

Erratum to: Perseverance as an intellectual virtue

Nathan L. King

Received: 18 June 2014 / Accepted: 18 June 2014
© Springer Science+Business Media Dordrecht 2014

Abstract Much recent work in virtue epistemology has focused on the analysis of such intellectual virtues as *responsibility*, *conscientiousness*, *honesty*, *courage*, *open-mindedness*, *firmness*, *humility*, *charity*, and *wisdom*. Absent from the literature is an extended examination of *perseverance* as an intellectual virtue. The present paper aims to fill this void. In Sect. 1, I clarify the concept of an *intellectual virtue*, and distinguish intellectual virtues from other personal traits and properties. In Sect. 2, I provide a conceptual analysis of intellectually virtuous perseverance that places perseverance in opposition to its vice-counterparts, *intransigence* and *irresolution*. The virtue is a matter of continuing in one's intellectual activities for an appropriate amount of time, in the pursuit of intellectual goods, despite obstacles to one's attainment of those goods. In Sect. 3, I explore relations between intellectually virtuous perseverance and other intellectual virtues. I argue that such perseverance is necessary for the possession and exercise of several other intellectual virtues, including courage. These connections highlight the importance of perseverance in a comprehensive account of such virtues.

Keywords Perseverance · Intellectual virtue · Intellectual vice · Virtue epistemology · Intellectual courage

The online version of the original article can be found under doi:[10.1007/s11229-014-0418-1](https://doi.org/10.1007/s11229-014-0418-1).

A significant number of unfortunate errors have been identified in the above mentioned article. The full corrected article is republished on the following pages and should be treated as definitive by the reader, replacing the earlier version.

N. L. King (✉)
Philosophy Department, Lindaman Center, Whitworth University,
300 W. Hawthorne Rd., Spokane, WA 99251, USA
e-mail: nking@whitworth.edu

Erratum to: Synthese
DOI 10.1007/s11229-014-0418-1

“Perseverance is more prevailing than violence; and many things which cannot be overcome when they are together, yield themselves up when taken little by little.”

–Plutarch

Intellectual perseverance pervades the history of inquiry. Thomas Edison endured years of work and thousands of failures in his quest to develop the incandescent light bulb. Booker T. Washington overcame slavery, racism, and poverty in order to gain an education and disseminate his political views. Helen Keller overcame blindness and deafness in order to do the same. Isaac Newton labored for years to develop the calculus needed for his system of physics. Centuries later, Einstein displayed similar perseverance in developing a physical system that would surpass Newton’s. Einstein’s contemporary, Ludwig Wittgenstein, wrote his *Tractatus* while a soldier and prisoner during WWI.¹

These are paradigm cases of intellectually virtuous perseverance in action. Reflection on such cases finds a home in virtue epistemology, a kind of epistemology that gives the concept of an intellectual virtue a central role.² Much recent work in this area has focused on the analysis of such intellectual virtues as responsibility, conscientiousness, honesty, courage, open-mindedness, firmness, humility, charity, and wisdom.³ Absent from the literature is an extended examination of perseverance as an intellectual virtue. The present paper aims to fill this void.

An inquiry into the nature of intellectual perseverance is worthwhile for several reasons. First, as the above examples illustrate, this virtue has played a crucial role in the history of the Western tradition—many figures central to that tradition have required the virtue for their intellectual achievements. Second, perseverance is importantly related to other intellectual virtues (e.g., courage and wisdom) that have already undergone significant philosophical investigation. We will better understand these virtues for understanding their relations to perseverance. Third, in many ordinary cases, perseverance is conducive to such epistemic goods as truth and knowledge.⁴ Understanding intellectually virtuous perseverance—and its relation to epistemic goods—can thus provide at least a modest degree of intellectual guidance. Finally, reflection on perseverance (and on particular examples thereof) can provide motivation to pursue that very virtue.

¹ On Edison see Josephson (1959); on Washington see Washington (1963); on Keller see Brooks (1956); on Newton see Westfall (1980); on Einstein see Isaacson (2007); on Wittgenstein see Monk (1991).

² See Hookway (2003), Greco and Turri (2011), and Baehr (2011) for helpful introductions to virtue epistemology.

³ See, e.g., Zagzebski (1996, Chap. 5) Roberts and Wood (2007), Riggs (2010), and Baehr (2011, Chaps 8, 9).

⁴ In this connection see Duckworth and Seligman (2005), a study showing that self-discipline of the sort characteristic of perseverance outperforms IQ as a predictor of academic success. See Peterson and Seligman (2004, Chap. 10) for a survey of the psychological literature on persistence as a character strength.

Here is a preview of the paper. In Sect. 1, I clarify the concept of an *intellectual virtue*, and distinguish intellectual virtues from other personal traits and properties. In Sect. 2, I provide a conceptual analysis of intellectually virtuous perseverance that places perseverance in opposition to its vice-counterparts, *intransigence* and *irresolution*. The virtue is a matter of continuing in one's intellectual activities for an appropriate amount of time, with serious effort, in the pursuit of intellectual goods, despite obstacles to one's attainment of those goods. In Sect. 3, I explore relations between intellectually virtuous perseverance and other intellectual virtues. I show that intellectual perseverance is distinct from intellectual courage, and argue that perseverance is necessary for the possession and exercise of several other intellectual virtues, including courage. These connections highlight the importance of perseverance in a comprehensive understanding of such virtues.

1 Intellectual virtues

This section will (i) explain the concept of an *intellectual virtue* that will be salient in the remainder of the paper; and (ii) briefly distinguish intellectual virtues from moral virtues. Bracketing and clarification on these matters will prevent confusion and distraction that might otherwise arise later.

Philosophers don't speak with one voice about the nature of the intellectual virtues. Some construe the intellectual virtues as acquired traits of cognitive character.⁵ Such virtues are often dubbed "character virtues." Other philosophers understand the intellectual virtues as reliable cognitive faculties such as reliable vision, reason, and memory. These go by the name "faculty-virtues."⁶ The present analysis of perseverance focuses on a particular intellectual character virtue. Such a focus does not negate the importance of faculty-virtues. On the contrary: virtue epistemologists of various stripes have argued that a fully developed virtue epistemology will incorporate both character and faculty-virtues.⁷ Thus, in developing an account of perseverance as a virtuous trait, the present paper reflects not a partisan theoretical choice, but rather a choice of emphasis. By way of theoretical commitment, the paper does not require the eschewing of faculty-virtues. The present task requires only that character virtues are

⁵ See Code (1987), Montmarquet (1993), Zagzebski (1996), Roberts and Wood (2007), and Baehr (2011).

⁶ See Sosa (1991), (2007), (2009), and Greco (2010). All of these works put faculty-virtues to work in addressing traditional epistemological topics (e.g., the analysis of knowledge and the proper response to skepticism). Some philosophers who emphasize character virtues put such virtues to similar work. See, e.g., Zagzebski (1996).

Like Sosa's and Greco's, