Chapter 1

Introduction: Virtue, Reason, and Flourishing

"Men need virtues as bees need stings."

–Peter Geach, *The Virtues*

Two or Three Sorts of Naturalism

Philippa Foot's virtue theory identifies evaluative properties (goodness and badness) with straightforwardly natural properties of organisms such as health and disease; furthermore, she identifies moral properties (such as virtue and vice) with straightforwardly natural properties of human animals like us.

In so far as Foot's kind of theory aims to uncover "natural norms" which can be used as moral laws, or proto-laws, Mark Murphy calls hers a "secular natural law theory". Jennifer Frey summarizes the "master thought" of this sort of ethical naturalism:

> The ethical naturalist's master thought is this: man needs the virtues just as much as a bee needs its sting. Such a thought is intriguing insofar as it takes the ethereal and elusive 'moral ought' and brings it back down to earth, by locating it within a wider structure of evaluation we already readily grasp and acknowledge as objectively valid.[1]

1. Jennifer Ann Frey, "The Will and the Good" (PhD thesis, University of Pittsburgh, 2012), 5.

Since biological and other sciences already use normative notions such as 'necessity', 'ought', and 'health' in biological and other sciences, perhaps similar though modified notions can be used in discussions of distinctively human and moral normativity. One of the alleged attractions of Foot's type of ethical naturalism is that, by ringing the 'moral ought' into closer contact with empirical disciplines, ethicists can more fully avail themselves of the fruits of modern science. As Joyce points out:

> Key contributions can be made by social and developmental psychologists, experimental economists, neuroscientists, geneticists, primatologists, anthropologists, comparative ethologists, and evolutionary biologists.[2]

Foot's is not the only kind of neo-Aristotelian ethical naturalism, however. John McDowell criticizes the attempt to make ethics into an empirical discipline. He objects to a heavily biologized kind of ethical theory as scientism that falls in for the Myth of the Given – roughly, the notion that some concepts are norms can be just given to us, for free, in perceptual experience. By contrast, he argues that values are "secondary qualities" of nature, partially constituted by the mental act of the observer. Virtue is a sort of perceptual sensitivities to "what a situation requires", where we remember that what a "situation requires" is partially constituted by the rationality of the moral agent.[3]

McDowell still calls his view a sort of ethical naturalism, since he does not think values are supernatural, or non-natural. But he does not think values are completely subjective, either. Ethical facts and properties are to be identified with facts about "second nature."[4] "Second nature" is our own rational consciousness in so far as it is enculturated by language, custom, evaluation, habit, and a way of seeing the world. McDowell's "second nature" is inherently rational but also social, and depends on our intersubjective "form of life."

While McDowell and Foot both lay claim to the title of 'neo-Aristotelian ethical naturalism',

2. Richard Joyce, "Ethics and Evolution," *The Blackwell Guide to Ethical Theory, 2nd Edition (Malden, MA: Blackwell, 2013)*, 2013, 1.

3. John McDowell, "Virtue and Reason," *The Monist* 62, no. 3 (1979): 331–50.

4. John McDowell, *Mind and World* (Harvard University Press, 1996).

they represent very two or three substantially different "sorts of naturalism."[5] These internecine controversies are more than a war of words. One sort emphasizes biology, the physical, the scientific, and the objective; the other sort emphasizes rationality, the cultural, the subjective or intersubjective. For example, Rosalind Hursthouse's landmark monograph, *On Virtue Ethics*, builds on Foot's account in many ways, yet ultimately agrees with McDowell in rejecting the search for an "external", objective, scientific foundation for virtue ethics. Alasdair MacIntyre's early writings align more with McDowell in rejecting "Aristotle's metaphysical biology", but his later writings align more with Foot in a finding that "human identity is primarily, even if not only, bodily and therefore animal identity and it is by reference to that identity that the continuities of our relationships to others are partly defined."[6]

Is there any way to unite the *rational/cultural/intersubjective* aspect of ethics with the *empirical/biological/objective* aspect of the same? Is there any way to unite "second nature" with "primary nature"? Is there any hope for a " third sort" of naturalism that synthesizes the two, or denies the distinction.

Thesis

In this dissertation, I defend the broadly Footian/MacIntyrean project of aiming for a secular, scientific foundation for virtue ethics against various objections, such as the "is-ought gap" and cultural relativism. I attempt to carry the project forward a few steps by arguing that we must develop accounts of nature, virtue, practical reason, and human flourishing all in dynamic relation with the others, and accordingly offering such an account of each.

Specifically, I shall defend the following thesis: **virtue is the plurality of acquirable excellent character traits (such as moderation, tolerance, and wisdom) that are neces-**

5. John McDowell, "Two Sorts of Naturalism," in *Mind, Value, and Reality* (Cambridge: Harvard University Press, 1998); Hans Fink, "Three Sorts of Naturalism," *European Journal of Philosophy* 14, no. 2 (August 2006): 202–21. Both of these articles will be discussed in detail in a later chapter.

6. Alasdair MacIntyre, *Dependent Rational Animals: Why Human Beings Need the Virtues* (Cambridge University Press, 1999), 8.

sary for human beings qua practical, rational animals, because virtue partly constitutes natural human flourishing.

The main components of this thesis are virtue ('acquirable excellent character traits') human nature (our life form as 'practical, rational animals') and human flourishing. In the course of these chapters, I will defend this thesis in parts and as a whole. As Christopher Toner says, this kind of virtue ethics proposes a close tie between one's species or life-form and the flourishing that constitutes "the good life" for creatures like us: "human nature is normative, such that to be morally good is to fulfill one's nature."[7] Hence, it is clear that these three concepts are not only individually interesting but constitute a single schema, which I call the "virtue triangle."

The Virtue Triangle

Why are the concepts of virtue, humanity, and flourishing *together* greater than the sum of their parts?

In *After Virtue*, Alasdair MacIntyre persuasively argues that there are three necessary "elements" entailed in the performance of any task – however menial or lofty: namely, a goal, a starting point, and the means from the starting point to the goal. In a simple project such as, say, cooking a dinner, my goal might be to reproduce what I see in the picture of a tasty meal from a cookbook. The starting point includes the raw materials at my disposal, such as the food in my fridge (and my cooking skills); the means to the end is a recipe, including a list of needed ingredients and instructions that I will enact to bring make a meal hopefully to that pictured in the cookbook.

Similarly, one cannot make any mundane journey without a destination, a starting location, and directions (on foot, by car, by plane, or what have you) to the destination. Even the desire to "explore the countryside" or even to "wander about" involves a set *goal* if not a set destination.

The point of this astonishingly simple reflection is that we ought to demand that any moral theory supply all three elements.[8] The first element is "untutored human nature" (as it is). The

7. Christopher Toner, "Sorts of Naturalism: Requirements for a Successful Theory," *Metaphilosophy* 39, no. 2 (2008): 221.

8. Alasdair MacIntyre, *After Virtue* (University of Notre Dame Press, 1984), 54ff.

second element is human nature (as it could be, should be). The third element is the set of properties needed to move from the first to the second points. Moral rules or admirable character traits are the content of morality; but the telos of humanity is the context of morality. It quite literally makes the content of morality make sense. Understanding "human-nature-as-it-is"[9] is a task for philosophers, as well as psychologists, sociologists, anthropologists, etc. This would include a conception of the human species as rational animals as it is *prior* to deep self-reflection or moral effort. Understanding human nature "man-as-he-could-be-if-he-realized-his-telos"[10] was "the whole point of ethics." This third conception of some human flourishing or telos we can and *ought* to realize.

A moral theory cannot simply offer one or two out of the three, and neglect the third. It needs *some* conception of individual or social well-being, *some* conception of what it means to be human (what kind of raw material are we working with?) and *some* conception of how one's moral duties and other obligations or other motivating factors connect humanity as it is with humanity-as-it-could-and-should-be.Morality simply makes no sense without showing how which qualities, actions, attitudes, resources, laws, etc. enable a human being to achieve his or her telos.

A moral theory is bound to stultify if it leaves out any one of these three formal elements. The scandel of many modern moral philosophies is that they do just that.

The neo-Aristotelians such as Foot, McDowell, MacIntyre, and Hursthouse attempt to remedy this situation by providing accounts of all three concepts. In doing so, they agree in drawing from pre-modern sources (such as Aristotle and Aquinas) but dispute the proper strategy for updating their ethical theories in our modern context.

All three concepts need updating, for they are liable to misunderstanding in our modern context. Hursthouse puts the point this way: "Three of virtue ethics' central concepts, virtue, practical wisdom and eudaimonia are often misunderstood. Once they are distinguished from related but distinct concepts peculiar to modern philosophy, various objections to virtue ethics can be bet-

9. Ibid., 55.
10. Ibid., 55.

ter assessed."[11] Objections fired at neo-Aristotelian ethical theories often hit a bullseye but on the wrong target.[12] A large part of my job is to stake out a conceptual space for virtue, practical reason (including its excellence, which I take to be practical wisdom), and natural human flourishing (which I take to be closely related to eudaimonia). My task is also to defend the trilateral form that relates them in a dynamic schema.

Whether the natural facts or properties in which ethical facts are located is some conception of human biology, the human "life-form", our rational "form of life", the human characteristic way of life, or something else, the common point is clear: human beings need these qualities *because of who and what they are*, including a particular natural kind of flourishing defined by the natural normativity relevant to the species.

Chapter Outline

1. Introduction
2. Neo-Aristotelian Naturalism
3. Normativity of Nature
4. Normativity of Human Nature
5. Virtue
6. Practical Wisdom
7. Flourishing
8. Natural Teleology Revisited
9. Conclusions

Chapter % explains the assumptions, and aims of my project, including methodology and source texts. My aim is a secular, scientific, naturalistic, virtue ethics.

Chapter % is the foundation of all the rest, in that it addresses and attempts to resolve the worry that ethical naturalism is impossible. If ethical naturalists cannot derive normative conclusions from merely descriptive premises, then indeed it is impossible. And if there are no fundamental

11. Rosalind Hursthouse, "Virtue Ethics," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, 2013.

12. Julia Annas, *Intelligent Virtue* (Oxford University Press, 2011) gives a concise and clear account of all three.

natural norms, one cannot derive normative conclusions. But there are natural norms. A conception of nature wherein nature is inherently normative is shown to be scientific in the form of 'generic' truths about all organic life, including humans.

Chapter % builds on natural normativity and constructs a concept of *normative human nature*. There are many generic truths about human beings, but just about all of them can be synthesized in the two predicates of 'rational' and 'animal': Human nature is to be potentially a practical, rational animals. For practical, rational animals, some traits are excellent and others undesirable given the kind of thing such animals are. We are parts of nature that are aware of nature, including the natural fact that we are part of nature.

Chapter % offers a definition of virtue consonant with the natural normativity already defended. Virtues are acquirable excellent character traits human beings need as practical, rational animals and which partly constitute natural human flourishing. Examples discussed include moderation, tolerance, and practical wisdom. These represent various kinds of virtues, namely 'self-regarding', 'other-regarding,' and 'object-regarding' virtues – those sensitive to the intrinsic worth of self, others, and objects such as art, truth, beauty, etc. Virtue is, among other things, necessary for the acquisition of more virtue, especially the virtue of practical wisdom.

Chapter % explores practical reason in more depth, since practical reason is supposed to define our human life form and also is supposed to supply a means to block individual and cultural relativism. Practical reason is the capacity for resolving what to do, for "thinking how to live."[13] Practical reason is not a "value neutral" process instrumentally achieving one's ends but also a process of determining which ends are worthwhile. The excellence of practical reason is practical wisdom. Practical wisdom is, among other things, a commitment and skill in acquiring more practical wisdom. Realism about practical reason blocks cultural relativism about virtues, yet allows an acceptable pluralism consonant with tolerance and wisdom. Practical wisdom which is supremely

13. Allan Gibbard, *Thinking How to Live* (Harvard University Press, 2009). I borrow Gibbard's elegant phrase, but I take my view of practical reason in a far more realist direction than he would care to.

important in that it is both an intellectual and a moral virtue. It is necessary for acheiving other moral virtues and sufficient for achieving some other intellectual virtues. Hence, once a human being has reached a level of practical wisdom certain kinds of well-being are secured.

Chapter % outlines an account of natural human flourishing, placing my virtue account squarely within the eudaimonist tradition but with important modifications. Flourishing for creatures like us is, among other things, the practical wisdom necessary to undergo the process of discovering human flourishing and the achievement of our humanity. We become what we truly are, even if our existence and identity end in death, and even if our species goes extinct. Human misery and failure is not just pain nor death but to fail to fully realize one's humanity.

Chapter % returns in earnest to the theme of strict, metaphysical naturalism. Several objections on behalf of science and scientifically-minded philosophers need further comment. I address the broader question of whether the kind of neo-Aristotelian naturalism I have defended is compatible with 'naturalism' in any of the typical senses of the word. I argue that it is, and I suggest as a name for my theory Recursive Naturalism.

Chapter % draws conclusions and makes suggestions for further reasearch.

Chapter 2

Neo-Aristotelian Ethical Naturalism

"Not everything that is last claims to be an end, but only that which is best."

Aristotle, *Physics* 194a 32–33.

"The most striking occurrence in the history of thought between Aristotle and ourselves is the rise of modern science." –John McDowell, "Two Sorts of Naturalism" in *Mind, Value, and Reality*, p. 174.

