Epistemology

Robert C. Roberts (Contributor Webpage)
W. Jay Wood (Contributor Webpage)

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Abstract and Keywords
Because of the importance of knowledge in human life, epistemology (the study of knowledge) ought to be a core-curriculum subject; but it isn't. The reason is because it has been preoccupied with scepticism and with arcane efforts to define knowledge. The recent turn to the virtues in epistemology has so far yielded only unsuccessful efforts to supply the logically necessary and sufficient conditions for anything being a case of knowledge. Greco's and Zagzebski's definitions are examined. Wolterstorff has distinguished analytic from regulative epistemology and attributed the latter project to John Locke. This chapter proposes a regulative virtues epistemology — an epistemology that does not aim to define justification, warrant, or knowledge except roughly and for present purposes, but instead aspires to deepen our understanding of intellectual character traits, and thus provide a guide for intellectual life.

Keywords: analytic, cartography, definition, map, regulative, theory

Introduction
Human knowledge, understanding, and experience are as distinctive of our life as anything, including even the opposed thumb and erect posture, and the varieties of them are among the deepest distinguishers of human beings from one another. Virtually every people across the world are concerned to educate their children in what they take to be knowledge, understanding, and powers of recognition. The human tribe form universities for finding and transmitting knowledge, and many of us think a university education to be far more than
equipment for survival and financial prosperity. We think that knowing what the sciences and history can teach, and understanding what great literature and philosophy can help us to understand, are themselves a kind of prosperity, indeed a necessary and central component of the highest human flourishing. In some societies, and in some corners even of our own society, some of the elderly are held in special esteem because of their wisdom, which is taken to be a rare achievement and legacy of great value.

The ancient discipline that philosophers call epistemology is the study of human knowledge and related epistemic goods. Every university discipline is, of course, a study of human knowledge (chemistry studying chemical knowledge, history historical knowledge, and so forth), but epistemology is a study of the concept of knowledge. It turns reflective about this ubiquitous concern, this central and distinctive human good, and asks critical and normative questions about it: What is knowledge and what are its limits? Can we know anything? How do we know what we know? Can we know something without knowing that we know it? What is the proper basis of knowledge? What are the faculties by which we know? What are the proper objects of knowledge? Is genuine knowledge immune from error; or is fallible knowledge a coherent concept?

Philosophers have offered various and conflicting answers to such questions, but since knowledge, like ethics, is everybody's practical business, epistemology's aims have seldom been merely descriptive. Accounts of the nature and reach of our faculties typically come bundled with prescriptions concerning how we ought to regulate our intellectual lives. “Don't look to the senses for knowledge” (Plato); “Don't look beyond the senses for knowledge” (David Hume); “Accept testimony only from sources whose reliability is known to you” (John Locke); “Accept testimony from any source you do not have good reason to question” (Thomas Reid); “It is wrong always, everywhere, for anyone, to believe anything on insufficient evidence” (William Clifford); “It is not wrong to accept some beliefs in the absence of evidence” (Alvin Plantinga).

Epistemological debates in the twentieth century were especially tumultuous. Early twentieth-century rationalisms and idealisms gave way to an empiricism that, as if unaware of what Kant had written, thought that everything we know about the world must arise out of sensory experience (tautologies are also an important sort of truth, but not about the world). The nature of sensation and perception and debates about sense data figured prominently in epistemological controversies of the first half of the twentieth century. Some empiricists noted that although one may be mistaken in claims about material objects and states of affairs, no such errors attach to immediate sensory deliverances: I may err in thinking I'm seeing a tree, but I can hardly be mistaken in seeming to be seeing a tree. Thus Rudolph Carnap, a logical positivist, believed that an incorrigible science could be constructed from the invincible reports of sensation and the connectives of first-order predicate logic. If this were possible, it would show
that empirical science could deliver knowledge that satisfied the ancient Greek gold standard for knowledge, viz., indefeasible certainty.

Empiricists tended to think science the premier knowledge-generating enterprise. If any practice can confer irrefragable epistemic goods, it is science, not metaphysics or religion. And the success of science is due to its methods. Given sufficient background information and skill, one need only ply the right technique or follow the right rules to achieve knowledge and justified belief. Looking longingly on the success of modern science, epistemologists have devised methods of their own: the Baconian (p.5) method, Descartes's *Rules for the Direction of the Mind*, Locke's Historical Plain Method, Mill's methods, Husserl's phenomenological method, and so forth. So the concerns of epistemology were bound up with the concerns of science. Does scientific knowledge form a hierarchical or foundationalist structure? Are the observations on which scientific claims are based free of theoretical content? Must scientific standards of evidence and confirmation be met before we are justified in believing something? Linked to these questions are the familiar epistemological controversies over foundationalism, the theory-ladenness of observation statements, and the standards for epistemic justification.

Starting in the 1950s, the association of science with foundationalism and its aspirations to certainty came under heavy attack from philosophers of science such as N. R. Hanson, Stephen Toulmin, Michael Polanyi, and Thomas Kuhn, whose personal acquaintance with science and scientific methods suggested to them that science falls far short of the foundationalist ideal of an edifice consisting of a groundwork of unshakeable basic statements fastened firmly to a rich superstructure of knowledge by the well-tempered bolts of modern logic. The problems with this picture are legion. Our empirical observations are theory-laden and susceptible to error, our reasoning depends on unprovable assumptions, our criteria for dividing justifier and justified are unclear, and our standards of evidence and argumentation contested, to cite just a few of the problems. The reigning epistemological paradigm of the first half of the century came under withering fire, from which, some say, it has not recovered.

Whatever difficulties epistemologists may have faced in describing the sources and structure of knowledge, at least they shared a common concept of knowledge as justified true belief—until 1963, when Edmund Gettier's famous three-pager appeared, offering a small array of cases of justified true belief that seemed pretty clearly not to be cases of knowledge. The rough consensus about the definition of knowledge that had held for over 2,000 years unraveled. A cottage industry sprang up in response, as scores of epistemologists wove thousands of pages to repair the damage done when Gettier tugged on that loose thread. Notions of truth, certainty, belief, justification, and other epistemological concepts were also judged inadequate or unworkable after similar deconstructive analysis. Epistemologists (p.6) appeared to think that salvation...
from Gettier lay in fastidiousness and technical finery, so that epistemology became increasingly ingrown, epicyclical, and irrelevant to broader philosophical and human concerns. The fortunes of the guild were in steep decline from the halcyon days when discussions about the right use of reason were supposed to lay the groundwork of lasting epistemological happiness.

The last thirty years have seen radical departures from old ways of doing business. Epistemological naturalists, such as W. V. O. Quine, think that the time-honored task of describing the nature and limits of reason should be handed over to cognitive scientists. Anti-theorists like Richard Rorty urge us to look to literature and poetry for guidance about the right use of reason. Epistemologists of a more traditional vein, like William Alston and Alvin Plantinga, nevertheless break ranks with long-standing views about justification and warrant. Others have simply despaired. Articles with titles such as “The False Hopes of Traditional Epistemology” and “Recent Obituaries of Epistemology” have appeared. In an article entitled “Overcoming Epistemology”, Charles Taylor writes: “it seems to be rapidly becoming a new orthodoxy that the whole enterprise from Descartes, through Locke and Kant, and pursued by various nineteenth and twentieth century succession movements, was a mistake.” No neo-orthodoxy has emerged concerning the proper projects of epistemology. Contemporary epistemology's disarray has nevertheless yielded this positive result: the discipline is more receptive than ever to new ideas.

