## **Issues at the Intersection of Ethics, Evolution, and Neuroscience**

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Many constructions of theoretical ethics are based upon a fear or distrust of our own inclinations and are meant to bind them. . . . How would we view ethics if we did trust our inclinations? We then might see it as an amplification of our good inclinations, as enlarging, regularizing, and channeling them. (Nozick, 1989: 216)

There was a time when ethicists did not concern themselves with the natural sciences. Even in the year 2010 it might be accurate to say that the overwhelming majority of ethicists, other than those who are concerned to prescribe proper conduct for scientific practice, pay little attention to natural science. It has often been said that science primarily concerns itself with what is the case, while ethics concerns what should be the case. If this is true, then ethics research can or should be conducted without caring too much about what the sciences say.

But in recent decades, among some philosophers<sup>2</sup> the idea

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that the sciences—in particular evolutionary biology and the cognitive neurosciences—have much to contribute to our understanding of ethics has been gaining traction. This is not to say that such an approach to research in ethics is entirely new, for clearly that is not the case. Many who now treat ethics as a field of study that is done best when animated by reflection on the findings of contemporary science are extending ideas that were foreshadowed in the works of Aristotle, Mencius, and David Hume, among others. Although aspects of the conceptual framework have been in place for centuries, only in the 19th and 20th centuries, with the development of evolutionary biology, and in the 20<sup>th</sup> and 21st centuries, with the development of cognitive neuroscience, have these ideas been refined through synthesis with systematic empirical investigations.

If science concerns what is the case and ethics concerns what should be the case, then might those who argue that the two disciplines should remain distinct be correct? Among those who promote some version of naturalized ethics, unanimity of response has not yet been achieved. But the positions staked out by Neil Levy and Owen Flanagan are representative of a general tenor expressed in the works of those ethicists who engage evolutionary biology and cognitive neuroscience.

Neil Levy (2007), who has authored the essay "The Prospects for Evolutionary Ethics Today" for this issue of *EurAmerica*, emphasizes that the emerging "neuroscience of ethics" might reshape our understanding of certain fundamental, ethical concepts—e.g. agency, free will, intuition, and rationality. Were this to be the case, the ramifications for theorizing over ethical matters would be substantial. Nevertheless, Levy's point of departure is not altogether unfamiliar to traditional ethicists: he is in sympathy with Rawls's (1971) view that in moral inquiry we seek a reflective equilibrium among our intuitions and our moral theories.

Levy, however, differs from many traditional ethicists in several respects: first, although he believes that our intuitions can

have justificatory force, he does not regard them as sacrosanct. Second, he regards many questions that are pivotal to ethical theorizing as straightforwardly empirical (e.g. whether self-interest is our primary motivation when rendering moral judgments). Third, he takes seriously the idea that aspects of the external world (anything from a sextant, to a sacred scripture, to a member of our social cohort) play an essential role in human cognitive activity.<sup>3</sup> One significant implication of the view that cognition is extremely dependent upon the external environment and multifarious props is that morality should be treated as a social enterprise, an enterprise that takes heed of expert counsel and that strives for overall consistency.

Owen Flanagan (2002, 2007) who, in collaboration with David Barack, has authored the essay "Neuroexistentialism" for this issue, echoes Aristotle in exhorting us to conceive of ethics as systematic inquiry into the conditions necessary for leading a good life, conditions that promote flourishing. In other words, Flanagan's treatment of ethics is more inclusive than is the work of some other ethicists: he is concerned both with what is moral and with what makes life meaningful. But though these conjoined concerns mark his work as distinctive, they do not mark his approach as unconventional. What is more likely to cause consternation, at least in some quarters, is his treatment of ethics as a kind of applied science. More specifically, he treats ethics as being like ecology: just as we might seek to identify the conditions that permit various natural systems (e.g. the oak-hickory forests of the Ozark Mountains or the cypress forests of Mount Ali) to flourish, so too we might seek to identify the conditions under which humans can best flourish. Hence, ethics is best regarded as a kind of "human ecology."

