



Virtue Epistemology

Heather Battaly*

California State University, Fullerton

Abstract

What are the qualities of an excellent thinker? A growing new field, virtue epistemology, answers this question. Section I distinguishes virtue epistemology from belief-based epistemology. Section II explains the two primary accounts of intellectual virtue: virtue-reliabilism and virtue-responsibilism. Virtue-reliabilists claim that the virtues are stable reliable faculties, like vision. Virtue-responsibilists claim that they are acquired character traits, like open-mindedness. Section III evaluates progress and problems with respect to three key projects: explaining low-grade knowledge, high-grade knowledge, and the individual intellectual virtues.

In 1980, analytic epistemology was abuzz with proposed solutions to the Gettier problem, responses to skepticism, newly minted objections to a variety of internalist and externalist theories of justification, and enthusiastic criticisms of foundationalism and of coherentism. Debates over competing analyses of knowledge and justification raged. Enter Ernest Sosa's 'The Raft and the Pyramid', in which the notion of intellectual virtue made its bold contemporary debut. There, Sosa drew the then iconoclastic conclusion that the notion of intellectual virtue could resolve the debate between foundationalists and coherentists. The exploration of intellectual virtue has since become a diverse and increasingly well-established field that has earned its own classification, virtue epistemology, (and its own blog).¹ It has attracted attention largely because it hopes to solve or avoid some of the problems that have shaped the trajectory of traditional analytic epistemology. Whether virtue epistemology succeeds in resolving or avoiding any of the aforementioned problems is open for debate. But, even if it ultimately fails in this endeavor, it might still provide an illuminating perspective on both traditional and new issues in the field. In section I, I contrast virtue epistemology with belief-based epistemology, identifying two types of virtue epistemology: virtue theory, and virtue anti-theory. Section II explains the two main accounts of intellectual virtue: virtue-reliabilism and virtue-responsibilism. Section III evaluates virtue epistemology's progress and problems with respect to three important projects: explaining low-grade knowledge, high-grade knowledge, and the individual intellectual virtues and vices.

I. What is Virtue Epistemology?

How does virtue epistemology differ from traditional analytic epistemology? Traditional analytic epistemology has focused on analyzing knowledge and epistemic justification, and has generated a plethora of competing analyses of each of these two concepts. To illustrate, leading rival analyses of justification have claimed that beliefs are justified when they are (for instance): in accordance with one's epistemic obligations (Chisholm), supported by one's evidence (Conee and Feldman), produced by a reliable process (Goldman, *Epistemology and Cognition*), or based on adequate grounds (Alston). Rival analyses of knowledge have claimed (for example) that knowledge is undefeated justified true belief (Lehrer and Paxson); that knowledge requires one's belief to track the truth (Nozick); or that the standards for knowledge shift with changes in context (Cohen). Though they have little else in common, all of the aforementioned views are versions of belief-based epistemology. In *belief-based epistemology*, beliefs are the primary objects of epistemic evaluation, and knowledge and justification, which are evaluations of beliefs, are the fundamental concepts and properties in epistemology. In contrast, in *virtue epistemology*, agents rather than beliefs are the primary objects of epistemic evaluation, and intellectual virtues and vices, which are evaluations of agents, are the fundamental concepts and properties. Specifically, virtue epistemology takes intellectual virtues and vices – types of agent-evaluation – to be more fundamental than justification, knowledge, or any other type of belief-evaluation; whereas belief-based epistemology takes justification and knowledge – types of belief-evaluation – to be more fundamental than the intellectual virtues and vices, or any other type of agent-evaluation. The belief-based epistemologies mentioned above do not make a point of addressing the epistemic evaluation of agents or the intellectual virtues. But if they had, they would have made agent-evaluation subordinate to belief-evaluation by explaining the virtues in terms of knowledge or justification. For instance, a belief-based epistemologist might define an intellectual virtue to be a disposition to attain justified beliefs, and define justified beliefs to be those that accord with one's epistemic obligations. In sum, virtue epistemology differs from traditional analytic epistemology because the former takes intellectual virtues to be more fundamental than knowledge and justified belief, and the latter does the reverse (Battaly, 'Teaching Intellectual Virtue').²

There are two different ways in which virtue epistemologists take the intellectual virtues to be more fundamental than knowledge and justified belief. (1) Some construct *theories* which define or otherwise ground knowledge and justified belief in terms of the intellectual virtues. (2) Others, *anti-theorists*, shun formulaic connections between the virtues and knowledge, but argue that the intellectual virtues are the central concepts and properties in epistemology and warrant exploration in their own right.

I.A. VIRTUE THEORIES

Virtue theories in epistemology are analogous in structure to virtue theories in ethics. Ethical theories systematically explain the connections between right and wrong acts, good and bad states of affairs, and the moral virtues and vices. *Virtue theories* in ethics define or explain act evaluations in terms of the moral virtues and vices, rather than the other way around. For example, in *On Virtue Ethics*, Rosalind Hursthouse explains right action in terms of the moral virtues as follows: ‘An action is right iff it is what a virtuous agent would characteristically . . . do in the circumstances’ (Hursthouse 28). Analogously, epistemological theories systematically explain the connections between knowledge and justified and unjustified beliefs, epistemically good and bad states of affairs, and the intellectual virtues and vices. *Virtue theories* in epistemology define or explain belief evaluations in terms of the intellectual virtues and vices, rather than the other way around. As Sosa suggests in ‘The Raft and the Pyramid’, in an ‘epistemology of intellectual virtues’, ‘primary’ epistemic evaluation attaches to the intellectual virtues themselves, and ‘secondary’ evaluation attaches to ‘particular beliefs’ because of ‘their source in intellectual virtues’ (189). Ernest Sosa and Linda Zagzebski are the two most prominent virtue theorists in epistemology. In *Ernest Sosa and His Critics, A Virtue Epistemology*, and several papers in *Knowledge in Perspective*, Sosa argues that knowledge requires true belief that is produced by an intellectual virtue.³ In her ground-breaking 1996 book, *Virtues of the Mind*, Linda Zagzebski contends that both knowledge and justified belief are grounded in the intellectual virtues. In her words, a justified belief is ‘what a person who is motivated by intellectual virtue, and who has the understanding of his cognitive situation a virtuous person would have, might believe in like circumstances’ (241). Knowledge is belief that results from acts of intellectual virtue (271).

What is the appeal of epistemic virtue theories? First, advocates of virtue theory have argued that it can resolve some of the key debates in traditional analytic epistemology. With this end in mind, both Sosa and Zagzebski have proposed solutions to the Gettier problem, and provided accounts of low-grade perceptual knowledge. Second, Zagzebski has argued that her virtue theory can also address an important type of knowledge that has been neglected by traditional analytic epistemology. Thus, she intends her analysis of knowledge to apply both to low-grade perceptual knowledge *and* high-grade knowledge, the latter of which requires active inquiry on the part of the agent, and arguably includes scientific and moral knowledge. In short, virtue theory is attractive because it simultaneously pursues knowledge on multiple fronts. *If* virtue theory were to succeed in grounding these two different sorts of knowledge in one or another sort of intellectual virtue, then it will have supplied a (more-or-less) unified theory of knowledge.

Does virtue theory succeed in any of these endeavors? In section III, I argue that Zagzebski's view of low-grade perceptual knowledge and her reply to the Gettier problem do not succeed. But, the branch of virtue theory that is grounded in Sosa's work fares better on this front: it offers a valuable (albeit contestable) account of low-grade perceptual knowledge – the credit theory – and a potentially promising (albeit contestable) reply to the Gettier problem.⁴ The branch of virtue theory that is grounded in Zagzebski's work clearly fares better than the credit theory on the second front: Zagzebski provides an illuminating and much-needed (though, again, contestable) account of high-grade knowledge. In sum, the strengths and weaknesses of each branch of virtue theory complement those of the other. Together, the two branches of virtue theory, with their respective strengths on different fronts, are taking positive steps toward a (more-or-less) unified theory of knowledge.

