

2

Moral Causes

The Role of Physical Explanation in Ancient Ethics

Brad Inwood

Departments of Classics and Philosophy, University of Toronto

“Happy is he who was able to learn the causes of things!” (*felix qui potuit rerum cognoscere causas*). So wrote Virgil in the *Georgics* (2.490), his didactic poem written partly in emulation of Lucretius’s great work of Epicurean poetry and explanation, *De Rerum Natura* (*On the Nature of Things*). Seneca the Younger, partly in emulation of Virgil and of Lucretius, wrote a long work about explanations of natural phenomena, the *Natural Questions*, an original adaptation of a genre of scientific writing firmed up in the Aristotelian tradition but having its origins among the Presocratics. In the preface to what we know as book 1 of the *Natural Questions*, Seneca too writes with enthusiasm and at some length about the relationship between happiness and knowing the causes of natural phenomena. He expresses profuse gratitude to nature for making available insights into the unapparent truths that underlie observable phenomena (*secretiora eius intravi*, 1 Pref. 3), and he claims that without access to natural philosophy, human life would not be worth living (1 Pref. 4). The *felicitas* of which Virgil writes also represents the highest goals of human nature, that happiness which ancient moral theory had long regarded as the *summum bonum* of human life.

These are perhaps particularly dramatic and hyperbolic expressions of the notion that knowing causes is a vital component of the happy life. Why, we might ask, should knowing causes be one of the secrets of human happiness? Many reasons could be given. Epicurus certainly

held that knowing the causes of things was an instrumentally necessary condition for happiness: you need to know that there is no consciousness after death and that the gods do not punish humans in the afterlife; you need to know that human nature is fully satisfied by freedom from pain. And such knowing requires a grasp of the real causes of things, to the extent that it is attainable.¹ Despite a few signs of cultlike loyalty to the words of the master, Epicureanism requires an authentic understanding of the real nature of things if tranquility is to be achieved. Without such an understanding, our conviction that death is nothing to us will be hollow and will leave us unmotivated to do and feel the things we must do and feel in order to live the best possible life.

Aristotle and others, including Academics like Cicero, had a more robust view: they thought that human nature is built for knowing things and so can only be fully satisfied if it achieves a grasp of causes. The *locus classicus* for this sort of view is probably the opening of *Metaphysics A*. All men by nature yearn to know, and the complete actualization of our natural capacities is, in Aristotle's view, our telos. Since true knowledge involves a grasp of the *why* and not just the *that*, that is, since it involves grasping principles and causes (*archai, aitiai*), Aristotle's assumptions about human nature entail that knowing causes is at least a formally necessary condition for complete happiness.² Reflection upon such causes and explanations is the sort of activity that brings us the greatest and most consistent attendant pleasure as well, since the greatest pleasure accompanies the best exercise of our highest capacities. As for Plato, if Forms are the causes of things, then in *Republic 7* we see that the greatest satisfactions derive from active engagement with causes and explanations — that is why the philosophically adept guardians must be compelled to return to their duties in civic life.

Cicero embraces this conception of human nature, as is evident in the account that Cato offers on behalf of the Stoics in *De Finibus* 3. In sections 17 and 18 Cato goes beyond the account of pre-rational attachments found in other versions of the Stoic theory of *oikeiōsis*³ to include a fundamental commitment to learning and truth that seems to be put on a par with the basic drive to self-preservation and self-enhancement singled out in other Stoic sources (LS 57). No explicit mention is made of grasping causes here, but there can be no doubt that it is part of the conception of knowledge he has in mind. In the *De Officiis* (1.11–13), when outlining the foundations in human nature of the four cardinal virtues (perhaps on the basis of Panaetius's version of

Stoicism), Cicero emphasizes not just that human nature differs from that of animals because our rational capacities enable us to be more effective in managing our lives because we can learn the causes of things (which enables us to manage the future better), but he also makes dramatic claims about an intrinsic human drive for knowledge for its own sake (1.13):

The most important characteristic of human beings is the searching pursuit of truth. And so whenever we are free from unavoidable business concerns we are eager to see, to hear or to learn something, and we regard the understanding of facts—either hidden facts or awe-inspiring facts—as essential to living happily. From this we can grasp that what is true, straightforward and transparent is most suited to human nature.

This innate human drive for understanding natural phenomena and their hidden causes is termed a “lust for seeing the truth” (*veri videndi cupiditas*). Panaetius is often thought to represent an opening up of Stoicism to the influence of Aristotle and Plato, as indeed is Posidonius, the familiar of Cicero who was described by the Stoicizing geographer Strabo in his *Geography* (2.3.8) as deeply engaged with a pursuit of *aitiologikon* and as being chock-full of Aristotelian inclinations.

Seneca, perhaps following Platonic as well as Stoic and Aristotelian influences, puts enormous emphasis on the way that natural philosophy fulfills our nature because it connects us with the divine, which is in his view a key component of human nature. The passage from the *Natural Questions* cited above makes this point with considerable emphasis, but the idea emerges again very sharply in other places, such as Letter 65. Like Cicero in *De Officiis* 1.19, Seneca (Letter 65.16) also emphasizes the need to be careful about descending into pointless and self-indulgent detail;⁴ but provided that caution is observed the benefits of investigating causes are enormous.⁵ First, it provides a kind of respite for the mind: such issues “elevate and relieve the mind, which, being burdened by its great load, desires to be set free and to return to the things it used to be part of.” Philosophy “comes to it and urges it to take its ease before the sight of nature and directs it away from what is earthly and towards the divine.” In the paragraphs that follow, Seneca associates the investigation of causes with the satisfactions of orienting ourselves toward the mind rather than the body. For Seneca, the mind links us with god and the divine and in an important sense constitutes our true nature.⁶ Using our mind to investigate the natural world is not

just a recreational pleasure for Seneca, it is a fulfillment of our natural potential, just as much as it is on Aristotle's view. The heavy theological tinge that this notion takes on in Seneca owes much to Plato, no doubt, but even this feature is not foreign to Aristotle. Though there are marked differences in degree, Aristotle, Plato and at least some Stoics do converge on the notion that human happiness depends on the fulfillment of a key aspect of our human nature, its explanation-seeking component.⁷

