is thus inherently normative or value-laden insofar as animals cannot live without choosing between alternative courses of action as more or less desirable. To the extent that some animals are conscious of themselves and their environment, they can act voluntarily by consciously gathering information related to their desires and then acting according to their conscious assessment of the information in relation to their desires. The greater extension and complexity of human consciousness allows human beings to formulate deliberate conceptions of right and wrong and to act in accordance with those conceptions, which makes human beings the only ethical animals. Only human beings can pursue happiness as a deliberate conception of the harmonious satisfaction of their desires over a whole life, because only they have the capacities for reason and language that allow them to formulate a plan of life, so that they can judge present actions in the light of past experience and future expectations. To fully explain human consciousness, therefore, we must explain ethics as a product of human consciousness.

In *Darwinian Natural Right*, I have tried to explain ethics as rooted in human biological nature. The good is the desirable, I argue, and there are at least twenty natural desires that belong to the nature of the human animal as shaped by natural selection in evolutionary history. I am grateful to Keith Sutherland and Jordan Hughes for the generous way in which they state their general agreement with my position. But as I would expect of such thoughtful readers, they also see some difficulties in my reasoning. I will respond to their three main objections, which concern Hume's account of the is/ought dichotomy, the complex interaction of reason and desire in neurobiology, and the problem of incommensurable desires.

**Hume on the Is/Ought Dichotomy**

The most common objection to any view of ethics as rooted in human nature is that moving from natural facts to moral values, from an *is* to an *ought*, requires a fallacious inference. This argument is attributed to David Hume, who is said to have shown that there must be a radical separation between questions of what *is* or *is not* the case, which belong to the realm of nature, and questions of what *ought* or *ought not* to be done, which belong to the realm of morality. Part of my response to this objection is the claim that this sharp dichotomy between *is* and *ought* is not Hume's position but Immanuel Kant's. According to Kant, judging what *is* the case belongs to the 'phenomenal' realm of nature, but judging what *ought* to be belongs to the 'noumenal' realm of freedom. He then uses this separation to argue against Hume's naturalistic view of morality by claiming that morality belongs to an autonomous realm of reason that transcends the realm of nature.

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Sutherland and Hughes, however, defend Barry Stroud's claim that Hume really does separate facts and values: Hume argues that we cannot derive an *ought* from an *is* by reason alone, because such a transition requires some experience of the sentiments or passions to bridge this gulf. This Humean view of the fact–value dichotomy is consistent with Hume's ethical naturalism because the transition from facts to values through the moral sentiments is itself natural.

Like Sutherland and Hughes, I now find Stroud's reading of Hume persuasive. So I would modify what I say about this in my book. Although Hume does accept the fact–value dichotomy, his version of the dichotomy differs radically from Kant's; and it is Kant's version that denies ethical naturalism. According to Hume's version, we cannot deduce a moral *ought* from a natural *is* by reason alone, because moral judgments require moral sentiments or passions that are part of human nature. But according to Kant's version of the dichotomy, the moral *ought* belongs to a transcendent realm of human freedom beyond the realm of human nature. I would defend Hume's version and reject Kant's.

In the same section of his *Treatise of Human Nature* where Hume distinguishes *is* and *ought*, he explains his fundamental point about how reason without passion cannot infer moral conclusions by using the example of judging incest. Hume asks 'why incest in the human species is criminal, and why the very same action, and the same relations in animals have not the smallest moral turpitude and deformity?' (Hume, 1888, pp. 467–8). If moral judgment were simply a matter of reason discovering certain factual relationships in the world that are right or wrong, and if incestuous relationships are factually the same in the case of human beings and animals — that is, sexual mating between closely related kin — then animal incest should be just as morally abhorrent as human incest. Although nonhuman animals might lack the rational ability to perceive the immorality of their incestuous relations, those relations would still be immoral as a matter of fact even if they could not perceive that fact. But, of course, we do not perceive animal incest to be immoral, as we do human incest, even when the factual relations are the same, because human incest arouses a moral sentiment of blame that animal incest does not. To move from the factual judgment that some animals are mating with close relatives to the moral judgment that this is wrong, we must feel a moral emotion of disgust towards such mating; and we naturally tend to feel this in the case of human mating but not in the case of animal mating.

