

TRANSCENDING OUR BIOLOGY: A VIRTUE ETHICS INTERPRETATION OF THE APPEAL TO NATURE IN TECHNOLOGICAL AND ENVIRONMENTAL ETHICS

by *Nin Kirkham*

Abstract. “Arguments from nature” are used, and have historically been used, in popular responses to advances in technology and to environmental issues—there is a widely shared body of ethical intuitions that nature, or perhaps human nature, sets some limits on the kinds of ends that we should seek, the kinds of things that we should do, or the kinds of lives that we should lead. Virtue ethics can provide the context for a defensible form of the argument from nature, and one that makes proper sense of its enduring role in debates concerning our relationship to technology and the environment. However, the notion of an ethics founded upon an account of the essential features of human nature is controversial. On the one hand, contemporary biological science no longer defines species by their essential characteristics, so from a biological point of view there just are no essential characteristics of human beings. On the other hand, it might be argued that humans have, in some sense, “transcended our biology,” so an understanding of humans as a biological species is extraneous to ethical questions. In this article, I examine and defend the argument from nature, as a way to ground an ethic of virtue, from some of the more common criticisms that are made against it. I argue that, properly interpreted as an appeal to an evaluative account of human nature, the argument from nature is defensible with the context of virtue ethics and, in this light, I show how arguments from nature made in popular responses to technological and environmental issues are best understood.

Keywords: arguments from nature; environmental ethics; technology; virtue ethics

At the beginning of almost every article discussing some aspect of virtue ethics, the author mentions the marked resurgence of interest in the virtues that has occurred over the past couple of decades. I would feel remiss if I did not do likewise and did not also mention that virtue ethics is finding renewed application in all manner of fields from bioethics to environmental

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philosophy. In fact, the field of virtue ethics, in general, and the particular problem of this article, was reached by way of applied ethics from an interest in “arguments from nature” as they are used, and have historically been used, in popular responses to advances in technology and to environmental issues. There is a widely shared body of ethical intuitions that nature, or perhaps human nature, sets some limits on the kinds of ends that we should seek, the kinds of things that we should do, or the kinds of lives that we should lead. Arguments along these lines have been raised in contexts as historically wide-ranging as weaving and dyeing, selective breeding and hybridization, in vitro fertilization, cosmetic enhancement, genetic modification, and so on. I was, and still am, interested in whether there was a defensible form of the argument from nature, and if so what its role is in the aforementioned debates concerning our relationship to technology and the environment. So, the focus on virtue ethics in this article is primarily motivated by an interest in appeals to nature as they occur in applied ethics—if appeals to nature have any ethical traction at all, I argue, it is when they are understood as proceeding from a virtue ethics framework.

I begin by giving a very brief overview of virtue ethics, in particular explaining how the appeal to nature comes into the virtue ethical framework. There are various criticisms of virtue ethics in general, and the appeal to nature more specifically, that are not the province of this article to address (though I do think that many of them can be addressed). The particular issues that are the province of this article are, on the one hand, the criticism of the appeal to nature in virtue ethics that the findings of evolutionary biology show us that there just is no biological notion of human nature in the first place upon which we could found an ethic of virtue and, on the other hand, the claim that human beings have in some sense “transcended our biology” and so scientific or “natural” facts about human beings are just not relevant to ethical questions. I will address these, and a couple of related, criticisms and attempt to show how I think the appeal to nature in virtue ethics is best understood. Then, because I am primarily interested in appeals to nature as they occur in debates over technological innovation and environmental issues, I will conclude by making some remarks regarding how I think such appeals might be best understood in these contexts.

Virtue ethics is the oldest recorded ethical theory, dating back to the philosophical writings of Plato and, more particularly, Aristotle. However, all the ancient schools of philosophy propounded a virtue or *eudaimonist* ethics of some kind: not only Aristotle and the Peripatetics, but also the Stoics and Epicureans. Contemporary versions of virtue ethics, like their ancient counterparts, take as fundamental the ethical question: “What it is that will enable the agent to lead a life characterized by *eudaimonia*?” (Annas 1987–1988, 1510). Furthermore, they tend to focus on the general question of what it is for an agent to live a good or virtuous

life overall, rather than attempting to adjudicate on specific instances of right or wrong action. Although it is hard to give a clear and succinct definition of virtue ethics, roughly it can be understood: as concerned with the questions of “how should I live?” rather than the question “what should, or must, I do?”; as being focused on the character development of agents, rather than centered upon the consideration of right or wrong acts: as concerning itself with “being” rather than “doing”; and as taking as ethically elementary the aretaic concepts of excellence, virtue, and *eudaimonia*, rather than the deontic concepts of duty, right, and obligation (Hursthouse 2001, 24).¹ While a bit hackneyed, in combination these descriptions of virtue ethics provide a reasonably accurate depiction of the central commitments and the general theoretical approach of modern virtue ethicists.