Another aspect of causal knowledge according to the Stoics that bears on the questions of this paper is the broad and systematic notion of causes they adopted. First, in contrast to Aristotle (whose four causes are present systematically throughout his scientific works), the Stoics held that strictly speaking there is only one cause, the rational structuring force that they identified with reason, nature, and god. In Letter 65, Seneca contrasts the simplicity and power of the Stoic theory with the inelegant complexity of both Aristotle's four-causes theory and the even more complex theory he attributes to Plato. For Stoics, the cosmos was divided conceptually into the active and the passive, cause and matter. Despite the enormous variety of its manifestations, there is a single rational plan and structure in the causal structure of the world, and this evidently made it quite inviting to identify this causal structure with a rational god, following the inspiration of Plato's *Timaeus*. The Stoics were also determinists, holding that every event is determined by antecedent causes and that the history of the cosmos is a tightly interlocked network of causes and effects. Hence for Stoics, even more than for their Platonist and Aristotelian colleagues, knowing causes involves knowing god (Inwood 2005, chapter 6).

For many philosophers in the ancient world, grasping natural causes is critically important for human happiness. More could and should be said about how this was thought to work.⁸ But here I want to approach this conjunction of themes from a different point of view, from the point of view of a deep and as yet unresolved problem in our understanding of ancient moral theory, the branch of thought charged with sorting out the conditions for human happiness. This problem grows out of a marked tendency among ancient theorists to hold that at least some facts about the natural world play an important role in the determination and justification of decisions that should be made and actions that should be taken. Whether it is Aristotle's alleged attempt to elicit moral principles from the claim that human beings have a natural

function, or the Stoic claim that the happy life consists in “following nature,” or any of the other naturalistic claims made in ancient moral theory, the notion that some facts about nature are determinative of what we human agents should do (or, less tendentiously, of what is pertinent to the investigation and practice of ethics) has a tendency to raise eyebrows, problems, and hackles.

To get a crude sense of why this should be an issue at all, let us return to the point raised earlier. Knowing causes, it is claimed, is a key to human happiness or to the success of a human life just because our nature is such that aetiology is a necessary condition for maximal fulfillment in life. This fact about nature, if it is a fact, might well explain why it is that human beings so often do prefer to spend their time doing scientific research and coming to know the causes of things. But how can it show that this is the *right* thing for us to do? Perhaps it only shows that we *like* this sort of thing. And unless one is a hedonist, how can this constitute a justification for doing so? This fact explains why we have the motivations we have but does not tell us whether these are the motivations we should have. If there is something else we should be doing, we, like Plato’s guardians, would have to be compelled somehow to do it. (The irony here is that the only frank hedonist in the ancient world who took an unambiguous view on this question was Epicurus, and he regarded *phusiologia* [the study of nature] as being of merely instrumental value: knowledge of nature helps us to attain pleasures distinct from learning or contemplating facts about nature.)

A related concern is that if we look at human nature and its relationship to knowledge of nature in this way, we are left with precious few resources for convincing someone who claims *not* to like doing scientific research that this is in fact part of the path to happiness.⁹ Even if I am convinced that my nature will be fulfilled by such activity if I give it a try, why should I do that? Is fulfilling that part of my nature (achieving that form of *eudaimonia*) really what I ought to do? What if I just don’t like it, although I am aware that it somehow counts as my fulfillment? Yet some ancient thinkers clearly thought that one ought to be able to do just this for all intellectually normal agents: Aristotle claimed that all men yearn to know and used this to justify quite general, species-level claims about what is maximally fulfilling for human beings. He did not say merely that he and Eudoxus and their friends were right to live the life they chose because they personally found it rewarding.

It does not take a complex analysis to show that these issues could

pose a serious problem for ancient moral philosophers. We have seen already that both Cicero and Seneca hedged their recommendation of aetiological activity with the warning that it not be self-indulgent. Aristotle too, who held that our goal in life was the maximum actualization of excellent natural capacities, needed to develop a relatively sophisticated view of the relationship between such unimpeded activity and pleasure, on pain of seeing his own view assimilated to the hedonism of his friend Eudoxus. Plato too had to rein in his philosophical guardians — their obligation to civic service is the just or right thing to do (the thing they *must* do if they are to heed the arguments of justice), but the attractions of philosophical investigation could apparently hinder that obligation.

Partly in reaction to some optimistic attempts to claim that ancient eudaimonism embodies a coherent theory that somehow manages to avoid the conflict between pursuit of natural fulfillment and doing what is *right*, Nicholas White has recently argued (2002) that we cannot straightforwardly assume that the fulfillment of our dearest natural inclinations just is the right thing to do. He amasses considerable evidence that many ancient moral theorists acknowledged a tension here. Though White might deny it, even the Stoics (in some ways the villains of his story) were aware of the risks. According to Plutarch, for example, Chrysippus went on the offensive and identified a life of investigative excess with a form of hedonism:

Those who suppose that the ‘scholarly’ life is most suitable for philosophers seem to be wrong right from the beginning, insofar as they are assuming that they ought to do this for the sake of a kind of leisure or something else of the sort and so to drag out their whole life in roughly this manner — that is to say, if the matter is examined clearly, in pleasure. For their assumption should not be overlooked: many of them say this clearly and no small number say it somewhat indirectly. (SVF 3.702 = *St. Rep.* 1033d = LS 67X)

Merely doing something that fulfills something important in our nature and so gives us maximal satisfaction cannot be and was not regarded as doing the right thing. Evidently we do have some obligations that have purchase on us over and above the attractions of doing what fulfills our natural inclinations, even our scientific and scholarly inclinations.

White has emphasized the challenge that such conflicts can pose to a strongly eudaimonistic interpretation of ancient ethics, one which holds that the fulfillment of human nature straightforwardly settles the

issue of what the right thing to do is. Plato and Aristotle, he claims, do accept that eudaimonistic considerations can be constrained by claims of justice and fairness. It is the Stoics, in his view, who did the most to set up their moral theory so that what we might call the claims of rightness are *subsumed* within a eudaimonist framework. The way that they purport to do so raises the toughest of questions about the relationship between happiness, understood on the naturalizing, eudaimonistic model, and doing what is right.