There is now a lot of evidence to support a naturalistic explanation of the incest taboo as rooted in the moral emotions of human biological nature. Elaborating an insight suggested by Charles Darwin, Edward Westermarck argued that there was a natural propensity for human beings to feel a sexual aversion towards those with whom they had been associated in early childhood, that this propensity had been favoured by natural selection in evolutionary history as a mechanism for avoiding the deleterious effects of close inbreeding, and that this propensity would be expressed culturally as a moral rule against incest.<sup>19</sup> Although reason is important in formulating kinship rules and in generalizing the emotional aversion to incest as customary or legal norms, it is the emotional aversion itself that originates the sense that incest is wrong. And if Westermarck is right, the propensity to acquire this aversion belongs to

[19] See Westermarck (1922), Vol. 2, pp. 162–239; (1932), pp. 246–50. For the extensive evidence and arguments supporting Westermarck's hypothesis, see Wolf (1995). I have elaborated my defence of Westermarck in Arnhart (1998a; 2000a).

the biological nature of the human species as shaped by natural selection. This illustrates how Darwinian biology can support a Humean view of ethics by rooting it in a modern scientific account of human nature. The judgment that incest is wrong arises not as a Categorical Imperative of reason knowable by any rational agent in the universe, but as a natural emotional propensity of the human species. Hume is right. Kant is wrong.

### **The Neurobiology of Reason and Desire**

Although they generally agree with me in adopting Hume's naturalistic view of morality, Sutherland and Hughes criticize Hume for employing 'an artificial dichotomy between passion and reason', which they identify as a mistake common to 'folk psychology'. The falsity of this dichotomy between reason and emotion has been clearly revealed, they believe, in the neurobiological research surveyed by Antonio Damasio and others, which shows 'the interdependence of reason and emotion'. The idea of disembodied rationality as opposed to embodied emotions is false, because all human reasoning is embodied and thus embedded in the somatic and social life of the human animal.

I agree with them that our philosophic view of morality would be improved by a moral psychology that recognizes the mutual dependence of reason and emotion as revealed by modern neurobiology. But to speak of 'interdependence' implies separation as well as union. A science of psychology requires that we distinguish faculties of the mind even when we know that in practice human mental experience is a complex interaction of factors in which everything is connected to everything else. Moreover, as Sutherland and Hughes indicate in their comments on the neurological basis of psychopathy, some people with neuropathological disorders can show 'rational-analytic behaviour' that is dysfunctional because they lack the social emotions that guide normal human behaviour. As Damasio indicates, the problem with such people is that reason has been separated from emotion: 'to know does not necessarily mean to feel, even when you realize that what you know ought to make you feel in a specific way but fails to do so' (Damasio, 1994, p. 211). Ted Bundy 'knew' what he was doing when he brutally murdered his victims, but he could not 'feel' the moral emotions that such brutality elicits from normal human beings. Such extreme cases show that reason and emotion are separable, even as they confirm that healthy human functioning requires the union of reason and emotion.

This sustains Hume's insight that we need to separate the effects of these two parts of the mind for the sake of psychological analysis, but we also need to see that sanity and social life require their inseparable cooperation (Hume, 1888, pp. 415–18, 493). It seems to me that 'folk psychology' — that is, the common-sense understanding of human psychology — recognizes the complex interdependence of reason and emotion, and that progress in neurobiology will only give us technical refinement in what we already know by common sense.

That technical refinement is important, however, in filling in the gaps in our knowledge about how we acquire moral character by habituation and how we learn moral rules by instruction. So, for example, although there is plenty of evidence to support Westermarck's claim that human beings are naturally inclined to learn a sexual aversion for their early childhood associates, which then is expressed culturally as rules

against incest, we still need to know how neurobiological mechanisms mediate this process of habituation and instruction.

### The Problem of Incommensurable Desires

Sutherland and Hughes rightly identify the deepest problem in my position when they write: ‘Arnhart’s basic moral principle — that the good is the desirable — is simply inadequate as an arbiter among profoundly incommensurable desires’. It is inadequate ‘because we can never establish a single, ultimate standard of desirability against which competing claims can be measured’. People in different situations will disagree about what is ‘desirable’, and when they disagree deeply about issues that are too fundamental to be ignored, there might seem to be no way to resolve the disagreement except by one party exploiting the other through force and fraud.

Some other readers have seen the same problem in my book. John Hare,<sup>20</sup> a Professor of Philosophy at Calvin College, defends the tradition of Christian Kantianism in ethics, and he criticizes my book as illustrating how a purely naturalistic view of ethics tends to ‘reduce the ethical demand’ by denying the ethical demand for impartial and universal benevolence as contrary to natural desires. He summarizes my argument as a ‘double inference’: ‘The good, he says, is the desirable, and the desirable is what is generally desired by human beings.’ (Hare, 2000)<sup>21</sup> But when these natural desires create conflicts between human beings, he argues, there is no higher principle in a purely naturalistic ethics to resolve such conflicts without coercion or manipulation. For example, if the natural desires for wealth, social status, and political rule lead some human beings to enslave others, the desire of the masters to exploit their slaves comes into conflict with the desire of their slaves to avoid being exploited. If the masters have enough power to suppress the rebellion of their slaves, the masters will prevail by force and fraud; and there is no reason in terms of natural self-interest for the masters to give up the institution of slavery. Similarly, if men can satisfy their natural desires by exploiting women through patriarchal practices, the men have no reason to stop such exploitation as long as they have the power to suppress any resistance from the women. He believes the record of history suggests that both slavery and patriarchy have been widely practised because there was a conflict of desires between exploiters and exploited, and the exploiters prevailed through force and fraud.