An assumption that is central to virtue ethics (and this becomes important later, in attempting to understand how the appeal to nature really works) is that a person arrives at theoretical ethical reflection as an adult, that is, as a person already in possession of a set of moral commitments and, so, ethical theory provides a person with the means by which she can evaluate her life as a whole and her priorities in achieving *eudaimonia*. An important part of the theory, then, is the supposition that, motivating her immediate aims, each agent has a “final good” toward which these aims can be directed, and in the light of which they can be assessed. The question of right action, then, is never introduced independently of consideration of the final good; in fact, all questions concerning right action have as their point of reference the final good, which is almost universally acknowledged to be *eudaimonia* (Annas 1987–1988, 152).²

Although there might be disagreement over exactly what *eudaimonia* amounts to, it is generally agreed that the “final good” for humans *can* be characterized by understanding the term as meaning a life of flourishing which the agent values and feels well-disposed toward. And this *eudaimonia* is achieved through practicing the virtues, which involves the simultaneous development and training of our feelings, and of our rational understanding of the right way to act in various contexts.³ That is, we develop and train our emotions in the right way when our decisions about what to do are guided by our developing rationality and practical intelligence. The truly virtuous person, then, is someone who both knows the proper way to act, and also desires to act in that way (Annas 1987–1988, 151–52).

In addition to the aforementioned points of congruence, the *ancient* virtue ethicists Aristotle, Epicurus, and the Stoics are all in accordance that a life characterized by *eudaimonia* is, for human beings, natural or in harmony with nature.⁴ Contemporary versions of virtue ethics may differ on some of the specifics of the theory, but tend to concur on all but the last of the abovementioned general or fundamental claims (that the life of *eudaimonia* is, for human beings, natural or in harmony with nature).

Just as in ancient virtue ethics, the disagreement in modern forms comes in at the point of how we are to characterize *eudaimonia*, and intense disagreement arises over how we are to flesh out the claim that is central to virtue ethics: that a virtue is a character trait or disposition that a person (or human being) needs in order to achieve a life characterized by *eudaimonia* (to flourish, live well, be happy, etc.). Rosalind Hursthouse points out that this claim encapsulates two further, and interrelated, claims: first, that the virtues benefit their possessor as an individual; and, second, that the virtues make their possessor good *qua* human being, or that humans beings require the virtues in order to live a characteristically good *human* life (Hursthouse 2001, 20). While there are serious issues that beset the first claim, it is this second claim from which arises the greatest skepticism and disagreement over the possibility of a coherent modern version of virtue ethics, particularly as a viable alternative to deontology and utilitarianism, and one that somehow makes up their perceived shortfalls. This is because that second claim, that the virtues make their possessor a good human being, involves the controversial appeal to nature. The appeal to nature is involved here because, in order to elucidate the claim that the virtues make their possessor a good *human being*, we need to be able to give an account of what a human being is, that is, we need to provide an account of human nature, and one that helps us pick out those facts about human nature that are especially relevant to our being a good human being. It is important to understand at the outset that the use of the appeal to nature in virtue ethics refers almost exclusively to what we might call “human nature,” rather than to any concept of the natural environment or our physical surroundings and, further, that in terms of ancient ethics human nature was considered to be continuous with and a part of the rest of the natural world.⁵ The Greeks never doubted that humans were a part of the natural world and a proper object of study for science just like the rest of the animate and inanimate world, but what is of particular relevance to ethical questions is human nature, not nature understood more broadly.⁶