Neo-Aristotelianism

My thesis attempts to address issues that arise from the recent neo-Aristotelians. Who are the neo-Aristotelians? Rosalind Hursthouse provides an authoritative list: Anscombe,[1] Geach,[2] Foot,[3] Mc-

1. G. E. M. Anscombe, "Modern Moral Philosophy," *Philosophy* 33, no. 124 (1958): 1–19; G. E. M. Anscombe, *Intention* (Harvard University Press, 1957).
2. Peter Geach, *The Virtues* (Cambridge University Press, 1977), 1956.
3. Philippa Foot, *Natural Goodness* (Oxford University Press, 2001).

Dowell,[4] MacIntyre,[5] Hursthouse,[6] Nussbaum,[7] and Thompson.[8] I would only add the great Julia Annas[9] who is of course an ancient philosophy scholar but whose recent work has been largely devoted to contemporary ethics, and some more recent players in the movement such as Stephen Brown[10] and Jennifer Frey.

One could certainly construct a worthwhile project analyzing all or some subset of authors. I interact regularly with a broader set of virtue ethicists:[11] For example, the early writings of Peter Geach, Bernard Williams, and Iris Murdoch are responsible for gathering the kindling and setting the spark, so to speak, on contemporary discussions of virtue.

Nevertheless, my main sources are Philippa Foot, John McDowell, Rosalind Hursthouse, and Alasdair MacIntyre, who each in their own way address all three components of the schema I have called "the virtue triangle."[12] Part of the reason is arbitrary. Every project must cut off some-

4. John McDowell, *Mind, Value, and Reality* (Harvard University Press, 1998); McDowell, *Mind and World*.

5. MacIntyre, *Dependent Rational Animals*.

6. Rosalind Hursthouse, "Virtue Ethics and Human Nature," *Hume Studies* 25, no. 1 (1999): 67–82.

7. Martha Nussbaum, "Aristotle on Human Nature and the Foundations of Ethics," in *World, Mind, and Ethics: Essays on the Ethical Philosophy of Bernard Williams*, ed. J.E.J. Altham and Ross Harrison (Cambridge University Press, 1995), 86–131; Martha C. Nussbaum, "Non-Relative Virtues: An Aristotelian Approach," *Midwest Studies In Philosophy* 13, no. 1 (September 1988): 32–53; nussbaum1999virtue

8. Michael Thompson, "The Representation of Life," in *Virtues and Reasons*, ed. Lawrence Hursthouse Rosalind and Warren Quinn (Oxford: Clarendon Press, 1995), 247–96

9. Annas, *Intelligent Virtue*; Julia Annas, *The Morality of Happiness* (Oxford University Press, 1993); Julia Annas, "Morality and Self Interest," ed. Paul Bloomfield (Oxford University Press, 2009), 205–21; Julia Annas, "The Oxford Handbook of Ethical Theory," ed. David Copp (Oxford University Press, 2006), 515–36; Julia Annas, "Being Virtuous and Doing the Right Thing," in *Proceedings and Addresses of the American Philosophical Association*, 2004, 61–75.

10. R. Stephen Brown, *Moral Virtue and Nature: A Defense of Ethical Naturalism* (Continuum, 2008); Stephen Brown, "Really Naturalizing Virtue," *Ethica* 4 (2005): 7–22.

11. The broader set includes Iris Murdoch, *The Sovereignty of Good over Other Concepts* (Mouette Press, 1998); Christine Swanton, *Virtue Ethics: A Pluralistic View* (Clarendon Press, 2003); Michael Slote, *From Morality to Virtue* (Oxford University Press, 1992); Paul Bloomfield, *Moral Reality* (Oxford University Press, 2003); Robert Adams, Gopal Sreenivasan, Rachana Kamtekar, Talbot Brewer, and R. Scott Smith.

12. For example, McDowell, Foot, and MacIntyre can be seen using this schema: Cf. Mc-

where. Another reason is that these three defend views that share enough similarities to illuminate many important themes while contrasting enough to motivate rich discussion.

Neo-Aristotelian naturalism of the sort I am defending strives to be ethical, naturalistic, scientific, and secular. To understate the point, this project is difficult. It is attended by difficulties on all sides. I would like to say a bit more about each of these goals.

I. Ethics

Virtue ethics

My thesis is about virtue and so places this dissertation squarely within contemporary analytic virtue ethics. That said, I shall not devote excessive time to comparing my offering to those of other recent virtue ethicists. As Martha Nussbaum and others have pointed out, self-styled 'virtue ethicists' can differ as much as any other two ethicists. (Is there a tent big enough to include Plato, St. Paul, Thomas Aquinas, and Benjamin Franklin?)[13]

That said, my overall aim *is* to contribute to the ongoing revival of virtue talk. It is difficult to read any "old books" without noticing that virtue talk (in a great variety of theories and contexts) was once a normal part of cultural and intellectual life, (and not only in the west). But it is equally difficult not to notice that virtue talk has receded to the background or disappeared from academic

Dowell, "Virtue and Reason. and John McDowell, "The Role of Eudaimonia in Aristotle's Ethics'," in *Essays on Aristotle's Ethics*, ed. Amélie Oksenberg Rorty (University of California Press, 1980), 359–76; Philippa Foot, *Virtues and Vices: And Other Essays in Moral Philosophy* (Oxford University Press, 2002) and Foot, *Natural Goodness*; MacIntyre, *After Virtue* and MacIntyre, *Dependent Rational Animals*. All three themes are, of course, important to Aristotle as well. But I shall reference historical sources such as Aristotle or Aquinas only occasionally and only for convenience; my primary purpose is not historical.

13. Nussbaum argues that a more helpful taxonomy would distinguish between neo-Humean, neo-Kantian, and neo-Aristotelian theories; and that even more helpful would be to debate the substantive issues, such as the role of reason in morality as compared to the role of emotions and desires and other sub-rational psychological phenomena. Cf. Martha C Nussbaum, "Virtue Ethics: A Misleading Category?" *The Journal of Ethics* 3, no. 3 (1999): 163–201

discussions for two or three centuries. Its resurgence in the last 60 years has been well documented.[14] Not everyone is impressed by the alleged benefits accruing to 'virtue ethics', of course – Nussbaum is not the only one to find the designation unhelpful. Nevertheless, it would have amazed Elizabeth Anscombe if, more than 60 years ago, she could have known that in 2014 as many professional academic philosophers would identify as 'virtue ethicists' as identify as 'deontologists' – about 1/5th each.[15] So how might we explain the resurgance of a category of virtue ethics, however loosely defined?

There are a few reasonable options. Considering them will help frame my project. The first interpretation is that something went profoundly wrong in the series of modern moral philosophy. The Enlightenment and post-Enlightenment thinkers turned away from tradition and religion in order to venture a universal, abstract, public, rational theory of morality. But perhaps something essential was lost as our ethical thinking had to adjust to advancements in modern science and changes in modern politics. Perhaps, for einstance, as science turned toward the natural or the cosmic (to the exclusion of the human), ethics and politics turned inward toward the human (to the exclusion of the natural or cosmic), it was inevitable that some would fall into Nietzschean subjectivism about morality, where no political or religious authority can correct the great individual, while others would fall into Hobbesian legalism, where know Great individual can correct the political and religious authorities.

Anscombe[16] takes this interpretation. She categorizes all the "English-speaking ethicists" from Sidgwick to "the present day" as consequentialists, and then diagnoses consequentialism as depraved. She argues that any secular theorist (such as Kantians) who appeal to an absolute, verdictive moral 'ought' are borrowing from a medieval divine law conception of ethics which is incoherent without the corresponding belief in a divine lawgiver. The alterative, she offers, is the Aristotelian

14. Cf. Roger Crisp, *How Should One Live?: Essays on the Virtues* (Oxford University Press, 1996).

15. David Bourget and David J Chalmers, "What Do Philosophers Believe?" *Philosophical Studies* 170, no. 3 (2014): 465–500.

16. "Modern Moral Philosophy."

'ought' which critiques vice without blame and commends virtue without 'the moral ought'. In her view, virtue talk allows non-religious moderns to retain evaluative talk without a divine law by making it something closer to aesthetic talk.

McIntyre is another who takes this first interpretation. He argues that the fracturing of social and political bonds in modernity derives from the loss of a shared understanding of the good. Though he is often classified as a virtual ethicist McIntyre indeed rejects the label. Even modern virtue ethics, he thinks, does not go far enough to restore the Aristotelian tradition of virtue which he advocates.

Regardless of the varying details, this first intrepretation of the rise of virtue talk pits virtue theories against their consequentialist and Kantian alternatives. It finds in the flexibility of Aristotle and the humanism of Confucius a refreshing alternative to the stolid rationalism of Kant or Mill.[17]

Hursthouse and Nussbaum offer a second interpretation, namely, that virtue ethicists in the early to mid 20th century presented their view as a *rival* in order to fight for a position at the table of respectable ethical theories. And it worked. Now that virtue ethics has earned its place at the table, continuing to present it as a rival to other theories is needlessly combative. Nussbaum elaborates: " 'virtue ethics' so-called does not figure as a normative rival to utilitarian and deontological ethics; rather, its (fairly) recent revival is seen as having served the useful purpose of reminding moral philosophers that the elaboration of a normative theory may fall short of giving a full account of our moral life."[18] On this interpretation, virtue concepts can augment, rather than replace, other theories. After all, Kant himself had a theory of virtue.[19] Some theorists have been working to articulate a theory they call "virtue consequentialism" or "character consequentialism."[20] Even

17. This interpretation, of course, is a substantive moral thesis couched in the language of a historical thesis. So it is debatable whether this story is even true *as history*. I shall try to remain neutral about the history and discuss the substantive theory.

18. Rosalind Hursthouse, "How Should One Live?: Essays on the Virtues," ed. Roger Crisp (Oxford University Press, 1996), 19–33.

19. Anne Margaret Baxley, *Kant's Theory of Virtue: The Value of Autocracy* (Cambridge University Press, 2010).

20. Ben Bradley, "Virtue Consequentialism," *Utilitas* 17, no. 03 (2005): 282–98; Julia Driver,

more broadly, philosophers have even found room for virtue talk in Humean[21] and Nietzschean[22] ethics.

In my view, there is some truth to each of these interpretations. While it is true that virtue talk is flexible enough to enhance non-Aristotelian theories, there is an identifiable core of western virtue theory. That core is part-and-parcel of a larger Aristotelian tradition that is in tension or competition with Enlightenment tradition. The core I have in mind corresponds roughly to Nussbaums "common ground" underlying a wide variety of "virtue ethicists" – including Kant and Mill and Sidgwick.[23] At the same time, certain features of the modern Enlightenment tradition – especially advances in modern science and changes in modern politics – can correct errors or update contingencies in the Aristotelian tradition.

I would like to say a bit more about these mutal "corrections" (if they are corrections). Elizabeth Anscombe, Bernard Williams, Iris Murdoch and others have done us a valuable service by correcting certain myopic tendencies of modern philosophical ethics.

(a) **The whole action:** The first myopic tendency is that of focussing our attention on individual acts (e.g., "is X – abortion, lying, nuclear proliferation – right or wrong?"). Martha Nussbaum argues we cannot construct an ethical theory by discussing only "isolated moments of choice."[24] If morality is about individual actions, it seems to be the case that either moral rules are to be followed for their own sake or else they do not matter (for only consequences matter). If, on the other hand, obligations to be virtuous are only part of our ethical theory (the other two being concepts of human nature and human flourishing), then it is possible to see moral rules as neither arbitrary impositions nor as unaccountable, mere bolts of lightning from a clear sky.

(b) **The whole person**: The second myopic tendency is that of focussing on one aspect of moral psychology (such as motive, or emotion, or character traits) to the exclusion of others. She says, "Even though a concern for motive, intention, character, and the whole course of life was not in principle alien to Kantian and Utilitarian philosophy, it was

Uneasy Virtue (Cambridge University Press, 2001); Thomas Hurka, *Virtue, Vice, and Value* (Oxford University Press, 2003).

21. Michael Slote, "Sentimentalist Virtue and Moral Judgement Outline of a Project," *Metaphilosophy*, 2003, 131–43.

22. Swanton, *Virtue Ethics*.

23. Nussbaum, "Virtue Ethics," 170.

24. Ibid., 174.

certainly alien to most British and American Kantians and Utilitarians of the period."[25] The correction to this tendency is to include a role for both reason and the "passions." However, two groups display very different strategies in including the whole person. For Nussbaum, the first group consists of characteristically "anti-Utilitarians" who want reason to play a much larger role than Mill (or the typical Utilitarian) would wish; the second consists of characteristically "anti-Kantians" and want sub-rational psychological states to play a much larger role than Kant (or the typical Kantian) would wish. The first group defend the plurality of goods, rationality's role in deliberating about which ends to pursue and its role in organizing, ranking, and harmonizing that plurality of goods, the rational character of some emotions, and the need for a rational critique of the broader social and political setting in which "defective passions and judgments" are formed.[26] By this distinction, my theory is much more clearly "anti-utilitarian" than anti-Kantian. The emotions, desires, motivations, passions – the numerous variegated non-rational or sub-rational mental states of normal human psychology – can be made rational and/or can be accommodated within a life of reason. That is, any kind of plant can be part of a garden with a clear, purposeful, even beautiful blueprint, even if dead leaves and rotten petals may sometimes dot the floor.