I.B. VIRTUE ANTI-THEORIES

One need not construct a systematic theory to be a virtue epistemologist. One can take the intellectual virtues to be the central concepts and properties in epistemology but deny that knowledge and justified belief can be systematically defined in terms of the virtues. This approach is analogous to *anti-theory* in ethics, which focuses on the moral virtues but denies that there are necessary and sufficient connections between the moral virtues and right action (Clarke and Simpson). For anti-theorists in virtue epistemology, exploring the intellectual virtues is the most important epistemological project, even though it won't yield systematic connections to knowledge or justification. To illustrate, in *Epistemic Responsibility*, Lorraine Code argues that epistemology is centered on the intellectual virtue of epistemic responsibility, but explicitly denies that there is any 'easy calculus' or systematic theory that could define knowledge in terms of the virtues. In her words, 'theor[ies] of intellectual virtue' cannot 'provide a decision-making scale against which specific knowledge claims can be measured for validity' (63).

There are two main types of virtue anti-theory: virtue-eliminativism and virtue-expansionism. Virtue-eliminativism and virtue-expansionism have two key features in common. First, they are virtue epistemologies (as opposed to belief-based epistemologies): they focus on the virtues. Second, they deny that knowledge and justified belief can be systematically defined in terms of the virtues. This makes them anti-theories. The primary difference between virtue-eliminativism and virtue-expansionism is that the former argues that epistemological projects other than explorations of the virtues should be eliminated: we should abandon discussions of knowledge and justification, and replace them with analyses of the virtues. In contrast, the latter, virtue-expansionism, argues that there is room in epistemology both for analyses of the intellectual virtues and for analyses

of knowledge, even though there won't be systematic connections between these projects. Expansionists are pluralists who argue that there are multiple projects in epistemology that warrant exploration, the most important of which is analyzing the virtues. But, on their view, a focus on the virtues does not warrant abandoning other worthwhile projects, like analyses of knowledge and justification. In other words, expansionists intend to widen the parameters of what counts as epistemology so that there is space for focusing on the virtues; whereas eliminativists intend to narrow those parameters, thus forcing a shift to the virtues. Jonathan Kvanvig argues for virtue-eliminativism in *The Intellectual Virtues and the Life of the Mind*. Kvanvig contends that knowledge and justified belief cannot be reduced to the intellectual virtues; nor can the virtues be reduced to knowledge or justified belief. Instead, the virtues compose an independent part of 'the cognitive ideal' (150, 157, 169). There, he maintains that traditional 'S knows that p' epistemology is unsuited for exploring the virtues, and even suggests that it should be eliminated and replaced by a virtue-centered approach.

Virtue-expansionism is currently a growth-industry in virtue epistemology. Arguably, Christopher Hookway, Miranda Fricker, and Robert C. Roberts and Jay Wood are all virtue-expansionists. Christopher Hookway argues that the goals of traditional analytic epistemology – explaining justification and knowledge – are too narrow and should be expanded to include the explanation of all types of epistemic evaluation. He contends that since the project of explaining the intellectual virtues falls under this broader goal, one can legitimately focus on that project without being compelled to tie one's analyses of the virtues to knowledge or justification. In *Epistemic Injustice*, Miranda Fricker maintains that traditional epistemology is not 'conducive to revealing the ethical and political aspects of our epistemic conduct' (2). She sets out to expand epistemology so as to make room for such projects (not to jettison projects to which traditional epistemology is already conducive). Accordingly, she focuses on analyzing the vice of testimonial injustice, the virtue of testimonial justice, and their ethical and epistemological ramifications. Testimonial justice is (roughly) a disposition to neutralize one's prejudicial perception of speakers (92). Fricker argues that there are connections between this virtue and testimonial knowledge, but she seems to think that these connections are not the necessary and sufficient conditions found in virtue theories. For instance, she contends that knowledge sometimes fails to be transmitted from speaker to hearer because hearers lack testimonial justice; as when the jurors in *To Kill a Mockingbird* fail to neutralize their prejudicial perceptions of Tom Robinson, or Herbert Greenleaf in *The Talented Mr. Ripley* fails to neutralize his prejudicial perception of Marge. But, Fricker appears to stop short of systematically requiring testimonial justice for testimonial knowledge.⁵ The goal of Robert Roberts's and Jay Wood's *Intellectual Virtues* is to offer epistemic guidance. Roberts and Wood explicitly deny

that they are constructing formulaic theories of knowledge or virtue. They intend to offer a ‘broader and richer conception of . . . epistemic goods than has characterized recent epistemology’ (30). With that end in mind, they provide extended analyses of seven intellectual virtues, and argue that some high-grade knowledge in the actual world requires virtue possession. The latter is not a conceptual claim, but a contingent one (see section III.B). Hookway, Fricker, and Roberts and Wood are all virtue epistemologists: they think that analyzing the intellectual virtues is the most important, or at least the most pressing, epistemological project. They are all virtue anti-theorists: each appears to think that knowledge cannot be systematically defined in terms of the virtues. Lastly, they are all virtue-expansionists: each seems to recognize a plurality of worthwhile projects in epistemology.

Virtue anti-theorists view epistemology as an evaluative discipline that need not be constrained by formulaic accounts of knowledge and justification. What is the appeal of virtue anti-theory? It is safe to say that its appeal is not primarily due to virtue-eliminativism. After all, virtue-eliminativism would have to show that the project of analyzing propositional knowledge is bankrupt. This just doesn’t seem to be in the offing, for we appear to have low-grade perceptual knowledge; and even if we ultimately lack such knowledge, it would be worthwhile to find out why we lack it. But, virtue-expansionism is another story. It is appealing because it stands to open up the field to new projects. It carves out space to analyze individual intellectual virtues and vices, to provide advice about how to acquire the virtues, and to draw connections between epistemology and ethics. In section III, I evaluate Roberts and Wood’s claim that some real-world knowledge requires the virtues. I also assess progress and problems with respect to anti-theorists’ analyses of individual intellectual virtues and vices.

II. *What are the Intellectual Virtues?*

Virtue epistemologists all agree that the intellectual virtues are cognitive excellences, but disagree about what sort of cognitive excellences they are. One group – the *virtue-reliabilists* – led by Ernest Sosa and John Greco, has argued that the intellectual virtues are reliable faculties, the paradigms of which include sense perception, induction, deduction, and memory. Virtue-reliabilists adopt a concept of virtue according to which ‘anything with a function – natural or artificial – does have virtues’ (Sosa, *Knowledge in Perspective* 271). Thus, virtues are the qualities of a thing that enable it to perform its function well. Knives and computers have virtues, and so do we. Since our primary intellectual function is attaining truths, the intellectual virtues are (roughly) whatever faculties enable us to do that, be they natural or acquired. In contrast, another group – the *virtue-responsibilists* – led by Linda Zagzebski and James Montmarquet conceives of the intellectual

virtues as states of character, as ‘deep qualities of a person, closely identified with her selfhood’, not as natural faculties, which are ‘the raw materials for the self’ (Zagzebski 104). Both Montmarquet and Zagzebski explicitly reject Sosa’s claim that reliable vision, memory, and the like count as intellectual virtues (Montmarquet 20, 35n4; Zagzebski 8–9, 104).⁶ Virtue-responsibilists model their analyses of intellectual virtue on Aristotle’s analysis of the moral virtues; i.e., they conceive of the intellectual virtues as acquired character traits, for which we are to some degree responsible. Their paradigms of intellectual virtue include open-mindedness, intellectual courage, and intellectual autonomy.⁷