Virtue Epistemologies
A most promising development is epistemologists' recent attention to the human virtues. Philosophical reflection about the intellectual virtues is still in its infancy, but we think it holds enormous promise for the recovery of epistemology as a philosophical discipline with broad human importance. The first stirrings of this recovery were Ernest Sosa's early essays, the first of which is now more than twenty years old. Sosa and some of his disciples tended to think of the intellectual virtues as faculties (eyesight, hearing, introspection, memory, inferential reason, a priori intuition, etc.), but more recently Linda Zagzebski, with some inspiration from Lorraine Code and James Montmarquet, has focused on virtues like intellectual courage, generosity, tenacity, openness, and humility—dispositions that are not faculties, but character traits. Thus her notion of virtue is much closer to that of the philosophical tradition and our contemporary ordinary language. Focusing on virtues in this sense also seems to offer a better prospect of humanizing and deepening epistemology.

Another important philosopher in this development is Alvin Plantinga. Although Plantinga, like Sosa, focuses his epistemology on the performances of faculties, but, unlike Sosa, does not use the language of virtue, we think that his epistemology is an incipient virtues epistemology—indeed, more so than Sosa's, for two reasons. First, he defines knowledge as warranted true belief and defines warrant in terms of the proper functioning of epistemic faculties in a
The notion of proper function is reminiscent of the classical and medieval understanding of virtues: virtues are bases of excellent human functioning, and epistemic virtues are bases of excellent epistemic functioning. Second, Plantinga's thought stretches in the direction of virtues that are not merely properly functioning faculties, because his religious commitment draws him away from the trivial examples of belief formation that are so characteristic of recent epistemology (believing that one's wife is home or that the lawn in one's backyard is green). In the third volume of his epistemology Plantinga focuses on the deep and character-involving knowledge of God, and follows Jonathan Edwards in giving the emotions an important role in the formation of this kind of knowledge. In attending to the involvement of emotions in the knowledge of God, Plantinga is striking a theme that has been nearly constant across the ages in philosophical discussions of the moral virtues. The life of virtue is composed of appetitive dispositions, and emotions are consequences of caring about things, of taking some things to be important, of having steady, long-term desires for things of value.

The triviality of standard epistemology's examples is due in part to the historical preoccupation with skepticism. If one cannot secure so simple a claim as “I have two hands” or “The world has existed for quite a while” against the mischief of evil demons and manipulative brain scientists, it makes little sense to worry about how we know difficult truths about the causes of the Second World War or the structure of DNA. Anti-skeptical maneuvers are a strong motif in the history of philosophy: Plato opposes the Sophists, Augustine the academic skeptics, Descartes Montaigne, Reid Hume, and Moore and Wittgenstein set themselves against skepticism inspired by Russell. However dominant anti-skepticism may be historically, some of epistemology's most productive moments—in Aquinas, Kant, Plantinga—arose because philosophers were willing to set aside skeptical worries and look into what ordinary practitioners of science, religion, politics, and humanistic inquiry were willing to call knowledge. Intellectual virtues of the kind that interest Zagzebski and us seem likely to have relevance to high-end kinds of knowledge like scientific discoveries, the subtle understanding of difficult texts, moral self-knowledge, and knowledge of God, while being marginal to knowing, upon taking a look, that a bird is outside my window, or that what is in front of me is white paper.

Given the central place of knowledge and understanding in human life, one would expect epistemology to be one of the most fascinating and enriching fields of philosophy and itself an important part of an education for life. We might expect that any bright university student who got all the way to her junior year without dipping her mind in an epistemology course would have to hang her head in shame of her cultural poverty. But the character and preoccupations of much of the epistemology of the twentieth century disappoint this expectation. We think that the new emphasis on the virtues and their relation to epistemic goods has the potential to put epistemology in its rightful place. And we hope...
that the present book, whatever its many shortcomings in detail, will suggest the rich ways in which epistemology—the study of knowledge and related human goods—connects with ethical and political issues, with the practice of science and other forms of inquiry, with religion and spirituality, with appreciation of the arts, and with the enterprise of education.

Defining Knowledge
The concern to broaden and humanize the discipline is at best a peripheral concern of the contemporary epistemologists we have mentioned. The concepts of the virtues and proper function interest them chiefly as providing new strategies for achieving old epistemological goals, prominent among them that of defining knowledge in the traditional style. Zagzebski, for example, says, that “the most critical concern of epistemology … [is] the analysis of knowledge” (Virtues of the Mind, p. 259). All these philosophers accept the general model of knowledge as adequately grounded (warranted, justified) true belief and seek a conception of such grounding, or some supplement to that grounding, that enables them to specify the logically necessary and sufficient conditions for any belief’s being a case of knowledge. Let us call this kind of knowledge “propositional knowledge”, to distinguish it from the broader and richer concept of knowledge that we will outline in Chapter 2. And we call a definition of propositional knowledge an “e-definition” when it is in the style that has dominated recent epistemology—namely, a formula proposing logically necessary and sufficient conditions. Consider some proposed definitions of knowledge in this style.

Sosa distinguishes “animal knowledge” from “reflective knowledge” and defines animal knowledge as any true belief produced by an intellectual virtue (that is, an epistemic faculty) in an environment that is appropriate for that virtue; reflective (that is, distinctively human) knowledge is animal knowledge about which the epistemic subject has another (“reflective”) belief: namely, the belief that his animal knowledge in question was produced by a virtuous belief-producing process, and this reflective belief too is true and produced by a virtue. Plantinga defines knowledge, roughly, as any true belief produced by a faculty or faculties that are aimed at truth and are functioning properly in an appropriate environment according to a good design plan. We say “roughly” because in the second chapter of Warrant and Proper Function Plantinga considers a number of needed qualifications of his already complex formula and gives up the effort to produce a precise definition with the words, “What we need to fill out the account is not an ever-increasing set of additional conditions and subconditions; that way lies paralysis” (p. 47). Earlier he had said, “Maybe there isn't any neat formula, any short and snappy list of conditions (at once informative and precise) that are severally necessary and jointly sufficient for warrant; if so, we won't make much progress by grimly pursuing them” (p. 20). And he goes on to fill out the account by looking in some detail at several particular faculties, to show how the proper function approach to knowledge
solves problems that stymie other approaches. We have said already that the kind of virtue that Zagzebski makes central has potential for deepening and humanizing epistemology, but little potential for the routine epistemological goal of e-defining knowledge. The reason is that an e-definition has to specify conditions that are necessary for all the cases, including very simple ones, such as the following: I am sitting in a room at night with the lights blazing, and suddenly all the lights go out. Automatically, without reflection or any other kind of effort, I form the belief that the lights have gone out. Clearly, I know that the lights went out, and it didn't take any act of intellectual courage, humility, attentiveness, perseverance, or any other virtue to do so.\textsuperscript{12} Despite the apparent awkwardness of making the concept of an intellectual virtue the key to an e-definition of knowledge, Zagzebski defines knowledge as any true belief produced by an act of intellectual virtue, and she struggles to accommodate the low-end cases of knowledge to her definition (see \textit{Virtues of the Mind}, pp. 277–83).