(c) **The whole life**: A third myopic tendency is that of philosophizing about individual moral situations (especially moral dilemmas!) instead of the whole of life. Anscombe et. al., have reminded us that the first question of philosophical ethics is "How am I to live?" This question is not an optional one for normal, reflective, adults. This question is not an avoidable one for those who face major problems in life. We need to refocus our arguments in philosophical ethics from looking just at individual choices or actions (viewed from the outside, like a moral critic) to looking at the whole of life (viewed from the inside, like a moral agent). Bernard Williams has done as much as anyone to remind moral philosophers that questions of how to live are prior, and deeper, than questions of what is wrong. "Character ethics," rather than mere "quandary ethics" is what is really needed in the vast majority of circumstances.[27] That is not to say that moral quandaries are unimportant in life or unimportant in theory; quite the contrary, often times the moral quandary is the exceptional case that can provide a cutting counterexample to a nonsensical view. And moral dilemmas like those encountered in great works of fiction (*Othello*, *War and Peace*, *Gilead*) are real, if blessedly rare, occurrences in a normal human life. But for all this, ninety-nine parts of any given day present great dilemmas or great temptations to do evil. Rather, much of a given day is occupied by choosing between competing or conflicting goods that all seem worthwhile but cannot all be pursued. (Check email or grade papers? Write more or spend more time with my kids? Pursue a teaching job in state or out of state? Invest in this friendship or spend much-needed time alone?)

25. Ibid., 173.

26. Ibid., 180.

27. Edmund Pincoffs, "Quandary Ethics," *Mind*, 1971, 552–71; Cf. also Gregory Trianosky, "What Is Virtue Ethics All About?" *American Philosophical Quarterly*, 1990, 335–44.

(d) **The whole history**: A fourth myopic tendency that these virtue ethicists have corrected, I think, is an *ahistorical* approach that was fashionable in analytic ethics. Many neo-Aristotelians and others studied classics or history in addition to ethics, or prior to ethics. Long familiarity with cultures, places, and times other than one's own has a salubrious effect of helping one to see one's own culture and time. (For many people, "culture shock" occurs not when leaving one's home country, but when returning home from a very different foreign country.) Likewise, philosophers who have spent long hours conversing with Aristotle or Aquinas are likely to notice more easily the assumptions, biases, strengths, and weaknesses of our own modern context. Jack Weinstein observes that Alasdair Macintyre did for ethics what John Rawls did for political philosophy: where Rawls re-invigorated political philosophy, "inaugurating the dominance of late twentieth-century liberalism"[28], MacIntyre helped to re-invigorate analytic ethical philosophy (especially the ascendancy of late twentieth-century virtue ethics) by freshly examining ethical concepts in light of history.[29] MacIntyre argues that we can only responsibly use and evaluate practical concepts such as self, practice, telos, or virtue when we know our own history. Since *we ourselves* inhabit a tradition, we must know ourselves *as* inhabitants of a tradition with a past. We will return to these themes in later chapters.

These are corrections that virtue ethics can offer to other modern moral philosophies. What corrections can modernity offer to virtue ethics? the modern world is not the ancient world. Modern science, philosophy, and culture are not the same as their pre-modern counterparts. It is imperative that contemporary virtue ethicists pay due respect to what *has* changed.

(a) **Anti-dualism:** The modern "scientific" point of view (if there is *one* such view) is commonly supposed to be monistic or at least non-dualistic. Though not all are so confident,[30] there is a widespread preference – whenever it is possible – for ontological simplicity, epistemological parsimony, and aesthetic elegance. Eliminative physicalism is radically monistic but is unsatisfying in that it provides a clean explanation of "everything" only by leaving out some of the most important things (i.e., consciousness). The neo-Aristotelian project typically aims to avoid dualisms. It aims, rather, at a holistic picture of nature that includes humans and all living things within the cosmos and includes all parts of a human being (reason, emotion, desire, etc.). Margaret Atkins eloquently summarizes the holistic vision of these thinkers: "Anglo-American moral philosophy [has moved] beyond the limitations not only of A.J. Ayer and C.L. Stevenson, but also of Hume's focus on sentiment, on the one hand, and Kant's focus on reason on the other. Contemporary ethics is about the whole human being, seen as biological, social

28. Jack Russell Weinstein, *On MacIntyre* (Wadsworth, 2003), 38.
29. Ibid., chap. 4.
30. John Dupré, "The Miracle of Monism," in *Naturalism in Question*, ed. David De Caro Mario & Macarthur (Harvard University Press, 2004), 36–58.

and cultural, emotional and reflective."[31]

(b) **Scientific naturalism**: Relatedly, it is imperative that contemporary virtue ethicists clarify the relationship of their theories to modern science. This was the thrust of the original "naturalism" that became dominant in America in the early 1900s. As David Papineau summarizes, "The self-proclaimed "naturalists" from that period included John Dewey, Ernest Nagel, Sidney Hook and Roy Wood Sellars. These philosophers aimed to ally philosophy more closely with science. They urged that reality is exhausted by nature, containing nothing "supernatural", and that the scientific method should be used to investigate all areas of reality, including the "human spirit" (Krikorian 1944; Kim 2003)."[32] More broadly, 'naturalism' has become a kind of banner for a variety of views that are not supernaturalistic and place a high value on natural sciences. Without further determination, therefore, the relationship between naturalism and morality is somewhat unclear. For example, some philosophers – such as Michael Ruse and Sharon Street – find in modern evolutionary theory incompatible with moral realism.[33] Ruse's famous expression is that "morality is a collective illusion foisted upon us by our genes."[34] Others – such as Wielenberg and Thomas Nagel – find evolutionary theory either irrelevant to morality or a possible source of *vindication* of moral realism.[35] Given this indeterminacy, the attempt to capture all that is good in both the Aristotelian and modern traditions leads me to neo-Aristotelian naturalism. How can neo-Aristotelianism help, if at all, clarify the relationship between science and morality in particular, and (more generally) between facts and values, between 'is' and 'ought'?

Ethics and Metaethics

The term 'Neo-Aristotelianism' has been used to describe a complete philosophical ethics. That is, neo-Aristotelians such as Foot, McDowell, and MacIntyre write about and defend views that combine normative ethical and metaethical claims. Put differently, their theories have aimed to provide a normative ethics (detailed content about the kind of life one ought to live and the kinds of traits one ought to acquire) as well as a ground of morality in moral metaphysics, moral psychology,

31. Margaret Atkins, "Morality Without God?" *The Heythrop Journal* 46, no. 1 (2005): 65–71.

32. David Papineau, "Naturalism," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, 2015.

33. Sharon Street, "A Darwinian Dilemma for Realist Theories of Value," *Philosophical Studies* 127, no. 1 (2006): 109–66.

34. Michael Ruse, "Taking Darwin Seriously: A Naturalistic Approach to Philosophy," 1986, 253.

35. Erik Wielenberg, "On the Evolutionary Debunking of Morality," *Ethics* 120, no. 3 (2010): 441–64; Erik Wielenberg, "In Defense of Non-Natural, Non-Theistic Moral Realism," *Faith and Philosophy* 26, no. 1 (2009): 23–41.

moral epistemology, etc. But the taxonomical habit of classifying *both* of these projects under a single heading may be worrisome. James Lenman's summary of neo-Aristotelianism is a good example of this worry:

> One important school of thought … [is] work is inspired by that of Aristotle. This view has its roots in the writings of G. E. M. Anscombe, P. T. Geach and the early Philippa Foot among others. Its contemporary representatives include the later Foot, Rosalind Hursthouse, Martha Nussbaum and Judith Jarvis Thomson. As this list makes clear, this is very much the official metaethical theory of the main current in contemporary virtue ethics.[36]

Lenman seems bemused with neo-Aristotelian naturalism. When he says that neo-Aristotelian ethical naturalism is "the official metaethical theory of the main current in contemporary virtue ethics" he seems to betray a lurking metaphilosophical confusion. For when Foot, Hursthouse, McDowell are classified as virtue ethicists (a normative theory) *and* neo-Aristotelians (a metaethical theory), we might object. Aren't these two different projects? The answer in short is: not necessarily. Explaining this answer requires a short discursus.

One legacy of G.E. Moore's *Principia Ethica* has been the tendency to sharply distinguish primary ethical questions (about what things are good) from metaethical questions (about what 'good' as an evaluative predicate *means*). The first asks about what things are good; the second about the word 'good' itself. The first is a substantive question about which items fall under a category. The second is a conceptual question about how to define that category.

Moore valiantly took it upon himself to indict all previous ethical philosophers for failing to resolve their disputes for a failure to define their terms. (Of course, the questions that concern modern metaethicists were posed and discussed by prior thinkers. However, the *Principia* gave a distinctive form to these questions and suggested a distinctive range of possible answers.) Moore

36. James Lenman, "Moral Naturalism," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, 2014. Lenman acknowledges that Thomson might need to be subtracted from this list and that John McDowell might need to be added.

argued (or according to some critics, *assumed*) that 'goodness' was indefinable.[37] That is, the good could not be defined in terms of any other property. It is false that 'goodness is pleasure' for our pursuit pleasure is a psychological fact, not an ethical one; it is false that 'goodness is whatever is most real' for something's reality is a metaphysical fact, not an ethical one.

Now, it is tautologous that if goodness really is indefinable, then any attempt to define it will fail. Any attempt to reduce the concept to a concept of lesser intension, or to translate it, will fail. Moore had a preferred name for this error – if it is an error – but mentioning it would just muddy the waters.[38]

The neo-Aristotelians are pretty universally critical of Moore's argument, as we shall see.[39]

Lenman's confusion reflects the widely-held belief that normative ethics and metaethics can "come apart". But this is not *necessarily* true. Alan Gibbard, no opponent of metaethics, explains how one's substantive ethical views largely determine one's view of the relation between questions of substance and those of meaning:

> Moore stressed the distinction in ethics between questions of meaning and questions of substance, and thereby gave rise to a tradition in analytic philosophy of separating the two parts of ethical theory: the metatheory and the substantive, normative part. Some philosophers have rejected the distinction; some Kantians, for instance, think that if you get the metatheory right, substantive ethical conclusions fall out as some kind of consequence, so that metaethics and substantive ethics are not really separate. Then too, anyone who rejects Sidgwick's and Moore's indefinability claim and thinks that ethical terms can be given analytic, naturalistic definitions thinks that the two putative subdivisions are not really separate. Those who reject any systematic distinction between questions of meaning and questions of substance might likewise reject a sharp, separate subject of metaethics.[40]

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37. William K Frankena, "The Naturalistic Fallacy," *Mind*, 1939, 464–77. Frankena's classic essay makes this point best.

38. If absolutely necessary, I shall only call Moore's version "The Fallacy That Shall Not Be Named."

39. Foot, *Natural Goodness*, chap. 1, "A Fresh Start?"; MacIntyre, *After Virtue*, chap. 2, "The Nature of Moral Disagreement Today and the Claims of Emotivism".

40. Allan Gibbard, "Normative Properties," *The Southern Journal of Philosophy* 41, no. S1 (2003): 320.

I think Gibbard is right, here. One's substantive views will affect one's preferred philosophical taxonomy. Kantians and (some kinds of) naturalists will deny the strict separation. To allow the seemingly innocuous separation of formal from material aspects of a topic might just unwittingly beg the question against a range of acceptable views on that topic.

As evidence, notice the conspicuous pattern that advocates of a neutral, procedural, formal metaethics seem to endorse first-order consequentialism. Not only Moore, but theorists as different from each other as J.L. Mackie, Frank Jackson, Richard Boyd, Peter Railton, Simon Blackburn, and Alan Gibbard all endorse some form of consequentialism. To echo Lenman, we can say that the view that metaethics is separable from normative ethics is very much the official theory of a main current in contemporary consequentialism. Moore himself, though non-naturalist, was a consequentialist as well, so we ought to expect that he separate the formal metatheory from the substantive moral theory.

Neo-Aristotelianism, like Kantianism, is a view wherein ethics and metaethics cannot and do not "come apart." This is the first response to Lenman's worry about fusing ethics and metaethics in one theory. While the formal and material aspects of neo-Aristotelian ethics might be *distinct*, they are not *separable*.

A second response is possible. Even if a procedural, non-substantive approach to metaethics can be made neutral with respect to normative ethics, it is still admirably ambitious to construct a theory that pays attention to both. Stephen Darwall agrees, arguing that:

> …although metaethics and normative ethics are properly focused on different issues, they need to be brought into dynamic relation with one another in order to produce a systematic and defensible philosophical ethics. This mutual dependence is owing to the fact that issues of normativity are at the center of the concerns of both metaethics and normative ethics.[41]

41. Stephen Darwall, "How Should Ethics Relate to (the Rest of) Philosophy?: Moore's Legacy," *The Southern Journal of Philosophy* 41, no. S1 (2003): 1–20.

Hence, my thesis is squarely and ethical argument concerning what character traits are worth pursuing (e.g, intellectual and moral virtues) and what traits count as virtues (e.g., practical wisdom). However, an adequate defense of this thesis requires assessment of foundational metaethical considerations (e.g., is the human life form a sufficient grounding of moral facts? Are practical reasons motivating all by themselves?)

II. Naturalism

Ethical Naturalism

Another point of philosophical taxonomy: my thesis is a species of 'ethical naturalism', which is most often defined as a kind of moral realism that attempts to define moral facts (or more broadly evaluative facts) as natural facts, or that attempts to ground moral facts in natural facts. As James Lemnan says: "there are objective moral facts and properties and that these facts and properties are natural facts and properties."[42]

On this broad definition, neo-Aristotelian is a brand of moral or ethical naturalism, but of an odd sort. Hursthouse says that "Virtue ethics, or at least any form of it that takes its inspiration from Aristotle, is usually taken to be a form of ethical naturalism – broadly, the enterprise of basing ethics in some way on consideration of human nature, on what is involved with being good *qua* human being."[43] If we can say what a *good human being* is, we shall be well on the way to describing what kinds of actions are right and wrong, or what kind of character traits are admirable or blameworthy. Sociologist Amanda Maull summarizes this sort of ethical naturalism well:

> Drawing upon the works of philosophers such as Philippa Foot, Richard Kraut, and Martha Nussbaum, the claim is made that there are moral properties and facts that are natural (rather than occult or supernatural), which are derived from certain innate dispositions and capacities of living things (i.e., those associated with growth and self-maintenance as opposed to destruction or harm). Human beings have evolved

42. Lenman, "Moral Naturalism."
43. Rosalind Hursthouse, *On Virtue Ethics* (Oxford University Press, 1998), 192.

> as social creatures with special capacities for speech and reason such that specification of "human flourishing" is more complex and problematic than it is for plants or animals. For the human being, the idea of the "good life" goes beyond biological survival and pertains to potentially ambiguous concepts such as virtue, happiness, and "well-being."[44]

While controversial, this project seems fairly straightforward. So why does Hursthouse call neo-Aristotelian an "odd sort" of ethical naturalism?