The appeal to human nature as a foundation for an ethical theory of *eudaimonia* is most often understood with reference to Aristotle’s work, in particular the Aristotelian function argument given in the first book of the *Nicomachean Ethics*. Basically, the argument there is that the feature of human beings that distinguishes them from other animals is the capacity for reason and, thus, because reason is an essential characteristic of human beings, human beings fulfill their proper function, and in doing so achieve *eudaimonia*, when they live their lives according to reason. Elsewhere in the *Nicomachean Ethics*, Aristotle depicts ethical development as the fulfillment of the “natural” tendencies of humans, stating that “. . . for every being that is best and pleasantest which is naturally proper to it.”⁷ In his ethical writings more generally, Aristotle, at critical points in his various arguments, refers to facts about human nature, as if these facts were playing a

normative role—the difficulty is to determine just what kind of role or roles these appeals to nature play, and how they play them (Nussbaum 1995, 86).⁸ What is clear is that Aristotle's use of the appeal to nature is complex. Aristotle appeals to several interrelated notions—characteristics distinctive of human beings, characteristics essential to human beings, proper functioning, and various other kinds of *facts* about human nature—to give support to his claims about the substance or content of human flourishing or happiness.

There are several familiar objections to Aristotle's version (or perhaps more accurately versions) of the appeal to nature, some of which can be more easily dealt with than others. There is a common misconception that the appeal to nature is an appeal to some normative concept derived from the claim that God made humans and nature with some fixed and determinate purpose in mind, or that it necessarily depends on a prior acceptance of Aristotelian teleology.⁹ I think these criticisms represent a misunderstanding; however, for the purpose of this article I am going to assume rather than argue that this is the case, and assume that the appeal to nature does not rely on a notion of creation or science that is no longer entirely available to us.

Another objection suggests that the appeal to nature results in an unnecessarily restrictive interpretation of what an ethical human life should be and attempts to impose upon every human being a particular set of activities. This again is a misconception of the role of the appeal to human nature, and a misunderstanding of virtue ethics. Virtue ethics does not attempt to prohibit one set of activities and prescribe another; rather, it endeavors to highlight a set of dispositions or virtuous character traits that will enable a person to achieve a life of *eudaimonia*, and the appeal to human nature, more specifically, is only used to make very general claims regarding how we should go about doing all of our activities (whatever they happen to be), and what should be the governing nature of all of our dispositions. That is, the appeal to human nature only specifies a particular kind of life for human beings at a very high level of generality.

Another popular target of the appeal to nature, particularly as Aristotle uses it in his function argument, is its notion of distinctiveness. Critics point out that there are many activities that human engage in that are distinctive of humans, and ask why distinctiveness should have any bearing on our attempts to specify the characteristic activities and dispositions that constitute good human lives.¹⁰ Suits points out that, in contrast to all other species, the human being “makes love, buys and sells, plots revenge, collects bits of string, listens to Mozart, washes his socks,” but the distinctiveness of these activities appears to give us no assistance in determining what constitutes our proper function (Suits 1974, 39). Bernard Williams asks why we should give priority to rationality, as we engage in plenty of other

activities that no other species or members of a species engage in. If we elevate reason, because it is a distinctly human activity, we might, says Williams, according to such principles “end up with a morality which exhorted men to spend as much time as possible making fire; or despoiling the environment and upsetting the balance of nature; or having sexual intercourse without regard to the season; or killing things for fun” (Williams 1972, 73).

Criticisms such as this, however, seem to miss the mark. Certainly, as far as we know, human beings are the only animals that collect bits of string (for reasons other than making a nest), and make fire, but although these are distinctly human activities they are not characteristics distinctive of human activities. A life in which one does not wash one’s socks, or make fire, while perhaps being somewhat cold and smelly, is, I think most of us would agree, still a possible life for a human. However, the question as to whether a human being with no rational capacity whatsoever should be identified as a human being, particularly in an ethical context, is not so easily answered. So, when we are attempting to specify human nature, the kinds of things we are looking for are not merely those activities that are distinctive to humans, rather those properties or characteristics that are distinctive of human activities.

Sometimes this notion is understood as specifying human nature in terms of essential characteristics, that is, those characteristics by which we identify something as a member of its kind. But if the characteristics of humans that we are interested in are not merely distinctive but rather essential characteristics, this opens the appeal to nature up to another kind of objection. If we recognize the possibility that the appeal to nature does not rely on an outdated Aristotelian teleological or explanatory notion of biology, then presumably the notion of human nature that we would want to appeal to would be one that is at the very least consistent with contemporary evolutionary human biology. So, perhaps the appeal to nature should be understood as founding our ethical conclusions on a scientific and objective notion of the essential nature of the biological species *homo sapiens sapiens*, where essential nature is understood as the collection of characteristics by which we identify something as a member of its kind. But, as many critics point out, one of the central insights of Darwinian evolution was to show that there just are no “essential” biological differences between humans and other animals—the boundaries between species are not necessary but contingent. In this light, appealing to the essential characteristics of the biological species as a basis for ethical conclusions is just making a kind of category mistake. Contemporary biological science no longer defines species by their essential characteristics, so from a biological point of view there just are no essential characteristics of humans.¹¹ However, the recognition that the species *homo sapiens sapiens* is not associated with a set of objective properties that is both distinctive to that