When such conflicts in the natural desires arise, is there any ethical principle that would resolve them? Sutherland and Hughes appeal to a principle of Aristotelian naturalism, while Hare appeals to a principle of Kantian idealism. Sutherland and Hughes argue that we must look to ‘considerations beyond desirability’, which would provide ‘objective, quantifiable criteria by which we can adjudicate among competing moralities’. They suggest that such a standard would be found in Aristotle’s conception of human happiness (*eudaimonia* in Greek) understood as human well-being or flourishing. This could provide ‘measures of health and well-being that apply universally to human beings in virtue of their common biological structures’.

[20] The son of the influential moral philosopher R.M. Hare (see above, p. 64).

[21] For an elaboration of his Christian Kantianism in ethics, see also Hare (1996).

Hare argues that we must look to Kant's Categorical Imperative, which says that we should act only on those rules that we can will as universal laws, and we should treat all people as ends in themselves and never merely as means. According to this Kantian (and Christian) version of the Golden Rule, we are morally obligated to respect the equal worth of all human beings by showing a disinterested and universal benevolence towards all people without favouring our own desires over the desires of others.

I agree with Sutherland and Hughes that the general uniformity of human nature supports some universal standards of moral judgment. But I would stress that the application of these universal standards to the particular circumstances of particular individuals in particular societies requires prudence or practical judgment that cannot be reduced to 'objective, quantifiable criteria'. For example, I argue in my book that female circumcision (clitoridectomy and infibulation) frustrates the natural desires of both women and men, and thus we can rightly condemn such practices even where they are deeply rooted in local traditions. But a prudent respect for such local traditions demands that we work for gradual reform rather than immediate abolition. As I suggest in my book, we could employ strategies of reform similar to those used to abolish foot-binding in China. Such an attempt to gradually reform an oppressive tradition implies some universal standard of human welfare, but it also implies respect for human diversity. The moral controversies surrounding practices such as female circumcision illustrate the four sources of moral disagreement: fallible beliefs about circumstances, fallible beliefs about desires, variable circumstances, and variable desires. Moral reform in such cases requires a shrewd judgment of what would be best, given the beliefs, the desires, and the circumstances of the people involved.

As Sutherland and Hughes indicate by their quotation from my chapter on men and women, I think that deep conflicts of interest can create moral tragedies in which there is no principle for resolving the conflict. In the cases of men exploiting women and masters exploiting slaves, I argue that in the long run such exploitation is self-defeating for the exploiters. In most cases of exploitation, the exploiters do not understand that exploitation is not truly desirable for them. In any case, I doubt that there are many cases in which exploiters have been persuaded to voluntarily give up their exploitation even though this was contrary to their interests.

Hare thinks that the way to resolve conflicts of interest is to appeal to a truly disinterested and universal benevolence. I agree that our moral concern can expand to ever-wider circles to include our extended kin, our clan, our group, our nation, all of humanity, and perhaps even all life forms. The experience of 'globalization', in which we experience the advantages of cooperation with strangers and thus develop some sympathy for their situation, illustrates this. But while universal sympathy is possible, it will never be totally impartial, because it will always favour those close to us over those far away. The rhetoric of groups like Amnesty International and Human Rights Watch confirms this. We can feel sympathetic concern for people whose unjust suffering is vividly presented to our imaginations so that we feel some affinity to them, but we do not feel equal concern for every human being regardless of their relation to us. Indeed, people who would care more for strangers in a foreign land than for their own family and friends would be moral monsters. The futility of Hare's appeal to utterly disinterested benevolence as contrary to human nature is indicated by what he says about the 'moral gap' in Kantian ethics: since human beings on their own can

never live up to the moral demands of true benevolence, because they are corrupted by ‘original sin’, they need God’s assistance to bridge the gap between their natural inclinations and the moral law. But until such a divine transformation of humanity occurs (on earth or in heaven), it seems that Hare’s Kantian morality is not fitted to the human condition.

In contrast to Hare, and in fundamental agreement with Sutherland and Hughes, I defend Darwinian natural right as a form of moral realism. As social animals that cannot live well without cooperating with others, we try to overcome conflicts of interest by finding confluences of interest. We are helped in doing that by our natural propensity to sympathize with the pleasures and pains of others. Sometimes we are inclined to exploit others, but that inclination provokes resistance from our potential victims. Sometimes our moral conflicts create tragic choices in which we must choose between goods or choose the less bad as good. To choose correctly requires a prudent management of our desires in a manner that fits our circumstances. There are no abstract rules that would make this easy. We must use the tools nature has given us — our capacities for thinking, feeling, and learning. We make the best of what we have as we strive to satisfy our deepest desires as mortal creatures naturally adapted for life on earth.

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