Some critics of neo-Aristotelianism in particular exploit one or more horns of a dilemma,[45] questioning whether it is possible to construct a neo-Aristotelian ethical naturalism that is both (a) genuinely *ethical*[46] and (b) genuinely *naturalistic*.[47] On the former horn, if ethics is naturalistic, then happiness seems to be simply a natural state, like health or pleasure, while the means to that end discernible through statistical analysis of causal relations between acts and their consequences. This seems hardly normative at all. (By 'normativity', I mean 'ought' talk and facts to which 'ought' talk refers).[48] On the latter horn, if ethics is really normative, then happiness is the kind of state we *ought* to pursue whether or not we actually reach it — whether or not, in fact *anyone* has actually reached it. Virtues are those qualities that are acquirable and that we *ought* to acquire, whether or not anyone

44. Amanda Maull, "A Deweyan Defense of Ethical Naturalism," *Society* 50, no. 6 (2013): 577.

45. Cf. Rosalind Hursthouse, "Neo-Aristotelian Ethical Naturalism," *The International Encyclopedia of Ethics*, 2013; Bernard Mauser, "The Ontological Foundations for Natural Law Theory and Contemporary Ethical Naturalism" (PhD thesis, Marquette University, 2011). Mauser describes the dilemma excellently in chapter 5.

46. Brown, "Really Naturalizing Virtue" concludes that neo-Aristotelian ethical naturalism is really naturalistic but is less ethical (i.e., normative) than might be wished.

47. Cf. William Rehg and Darin Davis, "Conceptual Gerrymandering? The Alignment of Hursthouse's Naturalistic Virtue Ethics with Neo-Kantian Non-Naturalism," *The Southern Journal of Philosophy* 41, no. 4 (2003): 583–600 . Rehg et. al., conclude that neo-Aristotelian naturalism is really ethical but not sufficiently naturalistic.

48. Cf. Peter Schaber, "Normative Facts," *Studies into the Foundations of an Integral Theory of Practice and Cognition*, 2005, 107–22; Gibbard, "Normative Properties," 321: "[Part] of what's special about morality is that it operates in the 'space of reasons;' it concerns justification and oughts. The term 'normative' is central to much current philosophical discussion. There's no agreement on what this technical term in our discipline is to mean, but it involves, in a phrase drawn from Sellars, being somehow 'fraught with ought'."

does or ever has acquired them. This sounds hardly naturalistic at all.

This dilemma, I think explains the innocent confusion about who actually deserves the title of "naturalists". Lenman, among others, is not sure who counts, pointing out in a footnote that Thomson probably shouldn't be on this list and that John McDowell probably should. He says "McDowell is certainly pervasively inspired by Aristotle and he describes himself as a naturalist. See especially his 1995. But I suspect many philosophers would find his use of the term 'naturalist' here somewhat Pickwickian."[49] The confusion arises because Lenman and others[50] are not sure that neo-Aristotelian "naturalism" is "really *naturalism*" at all.

I shall contend an affirmative answer to both questions: neo-Aristotelian ethical naturalism is both ethical and naturalistic (in senses to be defined).

While no one who reads this dissertation is likely to doubt my commitment to moral realism, some may doubt that I have succeeded in making it naturalistic.

Now, on the one hand, without further stipulation, questioning a theory's "naturalism" is empty, for there are many types of naturalism. The noun 'Naturalism,' like the adjective, 'natural', is a cognate of 'nature.' 'Nature' is the most ambiguous, multi-significant word in our language.[51] It seems that the only thing to be done is to stipulate a meaning and move on.

On the other hand, though, the question of "naturalism" is tangled up with real, substantive issues.

As I shall explain in a later chapter, the fault line between neo-Aristotelians and their critics (who sometimes include other ethical naturalists) is a line between two ways of understanding the difference between nature and normativity, between "facts and values."[52] The assumption of

49. Lenman, "Moral Naturalism."

50. Rehg and Davis, "Conceptual Gerrymandering? The Alignment of Hursthouse's Naturalistic Virtue Ethics with Neo-Kantian Non-Naturalism"; John Hacker-Wright, "What Is Natural About Foot's Ethical Naturalism?" *Ratio* 22, no. 3 (2009): 308–21; John Hacker-Wright, "Human Nature, Personhood, and Ethical Naturalism," *Philosophy* 84, no. 03 (2009): 413–27.

51. Raymond Williams, *Keywords: A Vocabulary of Culture and Society* (Oxford University Press, 1985).

52. Hilary Putnam, *The Collapse of the Fact / Value Dichotomy and Other Essays* (Harvard Univer-

Lenman (and others) is that nature is purely descriptive, with no "ought". But Aristotle and the broad Aristotelian tradition deny that the fact-value dichotomy is absolute. They conceive of *nature* as including everything that *is and ought to be*.[53] Briefly, for Moore nature as including everything that *is* but not what ought to be – all facts, no values. Moore and those influenced by him, both naturalists and non-naturalists, have agreed with the underlying assumption that "nature" is purely descriptive. But what if this assumption is mistaken? Surely we cannot let a deeply-held assumption stand without scrutiny. For Aristotle, nature is some facts, some values. So norms and prescriptions can be just as natural as facts and descriptions. If normativity (*what ought to be*) is natural too, then it might be possible that *human nature* grounds ethical facts. And this is just what virtue ethics says.

We shall have the chance to explore these issues more thoroughly in a later chapter. For now, let me stipulate my sense of 'naturalism.' Mine is an ethical naturalism in two senses:

1. I embrace what Hans Fink calls an "unrestricted conception of nature."[54] This conception expresses the idea, he continues, that "there is one world only, and that that world is the realm of nature, which is taken to include the cultural, artificial, mental, abstract and whatever else there may prove to be."[55] I shall defend a conception of 'nature' or the 'natural' that includes all familiar objects and properties that exist in the cosmos today: people, stars, trees, penguins, bacteria, and their properties, like 'being an animal', 'bright,' 'green', 'being countershaded for camouflage,' and so on.
2. I shall propose to use only the rational methods of philosophy and science methods for identifying my premises.
3. Such philosophical and scientific methods applied to the world, the biological world, and to humanity are sufficient to derive some normative ethical conclusions.

This is a kind of naturalism defined by Hans Fink's admirable essay, which I shall discuss more in a later chapter. As Fink says: "An ethical naturalist is someone who insists on a fundamental continuity between the ethical and the natural."[56] It follows, on this view, that humans are continuous with

sity Press, 2002).

53. As I understand it, the paradoxical notion of "that which really is what ought to be" is a good way of summarizing the notion of a natural law.

54. Fink, "Three Sorts of Naturalism," 210.

55. Ibid., 210.

56. Ibid., 203. Compare with his later statement: "The philosophical impulse behind both [materialism and idealism] is to see the ethical in continuity rather than discontinuity with nature understood as that which is most primary in existence and most objective in experience. They just

nature.[57] Pretty clearly, one could explain this fundamental continuity in a variety of (perhaps conflict ways), depending on how one explicates the 'ethical' and the 'natural."

The importance of these stipulations will become clear early on. And those who wish to challenge this stipulation will, I hope, receive a satisfying answer by a later chapter. Responding to this worry is the explicit theme of a later chapter, but is in the background of the whole discussion. Certainly, some critics will insist that normativity is not natural. I ask them to consider the alternative, as I shall consider both, and examine the case I make in a later chapter. We must aim first for clarity before agreement.

III. Scientific Naturalism

Teleology and "Disenchanted Nature"

Though my theory is a form of neo-Aristotelian virtue ethics, I hope I have set enough now about the components of the "virtue triangle" to frame the project and show the importance of all three components (virtue, human nature, and teleology).

Arguably, the unifying concept of the schema is not virtue but telos. If we cannot even perform a menial, intentional action without a goal, then *a fortiori* it would seem we cannot perform our highest moral duties without a goal. Defining that goal is, of course, the rub. But it seems apparent that strict moral rules without any notion of the kind of life that is to be lived are bound to degenerate into a kind of pointless legalism. If the teleological notion of natural human flourishing in particular is central to the project of virtue ethics, it would seem that developing a plausible modern virtue ethical theory would require rehabilitating a notion of natural teleology in general.

The project of rehabilitating natural teleology may seem overly optimistic. The idea of teleology is a major stumbling block for modern thinkers, especially for the kind of naturalist whose

happen to disagree about what that is." (216).

57. Brown, *Moral Virtue and Nature*, 1–2. Brown stipulates his ethical naturalism in this way.

worries I tried to allay above.[58] it may be felt, for instance, that teleology has simply been debunked by modern science and therefore has no place in a scientific worldview. After all, Francis Bacon intentionally excised final causation from natural science since he feared that empirical investigation into final causes "defiled philosophy."[59] On this view, teleological ethics is inherently pre-modern and therefore outmoded.[60] On this view, any attempt to revive virtue talk is guilty of being antiquarian and nostalgic until proven innocent.

Nevertheless, I think that the sort of realism about natural teleology requisite for neo-Aristotelian virtue ethics grounded on human nature is – and can be shown to be – perfectly respectable, modern, scientific, and naturalistic. I shall present the case for this optimistic conclusion in parts, first in a chapter on ethical naturalism and in a later chapter on telos itself. The conclusion I shall defend is a growing consensus that natural teleology is no more mysterious or magical than biological life, or consciousness, or rationality. And hence, the pursuit of virtues is no more obsolete than any other human activity, such as farming, or laughing, or studying astronomy.[61]

58. Arthur Ward, "Against Natural Teleology and Its Application in Ethical Theory" (PhD thesis, Bowling Green State University, 2013).

59. Cf. Bacon, *New Organon*, Book I. XLVIII "Although the most general principles in nature ought to be held merely positive, as they are discovered, and cannot with truth be referred to a cause, nevertheless the human understanding being unable to rest still seeks something prior in the order of nature. And then it is that in struggling toward that which is further off it falls back upon that which is nearer at hand, namely, on final causes, which have relation clearly to the nature of man rather than to the nature of the universe; and from this source have strangely defiled philosophy."

60. "The idea of a naturalistic ethics was born of a deeply teleological outlook, and its best expression, in many ways, is still to be found in Aristotle's philosophy, a philosophy according to which there is inherent in each natural kind of thing an appropriate way for things of that kind to behave." Bernard Williams, in *Making Sense of Humanity: And Other Philosophical Papers 1982-1993* (Cambridge University Press, 1995) 109

61. Compare with "Commanding, questioning, recounting, chatting, are as much a part of our natural history as walking, eating, drinking, playing." (Wittgenstein, *Philosophical Investigations*. Section 124).

IV. Secular

Methodological Agnosticism

Another reason many scientific naturalists are squeemish about teleology is a guilt by association; they feel that teleology is somehow religious. I shall attempt to calm this worry in a later chapter. For now, I will simply state that my project sets aside discussions about the possibility of the existence of God. Obviously, it would be morally relevant if a divine lawgiver were to reveal the way everyone ought to live. But the conclusion of my arguments is that it is imperative upon all of us to become virtuous, whether or not any particular religious tradition is true. I do not wish to *deny* that a divine mind is organizing the cosmos, but neither do I wish to *assume* it.

As a theist, I am perfectly willing to use the additional resources available to a religious ethicist. For this project, however, I see three good reasons for adopting methodological agnosticism. The first reason is sociological. There seems to be no clear consensus within my source authors regarding the divine or numinous. (There is a semi-established consensus, among philosophers more broadly, that God is dead.[62]) Some neo-Aristotelians are atheists, some Platonists, others Christians or some other sort of theist.[63] There *is* a consensus that ethics can be grounded, somehow, in human nature. That "somehow" is the focus of my project.

The second reason is philosophical. The belief in virtue ethics grounded in natural normativity seems to me just like the belief in electrons, integers, or evolution: each is *compatible* with the existence of a god but it does not *require* or *entail* the existence of a god. One can evaluate and judge the truth or plausibility of the hypothesis with or without a particular religious tradition.[64] This

62. Bourget and Chalmers, "What Do Philosophers Believe?"

63. The recent neo-Aristotelians seem to be a representative sample of a broader historical population: a survey of the living and the dead would feature theists, atheists, humanists, pantheists, and so on.

64. Compare with H Tristram Engelhardt, *The Foundations of Bioethics* (Oxford University Press, 1996). Engelhardt is a religious philosopher exploring the scope and limits of secular philosophy. While I shall end up agreeing with Engelhardt that secular moral philosophy (in the form of virtue ethics) remains fundamentally — and perhaps dangerously — pluralistic, I am a bit more

indeterminacy will inevitably seem a weakness to some philosophers, but it seems to me a strength. One of my limiting goals has been to construct a theory that allows both possibilities. I aim to allow that a monotheistic God might be directing all affairs to his purposes and guiding human beings by his commands and that, to (paraphrase Augustine), our hearts are restless until they rest in him. But I also aim to allow that human life is a brief and beautiful flash of consciousness in an otherwise cold, pitiless, and dead cosmos, and that even so we ought to pursue all the virtues before we go extinct – whether or not we "go gentle into that good night."