We see here a dilemma for the virtue epistemologist. Plantinga's and Sosa's definitions of knowledge are pretty good at specifying conditions that are necessary for the whole range of cases, because they aim very low. They are particularly well-designed to accommodate cases like the lights-out case, because really, all you need in such simple cases is well-functioning faculties in an appropriate environment. But faculty-oriented definitions are poor at specifying conditions that are sufficient for the whole range of cases. It is implausible to think that all you need, to make great scientific discoveries or gain a deep understanding of your own moral (p.11) nature, is well-functioning faculties like eyesight, hearing, logical powers, and the like. It seems that you do need traits like courage, perseverance, humility, and love of truth. So definitions like Zagzebski's are pretty good at specifying sufficient conditions: a person with trait virtues will be able, in all likelihood, to get knowledge from the highest to the lowest. The trouble for her definition is that it's implausible to think you need such virtues to know that the lights have just gone out. It seems that neither kind of virtue epistemologist will succeed in e-defining knowledge. So we might think that we need a disjunctive definition that says something like the following: A true belief is knowledge just in case it is produced either by a faculty virtue in a congenial environment or by acts or an act of an intellectual trait virtue, but not necessarily both. Toward the end of this section we will see why such a definition will not succeed.

Let us take a closer look at Zagzebski's definition of knowledge. She argues that Gettier cases (see pp. 283–99) all have a common structure in which the subject gets a true belief, and does so in a way that is canonical (that is, justifying, warranting) by some definition of knowledge, but in which the connection between the way the belief is justified or warranted and the truth of the belief is somehow accidental. Accordingly, she offers a recipe for concocting Gettier cases that works no matter whether you make the canonical grounding
internalist justification, externalist justification, or warrant. Here is Zagzebski's recipe: Start with a case of well-grounded (justified, warranted) belief (by well-grounded, we mean well-grounded enough that, if the belief is true, it will ordinarily be knowledge). Make the belief epistemically unlucky (that is, such that, despite being well-grounded, the belief would not be true except in very lucky circumstances). You (p.12) can do this only because well-grounding does not entail truth. Add another element of luck to the case, which makes the unlucky belief true. And voilà! You have whipped up a Gettier case. Consider some.

An internalist case. In the original Gettier case of Smith owns a Ford or Brown is in Barcelona you are justified in believing the proposition because you have excellent evidence that Smith owns a Ford, though you have no idea where Brown is. However, Smith has been pulling your leg; but improbably enough, Brown happens to be in Barcelona. Thus you have a justified true belief, but not knowledge. You are unlucky enough to be plausibly lied to by Smith, but your mischance is reversed by the luck that Brown is in Barcelona.

A reliabilist case. You're driving in rural Wisconsin, where the inhabitants, eager to appear prosperous, have erected three fake barn façades for every real barn. You are a reliable barn-spotter and, happening to look at one of the real ones, you form the belief there's a barn. Your belief is true and justified, but not knowledge. In this case you're unlucky enough to be driving through a neighborhood beset by deceptive appearances, but this misluck is corrected by your just happening to fix on a real barn.

A proper function case. Mary has properly functioning but not infallible eyes; she looks at her husband's usual chair in normal lighting from about fifteen feet away and forms the belief that her husband Herb is sitting in the living room. So the environment is normal, and her faculties are functioning properly. But the man sitting in the chair is her husband's brother, who looks very much like Herb. But, as it turns out, Herb is sitting in the living room, out of her sight. So she has a warranted true belief that is not knowledge.

But can't we construct, following Zagzebski's recipe, a counterexample to her own definition of knowledge? Consider

A virtues case. Sam is a forensic pathologist well known for his care, creativity, and persistence in solving difficult cases. A case of poisoning has stumped him because at the current state of the art the poison involved is undetectable. Sam wracks his brain for a compound that will detect the suspected poison, and after several days of agonizing research and a few sleepless nights he hits on a formula. He goes to the lab in the middle of the night and combines three substances according to a formula that calls for particular amounts in a particular sequence. Unknown to him, a jar from which he got one of the
substances was mislabeled by his lab assistant (p.13) and in fact contains something completely inert. He goes home satisfied that in the morning he will have a solution to the case. During the night the janitor inadvertently spills a bit of the needed third substance on the slide that Sam will use the following morning to conduct his test. When Sam runs the test the next day, he gets the result he wanted, and declares that the murder poison was X, as indeed it was. Thus Sam has a true belief, acquired by the performance of acts of intellectual virtue, which is not knowledge. The assistant's mislabeling the jar is Sam's bad luck, and the janitor's spilling the right substance on the slide in just the night amount, is his good luck.

Zagzebski does not apply her recipe to a virtues case. In fact, she offers it as a prelude to showing that her e-definition succeeds where all the others fail. She thinks it succeeds because grounding in intellectual virtues, unlike grounding in all the other ways, entails truth. She holds that acts of virtue necessarily succeed in their goals, and so acts of intellectual virtue always succeed in securing the truth. She argues as follows. Suppose a jury judges a case as virtuously as possible. All the jury members deliberate with consummate skill and desire with the purest hearts that justice be done in the case before them. But the result of their verdict is that an innocent man is sent to prison for twenty years. In that case we do not call their action an act of justice. An act of justice is by definition one that succeeds in bringing about justice. The jury may well have acted justly, but it has not performed an act of justice. And similarly for all other cases of virtues, we can distinguish acting V-ly from performing an act of V. Since intellectual virtues are virtues that aim at the truth, we can make the same distinction there, with the result that no act of intellectual virtue can fail to secure the truth.

Zagzebski errs in extrapolating from the case of an act of justice to all other acts of virtue. We think that her intuition about the English phrases “act justly” and “perform an act of justice” has some merit, but most of the other virtues do not follow suit. From the fact that I performed an act of generosity, it does not follow that I actually helped anybody. From the fact that I performed an act of perseverance toward some goal, it does not follow that I achieved the goal. The same is true of intellectual virtues. A person can perform acts of open-mindedness, of diligence in investigations, of charity in his interpretations of others' views, of honesty with himself and with others, and still not hit on the truth. For example, had it not been for the clumsy janitor, Sam would not have got the truth about the poisoning case, despite an impeccable sequence of acts of intellectual virtue.