species and universally shared by all of its members does not necessarily mean that the most current findings in evolutionary biology, evolutionary psychology, and so on are not relevant to our understanding of what it is to be a human being. When we are attempting to specify human nature as part of the foundation for an ethic of virtue, perhaps the most up-to-date biological conception of human beings is all we need—while not being able to give us an account of the essential characteristics of human beings, this still might provide us with an objective, scientific foundation for our ethical conclusions.

It is at this point that critics push from the other direction. Many claim that, while humans share many characteristics and capacities with the other animals and have evolved in just the same way, humans are unique in their possession of, for instance, the capacity for cultural transmission and the mental and linguistic attributes necessary to achieve it. Without denying that these capacities and attributes must too have evolved, there is a sense in which humans have evolved beyond “nature” and biology, and into a distinctively “human nature.” They point out that, because humans have in this way “transcended our biology,” even if we could have some kind of objective scientific account of the human being based on the latest evolutionary biology and so on, humans are just not like other animals in those characteristics that are salient to ethical deliberation, so any explanation of our characteristic behavior to be worthy of the name must go way beyond, for instance, discussion of fitness maximization in response to environmental stimuli. It turns out, though, that this criticism is all to the good, because the notion that specifying human nature in the virtue tradition involves taking up some kind of an extra-ethical, objective position and from that point attempting to substantiate an account of the good life is a common interpretation and more importantly one that, if true, would give us good reason to be seriously skeptical of its prospects. Thomas Nagel, for instance, presumes that the neo-Aristotelian approach attempts to specify a “universal human nature” by “contemplating it from outside,” and he thinks that this is an attempt by virtue ethicists to “provide an objective basis for the endorsement” of a certain kind of life for humans (Nagel 1986, 354). Bernard Williams interprets the Aristotelian project as the search for an “absolute understanding of nature” to act as a foundation for an account of *eudaimonia* (Williams 1985, 52). Two questions arise from this kind of interpretation of the appeal to nature in virtue ethics: the first is whether Aristotle himself was, in fact, appealing to something like what we might understand as an “external scientific” account of human nature; and the second is what relevance such an account, if we could in fact construct or determine one, would have for our fundamental ethical deliberations.

Nussbaum, Gill, and Annas, and perhaps in some sense Hursthouse, have all argued convincingly that an “external” or extra-ethical foundation is not

what Aristotle is attempting to provide when he appeals to human nature as support for his ethical conclusions. The possibility of an “external” account of human nature, that is, a purely scientific account of human nature, from which we will be able to derive a set of normative ethical conclusions, is beset by an almost insurmountable number of problems. The most pressing problem for the “external” account is the naturalistic fallacy, that is, if these accounts of human nature are nothing more than bare scientific fact, and contain no evaluative component, it is not at all obvious as to how we are to connect them to our ethical judgments. Williams recognizes this problem—his argument in the latter part of the third chapter of *Ethics and the Limits of Philosophy* suggests that whatever “external” accounts we have of human nature are likely to be of questionable relevance to our ethical evaluations. If these accounts do not already include ethical thought, it is not immediately apparent what bearing they could have upon our ethical deliberation (Williams 1985, 30–53).

If Aristotle was not using his appeal to human nature as a way to justify his ethical conclusions from an objective and external perspective, how was he using the appeal to nature, and in what way can it best be understood as relating to the ethical conclusions he used it to support? Nussbaum, in her article “Aristotle on Human Nature and the Foundations of Ethics,” explores in detail, and argues in support of, the claim that Aristotle’s use of the appeal to human nature is both foundational to his ethical discourse, and proceeds from within an already existing ethical framework. She argues that neither Aristotle’s metaphysics of nature, nor his biology, can be understood as nonevaluative and “external.” And, thus, the modern distinction between fact and value has no exact equivalent in Aristotle’s work—both Aristotle’s science and his ethics are internal, in that they attempt to give an intelligent and rational account of *human experience* of the world (Nussbaum 1995, 103).