There are five primary questions that analyses of the intellectual virtues should address. First, are the virtues natural or acquired? Second, does virtue possession require the agent to possess acquired intellectually virtuous motivations or dispositions to perform intellectually virtuous actions? Third, are the virtues distinct from skills?⁸ Fourth, are the virtues reliable? Finally, fifth, what makes the virtues valuable? Are they instrumentally, constitutively, or intrinsically valuable? By way of preview, virtue-reliabilists argue that the intellectual virtues are reliable faculties that can be natural or acquired. Accordingly, virtue possession does not require the agent to possess acquired intellectual motivations or dispositions to perform intellectual actions. The virtues that are acquired (rather than natural) are like skills. Because all of the virtues are reliable, they are (at the very least) instrumentally valuable as a means to truth. In contrast, virtue-responsibilists argue that the intellectual virtues are character traits that require acquired intellectual motivations and dispositions to perform intellectually virtuous actions. Responsibilists differ over whether the virtues require reliability; and consequently differ over what makes them valuable (if the virtues are not reliable, they must be valuable for some other reason). Responsibilists often argue that the virtues are distinct from skills.

II.A. VIRTUE-RELIABILISM

What are the qualities of an excellent thinker? Virtue-reliabilism begins with the intuition that excellent thinking consists in reliably getting the truth. Roughly, virtuous thinkers are reliable truth-producers; i.e., their faculties of sense perception, memory, induction, and deduction reliably produce true beliefs. The progenitor of virtue-reliabilism is process-reliabilism. Process-reliabilism argues that a belief is justified if and only if it is produced by a reliable belief-forming process. There are three main problems for process-reliabilism: (1) the generality problem; (2) clairvoyancy cases, which claim that reliability is not sufficient for justification; and (3) evil demon cases, which claim that it is not necessary. In two papers in *Knowledge and Perspective*, Sosa develops his account of intellectual virtue with the express purpose of solving these problems.⁹ Sosa argues that

the intellectual virtues are stable reliable faculties or competences. He takes vision, hearing, memory, introspection, induction, and deduction to be the paradigmatic virtues.

There are five key features of Sosa's account, each of which answers one of the five questions above. First and foremost, the virtues are reliable. That is, they are dispositions to attain more true beliefs than false ones. Sosa points out that the reliability of a cognitive disposition does not require that it attain truths in highly unusual condition just as the reliability of one's car does not require that it start when submerged underwater (Sosa, *Knowledge in Perspective* 275; *Virtue Epistemology* 83–4). For instance, the reliability of the faculty of vision is not impugned by its failure to issue true beliefs about objects that are in the dark. Nor is it impugned by its failure to issue true beliefs about an object's very complex shape (e.g., chiliagon) or specific color (e.g., chartreuse). Rather, its reliability is indexed to conditions (C) in which one sees objects in good light, and to fields of propositions (F) that are about the object's basic shape, color, and so on. Accordingly, Sosa defines the virtue of vision as (roughly) a disposition to attain a preponderance of true beliefs about the basic colors and shapes of medium-sized objects (F), when one sees those objects nearby, without obstruction, and in good light (C) (*Knowledge in Perspective* 139).

Second, according to Sosa, the intellectual virtues can be natural or derived (*Knowledge in Perspective* 278). 'Much of our intellectual competence comes with our brains, but much is due to learning' (*Virtue Epistemology* 86). Vision is a natural virtue; interpreting MRI films would be a derived virtue. The skills one acquires in critical thinking and logic courses would also be derived virtues. In short, the virtues can be, but need not be, acquired. Consequently, the third key feature is that the virtues do not require acquired intellectual motivations. Virtue-responsibilists have argued that the motivation to care appropriately about the truth is acquired. To acquire it, one must acquire a sufficient degree of desire for the truth, and learn which truths are appropriate objects of that desire (see section II.B). Sosa's natural virtues of vision, memory, induction, and deduction do not require any such motivation. After all, children possess the virtues of vision, memory, and the like, but do not yet possess any learned motivation to care appropriately about the truth. Nor, on Sosa's view, do the virtues require dispositions to perform intellectual actions. Intellectual actions are, roughly, acts that an agent intentionally performs in acquiring beliefs; e.g., generating hypotheses, searching for evidence, considering objections, giving reasons for a claim. The natural virtues of vision, and so on, do not require intentional acts on the part of the agent. Since vision, memory, and the like, will reliably produce true beliefs as long as they are functioning well (in an appropriate, non-demon environment), there is no need for the agent to perform intentional acts. She can get the truth without intentionally doing anything.

Sosa's early work in the field emphasized the natural virtues. But, the fourth key feature of his recent work is his emphasis on the analogy between virtues and skills. Sosa now regularly uses the terms 'virtue', 'skill', and 'competence' interchangeably, and often compares the intellectual virtues to the acquired skills of being a good archer and a good tennis player.¹⁰ This shift in emphasis may well be fueled by a need to respond to the value problem (see section III). But, it is important to note that, whatever his current emphasis, Sosa still clearly intends the terms 'virtue' and 'competence' to apply to both natural faculties and acquired skills, intellectual or otherwise. In *A Virtue Epistemology*, he defines a competence as: 'a disposition . . . with a basis resident in the competent agent . . . that would in appropriately normal conditions ensure (or make highly likely) the success of any relevant performance issued by it' (29). This definition is designed to include both performances that are intentional (e.g., shooting an arrow at a target) and competences that are acquired skills (e.g., being a good archer), and performances that are unintentional (e.g. forming a perceptual belief that a truck is coming toward you) and competences that are natural (e.g., good vision). It is also designed to range over different sorts of competences: intellectual, athletic, etc.

Fifth, in *Knowledge and Perspective*, Sosa argues that the virtues are instrumentally valuable (225). The virtues are valuable because they are reliable means to attaining truth, and truth is intrinsically (fundamentally) valuable. He has since argued that the virtues are not just instrumentally valuable, but also constitutively valuable.¹¹

Like Sosa, John Greco argues that the intellectual virtues are stable reliable faculties that can be natural or acquired ('Virtues in Epistemology'; *Putting Sceptics in Their Place* 164–203). Sosa and Greco advocate different analyses of 'internal justification'; i.e., a belief's being justified from the subject's own point of view. Their different treatments of internal justification lead to the only ostensible difference in their accounts of intellectual virtue: a weak motivation condition. Sosa argues that internal justification requires the subject to possess an epistemic perspective: the subject must believe that her lower-level belief is produced by an intellectual virtue. Greco contends that this requirement is too strong, and instead argues that the subject's beliefs need only be 'produced by cognitive dispositions that the [subject] manifests when motivated to believe what is true' ('How to Preserve Your Virtue' 103). This prompts Greco to allow a weak motivation condition in his account of virtue. For Greco, an intellectual virtue is a well-motivated stable reliable faculty. The motivation in question is a motive to attain truths and avoid falsehoods. But, it is not a motivation that takes time and effort to acquire. Rather, it is our normal default position of trying to believe what is true. Greco emphasizes that 'there is no strong motivation condition, no control condition' ('Virtues in Epistemology' 304). This clearly distinguishes his view from virtue-responsibilism.

II.B. VIRTUE-RESPONSIBILISM

Virtue-responsibilism begins with the intuition that what makes an agent an excellent thinker are active features of her agency: actions, motivations, and habits over which she has some control and for which she is (to some degree) responsible. Unlike virtue-reliabilists, responsibilists think that only sentient beings can have virtues. They argue that the intellectual virtues, like the moral virtues, are acquired traits of character – acquired habits of intellectual action and intellectual motivation.