The requirement, in Zagzebski's definition, that the act of intellectual virtue guarantee the truth of the belief that it generates, trades on so artificial a conception of an act of intellectual virtue as to make the definition ad hoc and insufficiently informative, thus violating her own stated standards for a good
definition. In her discussion of desiderata in definitions, Zagzebski says that while a definition needs to be Gettier-proof, it must not be artificially tailored to guarantee this result. For example, it would not be legitimate to avoid Gettier examples by defining knowledge as “justified true belief that is not a Gettier case” (ibid., p. 102). The concepts of a virtue and of an act of virtue have the merit of being uncontrived: they are widespread in the history of philosophy and in ordinary discourse about both ethics and knowledge (see ibid., p. 106). But the infallibility of acts of virtues presupposed by her definition of knowledge is not a noticeable part of that history, or of ordinary people’s use of ‘virtue’; her particular twist on the concept of an act of virtue seems specially tailored for closing the gap between justification and truth. Besides avoiding ad hoc stipulation, the definition should be informative, giving us insight into the nature of knowledge that we would not have without it. In particular, her definition should allow us to identify cases of knowledge if only we know whether the beliefs in question were produced by acts of intellectual virtue. But on her understanding of “act of intellectual virtue”, we cannot tell whether an intellectual act is an act of intellectual virtue unless we know independently whether the belief that it generated was true.

We might wonder whether the same strategy of avoiding Gettier examples by defining the justifier so as to guarantee its achieving truth is not available to advocates of other epistemological theories. What if a reliabilist were to distinguish beliefs produced by a reliable belief-producing process from beliefs produced reliably by such a process? Couldn’t the reliabilist then claim that any false beliefs produced by a reliable belief-producing process were not produced reliably by such a process, and therefore could not be used in constructing Gettier examples? Or perhaps Plantinga could close (p.15) the gap between properly functioning faculties and truth by distinguishing beliefs produced by properly functioning faculties from beliefs produced properly by such faculties.

We earlier offered a simple counterexample to Plantinga's proper function account. We expect that Plantinga will regard our “counterexample” as anything but such. Following the drift of his discussion of Gettier cases in Warrant and Proper Function (pp. 31–7), no doubt he will say that we haven't made the environment normal or paradigmatic. There is something “tricky” about this environment, and consequently Mary is not warranted in believing that Herb is sitting in the living room. Such an answer as this raises the question: Exactly how normal or paradigmatic must the environment be for a belief produced by properly functioning faculties in that environment to be warranted for the subject? If the concept of normal here is such that for any Gettier case, necessarily, the environment (or the functioning of the faculty) is not normal, then of course the proper function construal of warrant avoids Gettier problems. But this solution seems as artificial as Zagzebski's redefinition of act of intellectual virtue, because surely, in normal everyday discourse and thought, a person might well think that Mary is warranted in her belief, despite the
trickiness of the environment. And if such an ordinary epistemological thinker were asked why he thinks she is warranted in her belief, he might (if articulate enough) cite Plantingian criteria for warrant: she has good eyesight, the lighting was decent, her distance from the object was in the range prescribed for good viewing, etc. So we might think that for the Plantingian criteria to be realistic, there must be the normal flexibility in the concept of normal and thus some room for warranted beliefs that are not true (or that are, as in Gettier cases, true only by a stroke of good luck). Otherwise there is something fishy about the concept of warrant.

It might be thought that our counterexample fails to meet the conditions of Zagzebski's definition of knowledge because the truth of Sam's belief that the poison was X does not derive from his acts of intellectual virtue. Admittedly, his acts of intellectual virtue had something to do with his getting the truth, but the clumsy janitor seems to be causally crucial too. So it is hard to tell what to say about the case. As Zagzebski admits, it is unclear what because of means in her requirement that the believing of the truth be because of the agent's acts of virtue (see ibid., pp. 108, 111).

(p.16) John Greco uses a strategy similar to Zagzebski's in defining knowledge, but seems to avoid the pitfalls of Zagzebski's definition. In particular, he does not try to make justification entail truth, and he gives us a clear enough account of what 'because of' means when he says that the agent believes the truth because of his intellectual virtue. Like Zagzebski's project, Greco's definition is largely driven by the desire to avoid counterexamples in which the subject's justified true belief fails to be knowledge because of something accidental in the way the belief turns out to be true. The lottery problem is such a case: Nate buys a lottery ticket and then, on the basis of information about the odds against winning, forms the true belief that he will lose. His inductive evidence is excellent, much better than for many cases of inductively based knowledge; yet we do not think he knows he will lose. The Gettier cases are other examples. Greco's solution is to develop a concept of responsibility for getting the truth, and then to say that an epistemic agent knows a truth p only if he is responsible, in that sense, for getting the truth in believing p. He says, "The key idea here is not that knowledge requires responsibility in one's conduct, although that might also be the case, but that knowledge requires responsibility for true belief" (p. 111).

We can explain Greco's concept of responsibility by comparing it with a couple of other concepts.

A) Responsibility in one's conduct:
One does what it canonically takes to get X right.

B) A common concept of being responsible for getting X right:
One does what it canonically takes to get X right.

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One gets X right.

C) Greco's concept of being responsible for getting X right:
One does what it canonically takes to get X right.
One gets X right.
What one does in getting X right is the most salient causal explanation of one's getting X right.

His explanation of why Nate in the lottery case, and the subjects in the Gettier cases, do not have knowledge, is that the epistemically virtuous behavior by which they form their true belief is not the most salient explanation of how they came to have the right belief; instead, something accidental is more explanatorily prominent. By contrast, in cases of knowledge by induction the act of induction is salient in the causal story, and in cases of justified true belief that are knowledge the justifier is salient in the explanation of how the agent got the true belief.

Greco's definition of knowledge has three clauses: S knows $p$ if and only if

1. S's believing $p$ is subjectively justified in the following sense: S's believing $p$ is the result of dispositions that S manifests when S is trying to believe the truth,

2. S's believing $p$ is objectively justified in the following sense: the dispositions that result in S's believing $p$ make S reliable in believing $p$. Alternatively, the dispositions that result in S's believing $p$ constitute intellectual abilities, or powers, or virtues,

3. S believes the truth regarding $p$ because S is reliable in believing $p$. Alternatively: the intellectual abilities (i.e., powers or virtues) that result in S's believing the truth regarding $p$ are an important necessary part of the total set of causal factors that give rise to S's believing the truth regarding $p$. (pp. 127, 128)

The structure of this definition makes clear that the causal condition is added to the two justification conditions; justification does not entail getting the truth. In particular, it specifies how the objective justifier—the traits that make S a reliable producer of true beliefs—must cause S's believing the truth in believing $p$, if believing $p$ is to amount to knowledge. And Greco’s concept of being responsible for getting X right (see above), in which the notion of salience or importance or prominence plays a key role, seems to us to be an ordinary and natural concept, not one that is contrived simply for avoiding counterexamples. The concept of salience or importance that is crucial to Greco’s explanation of believing the truth because of S’s intellectual virtues is vague (just how important or salient must S’s intellectual virtues be in the explanation of how S gets the truth of $p$? and what is salience, after all?), but this vagueness may not prevent its being informative. However, once the causal condition is made informative, the definition becomes vulnerable to both Gettier examples and straightforward (p. 18)
counterexamples. Our case of Sam the forensic pathologist is a Gettier-type case. Sam's virtuous epistemic behavior is very salient in his getting the truth that the poison was X; the accidental intervention of the clumsy janitor seems a minor contribution by comparison, though it is admittedly crucial. Greco might defend his definition by saying that Sam's virtuous behavior is not salient enough. But this would be exactly the kind of special pleading that everybody admits we need to avoid. However, even if we allow the definition to escape the counterexample on the grounds that Sam's virtuous behavior is not a salient enough cause of his getting the truth, the definition falls prey to straightforward counterexamples.