The Stoic project of aligning the fulfillment of our human nature and doing what is right is complicated, no doubt.¹⁰ One major source of complexity is the Stoic view about the relationships among the parts of philosophy. As Emidio Spinelli has emphasized, the Stoics divided philosophical discourse into three parts—logic, physics, and ethics—but they also stressed the close interdependence of those parts.¹¹ And the Stoic views on the parts of philosophy were in fact importantly different from those of other schools. Aristotle’s followers, for example, treated logic as a “tool” for philosophy, an *organon*. Epicurus did not recognize logic itself but combined it with an epistemology of science which he termed “canonic.” Plato’s dialogues do not readily invite the division of philosophy into parts, but his followers (starting with Xenocrates, who inspired the Stoics) did divide it into three parts for pedagogical purposes.

The views of Chrysippus, as reported at Diogenes Laertius (*Lives of the Philosophers*, hereafter D.L., 7.87–88), show pretty clearly what the stakes are for those with an interest in how causal analysis of the natural world relates to moral theory. In book one of *On Goals* Chrysippus took the view that “living in accordance with virtue is equivalent to living in accordance with experience [*empeiria*] of what happens by nature [*tōn phusei sumbainontōn*],¹² for our natures are parts of the nature of the whole.” Whatever it means to live by this kind of experience, it is supposed to amount to doing what is right. And that would seem to mean that our relationship to facts about the causal order, about nature, *determines* something important about virtuous living for humans. In a similar vein, Cleanthes in his *Hymn to Zeus* asks that human beings be rescued from that lack of experience (*apeirosunē*) which threatens their well-being (SVF 1.537, line 33). It would be economical to suppose that he has something similar in mind about the nature and importance of experience.

This dictum, like any explication of the telos, is important for our

understanding of Stoic ethics and its relationship to physical theory. It is obvious that this “experience” is no mere empirical knack (*tribē*) of the sort stigmatized in Plato’s *Gorgias*, but rather a serious grasp of how things work in the natural world. The understanding of the way the natural world works that Chrysippus intends when he uses the term *empeiria* in this context entails a grasp of the vast and seamless network of cause and effect that the Stoics termed “fate” and “providence,” and that they held in some sense to be equivalent to god and nature itself. Whatever else “experience” may mean for the Stoics (and there are other uses of the term attested for the school; see below) the “experience” of what happens *by nature* must be a grasp of the causes which make the world work in the orderly and providential way that, in their view, it does work.

It is clear, then, that the chief theoretician of ancient Stoicism is committing himself to the view that living in accordance with a sound causal analysis of the natural world *just is* living virtuously. This, at first sight, is a bizarre claim. How can knowing what nature is up to and how she works make anything the *right* thing for us to do? Epicetetus (*Diss.* 2.6.9) reports a claim by Chrysippus that *if* he knew that it was fated for him to be ill (i.e., that it was a naturally caused part of the world’s order) he would not just acquiesce in but positively embrace his misfortune. This stance is often thought to follow from supposing that knowing how natural causation operates determines what is right for human beings. But critics of Stoicism balk at this, not unreasonably. And even its sympathizers need to develop a view about how this relationship is supposed to work.

What is it about understanding the ways of nature that not only makes us happy but makes us virtuous? An easy answer is suggested by the text of Diogenes Laertius we have been considering: since our nature is just a part of Nature, natural philosophy can be considered as a form of self-knowledge.¹³ And self-knowledge is certainly a traditional requirement for living a virtuous life. But a necessary condition is not identical to that for which it is a necessary condition, and Chrysippus is claiming here that living according to experience of the causes in the world is *equivalent* to living virtuously, not just necessary to it. So this cannot be the whole answer. Further, if the real work here were being done by the thesis of the identity of natures, then this claim is still incomplete. For it is not at all obvious in what sense our nature is a part of cosmic Nature. We would have to be parts of Nature in such a way

that we share those essential features of Nature that ground claims about virtue, and to explain how this is so, a great deal more work would need to be done. What is it about Nature that contributes to our virtue? Why is being *part* of Nature enough, if Nature is an independent source of value? And why, most importantly, is it an *experience* of what happens by Nature that matters?

My suggestion will be that the key to answering such questions in a reasonable way would be the adoption (and adaptation) of a rich and broadly *Aristotelian* notion of explanatory understanding.¹⁴ In exploring this option I will be setting aside what was probably the Stoics' primary response to the problem. They, no doubt, would have relied in the first instance on the theological claim that the world is providentially ordered, that its causal structure is teleological in a way that helps to account for its motivational as well as its justificatory power. But in my view the Stoic commitment to rational justification requires a deeper account. For even if one grants the truth of the Stoics' cosmology and theology, it is still not obvious that the questions posed are thereby answered, as we shall see. After all, even Plato's guardians, fully educated in philosophy and committed to the reality and foundational character of the Forms, need some further compulsion in order to be motivated to do what is right. The Stoics need something more than a general invocation of their providential cosmology (with its privileged role for rational agents) if they are not to find themselves as conflicted about their obligations as Plato's guardians. Merely pointing to the cosmological theory does not solve the problems of moral motivation and moral justification in Stoicism. Stoicism founders, in the eyes of some critics, in part because following Nature, assimilating ourselves to it, seems to miss the point of the problem with which they are legitimately concerned. Even if we really are parts of Nature, even if Nature is a source of value, even if the fulfillment of our own nature must be cast in terms of our relationship to Nature, even if all that is so, why is that *virtuous*? How can it be virtuous merely to accept and live within the constraints of this brute fact?