How does Montmarquet answer the five key questions above? First, he conceives of the intellectual virtues as acquired character traits. Second (and relatedly), he argues that the intellectual virtues require an acquired intellectual motivation. According to Montmarquet, the primary intellectual virtue, conscientiousness, is constituted by the motivation to attain truth and avoid falsehood. A person is conscientious when she is ‘*trying . . . to arrive at the truth and to avoid error*’ (21). Unlike Aristotle, Montmarquet does not believe that ‘all men desire to know by nature’ (Aristotle, *Metaphysics* 980a20). We can, and often do, lack the motivation for truth. Moreover, we can possess it and still fail to be intellectually virtuous overall. For instance, an agent might fervently seek the truth, but also emphatically believe that she has already attained it. This agent is conscientious but dogmatic. Montmarquet argues that to be virtuous overall, we must not only be conscientiousness, but possess three additional kinds of regulating virtues – the virtues of impartiality, sobriety, and intellectual courage – which regulate the desire for truth, and prevent it from producing dogmatism, enthusiasm, and cowardice. On Montmarquet’s view, the motivation for truth can be felt too weakly or too strongly, and can be directed at inappropriate objects. To be intellectually virtuous overall, one must learn how to hit the mean with respect to one’s motivation for truth; and to do that, one must acquire the regulating virtues.

The regulating virtues are acquired habits of appropriate action and motivation. To illustrate, Montmarquet thinks that the virtue of open-mindedness involves the tendency to overcome our initial inclination to dismiss unfamiliar ideas. To overcome this inclination, we must perform intellectual actions; specifically, we must seek out and consider alternative ideas. According to Montmarquet, to be open-minded, we must also be motivated to attain truth and, consequently, motivated to consider alternatives. He argues that open-mindedness, and the other regulative virtues, are widely thought to be reliable. Hence, those who desire truth will also want to entertain unfamiliar ideas. Thus, open-mindedness is an acquired habit of both motivation and action: the motivation to entertain alternatives, and the disposition to act in accordance with that motivation.

Third, though Montmarquet does not explicitly contend that the intellectual virtues are distinct from skills, his account is entirely consistent with this claim. He does explicitly argue that the intellectual virtues are

entrenched habits (27). Since (arguably) habits are not skills, he could have gone on to claim that the virtues are not skills. Habits are not skills because though one can deliberately forego opportunities to perform skilled acts without thereby forfeiting one's skill, the same cannot be said of habits or of virtues. As Peter Goldie puts the point: 'there is no "holiday" from virtue as there is from skill' (351).

Fourth, Montmarquet argues that the intellectual virtues need not be reliable. Montmarquet claims that the virtues are thought to be reliable, and may even be reliable in the actual world. But, he explicitly denies what virtue-reliabilists assert: he thinks that the virtues do not require reliability. He argues as follows. Suppose that unbeknownst to us, a demon has manipulated our world so that true beliefs are, and have always been, best attained by the traits we call vices (e.g., dogmatism) rather than by the traits we call virtues (e.g., open-mindedness). He thinks that in this demon world, traits like open-mindedness will still be virtues even though they are unreliable because 'the epistemic virtues are qualities that a truth-desiring person . . . would want to have' (30). In the demon world, truth-desiring people will still believe that open-mindedness and the other virtues are reliable, and will still want to acquire them. Fifth, for Montmarquet, what makes a trait a virtue is not its reliability, but its desirability to those who want truth. The virtues are valuable not because they are instruments for attaining truths, but because the motivation for truth is intrinsically valuable.

Zagzebski agrees that the intellectual virtues are acquired habits of action and motivation. But, unlike Montmarquet, she argues that the intellectual virtues require reliability. On her view, the intellectual virtues are enduring, acquired traits that require both an appropriate epistemic motivation, and reliable success in attaining the end of that motivation (137). Her list of intellectual virtues includes: open-mindedness, intellectual courage, intellectual autonomy, intellectual humility, and thoroughness.

First, she argues that agents merit praise for possessing the intellectual virtues. The virtues are qualities that are difficult to acquire. One might easily fail to attain them. Hence, agents who do attain the virtues warrant praise, and agents who do not (but could have) warrant blame. Since agents neither warrant praise for possessing natural faculties nor censure for failing to possess them, natural faculties are not virtues. Second, Zagzebski claims that skills are not virtues. She argues that virtues and skills are both acquired and both reliably achieve their ends. But, unlike virtues, skills need not be virtuously motivated.

Third, Zagzebski thinks that the intellectual virtues are acquired habits (dispositions) of appropriate motivation and appropriate action. On her view, the motivational component of each virtue is two-fold. Each virtue involves an underlying motivation for 'cognitive contact with reality'; i.e., for truth, knowledge, or understanding (167). She focuses on the motivation for truth. This underlying motivation for truth generates the

motivations that are distinctive of the individual intellectual virtues. So, like Montmarquet, she thinks that agents who are motivated to attain truths will be motivated to entertain alternative ideas (the motive distinctive of open-mindedness), to persevere when faced with opposition (the motive distinctive of intellectual courage), and so on. She, too, believes that we often lack sufficient motivation for the truth, and must acquire it via effort and training. Moreover, she contends that to be virtuous one must not only be appropriately motivated, one must also reliably succeed in attaining both ends of one's two-fold motivation. To illustrate, to be open-minded, one must be motivated to attain truth and motivated to entertain alternatives, and one must also be reliably successful at entertaining alternatives and reliably successful at attaining truth. Let's look at the first end: success at entertaining alternatives. In Zagzebski's words, to be open-minded, one must 'actually be receptive to new ideas, examining them in an even-handed way' (177). That is, one must perform intellectual actions – e.g., entertaining alternatives – which hit the mean. Zagzebski thinks that open-mindedness, like many of the intellectual virtues, lies in a mean between a vice of excess and a vice of defect. The dogmatic person ignores alternatives she should consider; whereas the person we might label 'naïve' considers alternatives she should ignore. The open-minded person hits the mean in her intellectual actions – considering and ignoring alternatives appropriately. To illustrate, suppose that Jane is an open-minded police detective who is investigating the homicide of a prostitute in London. In forming a belief about the identity of the murderer, she considers various alternatives, each of which has a high probability of being true (e.g., one of the victim's clients, or her employer, did it). She does not ignore alternatives that are likely to be true, or consider alternatives that are highly likely to be false (e.g., the President of the United States did it) (Battaly, 'Intellectual Virtue' 159).

Fourth, Zagzebski argues that the virtues require reliability. To be virtuous, one must be reliably successful in attaining both ends of the two-fold motivation. One of those ends is truth. Accordingly, one cannot be intellectually virtuous unless one reliably attains truths. In sum, to be open-minded, one must be (1) motivated to attain truths and thus (2) motivated to entertain alternatives; (3) reliably successful at entertaining alternatives; and as a result (4) reliably successful at attaining truths. (Montmarquet endorses conditions (1) to (3), but not (4).) Zagzebski explicitly rejects Montmarquet's arguments for the claim that the virtues do not require reliability (184–94). In reply to his demon world argument, she claims:

if it turned out that we were wrong about the truth-conduciveness of [open-mindedness], that trait would cease to be considered an intellectual virtue. What we would not do is . . . continue to treat it as an intellectual virtue and then go on to declare that intellectual virtues are not necessarily truth-conducive. (185)

According to Zagzebski, in these circumstances we would cease to consider open-mindedness a virtue because the value of the virtues derives partly from their truth-conducivity.