In Charles Dickens's *A Christmas Carol* Ebenezer Scrooge lacks the knowledge that he is a mean old miser. With rationalizations such as "I've worked hard for every penny I've got" and "if those shiftless poor would only bestir themselves, they wouldn't be so wretched", he explains away every challenge to his picture of himself as a frugal hard-working businessman. Then comes the epistemic pressure. First Jacob Marley's ghost appears to Scrooge, doomed to carry the symbols of his greed chained to his body. He comes to warn Scrooge that he is indeed a mean old miser and will suffer a similar fate unless he changes his ways. Scrooge explains away the apparition by attributing it to undigested beef, then he goes to bed and promptly falls asleep. The ghost of Christmas Past appears next, taking Scrooge back to a kinder and gentler time of his life, to convince him that he once embraced a different understanding of himself. He still resists. Then the ghost of Christmas Present shows Scrooge the family of Bob Cratchit and the suffering Tiny Tim. Scrooge is softened, but still not to the level of assent. Finally, the ghost of Christmas Future pulls out all the stops, and shows Scrooge his own lonely, unmourned, pathetic death, and the hell that awaits him. The cumulative effect of these cognitive onslaughts is to disarm his ability to resist assent; Scrooge's will-to-ignorance is overwhelmed. The knowledge comes to him unbidden. Of course Scrooge's epistemic capacities make some contribution to his getting knowledge; he hears and understands the words of the various ghosts, and there is a limit to his powers of rationalization. But Nate in the lottery case, and the subject in the case of Smith owns a Ford or Brown is in Barcelona, also display a modicum of virtuous behavior. Greco's point is that the primary or salient explanation of how they got their true beliefs is something other than their virtuous behavior, and this is true of Scrooge as well. We say that Scrooge (p.19) has genuine knowledge of himself, and in the causal story of this knowledge Scrooge's intellectual virtues play a relatively minor role.

We have seen that recent virtue epistemologists have tried to use the concept of a virtue to answer routine questions of late twentieth-century epistemology, especially in formulating definitions of justification, warrant, and knowledge. We have given our reasons for thinking that the latest efforts have not succeeded. It appears to us that the reason why simple definitions fail is the complexity and
diversity within the concept of knowledge. The concept may be held together by a set of overlapping resemblances between kinds of cases, as Wittgenstein argued that the concept of game is, rather than by a single set of properties that are both individually necessary and jointly sufficient for any case to belong to the class.\textsuperscript{18} To take Greco's definition as an example, he is surely right about many cases of knowledge, that it is a necessary condition of their being knowledge that the agent's epistemic excellences have a prominent place in the explanation of the agent's being in possession of the truth. But to claim that this is a necessary condition for all cases seems to be going too far.

In the anxiety to get a definition of knowledge, philosophers have sometimes lost sight of the basic purpose of definitions: namely, to facilitate \textit{understanding of the concept} in question. The real goal is not just to get a formula that “works”, by triumphing over all its enemies armed with the latest precision anti-Gettier weapons. The great purpose of philosophical epistemology is to sharpen our understanding of knowledge and related epistemic goods. Somewhere in Plato's \textit{Republic} Socrates remarks that the point of the dialectic about justice is not the formulas in which the concept of justice may be more or less successfully defined; its point is the cultivation of the minds of those who participate in it. The process of thinking in the context of a rigorous conceptual debate does clarify (p.20) and deepen the participants' understanding of the concepts discussed, even if no “conclusion” is reached. (In the next chapter we will point out that understanding is a kind of knowledge that is subject to degrees.) The definition may elude us, as Plantinga seems to admit that the strict definition of knowledge eludes him in \textit{Warrant and Proper Function}, but still, all the hard head work involved does result in (some, or a better) knowledge of what knowledge is. Which shows that the wise course is to use formulas for their heuristic value, which is very great, but to have good sense for when paralysis has begun to set in, and to be supple enough in our imagination and adventuresome enough to try a new approach. The concept of an intellectual virtue invites us to a new way of thinking about epistemology, but one that has, up to now, not been far pursued. The practitioners of “virtue epistemology” have been trammeled by the character of late twentieth-century debates about the nature of knowledge.\textsuperscript{19}

Finally, let us offer a brief comment on a way in which our enterprise resembles the definition project. If we think of a definition not as a single formula that captures without remainder the essential characteristics of every instance of some kind, but rather as an expedient for making a concept more “definite” for some person or group of persons, then we too are offering “definitions” of various concepts—in Chapter 2 of the concept of knowledge, in Chapter 5 of the concept of an intellectual practice, in Chapters 7–12 of the concepts of various virtues.
Analytic and Regulative Epistemology

Nicholas Wolterstorff distinguishes two kinds of epistemology, which he calls “analytic” and “regulative”. Analytic epistemology aims to produce theories of knowledge, rationality, warrant, justification, and so forth, and proceeds by attempting to define these terms. The English-speaking epistemology of the twentieth century is chiefly of this kind, and all of the virtue epistemologies of the last twenty-five years have been attempts to turn the intellectual virtues to the purposes of analytic epistemology. Regulative epistemology, which is the kind mostly practiced by Locke and Descartes and others of their period, does not aim to produce a theory of knowledge (though something like classical foundationalism does get produced as a by-product by Locke and Descartes). Instead, it tries to generate guidance for epistemic practice, “how we ought to conduct our understandings, what we ought to do by way of forming beliefs” (p. xvi). Regulative epistemology is a response to perceived deficiencies in people’s epistemic conduct, and thus is strongly practical and social, rather than just an interesting theoretical challenge for philosophy professors and smart students. This kind of epistemology aims to change the (social) world. According to Wolterstorff, Locke’s regulative epistemology was a response to the social and intellectual crisis created by the breakup of medieval Christendom’s intellectual consensus. As Locke and others saw it, people’s intellectual lives needed to be reformed—based on reason, rather than tradition or passions—because only thus could disagreements about the most fundamental issues, along with the resulting social conflicts, be resolved. But Locke also saw the need for reformation as perennial and generically human: “I think there are a great many natural defects in the understanding capable of amendment.” Since “we are all short sighted”, seeing things from our own particular angle and not possessing comprehensive faculties, we need to learn the habit and inclination to consult others whose opinions differ from our own and read outside our discipline.