One very deep and stubborn intuition about morality was captured succinctly by Julia Annas (1993, 160–61), who claimed that “to define virtue as conformity to some standard which is defined in ways that are external to the basis of virtue is to reduce virtue to something else: that is, to fail to do justice to the moral viewpoint.” The fundamental intuition here seems correct; if virtue is conformity to some standard (and

the Stoics did define it that way), then this standard ought to have something germane to virtue about it. How can nature or “what happens by nature” be like that? Virtue for the Stoics is a disposition of the human mind, and whatever standard external to our mind it might have, there has to be some way to connect that standard to us if it is going to be relevant to human virtue. The formulation “living according to nature” fails to satisfy in part because of the stubborn vagueness of “according to.”¹⁵ But there are bigger problems. In Annas’s view, any ancient ethical theory can only be “moral” (and so address the issue of what is right for us to do) in a sense that we can still recognize if it preserves an appropriate relationship between the agent and the standard of morality. Here is how she puts the point (Annas 1993, 161):

For, as we have seen, ancient theories are eudaimonist in form. Ethical theory begins from reflection on the agent’s final good and how this is to be made determinate in a way which will enable the agent to make sense of her life and correctly order her priorities. The appeal to cosmic nature [what seems to be at issue in Chrysippus’s formulation], however, does the opposite of what is required; it pulls the agent away from the kind of attachment to her own concerns which is needed for useful reflection on her final end to be possible. Suppose I did come to have a definite conception of cosmic nature and its demands on me; this would still not be relevant to any of the concerns I need ethical theory for, until endorsed by reflection from the relevant point of view. But that point of view is the agent’s point of view on his own life as whole and how best to order his priorities.

It seems from this that in eudaimonism as Annas understands it, ethical reflection must *begin* from the point of view of the agent and revolve essentially around the task of putting in order his or her life. The ultimately justificatory point of view is that of the agent concerned with the good state of his or her own life as a whole rather than with Nature. Of course the conception one has of that good state is subject to change through appropriate experience and deliberation, and we might come to see that for some reason cosmic Nature settles some of these issues for us. But it seems hard to see just how that would work.

Annas’s way of thinking about the standard to which we appeal in making virtuous action part of our life has at least one major advantage. Insofar as the standard is involved with our own deliberative approach to our own lives, we won’t have to ward off the worry that the standard for what is right in our lives is unconnected to us. What-

ever difficulties this kind of foundation for virtuous living might have, moral alienation is not one of them. Annas's proposal to interpret Stoicism along these lines may still be controversial — the jury is out on whether her solution to the risk of moral alienation comes at the cost of the primary evidence — but the requirement she laid down for a position to be ethical or moral has been less problematic. Those who have criticized her characterization of Stoicism have had the option of conceding that she has successfully characterized what makes a theory moral but then claiming that we should be neither surprised nor disturbed if that means that Stoicism was philosophically foreign to us and so of merely historical interest, and that the features we identify with a moral stance are absent from it.

But that would be a pretty desperate refuge, both because of the persistent role played by Stoicism in our philosophical tradition as a paradigm for *moral* rigorism and because of what we know about Stoicism itself. Stoics (and even Epicureans for that matter) hold that a person cannot be happy unless he or she does the right thing (*to dikaiōn*), and does so knowingly, from a stable disposition that also structures that person's life as a whole. For Stoics, human happiness depends on doing appropriate actions (*kathēkonta*) and doing them in the special way that makes them right actions as well (*katorthōmata*, see SVF 3.510). In Stoic eyes, in order to be happy we need a connection between the standard for virtue outside ourselves and the character or mind whose disposition is virtue. It is this connection which White claims the Stoics illegitimately built in to their naturalism. My suggestion will be that the connection they posited is, at least in its aspirations, more interesting and robust.

To find what it might have been, we should look to the fact that Chrysippus (and probably Cleanthes, too) thought that just this kind of connection could be supplied by a proper sorting out of the cognitive relationship we have to this standard. Resort to the notion of experience, *empeiria*, of what happens by nature seems to be their attempt to address the problem of connection in a way that answers to Annas's concerns and White's criticism, at least in part. The attempt may be unclear so far, and in the end it may fail. But it was a genuine effort to bring what we would call the philosophy of science — or at the very least, an epistemological theory — to bear on a key issue in moral theory.

Simpler answers could probably have been given, and no doubt

were regarded as part of the answer by some ancient Stoics. The Stoics could have relied solely on some simple theological route to a solution. If nature is god and god is a standard for morality, then perhaps we just have to do what god wants. Or if nature is orderly and we have the sense of order in us, then perhaps our obligation is to admire that orderliness and develop it in ourselves as well; thus our commitment to doing what is right would be derived from our commitment to order and symmetry, a precarious foundation for virtue (Inwood 2005, 279–80). But Chrysippus, I think, saw that these simpler solutions would not suffice. It isn't just nature we look to, but the things that happen by nature. And we don't just follow it or live in accord with it, we live according to our *experience* of it when we live virtuously, when we do the right thing from the right kind of disposition. Chrysippus seems to be grappling with the problem at a deeper level than is supposed by those who think that Stoicism is content with short-circuiting serious questions about morality by invoking Nature. And I'd like to think that the kind of conformity to experience of how the world works that he has in mind is not just a matter of coming to understand the world well enough to knuckle under to the brute constraints it imposes; there is too much other reason to think that the Stoic intuitions about virtuous action actually do address questions that can still legitimately be thought of as issues of morality.

An account of moral motivation that invokes external facts, even theological facts, about the natural world is insufficient on its own to justify the Stoic claim that their theory grounds morality. Perhaps the best recent reconstruction of this aspect of Stoic ethics has been given by Michael Frede (1999). Basing his account largely on Cicero's outline in book 3 of *De Finibus*, Frede describes the good as something we come to see and be attracted to in a natural way when we recognize the orderliness and consistency inherent in a pattern of action in accordance with nature, reflection on which is "supposed to lead one to the recognition of the stunning ingenuity and wisdom with which this pattern of behaviour was set up." According to Frede, the Stoic view "must be that the reason we have to do what nature means us to do is that it is optimally rational to act in this way and that acting in this way for this reason constitutes what is good and what singularly attracts us" (Frede 1999, 83–84).

This attraction is not, Frede claims, based ultimately on a concern to perfect our own rationality. Rather, the standard is external: we are

“attracted by the sublime rationality of the world,” an attraction that seems to lead to a desire to replicate this pattern in one’s own actions, but that is rooted fundamentally in an appreciation for the order of nature (Frede 1999, 84). Such a pattern of behavior is “beneficial,” in Stoic eyes, but more importantly it is *kalon*, beautiful or fine (Frede 1999, 87). This is a highly intellectual conception of the good, but not “the moral good, at least not as this is generally conceived of.” The appeal of nature’s completely admirable design stems from “a notion of the good which corresponds to Aristotle’s notion of intellectual virtue,” only richer (according to Frede 1999, 89).