Lastly, she implies that the virtues may well be instrumentally, constitutively, and intrinsically valuable. They are instrumentally valuable insofar as they reliably produce true beliefs, or other goods. They are constitutively valuable insofar as they are constituents of *eudaimonia* – living well. And, they are intrinsically valuable insofar as the motivation for truth is intrinsically valuable.

So, who is correct – reliabilists or responsibilists? Which account of intellectual virtue is the ‘real’ account? I submit that there is no single ‘real’ account of intellectual virtue, and arguments to that effect will be unproductive. Both accounts are good; neither is more ‘real’ or ‘correct’ than the other. This is because the concept of intellectual virtue is vague. Though the concept entails that intellectual virtues are in some sense cognitively valuable, there is no definite answer as to which additional conditions are necessary or sufficient for its application. In other words, there is more than one good way to fill out the concept. Provided that both of the aforementioned ways of filling it out are equally legitimate, it would be misguided to argue over which of them is ‘correct’ (Battaly, ‘Thin Concepts to the Rescue’).

Instead, we can acknowledge that both virtue-reliabilists and virtue-responsibilists succeed in identifying virtues. After all, one way to be an excellent thinker is to reliably get the truth: to have reliable faculties of vision, induction, deduction, and the like. Virtue-reliabilism explains the widespread intuition that good vision and memory and skills in critical thinking are cognitive excellences. Another way to be an excellent thinker is to possess virtuous motivations and perform virtuous actions: to have the character traits of open-mindedness, intellectual courage, and conscientiousness. Virtue-responsibilism explains the widespread intuition that when it comes to active inquiry, we admire people who act appropriately and care about getting the truth. These are different sorts of intellectual virtues, with ties to different sorts of knowledge. In section III, I argue that virtue-reliabilism is better-suited for explaining low-grade knowledge, while virtue-responsibilism is better-suited for explaining high-grade knowledge. Treating the above accounts as complementary, rather than competitive, benefits both virtue-reliabilists and virtue-responsibilists.

III. Progress and Problems

Here, I evaluate virtue epistemology’s progress and problems with respect to three important projects: analyzing low-grade knowledge, high-grade knowledge, and the intellectual virtues and vices themselves. Low-grade knowledge, the paradigm of which is perceptual knowledge, is acquired passively. Arguably, one can’t help but acquire visual knowledge when

one's eyes are open, one's brain is functioning well, and one is in a well-lighted and otherwise appropriate environment. No intentional action on the part of the subject is required. Adult human beings share low-grade knowledge with children and, perhaps, other animals. In contrast, high-grade knowledge is acquired actively, rather than passively, as a result of intentional inquiry.¹² The paradigms of high-grade knowledge include scientific knowledge (e.g., that $E = mc^2$, that anthrax can be killed by ciprofloxacin), philosophical knowledge (e.g., that behaviorist theories of mind are false), evaluative and moral knowledge (e.g., that Candidate C will be the best President; that lying is wrong except in extreme circumstances), and, what we might call, 'investigative applied' knowledge (e.g., that the patient is infected with bacteria B; that suspect S committed the crime). One won't acquire high-grade knowledge simply by opening one's eyes in an appropriate environment; one must conduct an inquiry: roughly, generate an hypothesis, test it, search for confirming and disconfirming evidence, consider alternatives and objections, and so on.¹³ Traditional analytic epistemology has focused on the valuable goal of analyzing low-grade knowledge. But, analyzing high-grade knowledge is also valuable, since much of our knowledge appears to be high-grade.

First, I contend that Zagzebski's virtue theory is too strong for low-grade knowledge, and fails to solve the Gettier problem. The credit theory of virtue-reliabilists, though not without its own problems, fares better on these fronts. Second, I argue that the credit theory is too weak for high-grade knowledge. Zagzebski's virtue theory, and anti-theories (though not without their own problems) fare better on this front. Finally, if anti-theorists are correct, the intellectual virtues and vices warrant exploration even if they cannot be systematically connected to knowledge. Hence, I conclude by examining progress and problems in anti-theorists' analyses of individual intellectual virtues and vices.

III.A. LOW-GRADE KNOWLEDGE AND THE GETTIER PROBLEM

Zagzebski argues that both low- and high-grade knowledge consist in beliefs that result from acts of intellectual virtue. In her words, 'Knowledge is a state of belief arising out of acts of intellectual virtue' (271). An act of intellectual virtue is

an act that arises from the motivational component of [the virtue], is something a person with [the] virtue would . . . do in the circumstances, is successful in achieving the end of the . . . motivation, and is such that the agent acquires a true belief . . . through these features of the act. (270)

According to Zagzebski, knowledge does not require full-blown virtue possession. One can perform an act of, say, open-mindedness even though one lacks a settled disposition to consider alternative ideas. In short, the difference between an act of intellectual virtue and full virtue possession

is the absence or presence of an entrenched habit or disposition to perform virtuous acts.

One major problem is that Zagzebski's analysis of low-grade knowledge is far too strong. Recall that for Zagzebski, to know, one must perform an act of intellectual virtue, and to do that latter, one must both act as the virtuous person would, and possess the motivational component of the virtue in question. But, according to Zagzebski, the motivational components of the virtues are acquired, and intellectual acts are voluntary. She argues that like morally virtuous motivations, intellectually virtuous motivations are acquired (in part) via practice and the imitation of exemplars. And, like morally virtuous acts, intellectually virtuous acts are voluntary. But, low-grade knowledge – e.g., the visual knowledge that a truck is bearing down on you – does not require an acquired motivation for truth or a voluntary intellectual act (virtuous or otherwise). If there is a truck bearing down on you, and your eyes are open and your visual faculties are functioning well, then you can't help but believe that a truck is bearing down on you. Greco and Baehr both agree with this objection. Greco argues that 'you know there is a truck moving toward you independent of any control' ('Virtues in Epistemology' 296). Moreover, one need not be motivated to be 'open-minded, careful, or the like. On the contrary, it would seem that you know that there is a truck coming toward you even if you are motivated *not* to be open-minded' (296, original emphasis). Likewise, Baehr contends that in cases of passive knowledge, 'having certain motives or performing certain acts . . . are conspicuously absent' ('Character in Epistemology' 495). Thus, when the electricity in one's office suddenly shuts down, one '*automatically or spontaneously* form[s] a belief to the effect that the lighting in the room has changed' (494, original emphasis). Hence, Zagzebski's conditions are not necessary for low-grade knowledge.

Are her conditions sufficient for low-grade knowledge; specifically, has she solved the Gettier problem? Gettier argued that true justified belief is not sufficient for knowledge because justified beliefs can be true by accident. To illustrate, suppose that S has excellent evidence for her belief that Nogot owns a Ford (Nogot tells her he owns a Ford, and she sees him driving one). S then infers that someone in Nogot's office owns a Ford. It turns out that Nogot does not own a Ford (he was participating in an elaborate ruse), but someone else in Nogot's office – Havit – does own a Ford. S's belief that someone in Nogot's office owns a Ford is justified and ends up being true, but it is true by accident, and hence not knowledge. Zagzebski argues that Gettier problems arise for any theory of knowledge which claims that 'knowledge is true belief plus something else that does not entail truth' (283). In her words: 'since justification does not guarantee truth, it is possible for there to be a break in the connection between justification and truth but for that connection to be regained by chance' (284). Accordingly, she intends to immunize her analysis of

knowledge against the Gettier problem by defining an act of intellectual virtue so that it *does* entail true belief. Recall that an act of intellectual virtue is such that ‘the agent acquires a true belief . . . through the [virtuous] features of the act’ (270). In other words, if one arrives at a true belief because of luck, not because of one’s virtuous motives and actions, then one has not performed an act of intellectual virtue, and hence, one’s true belief is not knowledge. So, in reply to cases like Nogot, Zagzebski argues that S obtains a true belief that someone in Nogot’s office owns a Ford by accident, not because of her virtuous motives or actions. Hence, S’s belief that someone in Nogot’s office owns a Ford does not arise from an act of intellectual virtue, and is not knowledge.¹⁴