The external or objective account of human nature that Williams, and others, see as so vital to any significance such an account might have in providing a foundation for ethics is, according to Nussbaum, neither available to us nor of any interest. She argues that what matters most in ethical deliberation of questions concerning the nature of human beings, personhood, our possibilities, and our limitations is what we ourselves think; the judgments of a being who views our lifeworld and our experiences from an outside perspective, rather than from within those experiences and ways of life themselves, matter very little indeed, if at all (1995, 121). Nussbaum points out that

Human nature cannot, and need not, be validated from the outside, because human nature just is an inside perspective, not a thing at all, but rather the most fundamental and broadly shared experiences of human beings living and reasoning together. (1995, 121)

According to Nussbaum, Aristotle's appeal to human nature, as a way to ground ethical claims about human life, is made from a perspective internal to ethical thought and embedded in human living. For exactly this reason, the appeal to human nature can provide a foundational ethical discourse, and one that is truly relevant to the lives that human beings are actually leading.

If the appeal to human nature made in virtue ethics is, in fact, an appeal from an already evaluative (i.e., ethical) account of human nature to conclusions about the character of *eudaimonia* or happiness, then is it not the case that our argument is circular and the premises relating to human nature only trivially support our conclusions about what constitutes *eudaimonia*? Perhaps—however, the circle is not necessarily a vicious one and, further, it may be that a position outside the circle is not available to us. Certainly, on this understanding, our ethical conclusions are derived from within an already existing ethical framework, but it is very difficult to see how we could possibly achieve the desired “value-free external position” from which to discern these objective facts about human nature. But if we could achieve the position and discern the facts, then it is hard to see how we could base our ethical conclusions upon them without the criticism that we are making an illegitimate step from fact to value.

Nevertheless, when we use the appeal to human nature as a method of guiding, or confirming, our claims about what is the good life for humans, debate over what is natural to us and what is not is more than an inconsequential shift of the debate about what our happiness consists in. As Annas points out, virtue and happiness may be explained by reference to an account of human nature, but they cannot be reduced to claims about human nature; that is, they are not explained away (Annas 1987–1988, 168). Bare scientific facts do not give us the kind of criteria we need in order to guide our ethical action, for if we are going to deem an action as one that should be avoided, it surely should be because of an *ethical* judgment we make about it, not because some supposed barrier of scientific fact has prevented us (Nussbaum 1995, 122). It is hard to see how an objective, scientific, and extra-ethical account of the character dispositions and behaviors of human beings might provide us with the means by which we could, without the aid of serious moral evaluation, resolve questions about what we consider to be good human lives and what it is that makes those lives valuable. While it is uncontroversial that a clear understanding of sociobiology should inform our claims about human beings and human flourishing, such an account would amount to basing ethics *purely* on sociobiology. Reductive projects of these kinds fail because they are unable to achieve what is essential to any successful theory of ethics—that is, as Annas puts it, the “explanation of the ethical as ethical” (1987–1988, 168–70). If this is right, then the enterprise of specifying the good life for humans

by reference to a complete account of human nature is something that can only make sense if it is done from within a preexisting ethical framework. What we end up with when we take seriously the Aristotelian project of using our considered judgments about what we deem to be the essential nature of human beings to inform our specification of a life of flourishing for us, is a kind of nonreductive naturalism. We want our ethics to take account of the sorts of beings that we are, but not merely in the biological sense. To be relevant to an ethical project of specifying the dispositions needed to achieve a good life as a human being, our account of human nature must be an account of the sorts of beings we are socially, culturally, psychologically, biologically, and so on, but this understanding must be one couched in ethical, not biological, terms. So, the latest findings in evolutionary psychology, for instance, may be relevant to our understanding of human nature, but we cannot simply read off from those scientific facts any straightforward conclusions about what is good for us in an ethical sense.