The third reason is pragmatic. The dissertation would have become too long. I hope in future to research the relationship between virtue theories and Christianity, or between virtue hand religion in general.[65]

In this way, my project may be seen as building on Philippa Foot's work to advance a kind of secular natural law theory. Mark Murphy says that:

> the paradigmatic natural law view [e.g., Thomistic natural law] holds that (1) the natural law is given by God; (2) it is naturally authoritative over all human beings; and (3) it is naturally knowable by all human beings… Recently there have been nontheistic writers in the natural law tradition, who deny (1): see, for example, the work of Michael Moore (1982, 1996) and Philippa Foot (2001).[66]

This kind of "natural law" may also be seen as a kind of neo-Stoicism. Elizabeth Anscombe says:

> One might be inclined to think that a law conception of ethics could arise only among people who accepted an allegedly divine positive law; that this is not so is shown by

optimistic than he about how far natural morality can go. Noah was not a Christian or a Jew was nevertheless "a righteous man, blameless among the people of his time, and he walked faithfully with God." (Gen 6:9) Even Abel somehow knew what sacrifice would be acceptable, perhaps because, as Paul says, he was "doing by nature the things contained in the law." Rom 2.14.

65. Such as Michael Sherwin, Michael Austin and others. Cf. Michael S Sherwin, *By Knowledge & by Love: Charity and Knowledge in the Moral Theology of St. Thomas Aquinas* (CUA Press, 2005); Michael W Austin, *Virtues in Action: New Essays in Applied Virtue Ethics* (Palgrave Macmillan, 2013)

66. Mark Murphy, "The Natural 'Law Tradition in Ethics," in *The Stanford Encyclopedia of Philosophy*, ed. Edward N. Zalta, Winter 2011, 2011.

> the example of the Stoics, who also thought that whatever was involved in conformity to human virtues was required by divine law.[67]

While I shall concede that normative ethics cannot survive some philosophical environments – such as aggressively reductive or eliminative physicalism – I shall for present purposes remain neutral as to whether the natural norms discoverable in nature are divine.

Concluding remarks on the significance of neo-Aristotelian naturalism

Virtue ethics is, on my view, a very useful guide to action, in personal life, political life, bioethics,[68] business,[69] and education.[70] It would be an improvement to almost any area of human life if we were aware of our own vices and worked to expunge them, and if we understood the virtues and pursued them. Yet many obstacles from philosophical and social tradition stand in the way. My dissertation is part of an attempt to remove such obstacles and, in their absence, render not only palatable but desirable a pursuit of virtues.

As difficult as it is to consider seriously the project of restoring natural teleology to its proper place and using it as a basis for ethical theory that is tenable and useful, I am optimistic it can be done. Many are on the project – biologists, cosmologists, philosophers of science, mathematicians – but philosophers in the Aristotelian tradition are uniquely situated to make advances. That tradition promises the resources with which to construct an ethical system including all three elements of MacIntyre's schema while rehabilitating a form of natural teleology that is not only tenable in light of modern beliefs, but rationally commends itself in light of all we now know. The case presented in these chapters aim to show how it might be done, and to begin doing it. Virtue, practical reason, and flourishing are age-old themes. Nevertheless, they are significant themes. Treating them adequately

67. Anscombe, "Modern Moral Philosophy," 5.

68. Tom Beauchamp and James Childress, *Principles of Biomedical Ethics* (Oxford University Press, 2001).

69. Ron Beadle, in *Handbook of Virtue Ethics in Business and Management* (Springer, Dordrecht, 2015), 1–9.

70. David Carr and Jan Steutel, *Virtue Ethics and Moral Education* (Routledge, 2005).

is too much for one dissertation. As Glaucon said to Socrates, "The measure of listening to such discussions is the whole of life."[71] But my hope is that even an unworthy treatment of a worthy topic will attain some value.

71. John Cooper, *Complete Works of Plato* (Hackett, 1997) *Republic* 450b.

Chapter 3

The Normativity of Nature: Organic and Practical Teleology

"Biology cannot, or at least in practice does not, eliminate functions and purposes."

–Mark Perlman, "The Modern Resurrection of Teleology in Biology", 6.

Introduction

This chapter addresses and challenges the widespread prejudice against scientific teleology. I invoke the help of sciences – especially life sciences such as biology and medicine – which teach that teleological nihilism and teleoreductionism are by no means "*the* scientific doctrines". Rather, if teleological realism is a scientifically respectable position, then nature is normative. And if nature is normative, it is at least possible that *human nature* is normative, even though humans are a unique kind of animal.

The Is-Ought Gap

Rosalind Hursthouse argues that ethical evaluations (of humans) and non-ethical evaluations (of plants and animals) "both depend upon our identifying what is characteristic of the species in ques-

tion."[1] In other words, *normative* evaluations depend on *descriptive* facts about a species. If true, this notion would be momentous: "is" statements would underwrite "ought" statements. The notion that natural, descriptive propositions can serve as premises in arguments with normative conclusions is central to the project of ethical naturalism. But many have posed an obvious challenge to this notion. We can put the challenge in this form:

Is-Ought Gap Challenge to Ethical Naturalism

1. If ethical naturalism is possibly true, then "ought" conclusions can be derived from "is" premises.
2. But no "ought" conclusions can be derived from "is" premises.
3. Therefore ethical naturalism is not possibly true.

The second premise seems to render hopeless the thought, articulated by Hursthouse, that we can evaluate things on the basis of what they are. This is the major problem I shall address. This problem goes by many names, but the one I prefer is the "is-ought gap."

Simply put, the is-ought gap is the intuitive notion that one cannot learn anything about *what ought to be* simply by examining *what is*.[2] For example, suppose your friend Jim will be attending his first Oscar ceremony, but doesn't know what to wear. Suppose we observe that *most male celebrities wear black ties to the Oscars.* It simply does not follow from the premise that most men in fact wear black ties that *Jim ought to wear a black tie to the Oscars*. At least, it does not follow without additional, brutely normative premise such as that *He ought to wear whatever most people are wearing*. Even if we supply *that* normative premise, where did it come from? "When in Rome, do as the Romans do" is not something supplied by *observation*.

More broadly, in ethics, the is-ought gap seems devastating. For even supposing we gathered

1. Hursthouse, *On Virtue Ethics*, chap. 10, abstract.

2. Thus, Hume: "In every system of morality, which I have hitherto met with, I have always remarked, that 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 all of a sudden I am surprised to find, that instead of the usual copulations of propositions, is, and is not, I meet with no proposition that is not connected with an ought, or an ought not. This change is imperceptible; but is however, of the last consequence." (*A Treatise of Human Nature* book III, part I, section I).

a whole collection of reliable scientific truths about human bodies, cognitive-behavioral patterns and so on – from anthropology, psychology, sociology, and also biology, chemstry, physics – we would not be a wit closer to establishing any ethical truths. A detailed and scientific description of human nature could hope to supply a "descriptive ethics" that narrates what such-and-such a culture approves of or finds worthwhile compared to what they find worthless and reprehensible.

At its best, a descriptive ethics might identify universal moral approbations and disapprobations. For example, while habits and attitudes toward drinking alcohol vary dramatically from culture to culture, there seems to be a universal (cross-cultural) disapprobation for continual drunkenness, even among cultures (like the Bolivian Camba) that drink regularly and drink heavily.[3] Such findings might be interesting, but the is-ought gap reminds us that they are a far cry from *ethical* insights.

The is-ought gap objection is fatal to some forms of ethical naturalism, but not to the neo-Aristotelian type Hursthouse and others are pursuing.[4] For there exists a second, and more promising way to underwrite "ought" statements. From basic, fundamental, scientifically respectable *natural norms*. Call this the possibility of natural normativity.[5] We can put the challenge, in the following form:

Bald Nature Challenge to Ethical Naturalism

1. If ethical naturalism is possibly true, then some facts are genuinely both natural and normative.
2. But no facts are genuinely both natural and normative.

3. "It is important to realize that drinking problems are virtually unknown in most of the world's cultures, including many where drinking is commonplace and occasional drunkenness is accepted." Dwight B Heath, "Sociocultural Variants in Alcoholism," *Encyclopedic Handbook of Alcoholism*, 1982, 426–40.

4. I suspect the is-ought gap has not been adequately overcome by Peter Railton's and Richard Boyd's theories. I do not have space here to explore the suspicision.

5. The concept of 'natural normativity' is indeterminate, which means I run the risk of unclarity; that indeterminacy is necessary for us to discuss these issues without begging the question in favor of the view that all norms are unnatural and all nature is non-normative. If natural norms could be discovered, then it would be *at least possible* that the is-ought gap is not a fatal problem for all types of ethical naturalism.

3. Therefore ethical naturalism is not possibly true.

This challenge parallels the first one in that everything depends on the second premise – on whether nature consists of *merely* non-normative facts.[6] If so, then it follows that normativity is either real but *non-natural* (or supernatural) or "naturalistic" but not real (i.e., not mind-independent). There would be no such thing as the paradoxical notion of a "prescriptive fact" or a "natural ought."[7] Hume (and others) assume this. But if the second premise is not true – if some facts are genuinely both natural and normative – then ethical naturalism is at least *possible*. (There will be other challenges to address, of course.)

The candidates for natural normative facts I shall defend are natural formal and functional or teleological properties of organisms. Hursthouse, Philippa Foot, John McDowell, MacIntyre, and Stephen Brown are united in the thought that some natural formal or teleological facts – whether that is Hursthouse's "characteristic", or a "life-form"[8] or "form of life"[9], or "human nature" – are inherently normative. Rather than "bridging" the gap between "is" and "ought", they defy the opposition.

Natural, Biological Norms or Cultural, Rational Norms?

Although the neo-Aristotelians are united in the affirmation that some natural norms can serve as a grounding for ethical facts, there are two or three competing strategies as to which "norms" are up to the task. The strategies go under many names.[10]

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6. That nature consists of merely "natural" facts is, of course, a tautology. But whether all natural facts are non-normative facts is the question at hand. Simply to *stipulate* that "natural facts are descriptive and not normative!" is to beg the question with an exclamation point. I will pick up this question again in a later chapter.

7. Recall Mackie's beautifully expressed worry about notion of "to-be-pursuedness" built into things.

8. Michael Thompson, *Life and Action* (Harvard University Press, 2008), 57

9. McDowell, "Virtue and Reason," 339.

10. Annas distinguishes two sorts of naturalism, one that emphasizes the biological nature of humanity (at the expense of the odd normativity of reason) and another that emphasizes the rational nature of humanity (at the expense of the mundane descriptivity of biology). Christopher Toner

The basic difference is between those who discover natural normativity in *human nature* – culture, or rationality, or practical agency – and those who hope to find natural normativity more generally in all organic life. As Thomas Nagel puts it, with the existence of life in the cosmos arises the existence of "beings of the kind.. for which things can be good or bad."[11] (The third group defends the view that natural normativity is intrinsic to the whole cosmos.) Let's examine each one a bit more.

Normativity of Human Nature On this option, something about humanity is naturally and inherently teleological. For example, perhaps one of the natural functions of rationality is to construct goals for itself and legislate laws for itself.[12] On this view, ethical conclusions are irreducibly based upon human facts such as human rationality, human culture, or human excellence. Since these human facts are contrasted with broader natural facts, call this view "Social" or "Rational" or "Practical Teleology."[13] Pretty clearly, human cognitive and and practical behaviors are inherently end-directed or teleological: John goes to the gym *in order to get fit for his film role*; Jane practices her speech *to win the Iowa primary*. Humans *act on reasons* and in pursuit of ends.[14] This kind of social or rational teleology is certainly the safer of the two strategies, and is followed by McDowell,

distinguishes between the "biological naturalism" of Thompson and Foot (and later MacIntyre) from the "second naturalism" or "excellence naturalism" or 'culturalism' of McDowell and (early) MacIntyre, each of which has its strengths and problems. Cf. McDowell, "Two Sorts of Naturalism.; Fink, "Three Sorts of Naturalism.; Toner, "Sorts of Naturalism.; Julia Annas, "Virtue Ethics: What Kind of Naturalism?" in Stephen Mark Gardiner, *Virtue Ethics, Old and New* (Cornell University Press, 2005).

11. Thomas Nagel, *Mind and Cosmos* (Oxford University Press, 2012), 117.

12. Compare with Christine M Korsgaard, *The Sources of Normativity* (Cambridge University Press, 1996). Korsgaard's argument about the "Authority of Reflection" builds a case that human autonomy – the ability to be a law to oneself – is the source of normative authority. In other words, my own identity as a rational human agent obligates me to behave morally.

13. Compare with Marinus Farreira, "Reasons from Neo-Aristotelian Naturalism," 2011 calls this "excellence naturalism" as opposed.

14. The teleological nihilism (of say, hardcore determinists) says that not even human practices are teleological. There are no "purposes" or natural ends anywhere in the world *including* in human actions. Even our practices, behaviors, and lives are purposeless, even to ourselves. I discuss teleological nihilism below. Cf. Daniel C Dennett, "Darwin's Dangerous Idea," *The Sciences* 35, no. 3 (1995): 34–40.