The primary objection to Zagzebski’s reply to the Gettier problem is that we can still construct Gettier-style counterexamples to her account of knowledge. Arguably, there will still be situations in which an agent performs an act of intellectual virtue but, because of luck, lacks knowledge. To adapt an excellent example from Jason Baehr, suppose that Brenda is a police detective in Los Angeles, who is investigating the homicide of an accountant who worked for a multi-billion dollar corporation.¹⁵ Brenda cares about getting the truth, and consequently is motivated to consider alternative ideas about who committed the homicide and to take care in searching for and evaluating evidence. In short, she is virtuously motivated. Further, for the sake of simplicity, suppose that there are only two suspects: the CEO of the corporation, and the accountant’s husband. The hard evidence reveals that the accountant’s husband openly despised his wife. It also reveals that the accountant repeatedly concealed the corporation’s income, that the federal government was conducting an investigation of the corporation’s accounting practices, and that the fingerprints of the corporation’s CEO were on the murder weapon. Suppose that the majority of the hard evidence points toward the CEO, and that Brenda is thus inclined to believe that the CEO committed the homicide. But, because she wants to get the truth and cares about considering alternative scenarios, she asks her team of detectives for their opinions. In seeking out their opinions, she does what the virtuous person would do. Unbeknownst to Brenda and her team, the corporation has brain-washed her team into believing that the accountant’s husband committed the crime. So, when she consults them, they confidently claim that the husband did it, and contend that she has misinterpreted the hard evidence. After weighing her options, Brenda ‘out of an earnest openness to [her] colleagues’ views and a keen awareness of [her] own fallibility’ comes to believe that the accountant’s husband committed the homicide (Baehr, ‘Character in Epistemology’ 488). Brenda is correct; the husband did it. But, even though all of Zagzebski’s conditions for knowledge are met – Brenda was virtuously motivated, did what the virtuous person would do, and attained a true belief because of these features of her act (if she hadn’t performed an open-minded

act then she wouldn't have arrived at a true belief) – Brenda does not seem to know that the husband did it.

The credit theory, an off-shoot of virtue-reliabilism, claims that an agent has knowledge if and only if she arrives at a true belief because her belief is produced by her intellectual virtues; i.e., stable reliable faculties like vision and memory.¹⁶ Since she obtains a true belief because of her virtues, not because of luck, she deserves credit for believing the truth. On Greco's view, S has knowledge regarding p (e.g., the wall is white) if and only if: S believes the truth regarding p because her belief that p issues from an intellectual virtue (e.g., vision). If S obtains a correct belief because of her own virtues, she merits credit; if she obtains a correct belief as a result of luck, she does not. In Greco's words,

to say that S's believing the truth is to her credit is to say that S's cognitive abilities, her intellectual virtues, are an important part of the causal story regarding how S came to believe the truth. It is to say that [they] are a particularly salient part, perhaps the most salient part, of the total set of relevant causal factors. ('Virtues in Epistemology' 310)

Similarly, according to Sosa, an agent has animal knowledge if and only if her belief is apt.¹⁷ Subject S's belief is apt if it is: true, produced by an intellectual virtue, and S obtains the truth because her belief is produced by an intellectual virtue. In other words, in the case of apt belief, believing correctly is 'attributable to a competence' of the subject; she does not arrive at a true belief by accident (Sosa, *Virtue Epistemology* 92).

Sosa's and Greco's accounts of low-grade knowledge have at least one clear advantage over Zagzebski's. The virtues that *they* require need not involve acquired intellectual motivations or voluntary intellectual actions. On their accounts, S knows that a truck is bearing down on her because her natural virtue of vision produces this true belief. S need not perform any action, or possess an acquired motive for truth. Granted, Sosa's and Greco's accounts of low-grade knowledge are still subject to the standard internalist objections.

Sosa and Greco use the credit theory to propose solutions to the Gettier problem and the value problem. In reply to cases like Nogot above, they argue that S does not arrive at a true belief because of her virtues – her virtues are not the most salient cause of her coming to have a true belief that someone in Nogot's office owns a Ford. Rather, luck is the most salient cause. S arrives at a true belief because, unbeknownst to her, someone else in the office – Havit – just happens to own a Ford. One objection to Sosa's and Greco's reply to the Gettier problem is that it may not be a clear advance on Goldman's causal reply (Goldman, 'Causal Theory of Knowing'). In short, one might wonder whether Sosa's and Greco's reply is subject to 'fake barn' cases. Briefly, imagine that you are driving through a region that, unbeknownst to you, contains very few real barns and many barn facades (you are unable to distinguish between the

two). You see what appears to be the side of a barn and form the belief 'that is a barn'. Your belief turns out to be true, because you happen to have seen one of the few real barns in the area; but, arguably, you do not know that what you have seen is a barn. Now, it seems that your belief meets Sosa's and Greco's conditions for knowledge: it is true, produced by the virtue of vision, and this virtue is a particularly salient cause (perhaps the most salient cause) of your coming to have a true belief. But, it is important to note that there are several potential ways for Sosa and Greco to reply to this objection, all of which they have pursued or are currently pursuing. First, Sosa (in particular) might argue that in the above case, you do have animal knowledge, what you lack is reflective knowledge (Sosa, *Virtue Epistemology* 32). Second, Greco (in particular) might argue that your virtue of vision is not the most salient cause of your coming to have a true belief. Rather, the most salient cause is luck – you just happened to look at one of the few real barns in the area. This reply requires further analysis of causation and salience. Third, they might add a safety requirement to their accounts of knowledge, which would, in turn, require further analysis of safety conditions.¹⁸ In short, the credit theory's reply to the Gettier problem is potentially promising, but clearly requires further defense. Whether the credit theory will ultimately succeed in answering the Gettier problem is open for debate.¹⁹

The value problem claims that reliably produced true belief is not sufficient for knowledge (Zagzebski 301–4). This is because knowledge is more valuable than true belief, and the sum of the value of a true belief and the value of its being reliably produced falls short of the value of knowledge. The value of reliability is merely instrumental. Credit theories claim that the added value is supplied by the credit the agent deserves for arriving at the truth because of her virtues. Both Sosa and Greco argue that it is intrinsically valuable to believe the truth because of one's virtues. Knowledge (apt belief) is more valuable than true (accurate) reliably produced (adroit) belief because of this extra intrinsic value. Whether this reply succeeds will partly depend on whether the successful exercise of natural faculties and skills really is intrinsically valuable. Would such a claim imply that natural faculties and skills cannot be used for bad intellectual ends (e.g., believing whatever it is easiest to believe, or whatever makes one feel good)? If so, why couldn't they be used for bad ends?

III.B. HIGH-GRADE KNOWLEDGE

Unlike low-grade knowledge, high-grade knowledge is acquired actively as a result of intentional inquiry. At a minimum, high-grade knowledge requires the agent to perform voluntary intellectual actions. To illustrate, recall Brenda's attempt to determine who murdered the accountant, but this time, focus on necessary conditions for such knowledge. Since Brenda did not witness the murder, and she is not clairvoyant, she cannot acquire

knowledge of the murderer's identity without performing intellectual actions. She must, say, search for and weigh evidence, formulate a hypothesis, entertain objections, consider alternatives, and follow through on leads. Baehr and Roberts and Wood suggest that much of our scientific, moral, historical, and anthropological knowledge is high-grade.²⁰ 'Investigative applied' knowledge, like that of police detectives, doctors, nurses, and economic forecasters, is also paradigmatically high-grade; hence such knowledge is not restricted to theoreticians or academics.