Aristotle and the ancient philosophers emphasized the point that we come to theoretical ethical reflection as an adult, always already embedded in an ethically saturated world. We just do not get to start from scratch with ethics. So, by its very nature any ethical process is going to be one that involves something like reflective equilibrium, and this is particularly so in the case of the appeal to nature in virtue ethics. Philip Kitcher suggests that there is an alternative to “grounding judgments about the good in some unproblematic natural (biological, psychological) properties.” We do, he says, already make judgments about which human lives go well, and about what makes those lives go well. And, further, we do organize these kinds of judgments into more general theories about what is good for us, and what constitutes a good human life. He notes that “when general principles we’re inclined to accept can be brought into harmony with particular judgments we’re inclined to make, we should ask for nothing more by way of justification” (Kitcher 1999, 81–82).¹²

What this suggests is that it may simply be the case that ethical argumentation is intrinsically circular, or at least nonlinear. We do not specify, or even determine, human nature as our ethical foundation and then proceed to deduce from this specification ethical conclusions regarding which action to do or not do, or which ethical way of life to prefer. Rather, we always begin our ethical discussions from within a preexisting ethical framework comprising our preexisting ethical commitments and our ethical judgments of the essential elements of human nature. We then examine and justify our ethical conclusions regarding the good life, what it is to live such a good life, and what it is to be a good human being. Our specific judgments about good human lives are justified because in those lives we see developed the properties that we think are essential to human beings (or persons).

This being said, Hursthouse, in contrast to Nussbaum and Annas, argues that a neo-Aristotelian naturalism *can* be understood as “objective,” in some sense.¹³ However, the facts about human nature that we appeal to in support of our claims about what virtues enable us to live a good life as humans are not “empirical” or “accessible from a neutral point of view” (Hursthouse 2001, 240). Hursthouse calls them “odd facts,” which philosophy has yet no easy way to classify. She makes the point that “the long-term naturalistic project of validating the standard list of the virtues is Neurathian, and proceeds from within our ethical outlook” (2001, 240).¹⁴ Using the appeal to nature, she says, is not a process of reading off from the book of nature a set of bare facts about our characteristic ways of acting, nor is it a way to merely confirm our preexisting commitments about character dispositions. If the appeal to human nature was able to achieve nothing other, in ethical discourse, than a confirmation of our preexisting ethical commitments, then it would be little more than an ethical appendix, and one we would be well rid of. How we determine which character dispositions belong on our list of virtues and vices depends upon the strength and coherence of our account of the roles those dispositions play in our lives, and how, in turn, that account fits in with our preexisting ethical commitments, and fits with the various empirical facts that we see as being relevant (2001, 240). Our explanations, and ethical evaluations, of the ways different character dispositions function in our lives are certain to appeal to our judgments about what sort of beings we are (and what sort of beings we can reasonably aspire to be)—that is, to appeal to an account of human nature given from a perspective that is internal to human life and to human morality.

Accordingly, facts about nature and, more specifically, about human nature, do not function in virtue ethics to end or settle ethical debates. The claim, for instance, that *eudaimonia* can be characterized as the possession of the virtues on the grounds that this is natural, or in accordance with human nature, is a way to begin ethical debate, not a way to end it—the bulk of the ethical work still needs to be done. The acceptance of this claim does not straightforwardly determine a specific way of life that human beings should follow or a set of dispositions that humans should have, rather it acts as a foundation for our attempts to determine which dispositions are ethically important, and what ways of living can allow one to achieve them. The appeal to nature is a way that we can sensibly connect our most up-to-date scientific understanding of ourselves biologically, psychologically, historically, and so on, but not in a way that naively hopes to reduce the ethical to something less complex. The role of the appeal to nature, while being important and foundational to ethics, is modest and, for that reason, I contend that it is plausible.

Now I will bring my discussion back to the issue from which it arose, that is, how arguments from nature are used in debates over the ethics

of new technologies and how we can best give such arguments a meaningful interpretation. A variety of versions of the negative argument from nature regularly arise in debates over the ethics of new technologies, and such arguments are often dismissed on the grounds that “nature,” on its own, does not provide us with any set of objective standards that we can use to decide between legitimate and illegitimate uses of technology. Any argument from nature or appeal to nature, when viewed as a method to deduce from objective premises uncontroversial conclusions about what we should or should not do, or what is or is not good, is fairly obviously invalid. It is on these grounds that the argument from nature is almost universally rejected in bioethics. Concealed in this rejection of the argument from nature, as a reasonable and meaningful response to ethical issues concerning technology, is the assumption that the argument from nature is *always* invoked in order to generate categorical and definitive ethical boundaries and, therefore, invoked in attempts to bring ethical discussion to a close. However, I think that the use of the argument from nature in these contexts is in some cases intended to have (and furthermore should have) the opposite effect, that is, to invite and encourage the discussion of fundamental issues that take us beyond merely rights and consequences, in particular, allow us to address issues that arise from within the framework of virtue ethics. Interpreted in this way, the argument from nature can be seen as an opportunity: a starting point for detailed discussion of human flourishing, and of the relationship between human excellence and the orientation humans should have toward complicated environmental and technological issues, such as sustainability, biodiversity, animal welfare, global warming, industrial agriculture, factory farming, ecosystems, wilderness, future generations, environmental justice, and so on.¹⁵