Although, on this construal, ethics is empirical, Flanagan does

Drawing upon the work of Andy Clark (1997, 2007), Levy highlights an important distinction between cognition that is "embedded" and cognition that is "extended." But this distinction need not concern us here.

qualify this claim somewhat. First, he does not anticipate that ethics will turn out to be like physics, allowing for the derivation of causal generalizations from general laws. On the contrary, many among the significant generalizations that are to be found will be just as they are in ecology, singular and local. Second, ethics as human ecology is a **normative** science, in that it goes beyond description, explanation and prediction; it includes inquiry directed at discovering the conditions which must be satisfied in order to attain certain ends. If you want to build a skyscraper that won't collapse in an earthquake, you **should** satisfy certain conditions. Likewise, if you want to foster a society or a human being that flourishes, you should satisfy certain conditions.

How does one determine proper goals, and what counts as flourishing? Fortunately ethical inquiry that engages science need not ignore the centuries of wisdom that accumulated prior to the advent of human ecology. For example, like Levy, Flanagan too draws upon Rawls (1971), who in turn draws upon ancient wisdom. Rawls observes that the "Aristotelian Principle" can serve as a guide to flourishing: human beings enjoy the exercise of capabilities, whether innate or trained, and the more complex the better. Of course from the perspective of Flanagan's human ecology, this can only be treated as a hypothesis about human psychology.

Might it turn out to be the case that people and environments differ so substantially that we inadvertently open the door to a pernicious form of ethical relativism? Since ethics as it is considered here is an empirical inquiry, the possibility cannot be dismissed out of hand. But certain vices and virtues appear to be recognized universally, recognized in all human habitats. These seem to reflect a shared body of fundamental intuitions, including intuitions pertaining to the just treatment of those who are neither kith nor kin.

Here too I believe Levy's and Flanagan's views dovetail. We need not worry excessively about the possibility of pernicious relativism, because sometimes our intuitions can rightly be said to have justificatory force. Intuitions concerning justice might well be one of these. Furthermore, Flanagan also endorses a view consonant with Levy's, that morality should be treated as a social enterprise, an enterprise that takes heed of expert counsel and that strives for overall consistency. On Flanagan's account, a racist, a xenophobic, or a misogynist might feel happy, but it is likely that through dialogue and through the discoveries of experts (including evolutionary biologists and neuroscientists) that these attitudes will be found—as a matter of fact—not to promote environments in which people flourish.

"The Prospect for Evolutionary Ethics Today," by Levy, is an attempt to allay worries that acknowledging morality's evolutionary origins might imply abandonment of integral notions of morality. He traces the erroneous reasoning that has given rise to the worries expressed in the work of some contemporary evolutionary ethicists to the dispute between Thomas Huxley and Herbert Spencer as regards how best to understand Charles Darwin's ideas on natural selection, particularly as these relate to the proto-morality of our evolutionary ancestors. While not denying that our moral sentiments are the product of evolution, Huxley argued that ethics is—in some important respects independent of our biological nature. After all, according to Huxley, our immoral sentiments are also the product of evolution, so why should we privilege one over the other? Accordingly, he held that "good" doesn't mean "adaptive" and that morality should be designed so to stand in opposition to evolutionary processes.

Spencer, who coined the phrase "the survival of the fittest," thought otherwise. For him, "good" just means "highly evolved." This meta-ethical position has significant normative implications. For example, Spencer counseled against organized charity, because it would ameliorate the suffering of those who are genetically destined to fail. Eugenics, on the other hand, was endorsed by the Social Darwinists inspired by Spencer, for that the "highly evolved" should survive-even if at the expense of those "less highly evolved"—is taken to be a good.

Levy argues that morality, properly understood, implies that we should side with Huxley: that is, we should sometimes, in some respects, combat natural selection. All parties to this dispute can agree that certain raw materials—e.g. altruistic dispositions—are evolutionary products. What the "neo-Spencerian" needs though is evidence and argument to show that morality is to be identified with those raw materials, the constituents of proto-morality. Levy's concern is not that identifying proto-morality with morality would be to run afoul of the naturalistic fallacy. His concern is that the analysis whereby one might determine the two to be identical simply fails. For example, any analysis that would conclude that "good" is equivalent to "highly evolved" would fail, because it would imply that certain propositions which we hold dear—e.g. xenophobia is bad and charity, good—are false.