In effect, Wolterstorff distinguishes two kinds of regulative epistemology, a rule-oriented kind and a habit-oriented kind (see pp. 152–4). Rule-oriented epistemology, exemplified by Descartes’s Discourse on Method and Rules for the Direction of the Mind, provides procedural directions for acquiring knowledge, avoiding error, and conducting oneself rationally. By contrast, Locke’s regulative epistemology, as exemplified in Book IV of his Essay Concerning Human Understanding and Of the Conduct of the Understanding, aims less at the direct regulation of epistemic conduct than at the description of the habits of mind of the epistemically rational person. As Locke comments,

Nobody is made anything by hearing of rules, or laying them up in his memory ... and you may as well hope to make a good painter or musician, extempore, by a lecture and instruction in the arts of music and painting, as a coherent thinker, or a strict reasoner, by a set of rules, showing him wherein right reasoning consists. (Conduct, § 4, p. 175)
We need not rule-books, but a *training* that nurtures *people* in the right intellectual *dispositions*.

Wolterstorff emphasizes that Locke focuses not on the belief-producing mechanisms or faculties that are native to the human mind, but instead on the ways in which such natural faculties are employed in more complex intellectual practices, which have a social dimension and are culturally shaped. Locke aims to reform that culture, to reshape the practices, and thus to foster in his contemporaries habits that support the reshaped practices. It is implicit in Locke's discussions, and often explicit as well, that the habits in question are not mere habits, but virtues. Many habits are nothing more than skills—expertise in plying methods and techniques—but the habits that Locke describes are in many cases "habits of the heart", determinate dispositional states of concern, desire, and pleasure and pain, rather than mere habituated aptitudes. We will return to Locke when we take up the topic of intellectual practices in Chapter 5.

The virtues epistemology of this book is a return to this tradition of the seventeenth century, to a regulative epistemology which, like Locke's, describes the personal dispositions of the agent rather than providing direct rules of epistemic action. It focuses on forming the practitioner's character and is strongly education-oriented. The stress on intellectual virtues that has arisen among us is a start that can be felicitously developed in the regulative direction. Like Locke's, our book is a response to a perception of deficiency in the epistemic agents of our time. But it is not a response to any particular historical upheaval or social crisis. We see a perennial set of deficiencies which in every generation need to be corrected, and a perennial positive need for formation in dispositions of intellectual excellence. Our response to pluralism of belief systems differs from that of Locke and his fellow promoters of the life of "reason". Our regulative epistemology does not aim at quieting fundamental disagreement. Virtues presuppose (p.23) one or another particular metaphysical or world-view background, and the prospect of securing universal agreement about that is dim. However, several of the virtues that we will discuss in Part II broaden minds and civilize intellectual exchange.

The formation of excellent intellectual agents is clearly the business of schools and parents. They are the chief educators of character. But Locke and Descartes think that philosophers have a role as well, and we agree. What is that role, and how does it work? How do philosophers contribute to the regulation of intellectual character? The role that we picture for ourselves both resembles and diverges from the one that epistemologists in the twentieth century implicitly accepted for themselves.

**Concept Exploration versus System Creation**

The preoccupation with e-definitions of knowledge is often part of a larger project of theory building. Many in the modern period assume, almost without reflection, that a philosopher's business is to regiment the concepts in a domain.
(say, moral concepts, or epistemic concepts, or ontological concepts) in a monistic, reductive, hierarchical, or derivational style. In epistemology, the debate between rationalists and empiricists has this character, with the empiricists thinking that knowledge about the world ought really to be derivable from sensory experience alone, so that knowledge is somehow “ultimately” a product of experience; while the rationalists think that knowledge is essentially theoretical or conceptual, and experience is, at best, just a kind of material of, or stimulus to, the production of a conceptual system. In metaphysics, physicalism would be an example, with Berkeleyan idealism the mirror opposite. The theory of meaning in Wittgenstein’s *Tractatus* is another example: every sentence that has meaning has it by picturing a possible state of affairs. In his later writings Wittgenstein rejects this monistic view for a rich pluralism about how language works. No doubt there are dualists in metaphysics and Kantians in epistemology; but philosophers with the mind-set we are describing feel that such “mixed” theories are a sort of unfortunate compromise, a concession to “impure” thinking or “weak” theorizing. The real goal of philosophy, perhaps unachievable but still ideal, is reduction, the derivation of all the concepts in a given field from some single, key concept.

(p.24) We find the same monistic presumption in recent virtue epistemology. Simon Blackburn, supposing virtue epistemology to be modeled on modern ethical theories, considers what it would take for an epistemology to be “anything worth calling virtue epistemology” (p. 24). The question, he says, is about conceptual priority: in particular, whether it can be made out that the concept of an epistemic virtue is prior to other crucial concepts like justification (of beliefs), knowledge, and truth (see p. 17). He considers various ways of conceptualizing truth and looks for a way to avoid the conclusion that the intellectual virtues are “handmaidens to the truth” (p. 24). To admit that truth is “prior” to intellectual virtue would be to “throw in the towel” for virtue epistemology. To avoid this defeating conclusion, he suggests adopting an expressivist theory of truth. On this view, truth is a property of propositions, but “propositions are a kind of abstraction from the nature of judgment”, and “judgment is an activity somehow constituted by what counts as exercising virtue in doing it” (p. 25). Thus truth, as a product of human activities, might derive from human virtues, in which case we might be able to satisfy the formal requirements for any account to be legitimately called a virtue epistemology. Blackburn does not thoroughly develop this theory, or even advocate it. His purpose is just to determine what it would take for an epistemology to be a virtue epistemology. Any “virtue epistemology” according to which virtues are conceived as dispositions to get the truth by “adjusting our confidences to probabilities”, and in which “knowledge arises when we accept propositions in circumstances that require their acceptance”, is so weak as to be “only a fig leaf for reliabilism” (p. 18).
All philosophy consists in proposals about the relations among concepts, in proposed orderings of concepts, and the arguments for those orderings. This is clearly what Blackburn is doing in his paper. In philosophy we ask why-questions that are usually not causal. Thus we might ask, Why is intellectual courage a virtue? or Why is it essential to acts of intellectual charity that they be motivated by goodwill for the interlocutor rather than a concern to crush him in argument? or Why is this one belief a case of knowledge and that other one not? or Why does this belief require evidential support and that one not? Why is it good to be motivated in this \textit{(p.25)} particular way and not that? We might call these \textit{conceptual} why-questions, because answers to them show how one concept can be explained in terms of another, or "derived" (at least partially) from another. Explanation or derivation of this sort is the central activity of philosophers, and not just of philosophers promoting reductive, monistic, hierarchizing theories.

But a philosophical theory, on the hierarchical understanding of it that we have been considering, is not just a pattern of answers to a set of why-questions of this sort, but one that is constrained by special rules concerning what counts as a theory.

Rule 1: If "A" is an answer to "why B?", then "B" cannot be an answer to "why A?"

Rule 2: There must be one and only one ultimate answer to the string of why-questions: that is, one and only one answer about which further why-questions cannot be asked. (This answer provides the name of the theory.)