This is *not* an account of moral motivation in the sense we are interested in; the link to rightness and so to virtue is tenuous at best. It turns out to be a brute fact about our nature that assimilation to the perfection of the cosmos is *good* for us. The idea is that humans are incomplete until they achieve this similarity to the divine. To be sure, the Stoics do not hold that we need a divine command to tell us to conform to the plan of the cosmos, but the effect is much the same.

If conformity to divine orderliness were a matter of obeying a divine command, we might find it hard to imagine the line of thought that would bring such an external fact to bear on our lives in a way that does not conflict with a sense of rightness. A fear of divine punishment could make pleasing god one of my key motivations, but if it were nothing but fear of divine power that motivated me, that wouldn’t seem *right*. Such a motivation would not be moral in the sense that we have been using the term. But neither is the Stoic theory as Frede reconstructs it, if only because on this theory our nature is somehow meant to be improved by conformity to an external standard, independently of the demands of moral rightness. Moreover, this account of goodness depends completely on our ability to convince ourselves of the theological and anthropological claims underlying this notion of the good; it is dependent on theological assumptions as is the Platonizing requirement, based on the *Theaetetus*, that we make ourselves similar to god, *homoioōsis theōi*. Even if the assumptions about human-divine relations made by this account are accepted, it still leaves us with no defense against the charges that the attraction is essentially intellectual rather than moral, and that there is no clear argument in favor of the claim that what is intellectually orderly and thus attractive to us will yield what is right.¹⁶

If our relationship to divine nature is not enough to ground virtue

and so to guarantee happiness, we need to ask how nature as a source of value comes to be binding on us rather than merely attractive to us. For if it *just is* binding and we don't in any way acknowledge that bond for ourselves (as right, rather than as merely attractive), if we obey it as a requirement independent of how we think it is connected to our thinking about what we should do, then it must be seen as a form of tyranny to which we submit, certainly not as an expression of virtue. No matter how compelling in some sense such a requirement might be, we cannot see complying with it as an act of virtue unless we see it as something we choose for ourselves in the appropriate way. There might be many reasons to obey a tyrannical deity, to conform to a cosmic nature, or even to conform to our own nature that we somehow discover by careful scientific study. But if it *just is* binding and we come to accept it for that reason alone it cannot be an expression of virtue.

I began from a concern about how knowing causes in a scientific sense can make us happy. I have argued that an answer based on intellectual hedonism or on the claim that the explanation-seeking component of our nature is dominant (so that any life which fulfills that part of our nature will count as happy) is not adequate, either to our own sense of morality or to the evidence for ancient thinkers. I have been suggesting that a suitable interpretation of Chrysippus's "experience" formula would go a long way toward addressing reasonable concerns about the invocation within ethics of cosmic (or even human) nature by the Stoics or perhaps even of the function argument by Aristotle (Annas 1993, 144). If we can see that there is a good account of how our grasp of these facts about nature can connect this independent standard with our own deliberations and dispositions, then we have at least a partial answer to Annas's critique and (more importantly) a demonstration of one way, at least, in which an understanding of the causes of the nature of things can help to shape, if not to ground, our moral insights.

That the Stoics at least believed that such an account existed seems clear. I have myself tried to argue for this view of their theory of action and deliberation in two papers, which, I now see, need to be read together: "Rules and Reasoning in Stoic Ethics" and "Reason, Rationalization and Happiness in Seneca" (chapters 4 and 9 of Inwood 2005). The first attempts to show how deliberation brings to bear on our decisions to act the general propositions about the nature of the

world encapsulated in *decreta* (moral principles) via rules of thumb that Seneca calls *praecepta* (moral instructions). The second argues that this project could be and was carried out by the Stoics in intellectual good faith. Since the *decreta* include many basic principles of Stoic physics, such as holism, rational teleology, a part-whole understanding of the cosmos, and the natural foundation of human sociability (Seneca *Ep.* 95.52–3) and since it is specifically noted that *decreta* are the sorts of things that even purely theoretical sciences can have (Seneca *Ep.* 95.10), if they can be connected to our immediate moral deliberations by good-faith rational procedures we have, I think, a pretty clear example of the sort of thing we need.¹⁷ We get a clear sense of a similar position in Cicero’s *De Finibus* 3.73:

Physics too not unreasonably has earned the same distinction [being named a virtue], precisely because anyone who is going to live consistently with nature must start out from the cosmos as a whole and the providential care taken for it. Nor can anyone make true judgments about what is good and bad except on the basis of a knowledge of the nature and life of the gods too and of whether or not man’s nature is congruent with that of the universe. No one can see the significance (and it is very great) of the ancient precepts of the sages . . . without physics.¹⁸

If the Stoics are going to rely on some such understanding of the relationship between understanding nature and the good life, they will need to have a conception of a scientific understanding of the causes of things in nature that is robust enough to meet certain demands. It will have to be the kind of grasp of causes which can make facts about nature relevant to our mind and character, that is, which can connect the understanding of nature with our thinking about what is the right thing to do. A conception of scientific understanding that met this standard would make the considerations about acting and living that rest in some way on external facts about nature into considerations that can and should shape our intellectual dispositions.