To use the appeal to nature as an objection to technology, as if it were a categorical objection, or to interpret objections of this kind in this way, has a further negative consequence. Apart from closing down the debate, an argument from nature interpreted as making a categorical objection to a certain course of action based on some concept of a nature apart from humans, not only expresses a deep and troubling conceptual (and perhaps material) alienation from the environment but, most importantly, expresses a failure of ethical understanding. That is, a failure to understand ourselves as the kinds of beings that we are, and a failure to consider that a proper understanding of ourselves is pivotal to our ethical deliberations. To understand the argument from nature in its virtue ethics context is to reengage with our most fundamental ethical concerns in the terms that capture a true understanding of ourselves, our place in the world, and the essential elements of our nature. The most fundamental ethical imperative is that ultimately *we* must decide what to do. We must decide what to do with an open acknowledgment and clear understanding of our own nature: as limited and capable; as, at the same time, one species

among many and as different from other species; as autochthonous and technological; as rational and ethical; and as mortal. The proper role of the argument from nature, then, is not to settle or end ethical debate over the environment and new technology by appealing to a categorical limit to human action imposed by nature, but rather to encourage the consideration of deeper ethical issues concerning how we understand ourselves, how we understand technology, and how we conceive of our relationship to the environment.

NOTES

1. Virtue ethics is further characterized as a theory that rejects the proposal that the guidance for performing right action provided by ethical theories is deducible from a codifiable set of principles. While all these characterizations contain some truth, Hursthouse claims that, all together, they tend to give rise to a widely held misapprehension about virtue ethics; that virtue ethics does not, and is perhaps unable to, provide specific guidance for action, particularly in the way that deontology and utilitarianism can. Virtue ethics may not provide action guidance in the same way as deontology and utilitarianism; however, some virtue ethicists have suggested ways that virtue ethics might be interpreted as providing action guidance. Hursthouse argues that virtue ethics can specify right action as “that which a truly virtuous agent would, characteristically, do in the circumstances.” Hursthouse argues that from such a specification of right action, according to virtue ethics, we are able to derive a number of moral principles. See Part I of her book *On Virtue Ethics* (Hursthouse 2001, 23–87). Criticisms of this point of view emphasize the lack of specificity given by this characterization of right action; however, how we assess this understanding of right action depends largely on what we want out of and expect from our moral theory. If we want to know in advance exactly what to do in every circumstance then virtue ethics does not seem to be the best theory to pursue. For a detailed discussion of how virtue ethics can be used to derive action guidance, see Hursthouse’s “Applying Virtue Ethics” (Hursthouse et al. 1995, 57–76).

2. Annas also points out that there is one ancient school, the Cyrenaics, who reject that most basic of assumptions in favor of the claim that happiness is not our final aim since we have no end more ultimate than particular instances of pleasure.

3. *Eudaimonia* is most often translated as “happiness.” While the preceding description is not exactly what we often mean by “happiness,” it seems that “happiness” is the best available translation of the ancient concept of *eudaimonia*. Other translations have been offered, including “flourishing,” “well-being,” and “success,” but for the purposes of this article, and where necessary, “happiness” will be used as the closest English equivalent of *eudaimonia*.

4. In examining the role of the appeal to nature in ancient ethical theories, Annas warns us that we should spend some effort on getting clear about the differences between ancient and modern theories on the meaning of key moral concepts, such as nature and virtue. As she puts it, we shall not be clear about the extent to which we can make use of ancient ethical theory (if at all) unless we examine carefully the question as to whether the ancient appeal to nature is like or unlike modern ethical uses of the appeal to nature. For a careful examination of the connection between the appeal to nature in ancient ethics and the modern notion of ethical naturalism see Annas (1987–1988, 150). For a discussion of whether the Aristotelian and Stoic use of human nature in ethics is a conceptual possibility for modern ethics see Gill (1990, 137–61).

5. See Kirkham (2006, 173–95), for an argument that objections to technology that can be characterized as “vexing nature” objections are best understood as relating to the nature of the agent rather than a notion of “nature” conceived as something other than or apart from the agent. The suggested limits to human manipulation of nature based on the concept of the unnaturalness of the activity might best be understood as objections to the “unnaturalness” of the agent’s motivations. That is, having certain motivations for action, such as excessive pride, agents are vexing their own better nature.