Hursthouse, and the early MacIntyre.[15]

Normativity of Organic Nature The second strategy is more ambitious and more risky. It is to defend the view that other parts of nature (such as living creatures) are naturally and inherently teleological. For example, perhaps one of the functions of *being alive at all* is that plants and animals act to survive and perform whatever instinctual actions are necessary for them to grow and develop into the state of species-specific maturity. At least some natural entities – living organisms – have ineliminable, irreducible, normative properties. Call this view Natural Teleology. Natural Teleology is the preferred strategy of Foot, Thompson, and the later MacIntyre. It seems to have won over Annas, Brown, and Barham, and a host of other biological scientists.[16]]

Normativity of the Cosmos I should mention a third – even more ambitious – sort of strategy is to defend the view that *all* of nature is teleological. This is the notion that everything – including stars and rocks – "has a purpose", as if the cosmos were somehow organized and *going somewhere*. Call this Cosmic Teleology. Though such natural normativity in the form of natural teleology has its recent defenders.[17] I shall not pursue this strategy.

15. Hursthouse appears to me to affirm both Foot's sort of naturalism and McDowell's. Jennifer Frey observes this as well: "On this issue, Hursthouse seems to be speaking out of both sides of her mouth. She wants to acknowledge to Aristotelian critics like John McDowell that naturalistic considerations do not convince anyone to change their basic moral beliefs or motivate them to action. But at the same time, she thinks that she can approach the Humean or the Kantian and argue for "the rational credentials" of our moral beliefs based upon a "scientific" and "objective" naturalistic account. It is unclear how she is supposed to satisfy both parties at once, and the tension remains unresolved in her own work." Cf. Frey, "The Will and the Good. 44, footnote 55.

16. Keith Ward, "Kant's Teleological Ethics," *The Philosophical Quarterly* 21, no. 85 (1971): 337–51; Larry Arnhart, "Aristotle's Biopolitics: A Defense of Biological Teleology Against Biological Nihilism," *Politics and the Life Sciences* 6, no. 2 (1988): pp. 173–229; Monte Johnson, *Aristotle on Teleology* (Oxford University Press, 2005); Philippe Huneman, "Naturalising Purpose: From Comparative Anatomy to the 'Adventure of Reason'," *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences* 37, no. 4 (2006): 649–74; Mariska Leunissen, *Explanation and Teleology in Aristotle's Science of Nature* (Cambridge University Press, 2010). For a detailed exposition of the full menu of philosophical options, cf.Bill Cosby, "The Modern Philosophical Resurrection of Teleology," *The Monist* 87, no. 1 (2004): 3–51.

17. For atheistic version of cosmic teleology, see Nagel, *Mind and Cosmos*; for non-human centered versions see John Leslie, *Universes* (Psychology Press, 1996), @mulgan2015purpose. For Thomistic versions, cf. Edward Feser, *Aquinas: A Beginner's Guide* (Oneworld Publications, 2009); and

Problems for the Social Teleology strategy

Each of these (first two) predominant strategies faces its major challenge. For example, even if the first strategy of *human* natural normativity could pre-emptively undercut the is-ought gap, the major worry is no such thing as a universal human nature from which we might derive normative conclusions. Even the singular noun phrase "human nature" is liable to sound mystical, like a platonic universal underlying all human beings.

Scientific Facts Objection. Bernard Williams summarizes the antiquated worldview that many are suspicious of:

> The idea of a naturalistic ethics was born of a deeply teleological outlook, and its best expression, in many ways, is still to be found in Aristotle's philosophy, a philosophy according to which there is inherent in each natural kind of thing an appropriate way for things of that kind to behave.[18]

The problem, of course, is that if human beings are a "mess" (as Williams puts it) then the normative conclusions to be derived would be equally messy. Humans are occasionally irrational and always variable. Human beings posit themselves, create themselves, define their values, chart their destinies, and all in different ways.

Along similar lines, evolutionary biology tells us that genetically modern humankind is the latest in a series of species. This is prima facie in tension with the notion of fixed, stable human nature. Ernst Mayr puts the alleged tension between the flexibility of evolutionary species and a fixed human nature in this way:

> The concepts of unchanging essences and of complete discontinuities between every *eidos* (type) and all others make genuine evolutionary thinking impossible. I agree with those who claim that the essentialist philosophies of Aristotle and Plato are incompatible with evolutionary thinking.[19]

Peter Kreeft, *Summa Philosophica* (St. Augustine, 2012).

18. Cf. Williams, 109.

19. Ernst Mayr, *Populations, Species, and Evolution: An Abridgment of Animal Species and Evolution* (Harvard University Press, 1970), 4.

Like Williams' worry that we can no longer believe in an "appropriate way… to behave" that is "inherent in each natural kind of thing", Mayr's worry is that there may not even be natural kinds.

Problems for the Natural Teleology strategy

The second strategy has its own, even bigger, problems; not even all the neo-Aristotelians are optimistic about the strategy of grounding human ethics in natural normativity.

Teleological Nihilism Objection.[20] Even if natural normativity in the form of teleology in the non-human world *could possibly* underwrite normative conclusions about human ethics, how would we confirm the hypothesis that there is such a thing as natural normativity? Is the hypothesis scientific or not? For many, scientific naturalism just is the commitment to believe all and only the best deliverances of all the sciences.[21] But suffice many scientific naturalists do indeed think that the scientific conception of nature is incompatible with the kind of natural normativity found in Foot's brand of neo-Aristotelian ethical naturalism. They think that the scientific picture of nature is the picture of "bald nature" (McDowell's phrase for non-normative nature) or the "Laplacian" picture.[22] Call "teleological nihilism" the view that there are no natural purposes *except* those in human actions, intentions, and societies, etc. On teleological nihilism, *social teleology* is not instances of a broader category that includes the tendency of an acorn to become an oak and the tendency of deer to survive and reproduce; human purposes are sui generis phenomena that spontaneously

20. Arnhart, "Aristotle's Biopolitics."

21. Other ethical naturalists like Richard Boyd and Peter Railton would be quick to observe, at this juncture, that natural kinds themselves are part of the vocabulary of natural science. Cf. Richard Boyd, "Realism, Anti-Foundationalism and the Enthusiasm for Natural Kinds," *Philosophical Studies* 61, no. 1 (1991): 127–48; Richard N Boyd, "How to Be a Moral Realist," *Contemporary Materialism*, 1988, 307; Peter Railton, "Moral Realism," *Philosophical Review* 95, no. 2 (1986). And indeed, part of my strategy for defending the truth and scientific credentials of Footian naturalism is to appeal to generic truths about natural kinds. But this objection is still considerable.

22. Alvin Plantinga, *Where the Conflict Really Lies: Science, Religion, and Naturalism* (Oxford University Press, 2011), 84. Plantinga explains that the bald, disenchanted picture of nature that excludes all consciousness – both divine and human – should not be pinned on Newton, who was a pious Christian, but fits better with Pierre-Simon Laplace.

emerge out of our brains at a certain level of complexity. Final causation thinking is then projected out onto the world by us; we observe that the beaver gathered wood and that the beaver built a dam and we say "the beaver gathered wood *in order to* build the dam." But really the beaver did no such thing. This is what philosopher of biology Ernst Mayr calls "teleonomic" natural behavior, but not genuinely teleological.[23]

Irrelevance Objection.[24] Even if natural teleological facts are among those facts that can be hypothesized and confirmed scientifically, a set of objections threaten the idea of natural norms from two sides – one objection shows that natural norms don't prove enough, the other shows they prove far too much. On the one hand, natural norms do not prove enough. Which teleological facts are we to pick out? Suppose we can discover fifteen natural norms about humanity; are we obligated to fulfill all of them? Some? None? Empirically, some acorns become fully grown, mature oaks, but other acorns become stulted, sickly specimens. Most acorns never become anything other than acorns before they disintegrate into dust in the soil. So statistical majorities will not do the trick.

Similarly, humans behave in all sorts of ways and exhibit all sorts of biological and psychological traits. Which properties are we too pick out as the naturally normative ones? One cannot deduce from the anthropological fact that humans in all cultures wear clothing any normative conclusions to the effect that humans *ought* to wear clothing. We cannot settle a controversy among nudists by citing statistical generalities.

Pollyanna Objection. On the other hand, natural norms prove far too much. Norms can be discovered for both good and evil: Some animals protect their young while other animals abandon or even consume their young. Some humans are kind and gentle while others are vicious and cruel. Anscombe anticipates this worry when she says:

23. Ernst Mayr, "The Idea of Teleology," *Journal of the History of Ideas* 53, no. 1 (1992): pp. 117–35.

24. Frey, "The Will and the Good." Her dissertation is a full-scale rebuttal of this objection. I shall review her arguments in a later chapter.

> The search for "norms" might lead someone to look for laws of nature, as if the universe were a legislator; but in the present day this is not likely to lead to good results: it might lead one to eat the weaker according to the laws of nature, but would hardly lead anyone nowadays to notions of justice.[25]

Lott calls this the "Polyanna Problem" in that virtue ethicists are liable to be naively optimistic about what such a search through nature might discover.[26]

Natural norms are subject to rational reflection and are not necessarily action guiding or normatively binding. I think this is the point of McDowell's discussion of the "rational wolf" who is able to step back and contemplate alternatives. Even though it is true that wolves hunt in packs (unless they are rabid), this hypothetical rational wolf can ask himself: to follow my nature or not to follow my nature, that is the question? McDowell finds in the fact that

Response

So what are we to make of these challenges? I shall respond to the Scientific Facts and the Teleological Nihilism Objection below. In a later chapter, I will have time to respond to the Irrelevance and Polyanna Objections.

On the one hand, I think both strategies (social teleology and natural teleology) would work, and wish to defend them against ethical non-naturalists or ethical naturalists of different sorts.[27] On the other hand, I think natural normativity is the stronger of the two and is less subject to objections from cultural relativism. Hence, in the spirit of devil-may-care adventure seeking, I shall pursue the more ambitious strategy of defending natural normativity in all of organic nature, not just human beings.

However, in a later chapter I will more thoroughly examine the notion human (and only human) teleology is the source of natural normativity. (In the end, I do not think these two notions of

25. Anscombe, "Modern Moral Philosophy," 14.

26. Micah Lott, "Moral Virtue as Knowledge of Human Form," *Social Theory and Practice* 38, no. 3 (2012): 407–31.

27. Such as functionalists and the Cornell realists just mentioned.

normativity are *contradictory*. A "third type" of naturalism could even perhaps combine them.)[28] To those for whom the concept of natural teleology might have been completely unpalettable, I hope to render it not only conceivable but plausible. For those who do not find it plausible, human teleology is a kind of fail-safe. The facts of social or practical teleology are enough to ground the theory of virtue I develop in a later chapter. Although I feel confident that social teleology is a sufficient ground for ethics, I shall caution that the cost of rejecting natural teleology is an incorrigible cultural relativism: While objective morality may be realized intersubjectively, intersubjective morality is not objective.

For now, I shall pursue the strategy according to which natural normativity in the form of natural teleology is sufficient to ground a theory of ethics in observations about human nature as practical, rational animals. This is to defend the Foot/Thompson strategy of Natural Teleology as preferable over McDowell's strategy of Social or Practical Teleology. In doing so, I shall summarize and bolster her arguments, offering a more rigorous argument for the fundamental premise that some natural facts are brutely normative, teleological facts.

I. An Initial Case for Natural Normativity

Let's begin with Philippa Foot. Foot argues that human virtues are instances of a broader class of natural properties: 'natural goodness.'[29] to earn an audience for her argument, her first chapter (which she call a "fresh start") clears some shaky assumptions inherited from Hume and Moore. Instead of treating human valuations as sui generis, a miraculous new appearance in the cosmos that only appears with the existence of humans, hat we should expand our scope to examine our status as natural entities. She is well aware that her offering is likely to offend the ears of some

28. Fink, "Three Sorts of Naturalism.. The criteria for this third sort of naturalism are sketched brilliantly by Toner, "Sorts of Naturalism.. Such third kind of naturalistic theory would be comprehensive. It would provide an anti-dualistic account of first nature and "second nature", of biology and culture, of animality and rationality. But more of these things later.

29. Foot, *Natural Goodness*; cf. Sanford S Levy, "Philippa Foot's Theory of Natural Goodness," in *Forum Philosophicum*, vol. 14, 1, 2009, 1–15.

listeners. Her defense is the thought (drawn from Wittgenstein) that crude beginnings are often a necessary first step on the way something refined.

The kind of "shaky assumption" she means is this: Moore assumed that "good" was the ultimate ethical predicate under review. By contrast, she argues that statements like "pleasure is good" are not good paradigms for philosophical reflection. Evaluation of human creatures and evaluation of plants and animals follow *the same logical pattern*. In such evaluations, good is good *for*. Contrast 'good' with other predicates like 'red' or 'beautiful.' In a statement such as 'the house is beautiful', the predicate 'beautiful' doesn't need a complement. The house is *beautiful* – full stop. But 'good' (like 'useful') has a different logical function. 'The house is useful' does need a complement – the house is useful *for a mom of six, or useful for an artist*, or what have you. Similarly, 'good' always means *good for someone* or *for something*. 'Good' always needs a complement. If this crude beginning is anywhere near to correct, we can distance ourselves from Moore's starting point and build on another starting point: the life-form of human beings.

In this Foot agrees with Thompson's groundbreaking *Representation of Life*. There, he argues that the concept of "life" is not, as it may seem to some, a property of some beings where *being* is the fundamental concept; rather "life" is a fundamental concept.[30] Thompson reviews and refutes a variety of biological definitions of life such as reproduction, growth, metabolisis, etc., for these properties depend on a prior understanding of life. He says, "Vital description of individual organisms is itself the primitive expression of a conception of things in terms of 'life-form' or 'species', and if we want to understand these categories in philosophy we must bring them back to that form of description."[31] When we observe and examine living things we rightly employ some shared categories and our conclusions rightly share a logical structure. What is that common structure? Every individual living being is a member of a species or life-form. And different life-forms are subject to different normative appraisals.