When casting about for an example of such a grasp of causes, the most familiar and plausible model for most students of ancient thought would come from Aristotle. On Aristotle’s conception of the way in which we understand nature we cannot claim to *know* until we grasp the “because” and not just the fact, the *dioti* and not just the *hoti*. The *Posterior Analytics* makes it clear that simply grasping the facts is not “science”; one must, in the relevant way, grasp the explanations or the causes. The reason why—however conceived—is essential to the ac-

quisition of understanding. And that is how Myles Burnyeat (1981) argues we should translate the term *epistēmē*, as “understanding.” I cannot do justice to Burnyeat’s richly elaborated discussion of Aristotelian understanding here.¹⁹ But his conception of the purpose and nature of Aristotelian scientific understanding addresses needs quite similar to those we meet in examining the Stoic theory. Aristotle wants, according to Burnyeat, to achieve and then to impart *conviction*, not just information. It demands, therefore, demonstration through the actual reason why, not just induction that establishes the fact or a deviant proof through a middle term that fails to be the genuine explanation. It leads to a change in one’s cognitive structure, to a dispositional transformation of the knower. In crude and familiar terms, Aristotelian *epistēmē* brings not a bland registration of what is the case — “Oh, I get it: hydrogen has a valence of 1 and oxygen of 2 so water (H₂O) is a stable substance” — but rather that light-bulb experience in which we see this fact as a profoundly important component in a large system of well-connected theories, the grasp of which makes you a chemist rather than a mere amateur. And whether or not the Stoics knew Aristotle’s *Analytics* directly — Sandbach (1985) has raised serious doubts about knowledge of Aristotle’s treatises in the Hellenistic period, but there is a clear reference in Epicurus to Aristotle’s *Analytics*, so perhaps we can make some safe assumptions here — the conception of causal explanation that he pioneered would certainly have been available in the conceptual repertoire of a philosopher as adept as Chrysippus.

Imagine, then, a Stoic theory in which the grasp of certain key facts about the natural world was like this. Imagine a Stoic theory in which the understanding of nature generated and then constituted a character trait sufficiently stable and veridical to be termed a virtue in its own right (Menn 1995). Such a way of understanding the causes in nature would, I think, be enough to convert the independent facts about nature (for example, that we are part of a grand cosmic nature, that our minds are qualitatively similar to the mind of Zeus, that we are naturally social animals, and so on) into crucially relevant considerations in determining what the right thing to do might be in a particular situation. It would also, if it were veridical and avoided conflict with intuitive notions of what is fair and right (in the manner that Nicholas White is quite properly concerned about), count as moral in the sense we have been considering.

So here is the question. Did the ancient Stoics have a sufficiently robust epistemology, one that brings scientific understanding together with ethics, to do the job? That they could have had such an epistemology is clear enough. They did, as we have seen, treat physics as a virtue alongside others. And although they divided philosophy into three parts—logic, physics, and ethics—they did not think those parts were fundamentally separate from each other. Some Stoics, in fact, specify that this tripartition applies not to philosophy itself but merely to philosophical discourse, to the way we talk about philosophy. But did they develop a theory of how it is that we humans come to know the causes of things that addresses the need to connect an understanding of the outside world with the state of mind and character that lies at the heart of ethics?

As a comparison, let me claim (perhaps recklessly) that Aristotle himself did not meet this kind of need in his moral theory. Although his scientific epistemology in the *Posterior Analytics* and elsewhere does address the question of how we can connect our understanding of the world outside with our cognitive dispositions, I don't think his moral epistemology does a comparable job in connecting a grasp of external facts with our moral dispositions. It is, of course, still highly controversial whether Aristotle, in the *Ethics*, even *owes* us an account of how moral reasoning relates in detail to the use of our rational capacities to understand facts about nature (cosmology, physics, human nature), but it is pretty clear that he doesn't actually provide one. There are persistent controversies about the way the contemplative life relates to the life of practical reason, about the role of the function argument in his ethics, and about the importance in ethics of theories about the structure of the soul. If Aristotle had tackled such issues decisively, then surely some of these questions would have been settled with the decisiveness that he brought to bear on the Form of the Good; Aristotle's one clear statement about an ontological principle that is decisive for ethics is a negative one.²⁰

But what about Chrysippus, who says plainly that living according to virtue *just is* living according to an experience (*empeiria*) of the things that occur by nature? This is obviously the place where the kind of thinking we are interested in would take place. This is evidently where the Stoics ought to have given an account of how we “follow the facts” in order to become fulfilled (the phrase is from Becker 1998). And whatever Chrysippus did mean by *empeiria*, we can therefore be

pretty certain that it is not the slightly inferior practical grasp of general (inductively grounded) truths that Aristotle acknowledges; nor is it the banausic knack that features in Plato's polemic against rhetoric in the *Gorgias*. But is there any evidence surviving that Chrysippus or any of his followers tried to provide what we can now see Stoicism most needs, an epistemology that bridges the understanding of causes in nature and the dispositions of wise deliberators?

No certainty is possible on this point—it is certainly not enough merely to assert, with Stephen Menn (1995, 2, 24), that the *science* of physics is the *empeiria* in question. Yet there are signs that Chrysippus may at least have had aspirations for such a theory. For although the official Stoic definition of *empeiria* in the doxographer Aëtius treats it as little more than the weak Aristotelian provisional generalization, there are many texts that suggest that in some contexts, particularly ethical contexts, something richer was probably intended, since so much is said to depend on *empeiria* of the relevant sort.²¹ The uses of the term in the telos formula of Chrysippus (D.L. 7.87, SVF 3.12 from Galen, *Ecl.* 2.76.8, *Fin.* 4.14, 2.34, 3.31) do not settle the issue.²² More important is a string of texts in the Stobaeus doxography that deal with the sage: *Ecl.* 2.99.9–12 and 2.102.20–22 make it clear that the wise person relies on some form of *empeiria* in performing infallibly correct actions:

And the moral man [*spoudaios*], making use of experiences bearing on life [*peri ton bion*], does everything well in the actions undertaken by him, just as he does those things prudently, with self-restraint and in accordance with the other virtues. And the immoral [*phaulos*] man, conversely, acts badly.

And the sensible man [*ho noun echōn*] does everything well, since he makes constant use of experiences bearing on life in a prudent, encratic, orderly and organized manner.

A minimalist interpretation of these texts might hold that the phrase “experiences bearing on life” is just a reference to personal experiences, with no allusion to any grasp of causes. Given what we know about the Stoic integration of the parts of philosophy, this would be implausible. A more plausible line of interpretation is suggested by Epictetus's report of Chrysippus's view alluded to earlier in this paper: “if I knew that it was now fated for me to be ill, then I would even have an impulse to it” (*Diss.* 2.6.9 = LS 58J). The knowledge of causal connections, fate, is meant to shape our moral motivations.