Why not then just conclude so much the worse for those propositions we hold dear? The reason is that our innate dispositions often conflict with one another; even our evolved altruistic intuitions are discordant. Although we have been endowed with a partial sensitivity to the needs and interests of others, it is a sensitivity that is geared principally to self-interest. But at the same time we have been endowed with the belief that our moral sensitivity should not be predominantly self-interested. Because these dispositions are at odds with one another, they can only serve as a starting point. Rationality is needed to trim and refine them such that we might approach a reflective equilibrium.

"Neuroexistentialism," by Flanagan and Barack, focuses on one of the issues that makes achievement of reflective equilibrium so difficult—the clash between scientific and humanistic images of persons. Like previous existentialisms, neuroexistentialism is a response to a diminished self-image. In this instance, the third wave of existentialism, neuroscience has added evidence that makes Darwin's message especially vivid, making it all but impossible to ignore. That message is that we are animals; the mind is the brain; and, that we are one kind of fully material creature living in a fully material world. The worry, to put it baldly,

is whether we can flourish, given that we know ourselves to be nothing over and above social, embodied creatures, creatures with an evolved capacity for rationality.

According to Flanagan and Barack, proponents of Darwinian views often fail to see that opponents are correct about a matter of vital import: if Darwinian views are correct, then what people are justified in believing conflicts with antecedently held views of who or what we are. Because the humanistic view does not mesh well with the scientific image, we can find ourselves cast adrift, in an anchorless search for meaning of the sort that characterizes all existentialisms. It is then no wonder that advocates of creationism and intelligent design are taken so seriously in the United States.

Flanagan and Barack distinguish their concern from that which David Chalmers (1996) has dubbed the "hard problem" of understanding how it is that consciousness is realized in the electro-chemical activity of brains. If we allow that the cognitive neurosciences will provide us with an answer to that how-question, we are still left with a "really hard problem." Given that everything about us, including consciousness, just is part of the natural world, can anything that is both uplifting and true be said about the meaning of life. Unlike the "hard problem," the "really hard problem" is not a purely scientific question. It concerns a philosophical attitude: in view of the fact that we are evanescent members of a species that will one day become extinct, how should we regard ourselves?

One form of descriptive-normative inquiry that might help to quell neuroexistentialist anxiety is "eudaimonics"—the study of those conditions which promote flourishing or fulfillment. Fortunately, eudaimonic inquiry need not start from scratch. Both modern science and works of philosophy that have accumulated over the ages, provide many resources that can be drawn upon in designing suitable responses, responses that do not resort to the supernatural, the theological, or the transcendental.

Flanagan and Barack conclude by raising a worry: some findings within the cognitive neurosciences seem to suggest that positive illusions might importantly contribute to eudaimonia. Were this the case though, we would need to choose between believing what is true and living a life that enables us to flourish. Flanagan and Barack, however, express the hope that the need for positive illusions is not intrinsic to human nature.

But "The Ethics of False Belief," by Lane, takes seriously the idea that positive illusions, as well as other forms of false belief, might be intrinsic to human nature. He considers both anecdotal and scientific evidence which suggests that this might be so. He proceeds then to argue that some of our beliefs might be the result of an evolutionary compromise between internal and external adaptations. Not only should we believe what is true, if we are to survive well in this world, but we should also, sometimes, strategically, believe what is not true. Believing what is not true is a form of internal adaptation. It is an adaptation to being the kind of animal that knows it is a frail and mortal member of a species destined for eventual extinction.

The essays collected here presuppose that we are evolved creatures whose minds depend (in one way or another) upon our brains. They also share a commitment to the view that contemporary ethics is done well when it is animated by the findings of evolutionary biology and the cognitive neurosciences. But no one among these authors would claim that a consensus has already been achieved for how best to conduct research of a neuroethical sort. Nevertheless, like philosophers of any era, at least those philosophers who continue to be taken seriously in the 21st century, they draw upon the resources that are available to them in the era within which they work. In this era it would be foolish to neglect what we are learning about our evolutionary origins or to ignore the discoveries of neuroscience.

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