So, on the hierarchizing view of philosophy, if we ask, "Why is intellectual honesty a virtue?", and the answer is, "Its motivational component is the desire for truth \textit{and} it is a disposition to be reliably successful in the pursuit of truth", only one of these answers will be ultimate. So if you ask, "Why does being reliably successful in the pursuit of truth make honesty a virtue?", the answer can be given, "Because this kind of success is what the motivational component aims at", but if that is the answer, then you can't answer the question, "why does being motivated by the desire for truth make intellectual honesty a virtue?" by saying, "The desire for truth aims at reliable success in the pursuit of truth". You have three options. You can derive the value of the success component from the value of the motivational component (in which case you have what Linda Zagzebski calls a "pure virtue theory"\textsuperscript{24}). Or you can derive the motivational component from the success component (in which case you have a consequentialist theory, "reliabilism"). Or, finally, you can derive both components from a concept of human well-being: the answer to "Why A?" and to "Why B?" is "C": both of the components are virtuous because dispositions with these characteristics are constitutive of human flourishing (in which case we have a "happiness theory"). But the thing you can't do is both or all at the same time—e.g., say "The motivation \textit{(p.26)} component is virtuous because it aims at knowledge, and knowledge is good because it satisfies the motivational component, and both are good because they contribute to human happiness, and they contribute to human happiness because they are good." In that case you wouldn't have a theory at all, and would simply be a bad philosopher,
since Rules 1 and 2 say what a theory is, and conceptual theories are the proper business of philosophers. If you violate these rules, then if the result can be called a theory at all, it is neither pure nor strong.

In this book we follow a different standard. In fact, in light of what mostly counts as theory among philosophers today, we prefer to say that we are offering no theory, and would say this, except that when we do, our friends start quibbling about what counts as a “theory”. We will make many conceptual proposals—proposals about how epistemic and epistemic-moral concepts relate to one another, how virtues interact with and depend on one another, the varieties of intellectual goods and how they are connected with one another and with the various virtues, the relations that virtues bear to human faculties and various epistemic practices. In Part II we will offer extended analyses of particular virtues. These analyses will constitute something like “definitions”; at any rate we aim, by way of our discussions, to make the concepts more definite in our minds. If such definition and conceptual clarification is theory, then we are doing theory; but our “definitions” will not be formulas that aspire to specify the logically necessary and sufficient conditions for anything's falling under whatever concept is in question; nor will we have any qualms about multi-directional “derivations” of concepts. It seems to us that in fact this messy, non-hierarchical logic is actually the logic of the concepts that govern the intellectual life, and that attempts to regiment them into hierarchical orderings satisfying the strictures of typical philosophical theorizing result only in confusing and pedantic analyses that are ill fit to regulate anybody's epistemic life.

We hope that the philosophical work presented in this book will bear out the metaphor of cartography. A map is a schematic representation with a bent toward some particular aspect of the mapped territory. In these two ways, a map is a little bit like a theory, since a theory too is a schematic representation pitched toward certain questions and not towards others. Thus any map of West Virginia will be an abstraction in these two ways. It is never as big and detailed as West Virginia itself, and it can be (p.27) a road map or a topographical map or an economic map of one sort or another, in which case it can ignore many other aspects of the territory. But while cartographers are abstracters with particular interests, they are quite far from being hierarchical derivers. Maps generally have an empirical and messy look. Philosophers, by contrast, are often done in by a neatness compulsion. They like to make crooked lines straight and differences the same. If a philosopher goes to a conference and proposes to some other philosophers that justice is really utility maximization, or that minds are just brains, or that knowledge is always the product of acts of intellectual virtue, or that knowledge is nothing but beliefs produced by properly functioning faculties, she may meet with a lot of disagreement from her colleagues, but she will not be hooted out of the profession. But if a cartographer went to a professional conference and proposed a kind of map showing that swamps are
nothing but very wet and low-lying mountains, or that rivers are a deceptively fluid and meandering sort of forest, he would fall on hard times professionally.

Maps are pictures that are typically meant as guides to something or other. The present book means to represent the intellectual life in some of its conceptual messiness, and by virtue of this “realism” to function as a guide. We are particularly attentive to the character traits of the excellent epistemic agent. Our “map” is pitched in that special way, and it is toward the virtues that it is especially designed to guide. Our sketches of the other, related things are subordinated to that primary object of interest. Just as the cartographer can draw a map that highlights the railway system of a country, without any pretension that the railway system is somehow the foundation or source of derivation of everything else in the country, so in this book we want to map the intellectual virtues, without any pretension that they are the key or the foundation or the wellspring of everything intellectual.

How Regulative Epistemology Regulates
We have distinguished regulative epistemology from analytic epistemology. But to say that our virtue epistemology is regulative is not to deny that it’s analytic. In fact, what we call analysis is our chief expedient of regulation. By the conceptual work that is distinctive of philosophical discourse, we propose to facilitate the improvement of intellectual character. If conceptual analysis is done right, it clarifies the character of the intellectual life in a way that can actually help people live that life. Conceptual clarification is an important part of education, and the improvement of intellectual character is a kind of education. It is a truism that greater understanding of a practice or way of life can facilitate that practice. Conceptual clarification is not the whole of education; a person can be quite adept at explaining the relevant concepts without being very serious about the intellectual life, just as a philosopher of ethics may be good at explaining ethical concepts without being very ethical herself. But if conceptual clarification is not the whole of character education, it is at least something, and it is what the philosopher is well suited to contribute.

A few pages ago we noted that all the virtue epistemologists who have written in the recent past are “analytic” or theoretical epistemologists, still focused primarily on the twentieth-century problems of defining knowledge, justification, warrant, and so forth. It is noteworthy and a symptom of this aim that they write almost nothing by way of sustained analysis of particular virtues.25 If one’s purpose is to formulate a definition of knowledge or an account of justification, it might seem an extravagant expenditure of analytic energy to explore in detail the individual virtues. A general conception of intellectual virtue, with a bit of attention to one or two virtues by way of illustration, should suffice.

But if one aims to provide guidance, the focus shifts to a fairly detailed exploration of the particular dimensions or territories of the life of knowledge—
in the present study, the intellectual virtues themselves. The descriptions we offer of the virtue we call love of knowledge and the virtues of epistemic humility, caution, courage, tenacity, openness, charity, and generosity are the chief regulators, insofar as philosophers can provide such. The concrete description of particular virtues is central and essential to what we are doing here, and distinguishes it from everything else in the field. Thus the chapters of Part II, which are devoted to exploring particular virtues, are the heart of our study. Even someone who denies that the particular virtues ought to be the central focus of virtue epistemology may (p.29) find it useful to have an extended discussion of a few of them. After all, if one is going to base a theory of knowledge on the concept of a virtue, it might be helpful to start with the kind of clarity about virtues that comes from detailed knowledge.

As our brief discussion of Locke indicates, regulative epistemology is nothing new. But regulative philosophical ethics is perhaps easier to recognize. Indeed, before the modern period, in which it seems to be an invisible, compelling, and unquestioned assumption that any philosopher who “does ethics”, including “virtue ethics”, will be found doing moral theory in the hierarchizing sense, philosophical ethics was often and probably mostly a regulative enterprise. Early in his *Nicomachean Ethics*, Aristotle comments that “the present inquiry does not aim at theoretical knowledge like the others (for we are inquiring not in order to know what virtue is, but in order to become good, since otherwise our inquiry would have been of no use)”.26 Yet he also says that the book will bring “no profit” to the ethically immature—the young, the incontinent, those who are ruled by their passions (1095d2–13, pp. 3–4)—the ones whose lives seem to be most in need of regulation. Thus Aristotle envisions the philosophical analysis in his *Nicomachean Ethics* as regulating the lives of his contemporaries and posterity not directly, by the reading of the text, but for the most part indirectly through the work of leaders such as city planners, governors, and teachers who will have read the book and thus gained insights into what virtue and the good life are and how things should be arranged to promote virtue. We might call this the social engineering model of the regulative philosopher’s role.