A final and even less conclusive indication comes from a brief reflection on Cicero's translations of the telos formula of Chrysippus. At *Fin.* 3.31, echoed in the critique at 4.14, Cicero uses *scientia* in a formulation of the goal where one would expect a translation for *empeiria*. But we must also note that *intelligentia* is used to translate the same term at *Fin.* 2.34.²³ Although there is (to the best of my knowledge) a complete absence of any Greek-language evidence showing that *empeiria* and *epistēmē* were the same for Stoics,²⁴ Cicero seems to see in the *empeiria*, which connects the facts of physics with human moral dispositions, both features of deep understanding that we meet in the *Posterior Analytics*, knowledge and understanding. After all, if Cicero is right to translate the term with *scientia* and with *intelligentia*, then he has combined the central ideas of Burnyeat's analysis of scientific knowledge in his translation of the *empeiria* which lies at the heart of Stoic ethics. It would be risky (though temptingly charitable) to suggest that Cicero encapsulates for us a trace of the kind of physical understanding that would suffice to connect facts about the cosmos with our happiness. If there is anything in this suggestion at all, as I rather suspect there is, and even if this identification of *empeiria* and *epistēmē* is therefore granted, we would still lack sufficient evidence about its nature and operations to show that the Stoics really had developed an epistemological theory robust enough to do the job needed in establishing the foundations of moral philosophy.

The search for adequate evidence on this important point must continue. The evidence needed may, after all, be out there, waiting to be appreciated for what it really is; it may take no more than a fuller analysis of the evidence for *empeiria* and the nature of Stoic scientific inquiry than I have yet undertaken. Or the evidence we need may have been lost forever in the grand amnesia about Stoicism imposed by late antiquity. Or it may be that it never was there at all, that the Stoics got far enough in their address of this problem to sketch what would be needed—and that Cicero was sufficiently aware of this ambition to hint at it unwittingly in his translations of what was to him ambiguous epistemological jargon—but were never pushed hard enough by their critics to come up with an epistemology of explanation adequate to the task. I am content for now to have a clearer idea of the quarry to pursue, and by no means do I despair of ever tracking down the beast in his lair. But the complaints made by Posidonius the aetiologizer about Chrysippus do not, I fear, give me great hope.²⁵

NOTES

I am grateful to Julia Annas both for the original stimulus to think about these issues and for discussion of an earlier draft of the paper. Jennifer Whiting, Charles Griswold, and audiences at Stanford and Harvard Universities in April 2005 also raised helpful queries and objections about subsequent versions. I have also benefited from discussion at the Konstanz conference with Jim Lennox and Marilyn Adams and from the formal commentary by Emidio Spinelli. I am especially grateful for the support of the Centre for Advanced Study in the Behavioural Sciences and the Canada Research Chair program of the Canadian government. All translations of ancient texts are mine unless otherwise indicated.

1. Epicurus conceded that on many occasions the precise cause might not be ascertainable; in such cases, multiple explanations were to be regarded as equally “true.” But the demand for knowing causes remains exigent to the extent that the facts of the world and our capacity to know them allow.

2. Aristotle’s position on the necessary ingredients for happiness is notoriously difficult. Perhaps it is only the greatest and most complete happiness that requires contemplation of eternal truths, and happiness (rather than the greatest happiness) accompanies activity according to other virtues, perhaps only nonintellectual virtues. I take no position on that vexed issue here.

3. Neither Diogenes Laertius (D.L.) 7.85–86 nor Letter 121 of Seneca treats a drive to knowledge in this way. Hierocles’ *Principles of Ethics*, though fragmentary, also seems not to have invoked a fundamental drive to knowledge.

4. In *De Otio* 6 Seneca engages directly with this criticism of the contemplative enterprise.

5. See also *Ep. Mor.* 108.1–2 on managing one’s *cupiditas discendi*.

6. In *De Finibus* 4 Piso complains that the Stoics treat the mind as the totality of human nature, neglecting the body.

7. Whether this view of human nature is uniformly Stoic is open to question. That depends, I think, on the way one interprets the relationship among the three parts of philosophy and on what one makes of the relationship among the theoretical and practical components in the way of life deemed most choiceworthy at D.L. 7.130 (the *logikos bios* is superior to the practical and to the theoretical life because nature has made us expressly for both thought and action). Further, it is clear the the Stoic Ariston of Chios did not share the view of his fellow Stoics, for he thought that in philosophy only ethics was needed, that physics and logic were superfluous.

8. As Emidio Spinelli reminds me, Chrysippus once said that sole purpose of physics is for distinguishing of goods and bads (SVF 3.68 = LS 60A). This might suggest that there is a utilitarian strain in the Stoic view about how physics relates to ethics, as there is in Epicureanism (see Principle Doctrine 11 and below). But if this is the right way to interpret this remark of Chrysippus, one would still want to stress that the relationship between physical facts and ethical justification is very different in the two schools.

9. That is to say, one would have few resources for converting an external reason (in Bernard Williams’s sense) into an internal reason. See Williams 1981,

ch. 8 (“Internal and External Reasons”). We would not be able to motivate people to do what is in fact in their eudaimonistic interests.

10. That it is subject to wide-ranging interpretations is shown by Julia Annas’s interpretation of Stoicism in *The Morality of Happiness* (1993) and the critiques her views have provoked. The most recent discussion of the issues raised by Annas is Gill 2004. Annas’s own most recent views on the relationship between ethics and physics in Stoicism are in Annas (forthcoming).

11. The main texts are Diogenes Laertius 7.40, 7.87–88, SVF 3.16, SVF 3.68; see also LS 26 and Ierodiakonou (1993).

12. Repeated at Stobaeus *Eclogae (Ecl.)* 2.76.6–8. Compare the Ciceronian passages discussed below.

13. See Cicero’s *De Legibus* 1.61 for a Platonic/Stoic expression of this idea.

14. For Aristotle an *aition* is as much an explanation as it is what we call a cause. The concept is primarily epistemological. Of course, all causes (in a modern sense) explain but not all explanations in Aristotle’s sense are what we would call causes in the modern sense—hence there are often confusions about how the final cause and the material cause can *cause* anything and a tendency to say that only Aristotle’s efficient cause is a ‘real’ cause.