We have seen that the credit theory defines knowledge in terms of true beliefs that are produced by intellectual virtues. Though the credit theory is primarily interested in accounting for low-grade knowledge, we should consider how it fares with respect to the high-grade. Can Brenda acquire knowledge of the murderer's identity via the passive operation of her natural faculties of vision, memory, induction, and deduction? If she could, she would be superhuman – to us she would appear clairvoyant! Brenda's natural faculties will produce true beliefs about her surroundings, but she won't be able to identify the murderer unless she also performs intellectual actions. Though her reliable faculties are arguably necessary for high-grade knowledge, they are not sufficient. The key necessary component in high-grade knowledge is the performance of intentional actions, but we have seen that natural faculties do not require such acts. Credit theorists do allow for derived virtues, but they have not provided an analysis of them – they have not explained what, in addition to reliability, is required for derived virtues. Consequently, the credit theory is too weak to explain high-grade knowledge.

Virtue-responsibilism has at least one clear advantage over the credit theory in explaining high-grade knowledge: it is not too weak. Recall that for Zagzebski, knowledge requires an intellectual act: (1) that arises from virtuous motives; (2) is what the virtuous person would do; (3) that attains the ends of those motives; and (4) attains a true belief because of those virtuous motives and actions. Zagzebski is in a better position to explain high-grade knowledge because her analysis requires the agent to perform voluntary intellectual actions. On her view, for Brenda to know the identity of the murderer, she must perform the actions that an intellectually virtuous person P would perform were P conducting such an investigation (condition 2). For Einstein to know that $E = mc^2$, he must perform the actions that an intellectually virtuous person P would perform were P generating and testing such a hypothesis. Gettier problems aside, Zagzebski's account of high-grade knowledge cannot be accused of being too weak. If anything, its motivation condition (1) makes it too strong (see below).

Some responsibilists are virtue anti-theorists. As anti-theorists, they think that knowledge cannot be systematically defined in terms of the intellectual virtues. So, unlike Zagzebski, they do not propose necessary and sufficient conditions for knowledge. But, this does not prevent them

from arguing that knowledge is sometimes contingently connected to the intellectual virtues. Thus, both Roberts and Wood and Battaly have argued that in the actual world, high-grade knowledge sometimes requires virtuous motivations and actions. Roberts and Wood claim that though reliable faculties may be sufficient for low-grade knowledge,

for interesting kinds of knowledge – self-knowledge in a deep moral sense, scientific knowledge, religious knowledge, complex historical knowledge – considerably greater powers are needed: in particular, epistemic skills and virtues. (109)

For instance, they argue that Jane Goodall could not have acquired her sophisticated knowledge of chimps without the virtues of courage, love of knowledge, generosity, and practical wisdom. In their words: ‘certain traits of character were necessary for the successful pursuit of Goodall’s intellectual practices’ (147). For instance, her love of animals motivated her to ‘spend vast amounts of time . . . with them’, which was ‘needed to garner the animals’ trust, which in turn made it possible for her to observe things never before recorded by humans’ (147). Roberts and Wood argue that Goodall’s love of animals is ‘at the same time a love of knowing about [animals] in considerable, rigorous detail’ and that ‘this love is an *epistemic* virtue’ (147, original emphasis).

In a similar vein, I have argued that knowing one’s own sexual orientation sometimes requires the motivations and actions associated with open-mindedness, intellectual autonomy, and care in gathering evidence. Contemporary society pressures agents to believe that they are heterosexual. This pressure can cause non-heterosexual agents to ignore evidence, employ wishful thinking, and jump to the conclusion that society favors. Hence, some non-heterosexual agents, overwhelmed by this pressure, will falsely believe that they are heterosexual. Combating this pressure requires agents to perform intellectually virtuous actions – to entertain the possibility that they are not heterosexual, and to consider all relevant evidence. Performing these acts requires a sufficiently strong motivation for truth. Without sufficient motivation to get the truth, agents will succumb to the motivation to believe whatever it is easiest to believe, or to believe whatever will make one feel safe or fit in. In short, sometimes one cannot acquire knowledge of one’s own sexual orientation without possessing intellectually virtuous motivations and performing intellectually virtuous actions.

Though responsibilism fares better than the credit theory in explaining high-grade knowledge, it is still subject to two serious objections, both of which argue that the responsibilist views above are too strong. First, one might object that the responsibilist views above lead to skepticism about high-grade knowledge. For, those views claim that (some or all) high-grade knowledge requires virtue possession (Roberts and Wood) or the possession of virtuous motivations (Zagzebski; Battaly). And, according to responsibilists, virtues and virtuous motivations are difficult to acquire: children

lack them, and so do many adults. Hence, skepticism threatens. In reply, responsibilists might argue that high-grade knowledge is difficult, but not impossible, to attain; and that this is as it should be. High-grade knowledge is harder to get than low-grade knowledge.

Second, and relatedly, one might object that although virtuous acts are required for high-grade knowledge, virtuous motives are not. After all, it seems that one could attain knowledge as a result of a virtuous act that one performs because of non-virtuous, or even vicious, motives. To illustrate, suppose that scientist S is motivated to believe whatever will get his name published in the trendy journals, or whatever will make him famous. This motivation leads S to conduct a thorough and careful investigation of a new topic in his field, which, in turn, results in S's coming to have several true beliefs about this topic. S is careful in gathering and evaluating evidence; hence, he arguably does what the intellectually virtuous person would do. Moreover, the true beliefs that S acquires as a result of his actions seem to constitute knowledge. But S's motive is not intellectually virtuous. In reply, responsibilists might argue that though S's *ulterior* motive (believing whatever will get his name in the trendy journals) is not virtuous, S is still motivated to attain the truth, and hence does attain knowledge.²¹ But if S must value the truth intrinsically in order to possess intellectually virtuous motives, then this reply fails.

III.C. INDIVIDUAL INTELLECTUAL VIRTUES

Anti-theorists argue that intellectual virtues and vices warrant exploration even if they cannot be systematically connected to knowledge. Anti-theorists like Fricker and Roberts and Wood have just begun to analyze individual intellectual virtues and vices in greater depth. Fricker has argued that the vice of testimonial injustice occurs when 'prejudice causes a hearer to give a deflated level of credibility to a speaker's word' (1). She contends that in paradigmatic cases of testimonial injustice, the hearer is prejudiced with respect to the speaker's social identity, for instance, her gender or racial identity. Fricker discusses two such cases at length. First, she argues that in *To Kill a Mockingbird*, white jurors fail to believe the testimony of Tom Robinson, a black man accused of raping a white girl, because of racial prejudice. Second, she argues that in *The Talented Mr. Ripley*, gender prejudice causes Herbert Greenleaf to dismiss Marge's claim that Ripley killed Greenleaf's son. Fricker argues that hearers may be unaware of their prejudices, and may even believe that they are not prejudiced. The virtue of testimonial justice is a critical awareness of, and entrenched disposition to correct, one's prejudicial perception of speakers. This virtue requires the motivation to make unprejudiced judgments, and reliable success in neutralizing prejudiced judgments. Fricker allows for the possibility that one's credibility judgments may be unprejudiced from the start.

Fricker's is the first extended analysis of an individual intellectual vice. As such, it prompts several important questions about the nature of intellectual vice. First, how difficult is it to possess an intellectual vice like testimonial injustice? Responsibilists have argued that it is difficult to acquire the intellectual virtues. Are the intellectual vices also acquired, and if so, are they just as difficult to acquire? If not, why not? Second, what makes an intellectual vice bad? Are vices like testimonial injustice only instrumentally bad, or also intrinsically bad? Third, must an intellectually vicious person have acquired vicious motivations? If so, what is the nature of those motivations? Finally, are the virtue of testimonial justice and the vice of testimonial injustice contraries or contradictories? Relatedly, is there conceptual space for intellectual *enkrateia* and intellectual *akrasia*?