6. Arguably, the Stoics may have admitted that in order to rightly understand human nature we would need to have an understanding of nature as a whole, but the distinctiveness of human

nature is of especial relevance to the sorts of ethical questions that occupied the minds of the ancient philosophers. Interestingly, for the ancient Greek philosophers “nature,” even in its most general usage, was always taken to exclude artifacts, the products of human technology. I rely, in this paragraph, on the characterization of the Greek notion of “nature” given by Julia Annas in Annas (1987–1988, 151–52) and upon her fuller discussion in the chapter entitled “Nature and Naturalism” in Annas (1993, 135–41).

7. *Nicomachean Ethics* [Book X, chapter 7, section 9] (Aristotle 1909, 341).

8. Nussbaum examines this question with reference to the ancient ethical tradition, in Nussbaum (1995, 86–131).

9. Julia Annas raises, and dismisses, this objection to the appeal to nature (Annas 1987–1988, 149–71). The discussion that follows, of objections to the appeal to nature, is informed by the defences given to the appeal to nature in Annas (1987–1988, 149–71) and Gill (1990, 137–61), as well as in Nussbaum (1995, 86–131).

10. I owe my knowledge of the following quotes by Williams and Suits to Annas (1987–1988, 158).

11. David Hull defends just such an argument in his essay entitled “On Human Nature” (Hull 1988, 383–97). Ernst Mayr has made successful arguments for the claim that one of Darwin’s chief achievements was to replace with “population thinking” the dogmas of essentialism (Mayr 1963, 1976). Elliott Sober, likewise, contrasts the “explanatory style” of Aristotelian biology with that of “population thinking” in his arguments, which seek to call into question the idea that contemporary biological explanation is able to support a robust notion of human nature (Sober 1980, 350–83). Finally, John Dupré has made an even more radical critique of essentialism, arguing against the existence in nature of such things as “natural kinds,” by appealing to the disunity of the biological sciences (Dupré 1993). Philip Kitcher, focusing specifically on Hurka’s attempt to defend the Aristotelian connection between essence and perfection based upon scientific and external notions of human nature, recapitulates these arguments, and details thoroughly a variety of scientific objections to the external view, or what he calls “explanatory objectivism” (Hurka 1993; Kitcher 1999, 59–83).

12. The suggestion here follows John Rawls’s theory of reflective equilibrium developed in Rawls (1971). In saying this, Kitcher also points out that adopting a simple coherentist model of moral justification, is open to some objections—he notes that coherentism is hapless “when nihilists issue a global challenge to the entire enterprise, or when enlightened-desire-satisfaction theorists argue that the process of seeking wide reflective equilibrium discloses what individuals who had undergone cognitive therapy would desire rather than revealing some type of value that is explanatory prior to (rational) human desires” (Kitcher 1999, 82). Responding to these objections would require a detailed exposition of more than a straightforward coherentist model of moral justification, which is not the intended focus of this article. Hursthouse, in the final chapter of her book *On Virtue Ethics*, puts forward a response to ethical nihilism that goes some way to answering Kitcher’s objections (Hursthouse 2001, 261–65).

13. I think the notion of “objective” that Hursthouse has in mind here is “nonsubjective,” that is, not merely the judgment of a single subject. I think Hursthouse’s notion of “objective” here is conceptually akin to Kant’s notion in the first *Critique*; objective knowledge is true, not independent of experience *per se*, but independent of individual experience.

14. The term Neurathian refers to Neurath’s boat metaphor, according to which our ship of beliefs, in this case ethical beliefs, is on a landless sea and the only way we have of maintaining the boat as seaworthy is to replace whichever parts are defective as we go along.

15. Virtue ethics is achieving an increasingly prominent place in the broader field of environmental ethics. However, the prospects for the application of a virtue ethics approach to various issues arising in bioethics (aside from nursing and patient care where virtue ethics is central) are underappreciated. For some examples of the application of virtue ethics to environmental issues see Hill (1983, 211–24), Shaw (1997, 53–67), Cafaro (2001, 3–17), Frasz (2001, 5–14), and Sandler (2004, 301–17). More recently, a full-length book has been published on the subject of environmental virtue ethics (Cafaro and Sandler 2005).

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