30. Thompson, "The Representation of Life."
31. Thompson, *Life and Action*, 57.

Humans are certainly a unique *kind* of living being with a unique life-form. And we shall examine below what difference the differences make. As a preview, morality is (correctly) thought to be action-guiding. Hume and Moore (correctly) argue that moral principles cannot be merely descriptive; they must motivate us to act or refrain from acting. (Furthermore, moral theories must be able to explain retroactively *why* one acted or refrained from acting). and help us to evaluate actions or abstentions, in ourselves and others.) Call this the Practicality Requirement. But, the argument will be, the position that moral reasons are inextricably tied to conative psychological states is not the best way to meet the Practicality Requirement. Rather, the action-guiding facts in the case of natural goodness are facts humans as practical, rational creatures, and facts about our relation to objects in the world. But more on this below.

Foot concludes that:

> …goodness and badness, and therefore about evaluation in its most general form; but we might equally have been thinking in terms of, say, strength and weakness or health and disease, or again about an individual plant or animal being or not being as it should be, or ought to be, in this respect or that. Let us call the conceptual patterns found there, patterns of natural normativity.[32]

Another way of putting this point is that some properties we can call 'goodness' are primary qualities of nature. McDowell and others will worry that this picture of nature is not "the scientific picture" of nature, and that even if it were, such a picture is not necessary since social normativity is a sufficient grounding for ethics.

II. A Novel Case for Natural Normativity from Generics

What are the odds that "identifying what is characteristic of a species" can license normative judgments? The odds are quite good, I think. My case for natural normativity depends on a minimal scientific realism and on a little-utilized feature of language and conceptualization called "generic propositions" – or simply "generics." The case in brief is this:

32. Foot, *Natural Goodness*, 38.

1. If some generic statements describing natural entities are true, then some facts are both genuinely natural and normative – there are "natural norms."
2. Some generic statements describing natural entities are true.
3. Therefore, some facts are genuinely both natural and normative – there are "natural norms."

The Special Logic of Generics

Michael Thompson is one of the first to work out "the special logic of judgments we make about living things, and then to indicate its application to ethics." That 'special logic' is variously called "Aristotelian categoricals"[33], "natural-historical judgements"[34] "norms"[35] "bare plurals"[36]. I prefer the shorter and less adorned term 'generic.[37]

My postulate is this: **some generics about human beings are true.** If this is true then, I shall suggest, we have good hope of cutting up nature at the joints. When combined with a moderate scientific realism, generic truths from sciences such as biology, physics, and anthropology (and perhaps others) support a modest natural normativity which will be further articulated (in a

33. Ibid.

34. Thompson, "The Representation of Life"; Thompson, *Life and Action*.

35. Anscombe, "Modern Moral Philosophy," 14–15. Anscombe is not very optimistic about the project Thompson, Foot, and I are undertaking.

36. Greg N Carlson, "A Unified Analysis of the English Bare Plural," *Linguistics and Philosophy* 1, no. 3 (1977): 413–57.

37. Cf. ibid., . Carlson's essay is an early attempt to account for a variety of linguistic forms under one concept of reference to kinds; Francis Jeffry Pelletier and Greg N Carlson, *The Generic Book* (University of Chicago Press, 1995); Sarah-Jane Leslie, "Generics: Cognition and Acquisition," *Philosophical Review* 117, no. 1 (2008): 1–47; Andrew M Bailey, "Animalism," *Philosophy Compass* 10, no. 12 (2015): 867–83 for a discussion of a specific generic: "we are animals" in metaphysics and philosophical anthropology; Andrei Cimpian, Amanda C Brandone, and Susan A Gelman, "Generic Statements Require Little Evidence for Acceptance but Have Powerful Implications," *Cognitive Science* 34, no. 8 (2010): 1452–82 for an experiment in cognitive psychology that seeks to quantify the prevalence levels at which subjects tend to agree to generics, i.e., how many birds have to lay eggs before we agree to the assertion that "birds lay eggs"? Manfred Krifka, "Bare NPs: Kind-Referring, Indefinites, Both, or Neither?" in *Semantics and Linguistic Theory*, vol. 13, 2003, 180–203; Ariel Cohen, "On the Generic Use of Indefinite Singulars," *Journal of Semantics* 18, no. 3 (2001): 183–209.

later chapter) to indicate which traits are virtues or vices for human beings.

Generics are neither universal nor particular

Now, what are generics? "A fine question, but a difficult one," Andrew Baiely says. His recent paper provides a helpful introduction to the topic of generic statements:

> Start with this sentence: [all ducks lay eggs.] This first sentence is, let us suppose, true. So far so good. But is it equivalent to 'for every x, if x is a [duck], x [lays eggs]? 'ducks lay eggs' may be true even if not all ducks lay eggs, 'mosquitos carry dengue fever' may be true even if only a very few mosquitos carry that virus, and so on). We are now positioned to observe one curious property of generics: they admit of exceptions.[38]

Thus, generics are statements of the form "S is F" or "S has or does F" where S is not an individual but a class or natural kind. The logical form of "all S's ϕ" does not predicate ϕ-ing to all members of the category S without exception, nor does it simply assert that some "S's ϕ", which is true but uninteresting.

Consider the statement "all wolves hunt in packs." Logically, the proposition expressed in this statement is neither strictly universal nor strictly particular. It is not a strictly true universal judgment (for some actual wolves hunt alone, and some don't hunt at all). Furthermore, it is true but trivial that *some wolves hunt in packs*. Confining ourselves to particular judgments like "Some reptiles lay eggs" would be radically unambitious science. We want to know – and can know – what is true of the class as a whole. If a biologist discovers an exception to the proposition "All reptiles lay eggs", then either it turns out that not all reptiles lay eggs *or* she has discovered a new species of reptile that does not lay eggs.

38. Bailey, "Animalism," 869.

Generics refer to natural kinds

Generics do not refer *distributively to all* members of a category nor merely to *some* but to the category itself; they are statements about natural kinds. In this way, generics pick out what we might call formal facts, facts about the life form in question.

The statement that "wolves hunt in packs" is only interesting to scientists if it is an item of conceptual knowledge about wolves as a *kind*. A generic is interesting because it is, or we treat it as, a truth about forms, or species. The subject of the statement is not all S's nor merely some S's, but the "infama species."[39] As Leslie says:

> It is widely accepted that [definite] generics are singular statements which predicate properties directly of kinds. For example, "tigers are extinct" predicates the property of being extinct directly of the kind Panthera tigris, and would be true just in case Panthera tigris had the property of being extinct (Krifka et al. 1995).

Generics are not statistical

As Leslie's point shows, generics are not merely statistical regularities. The members of extinct species do not exhibit any properties at all, yet it is still true in some sense that *the species* is extinct. Likewise, all the living members of a species might fail to exemplify its formal attributes. Consider the fact that "California condors can fly for hours without resting."[40] In 1987 there were only 27 known condors alive. One could easily imagine a scenario in which every living member of such an endangered species were too injured, old, or diseased to exemplify this attribute. It would be strictly false of the individual condors that any of them could fly for hours; nevertheless the generic would still be true that "condors" (as a class) *can* fly for hours.

McDowell calls this a "logical weakness" of generics, as if Aristotelian-categoricals were aiming for deductive certainty but falling short. He cites the example from Anscombe (and Aristotle)

39. Toner, "Sorts of Naturalism," 222, quoting Thompson.
40. Jeffrey P. Cohn, "Saving the California Condor," *BioScience* 49, no. 11 (1999): 864–68.

that "humans have 32 teeth", saying "there is a truth we can state in those terms, but from that truth, together with the fact that I am a human being, it does not follow that I have 32 teeth. (In fact it is false)."[41] McDowell rather misses the point. Generics are not half-hearted universal judgments; they are judgments of a logically different kind. That we do not know deductively whether any particular wolf hunts in a pack is rather a strength than a weakness; the generic truth that wolves hunt in packs sets in us a normative expectation we then bring to any particular wolf and by which we can judge whether it is exemplifying its life form.[42] Similarly, while anthropological generics such as "human beings wear clothes" admit of exceptions, they might, if true, set normative expectations.

Generics are familiar

While there is much to be learned about the linguistic features of generics,[43] still, their use and acquisition is actually very familiar. Michael Thompson points out that: there is a "general and thoroughgoing reciprocal mutual interdependence of vital description of the individual and natural historical judgment about the form or kind."[44] Micah Lott's comment on this same point is that:

> At each stage of an empirical investigation, our observations are mediated by our current understanding of the life form whose members we are observing. At the same time, our observations of those individual members will in turn improve our understanding of the life form itself, which then makes possible even more accurate and extensive future observations.[45]

41. McDowell, "Two Sorts of Naturalism," 171–2.

42. Sandeep Prasada et al., "Conceptual Distinctions Amongst Generics," *Cognition* 126, no. 3 (2013): 3.

43. Leslie distinguishes between indefinite generics such as "tigers are striped" which admits of the specification "that tiger over there is striped" and definite generics such as "domestic cats are common" which does not admit of specification, "that domestic cat is common". Indefinite generics are trickier: "Ducks lay eggs" is a true generic," while "ducks are female" is false, yet it is only the female ducks who ever lay eggs. "Mosquitoes carry the West Nile virus" is true, and "books are paperbacks" is false, yet less than one percent of mosquitoes carry the virus, while over eighty percent of books are paper backs." Leslie, "Generics.

44. Michael Thompson, "Apprehending Human Form," *Royal Institute of Philosophy Supplement* 54 (2004): 52.

45. Lott, "Moral Virtue as Knowledge of Human Form," 414.

Generic truths are acquired via a normal scientific means of empirical observation, rational reflection, and discussion.[46] This familiar scientific process may not be easy or free of dangers, but it is at least *a familiar scientific process*. Scientists are continually correcting formerly established generics (the notion that all mammals give live birth was thrown into crisis by the platypus) and working to distinguish between the normal and defective traits of a species.

Generics are teleological

While there is a kind of normativity in the mere idea of a life-form, we can make the case stronger. There is a related kind of normativity in the idea of the natural teleology of life-forms. And generics also illuminate natural, normative, teleological facts. I shall take the idea of a real, natural function to be roughly synonymous with a real, natural teleology. As Perlman says:

> Many objects in the world have functions. Some of the objects with functions are organs or parts of living organisms… Hearts are for pumping blood. Eyes are for seeing. Countless works in biology explain the "Form, Function, and Evolution of …" everything from bee dances to elephant tusks to pandas' 'thumbs'. Many scientific explanations, in areas as diverse as psychology, sociology, economics, medical research, and neuroscience, rest on appeals to the function and/or malfunction of things or systems.[47]

Barham clarifies the range of terms that denote identical or similar concepts:

46. To use a silly example, suppose that someone from a warm and landlocked country has never heard of penguins before. This person visits a zoo and sees penguins for the first time. He notices that these astonishing creatures are called 'penguins', and appear to be birds (for they have beaks, feathers, lay eggs, emit squawks, etc.). He reflects that most – if not all birds – have many of these macro features. Fascinated, he consults encyclopedias, biology or zoology textbooks, and consult zoologist friends. All these sources confirm the categorization. Although I am not aware of when the first penguin was studied by a modern naturalist, we can easily imagine that it was from observations and reflections such as these that penguins long ago earned an entry in the annals of scientific knowledge. The biological community gave them a scientific name ('sphenisciformes') and began to fill in gaps with a detailed description of their evolutionary history, characteristics, genetics, environments, diet, predators, and so on. The scientific conclusion, upon initial observation, bolstered by reflection, underwrites the initial hypothesis: penguins are indeed birds.

47. Cosby, "The Modern Philosophical Resurrection of Teleology," 1–4.

> "By "teleology," I have in mind such words and concepts as "purpose," "end," "goal," "function," "control," and "regulation," as well as the real-world biological phenomena to which these words and concepts refer. This means that the word "teleology" should always be construed here in its internal or "immanent" sense—purposiveness existing in living beings themselves—and never in its external or "transcendent" sense of an overarching cosmic principle"[48]

With these concepts in hand, we can see why Chris Toner says that "natural-historical judgments readily admit of combination into teleological judgments."[49] Thompson, for example, cites the scientific observation that "flowers have blossoms of such-and-such type in order that such-and-such insects should be attracted and spread their pollen about."[50]

This kind of combination of generic truths is very familiar. No sooner have I learned the formal facts about a penguin (that it is a bird, that it can swim, that it has a countershaded white belly and dark back etc.) do I learn that *penguins are countershaded in order to avoid predators from above and below.* A shark looking up may miss a penguin, because its white belly blends in with the sunlight surface waters; a shark looking down may miss a penguin, because it blends in with the pitch dark waters of the abyss. Since an individual penguin may fail to be countershaded in the way that expresses its form, it would be defective. This defect is not a judgment made by scientists and "imposed" as it were, from the outside, on the penguin; but a normative fact about the penguin. As Hursthouse says, "Wolves hunt in packs; a 'free-rider' wolf that doesn't join in the hunt fails to act well and is thereby defective."[51] We might add that some formal features *of a normal, mature* animal exist merely potentially before full maturation. For example, a female reptile that cannot lay eggs might be injured, ill, or simply young. Eyes that cannot see might be injured, ill, or simply developing. Eyes that have had enough time to develop *should* see, are *supposed to* see, *ought to* see. Hearts do not just "pump blood" but hearts are *for* pumping blood.

48. James Barham, "Teleological Realism in Biology" (PhD thesis, University of Notre Dame; Web, 2011), 1.
49. Toner, "Sorts of Naturalism," 222.
50. Thompson, *Life and Action*, 293–94.
51. Hursthouse, *On Virtue Ethics*, 201.