At the other end of the directness continuum is Søren Kierkegaard, who crafts a diverse literary *oeuvre* designed to influence the reader directly. Even the parts of Kierkegaard’s writings that are most indirect—the pseudonymous ones—aim to influence the reader without human intermediary, and the most direct of his works are discourses that he calls “upbuilding” because they are intended to build up the character of the reader. He addresses these discourses to what he calls “that single individual whom I with joy and gratitude call my reader”. His discourses explore virtue concepts such as love, patience, gratitude, hope, faith, humility, and (p.30) courage. The conceptual work in them is clearly philosophical, in that they explore with great finesse the web of conceptual
connections in which the virtue concepts have their definition, but the hierarchizing characteristic of modern ethical theory is entirely absent.

Where does the present work fit among these alternatives? We would like to think that it will serve both the individual reader who wishes, by becoming more conscious of the structure of intellectual virtues, to be “built up” in the intellectual life, and the educational leader or teacher or deviser of curriculum who wishes to know more about intellectual character so as to “engineer” the school, the classroom, his own pedagogical activities, or the curriculum for maximum educational benefit. It is also, of course, for the professional epistemologist who might be interested in exploring another way of doing epistemology, perhaps in the wake of indecision about the state of the discipline.

A Map of the Map
The chapters of Part I lay out some considerations that will orient our analysis of the particular virtues, and they introduce some general theses about epistemology for which the book as a whole will serve as an argument. In Chapter 2 we will examine the intellectual goods—the aims of the intellectual life—and suggest that, for purposes of regulative epistemology, and indeed for an adequate understanding of the intellectual life, we need a broader and richer conception of the epistemic goods than has characterized recent epistemology. In Chapter 3 we will try to refine the concept of an intellectual virtue, in a general way, and suggest that, for purposes of drawing a useful map of the intellectual life, we need to be more sensitive to the rich diversity of structure among the intellectual virtues than virtue epistemology has been heretofore. The virtues themselves come in integrated sets in which particular virtues, some pairs of which may initially seem to be opposites, balance one another and support, enrich, and qualify one another in a variety of ways. Chapter 4 examines the natural faculties on the basis of which intellectual virtues are built up, and we will argue for diversity here as well. In particular, while most of the faculties play a role something like that of equipment for the activities of intellectual virtues, the will—a faculty much neglected in discussions of the intellectual virtues—plays a quite different and central role. The virtues that enable the highest kinds of epistemic functioning involve the integration of the faculties, especially the “will”, and crucial epistemic virtues have this integrative character. Lists of faculties are controversial, and the virtues are relative to schemata of beliefs about human nature and the nature of the universe, so that epistemology is inescapably shaped by metaphysical commitments. Chapter 5 addresses the topic of intellectual practices, since these are the activities that the virtues fit us to pursue. William Alston has brought the notion of epistemic practices into epistemology, but his concept is not the full-blooded commonsense concept of practice that we see at work in sciences, for example. While recent epistemology has devoted almost exclusive attention to the role of the virtues in acquiring the epistemic goods, we think that a more adequate guide will need to
pay attention to their role in the transmission and application of those goods as well. Part I can be regarded as a sort of general or high-altitude map of the intellectual life, one that provides a perspicuous representation of the relations among the major parts of the territory in question. Part II zooms in on a series of areas within that territory, with attention to their placements in the whole.

Notes:


(6) See Ch. 4 below for refinement of this statement.


(10) We will pursue this thesis further in Ch. 4; we developed it in a somewhat different direction in R. C. Roberts and W. J. Wood, “Proper Function, Emotion, and Virtues of the Intellect”, *Faith and Philosophy* 21 (2004): 3–24.


(12) We owe the example to Jason Baehr. See his article “Virtue Epistemology” in the Internet Encyclopedia of Philosophy.

(13) Internalist justification is justification by some factor, such as evidence, to which the subject has reflective access, at least potentially. Thus a person might be justified in believing that he is famous by seeing himself often discussed in
newspapers. This is an internalist justification because the subject has reflective access to the justifying factor, as well as, in all likelihood, the way in which such a factor justifies. Externalist justification (warrant) is justification by some factor to which the subject does not necessarily have access. A person might be justified in his belief that there is white paper in front of him by the fact that white paper is appearing to him visually, without his having reflective access to how such an appearance justifies his belief.

(14) Zagzebski says, “Start with a case of justified (or warranted) false belief. ... Now amend the case by adding another element of luck, only this time an element that makes the belief true after all” (Virtues of the Mind, pp. 288–9f). But obviously, the false belief cannot be the main belief of the Gettier example, since that is a justified true belief. The Gettier examples do not involve any belief’s changing truth-value. Thus we have slightly reformulated Zagzebski’s recipe.


(17) David Solomon has shown a similar tendency among recent virtue ethicists. In “routine” virtue ethics the concept of a virtue is exploited to answer the central question of modern moral theory—what is the foundation of morality?—while in “radical” virtue ethics it is put to purposes less traditional, or at least less modernly traditional. See his “Virtue Ethics: Radical or Routine?”, in DePaul and Zagzebski (eds), Intellectual Virtue; pp. 57–80.

(18) For an illuminating exposition of Wittgenstein’s notion of family resemblances, see Renford Bambrough, “Universals and Family Resemblances”, in George Pitcher (ed.), Wittgenstein: The Philosophical Investigations (Garden City, NY: Doubleday, 1966), pp. 186–204. While it may not be a new orthodoxy among epistemologists, a growing segment of its practitioners are sympathetic to Timothy Williamson’s judgment that “the upshot of [the debate over the definition of knowledge] is that no currently available analysis of knowledge in terms of belief is adequate” (Knowledge and its Limits (Oxford: Oxford University Press, 2000), p. 4).


(22) But notice that Descartes writes of “practicing the method I had prescribed for myself so as to strengthen myself more and more in its use” (*Discourse On Method*, trans. Donald A. Cress (Indianapolis: Hackett Publishing Company, 1998), Part 2, p. 13; italics added).


(25) The central core of Plantinga's *Warrant and Proper Function* does offer fairly sustained analyses of several of the epistemic faculties insofar as they function properly in the kind of environment to which they are suited, which are Plantinga's counterparts of the intellectual virtues. In Ch. 4 we hope to show that his chapters invite completion in an account of the virtues.


(28) See Jason Baehr's “Character in Epistemology”, *Philosophical Studies* 128, 3 (April 2006): 479–514, in which he argues that, while virtue epistemology is not very promising as a strategy for addressing the routine questions of late twentieth-century epistemology, it is promising for taking epistemology in quite different directions.

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