Roberts and Wood have provided detailed analyses of seven virtues: love of knowledge, firmness, courage and caution, humility, autonomy, generosity, and practical wisdom. They argue that these virtues are diverse. Some are defined in terms of a distinctive motivation – e.g., love of knowledge – others in terms of particular sorts of intellectual acts – e.g., courage. Love of knowledge is an acquired motivation to desire knowledge that is significant, worthy, and relevant. One who possesses this virtue does not love all truths equally; she does not desire trivial truths (e.g., about the Los Angeles phone book). Rather, she desires truths that are significant ‘in the sense that other epistemic goods rest on them’, worthy ‘in the sense that their objects are intrinsically important or bear on human *eudaimonia*’, and relevant in the sense that they are connected to her life and interests (Roberts and Wood 160). To illustrate, jurors who love knowledge will want to know whether the defendant is guilty; while a biologist who possesses this virtue may well desire truths about the human genome. In contrast, courage does not require virtuous motives. According to Roberts and Wood, the courageous person's motive may be self-interested; he may act courageously ‘in an effort to forward his career or to make money; or his motive may even be evil’ (217). Intellectual courage is a disposition to overcome fear (e.g., of criticism of our views) and act with aplomb in the face of intellectual dangers (e.g., defend our views appropriately). It lies in a mean between cowardice and recklessness.

Roberts and Wood's analysis raises several questions about the nature of the virtues. First, is courage always a virtue, or can it sometimes be a vice? Is courage a skill that can be possessed both by virtuous people and vicious people? Second, is there a distinction between full virtue possession and *enkrateia*? To illustrate, can one who possesses the virtue of love of knowledge simultaneously possess competing motivations (e.g., the motivation to believe whatever it is easiest to believe), or does the possession of competing motivations demonstrate that one is not fully virtuous? Finally, what are the connections between the moral and intellectual virtues? Are the intellectual virtues a subset of the moral virtues? Are there points at which the analogy between moral and intellectual virtue fails?

To sum up, I have argued that virtue-responsibilism and virtue-reliabilism complement each another. With respect to virtue theory, I have argued that though the credit theory fails to explain high-grade knowledge, it offers a valuable (albeit contestable) account of low-grade knowledge. Likewise, though Zagzebski's responsibilism fails to explain low-grade knowledge, it offers an illuminating (albeit contestable) account of high-grade knowledge. Finally, I have suggested that virtue anti-theory is opening up epistemology to valuable new projects.

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Short Biography

Heather Battaly's primary research interests are in epistemology, ethics, and virtue theory. She is the author of several papers on intellectual virtue, including 'Thin Concepts to the Rescue', *Virtue Epistemology*, eds. Fairweather and Zagzebski; and 'Teaching Intellectual Virtues', *Teaching Philosophy*; and is co-editor of *Perspectives on the Philosophy of William P. Alston* (Rowman & Littlefield, 2005). Her current projects focus on open-mindedness, empathy, and the distinction between virtues and skills. She is an Associate Professor and award-winning teacher at California State University, Fullerton. She is especially fond of teaching epistemology and logic. Battaly earned a B.A. in Philosophy and History from the University of Vermont, and a Ph.D. in Philosophy from Syracuse University.

Notes

* Correspondence address: California State University, Fullerton, Hum 214, 800 N State College Blvd., Fullerton, CA 92834-6868, USA. Email: hbattaly@fullerton.edu.

¹ See Guy Axtell's blog on virtue theory: <<http://janusblog.squarespace.com/>>.

² Also see two Web resources: Greco, 'Virtue Epistemology'; Battaly, 'What is Virtue Epistemology?'

³ In *Knowledge in Perspective*, see especially 'Reliabilism and Intellectual Virtue' 131–45; 'Knowledge and Intellectual Virtue' 225–44; and 'Intellectual Virtue in Perspective' 270–93.

⁴ I do not compare the credit theory's solutions to those of belief-based epistemology, though I would applaud such research.

⁵ See her use of *To Kill a Mockingbird* (Fricker 23–9) and of *The Talented Mr. Ripley* (86–91); and her chapter 3 'Toward a Virtue Epistemological Account of Testimony'.

⁶ See Montmarquet: 'I do not follow . . . the unrestricted kind of teleological approach of Ernest Sosa . . . wherein any truth-conducive capacity, regardless of whether it is a personal quality, counts as an epistemic virtue' (35 n. 4).

⁷ Guy Axtell coined the terms 'virtue-reliabilism' and 'virtue-responsibilism'. See Axtell, *Knowledge, Belief, and Character* xiv–xix.

⁸ Aristotle argues that the moral virtues and practical wisdom are distinct from skills. See NE.1105a18–1105b4; NE.1140b20–1140b30.

⁹ See 'Reliabilism and Intellectual Virtue' and 'Intellectual Virtue in Perspective' in Sosa, *Knowledge in Perspective*; Greco's introduction to *Ernest Sosa and His Critics* xxii–xxiii. Each token belief-forming process (e.g., believing that there is a red plate on my desk at time t1 as a result of seeing it nearby and partly occluded) is an instance of many different process types (e.g., sense-perception, vision, vision of objects that are partly occluded, vision of nearby objects that are partly occluded, etc.). These process types will have different degrees of reliability. The generality problem challenges reliabilists to determine which process type is the relevant one. Sosa argues that the relevant process type is a virtue that is defined in terms of fields of propositions and conditions that can be 'usefully generalized upon' both by the members of 'the epistemic community' and by 'the subject himself as he bootstraps up from animal to reflective knowledge' (Sosa, *Knowledge in Perspective* 284). Sosa argues that the new evil demon and clairvoyancy problems can be solved by indexing virtues to environments (288–290).

¹⁰ See Sosa, 'Virtue Perspectivism'; 'Place of Truth'; *Virtue Epistemology*.

¹¹ Sosa, *Virtue Epistemology* 88. See also Sosa, 'Replies' 320–1, where he argues that virtuously derived true belief is intrinsically valuable.

¹² Once high-grade knowledge is acquired by one member of the community, it can be transmitted to others via testimony.

¹³ For Zagzebski's distinction between low- and high-grade knowledge, see Zagzebski 273–83.

¹⁴ James Summerford argues that beliefs like 'someone in Nogot's office owns a Ford' do arise from acts of intellectual virtue; and hence that Zagzebski's analysis of knowledge fails to avoid Gettier problems.

¹⁵ Baehr, 'Character in Epistemology' 487–8.

¹⁶ See Greco, 'Knowledge as Credit'; Riggs; Sosa, *Virtue Epistemology*.

¹⁷ In *A Virtue Epistemology*, Sosa argues that aptness is sufficient for animal knowledge; safety is not required. Sosa distinguishes animal knowledge from reflective knowledge. The former is apt belief that p. The latter is apt belief that the belief that p is apt.

¹⁸ Sosa endorses a safety requirement in, for instance, 'Replies', but argues that safety is not required for knowledge in *A Virtue Epistemology*.

¹⁹ Should Greco or Sosa succeed in defending an analysis of causal saliency that solves the Gettier problem, Zagzebski's account of knowledge might also benefit. She might adopt their analysis as an explanation of her condition that the agent must acquire a true belief *through* the virtuous features of the act.

²⁰ See Roberts and Wood; Baehr 'Character, Reliability, and Virtue Epistemology'.

²¹ This is Zagzebski's preferred reply. See Zagzebski 313–19.

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