III. Three Paths Forward

In my overall argument, generic truths are intended to serve as a counterexample to premise 2 of the **Bald Nature Challenge** above. Recall, that challenge asserted that no facts are genuinely both natural and normative. Generics are both genuinely natural and normative: natural, in that a large percentage of scientific knowledge consists of scientists predicating generic truths of natural kinds; normative, in that the life-form in question is one which an individual may or may not "live up" to, and in that *some* generics pick out natural functional or teleological facts about life forms (that penguins are counter-shaded *to avoid* predators, that hearts are *for* pumping blood, etc.). On my view, accepting the straightforward, generic truths delivered by such sciences about forms and functions is quite simply the respectable thing to do. But it seems to me there are three paths forward: reject, reduce, or accept Natural Teleology.

Reject

The first path is to reject generic truths about species and their formal and functional characteristics. Probably, those who are tempted to reject natural teleology believe there are no *ends* (τελοι). Call this view teleological nihilism.[52] Teleological nihilism claims as its evidence "*modern science*" *as a whole.* Abandoning the search for natural teleology was a harbinger of modern science; Francis Bacon and others believed that the search for final causes corrupted science. So, if best science tells us that nature is *only* descriptive, natural normativity is dismissed out of court.[53] In fact, natural sciences and the experimental, empirical methods that advance them have progressed far more than anyone could have dreamed. In part, this success is the result of giving up magical thinking.

52. Also called teleological eliminativism.

53. Cf. Bacon, *New Organon*, Book I. XLVIII "Although the most general principles in nature ought to be held merely positive, as they are discovered, and cannot with truth be referred to a cause, nevertheless the human understanding being unable to rest still seeks something prior in the order of nature. And then it is that in struggling toward that which is further off it falls back upon that which is nearer at hand, namely, on final causes, which have relation clearly to the nature of man rather than to the nature of the universe; and from this source have strangely defiled philosophy."

Reply to Teleological Nihilism

Nevertheless, let's suppose for *reductio* that no generic statements are true. Then it would be false in some important sense false that 'wolves hunt in packs', and false that 'condors can fly for hours', false even that 'penguins are birds'. It is false, furthermore, that eyes see and humans are mammals. But such denials are, I think, absurdities.[54]

The proper reply to Bacon is that the teleological nihilism hypothesis has been tried and found wanting. Animals, plants, and all living things exhibit end-directed or teleonomic behavior: eyes see, hemlock trees offer shade to fish, stomachs digest, deer leap to avoid predators. Even when Kant denies natural teleology – the biological theory that the form of an organism causes the parts to grow and relate to each other in a particular way – he admits we *cannot help thinking so*.[55]

By all means, let us be scientific. But let us be careful not to become anti-scientific in the *name* of preserving the purity of science. The notion that some of nature is normative – or that some norms are natural – is not only a good logical explanation of the natural phenomena of biology but also a good *scientific* explanation. While natural teleological realism is still controversial, it is not a controversy between science and philosohpy but a controversy *within science*. It is a legitimate discussion between scientists of one stripe and scientists of another.

An analogy might help: suppose a marine biologist studying dolphin behavior came to believe dolphin's have language. One could imagine other biologists accusing her of "projecting" an exclusively human phenomenon – communication by language – on non-human nature. They could ridicule her "magical thinking" but they would miss a fascinating repository of scientific insight. "Listening to science" does not mean listening to materialist philosophers who haven't studied

54. That is not to say that the denial is not worth considering. It might well be true. My point in calling the denial 'absurd' is to say that if it is true, an absurdity is true. If it is true, then the truth is absurd. And reality itself might well be absurd. I don't think it is, but there have been many philosophers who have thought so, and such thoughts cannot be justly dismissed without consideration. Since absurdist philosophers are not my primary audience, I simply lay the issue aside.

55. Huneman, "Naturalising Purpose."

biology since their undergraduate days; "listening to science" *just means* listening to actual scientists, such as biologists and others who tell us that teleological functions are real and who treat them as if they were irreducible. Branding "heretics" and demoting their research as "anti-scientific" is a behavior more appropriate to the zealous defense of ideological materialism than it is to advancing the genuine researches of ground-breaking scientists.

Things are even clearer when it comes to natural kinds and generic truths about species. If we accept scientific realism of any form, we cannot deny that some generics are true. (Even more strongly, if we accept *any* form of conceptual knowledge, we are probably implicitly already committed to the truth of some generics, for much of our conceptual knowledge consists in generics.[56]) Animals, plants, and all living things belong to species, and our knowledge of them consists of generic truths about not just individuals but that species. A species involves a defined range of potential attributes that normally come to be actualized over time. An individual hemlock tree may or may not shade any fish in any rivers, but it may in time; or it may never do so, but it is still a scientific insight that that is one thing 'hemlock trees' in general do. Compare with Thomas Nagel's point that some "laws of nature would apply directly to the relation between the present and the future."[57]

Hence, to reject *all truths* about natural kinds, I contend, is to reject the best scientific deliverances of our best scientific evidence. As Perlman says, "It is surprising that analytic philosophers, with their strong focus on science, would reject a notion that is so central to some areas of science, most notably, biology and engineering sciences… Biology cannot, or at least in practice does not, eliminate functions and purposes."[58] The great cost of throwing out generics *as a class* threatens to throw out a huge percentage of scientific statements in biology, organic chemistry, anthropology, psychology, sociology, economics, anatomy, and medicine.[59]

56. Prasada et al., "Conceptual Distinctions Amongst Generics."
57. @ Nagel, *Mind and Cosmos*, 93.
58. Cosby, "The Modern Philosophical Resurrection of Teleology," 6.
59. We must not forget that the term 'science' is an abstraction. The only real thing is scientists and their statements. Scientists disagree, and some of their statements are proven false by

Reduce

The second path is to accept natural teleonomic behavior and even the appearance of natural teleology, natural functions, etc., but to *reduce* these phenomena to less intimidating, mechanical, Laplacian terms.

Arguing for or against teleoreductionism has become a cottage industry.[60] It is impossible to do justice to the complexity of the dialectic here. I will content myself to note, and critique, two popular forms of reduction: the first reduces biological functions to causal contributions to a system and the second reduces teleonomic biological functions to naturally selected effects. A proponent of the first reduction is Donald Davidson. A proponent of the second is Ruth Millikan. For example, Ruth Millikan argues that an organism's proper function simply cannot be "read off" its capacities at present but must be known via empirical history. Her theory entails the unpalatable conclusion that an organ that is otherwise physically identical to, say, a heart, that was magically apparated into existence would not have a "proper function". She bites the bullet on this.

Reply

James Barham argues that neither of these forms of reduction is very promising: "In a nutshell, the problem is that neither theory can explain the normative character of biological processes in a coherent manner."[61] The problem with the "causal-role" reduction of teleonomic phenomena is that in order to even posit a hypothesis about how some parts of a system contribute to the achievement of its end or purpose, we must identify *in advance* which parts of the organism play a role in bringing about the end or purpose. But if we already know the causal contribution of those parts, what more could we learn by positing the causal-role theory? James Barham elaborates:

> With respect to the "causal-role" theory, there is no way to distinguish between functional and non-functional parts of a biological system without presupposing the nor-

the research of other scientists.

60. Cf. ibid., sec. III; and Barham, "Teleological Realism in Biology," chap. 3.

61. James Barham, "Confessions of an Atheist Darwin-Doubter" (Web; Evolution News, 2012), `http://www.evolutionnews.org/2012/05/confessions_of059861.html`.

> mative character of the overall system as a whole – which begs the question at issue.

As regards the second form, Thompson insists that judgments about natural teleology are made true from the form of life under question, not from "hypotheses about the past."[62] Barham agrees. He says:

> With respect to the "selected-effects" theory, the problem is that selection history is conceptually irrelevant to the identification of function. True, it has a role to play in explaining how present-day functions have come to exist. But selection history cannot possibly explain what it is about a biological process that constitutes it as a function… The reason is that our concept of function in no way depends on evolutionary history. If it did, then biologists like Aristotle, Galen, Harvey, and innumerable others who lived long before Darwin would not have had the means to identify the functions of organs, which they of course did. Sometimes, they got it wrong, as when Aristotle placed the seat of perception and thought in the heart, instead of the brain (though some of his predecessors got it right). But Aristotle's mistake was due to his inadequate knowledge of physiology, not to his ignorance of evolution.

If neither forms of 'teleoreduction' are likely to account for the normativity of the biological function in question, then it is a fundamental truth not only that hearts cause blood to be pumped but that hearts *are for* pumping blood – that is their natural function. And that is just the hypothesis Barham argues is the most likely:

> In a series of important articles and books over the past decade or so [many authors]have cast grave doubt on the coherence of any reductive analysis of function. Some of these authors (e.g., Jacobs, Maund, Zammito) call explicitly for a reconsideration of the possibility that teleological phenomena in biology might be both objectively real and irreducible.[63]

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62. Cf. Thompson, "The Representation of Life," 293. Toner adds that judgments about natural teleological facts are made true regardless of the origin of the facts, "whether about creation or natural selection." (Toner, "Sorts of Naturalism. 223.) This seems right to me. It does not matter for present purposes *how* the function came to be, just whether or not it really *is* at present.

63. Barham, "Teleological Realism in Biology," 10. Barham cites: Bedau (1990, 1992a, 1992b, 1993), Cameron (2004), Christensen & Bickhard (2002), Jacobs (1986), Manning (1997), Maund (2000), McLaughlin (2001, 2009), Mossio et al. (2009), Mundale & Bechtel (1996), Nanay (2010), Nissen (1997), Perovic (2007), Walsh (2006).

Accept as is

The third option is to accept that some natural facts are intrinsically normative, irreducible, natural facts. Although the very word 'teleology' is liable to sound quaint to modern ears, Barham has argued that 'teleological realism' is a rationally permissible view to take on biology.[64] Teleological realism in biology is making a come-back. For instance, Arnhart persuasively argues that teleology is assumed in medicine.[65] Zammito clarifies ongoing relevance in biology, since organisms seem to be intrinsically purposeful.[66]

Thomas Nagel is a third who has followed out the argument for natural teleology from a much broader, cosmic perspective, though he too denies that the cosmos is like an orchestra being played.[67] Though Nagel took a lot of heat for his argument, Michael Chorost's review of *Mind and Cosmos* reminds readers that natural teleology is not so scientifically heretical as it might first seem. He says:

> Natural teleology is unorthodox, but it has a long and honorable history. For example, in 1953 the evolutionary biologist Julian Huxley argued that it's in the nature of nature to get more advanced over time. "If we take a snapshot view, improvement eludes us," he wrote. "But as soon as we introduce time, we see trends of improvement."… [the furthermore] paleontologist Simon Conway Morris, at the University of Cambridge, has argued that natural structures such as eyes, neurons, brains, and hands are so beneficial that they will get invented over and over again. They are, in effect, attractors in an abstract biological space that pull life in their direction. Contingency and catastrophe will delay them but cannot stop them. Conway Morris sees this as evidence that not only life but human life, and humanlike minds, will emerge naturally from the cosmos: "If we humans had not evolved, then something more or less identical would have emerged sooner or later."[68]

64. Ibid.

65. Arnhart, "Aristotle's Biopolitics."

66. John Zammito, "Teleology Then and Now: The Question of Kant's Relevance for Contemporary Controversies over Function in Biology," *Studies in History and Philosophy of Science Part* 37, no. 4 (2006): 748–70.

67. Nagel, *Mind and Cosmos*.

68. Michael Chorost, "Where Thomas Nagel Went Wrong," *Chronicle of Higher Education*, 2013. Chorost argues that Nagel did not "go wrong" in his thesis but in presenting it philosophically without engaging the support from relevant scientific literature.

If scientists can countenance natural normativity via natural teleology as respectable, we philosophers not do the same? Certainly natural teleology is out of fashion; but the winds of intellectual fashion blow hither and yon, and we may yet discover that Aristotle was right.[69] Either way, philosophers of various schools (metaphysicians and ethicists) would do well to dialogue with biologists and cosmologists to come to grips with the possibility that our best evidence suggests that nature is normative.

Conclusion

The goal of this chapter has been to meet the **Bald Nature Challenge to Ethical Naturalism** stated above, and to clear away the **Scientific Facts** and **Teleological Nihilism** objections. The challenge, recall, was this:

1. If ethical naturalism is possibly true, then some facts are genuinely both natural and normative.
2. But no facts are genuinely both natural and normative.
3. Therefore ethical naturalism is not possibly true.

The conclusion we have drawn is that indeed *some* facts – especially facts about living things – are both natural and irredicubily normative. These are natural formal and functional or teleological facts about natural kinds and about living beings. Such facts are expressed in perfectly respectable scientific judgments we have called "generics" but may also be called "Aristotelian categoricals", "natural-historical judgements", "norms", "bare plurals", etc. Generics like these render it at least *possible* to conclude the the scientific picture of nature includes normativity in the form of natural teleology. If true generics could be stated about human beings, then it is conceivable we can use them as a basis for ethical theory.

Of course, I have not yet tried to show *which* true generics about humans can serve as the basis for ethical theory. All I have tried to show is that *some* of these generics are true. By denying the consequent, we are not necessarily affirming the antecedent. That affirmation requires another step,

69. Johnson, *Aristotle on Teleology*.

namely, to apply the above argument to human beings. The argument that will help us transition from generics about the biological world in general to generics about human beings and which may provide the basis of normative *ethics* is this:

Human Normativity

1. On ethical naturalism, all generics can be used as premises in arguments with normative conclusions.
2. Some true generics are about humans (there are some human natural norms).
3. Therefore, some true generics about humans can be used as premises in arguments with normative conclusions.

Establishing premise 1 has been our task in this chapter. Establishing premise 2 is the task for the next chapter.