15. This may be as good a place as any to acknowledge a debt to Lawrence Becker’s *A New Stoicism* (Princeton University Press, 1998). In outlining how facts interact with normativity in a broadly Stoic spirit, Becker has provided one model of a naturalistic and rational basis for ethics, a model that perforce abandons many of the specifically ancient Stoic commitments in natural philosophy. His project aims to show that “all-things-considered normative propositions of practical reason . . . depend[ed] crucially upon the fullest available knowledge of the natural world” (p. 5). The central motivation of this paper (and the larger project that I hope will grow out of it some day) lies in my conviction that Becker has successfully grasped the most important ambition of ancient Stoicism, an ambition whose philosophical implications have often been passed over by historians of ancient philosophy and been prematurely dismissed by contemporary moral theorists. The present paper represents little more than a thin prolegomenon to that project.

16. For a recent and important discussion of the role of theological assumptions in the foundations of Stoic ethics, see Long (2003).

17. A more wide-ranging and successful attempt to defend the connection between a scientific understanding of the world and our happiness (eudaimonistically understood) is made by Becker (1998). But he does not claim, nor should he, that the approach he takes to these issues is a reconstruction of the ancient Stoic theory nor even an updated version of it. If his sketch of what it means to “follow the facts” in moral theory is successful it shows that in principle the Stoic project is not hopeless; but it does not show that the ancient Stoics actually made the same effort or that such an effort had been successful.

18. That moral *praecepta* should be of less use to us without a grounding in a knowledge of physics confirms that the *decreta* of which Seneca writes include theorems of natural philosophy.

19. Burnyeat's view underlies many aspects of Jonathan Lear's view of Aristotle's notion of human understanding (Lear 1988, esp. 6–8).

20. It is important to emphasize that, unlike the Stoics, Aristotle holds that each science has its own *archai* or starting points. If natural philosophy and ethics have different foundational principles, we should not expect Aristotle to have a higher-level theory that unites the two in any obvious way. The Stoics, however, held that the foundational principles for all three branches of philosophy are deeply intertwined and interdependent.

21. SVF 2.83 (Aëtius 4.11): "When we have many memories of the same form then we say that we have *empeiria*; for *empeiria* is the [possession of] many *phantasiai* of the same form."

22. It is hard to know what to make of the apparent claim by Diogenes of Babylon (SVF 3 Diogenes 99, pp. 237 ll. 4–8). He says that there is nothing so productive of conviction (*peistikon*) as truth and irreversible experience of events (*tōn pragmatōn ametaptōtos empeiria*). This seems to be the kind of conviction-producing cognitive state Burnyeat envisages for *epistēmē*. However, not only is the reading doubtful but the context of debate into which the remarks fall is very uncertain. It may only be a claim about what is practically effective in rhetoric and so not bear directly on scientific understanding at all.

23. At Letter 66.6 Seneca presents skill with things to be pursued and things to be avoided as one of the traits of the perfected mind of the sage: it is *peritus fugiendorum et petendorum*.

24. The lack of any such evidence is one reason for not embracing Menn's suggestion without further discussion. Note too that Cicero's direct invocation of the physics as a virtue in the foundations for ethics (*Fin.* 3.73) does not rely on the telos-formula with *empeiria*.

25. He clearly thought that Chrysippus didn't care enough about causes, such as the cause of the excessiveness of impulse (LS 65K) and of why passions stop when they do (65P). Similarly he alleged (LS 65M) that it was a failure to see the underlying causal structure of our nature, our *oikeiōseis*, that most impeded his attempt to understand the place of the passions in human lives. It is, of course, difficult to demonstrate the absence of something from Chrysippus's philosophical achievements, but the emphasis on Posidonius as an innovator for his proneness to Aristotelian-style causal analysis, coupled with Posidonius's own complaints about Chrysippus's failure of causal analysis with regard to the passions, surely suggests that the greatest of the Stoics didn't give his full attention to this issue.

REFERENCES

- LS = A. A. Long and D. N. Sedley, *The Hellenistic Philosophers*. 2 vols. Cambridge: Cambridge University Press, 1987.
 SVF = H. von Arnim, *Stoicorum Veterum Fragmenta*. 4 vols. Leipzig: Teubner, 1903–1924.

- Annas, Julia. 1993. *The Morality of Happiness*. Oxford: Oxford University Press.
- . Forthcoming. *Marcus Aurelius: Ethics and Its Background*.
- Becker, Lawrence C. 1998. *A New Stoicism*. Princeton: Princeton University Press.
- Burnyeat, Myles. 1981. Aristotle on Understanding Knowledge. In *Aristotle on Science, The "Posterior Analytics": Proceedings of the Eighth Symposium Aristotelicum held in Padua from September 7 to 15, 1978*, ed. Enrico Berti, 97–139. Padua: Antenore.
- Frede, Michael. 1999. On the Stoic Conception of the Good. In *Topics in Stoic Philosophy*, ed. Katerina Ierodiakonou, 71–94. Oxford: Oxford University Press.
- Gill, Christopher. 2004. The Stoic Theory of Ethical Development: In What Sense Is Nature a Norm? In *Was ist das für den Menschen Gute?* ed. Jan Szaif and Matthias Lutz-Bachmann, 101–25. Berlin and New York: de Gruyter.
- Ierodiakonou, Katerina. 1993. The Stoic Division of Philosophy. *Phronesis* 38: 57–74.
- Inwood, Brad. 2005. *Reading Seneca: Stoic Philosophy at Rome*. Oxford: Clarendon Press; New York: Oxford University Press.
- Lear, Jonathan. 1988. *Aristotle: The Desire to Understand*. Cambridge: Cambridge University Press.
- Long, Anthony A. 2003. Eudaimonism, Divinity and Rationality in Greek Ethics. *Proceedings of the Boston Area Colloquium in Ancient Philosophy* 19:123–43.
- Menn, Stephen. 1995. Physics as a Virtue. *Proceedings of the Boston Area Colloquium in Ancient Philosophy* 11:1–34.
- Sandbach, F. H. 1985. *Aristotle and the Stoics*. Cambridge: Cambridge Philological Society.
- White, Nicholas. 2002. *Individual and Conflict in Greek Ethics*. Oxford: Oxford University Press.
- Williams, Bernard. 1981. *Moral Luck*. Cambridge: Cambridge University Press.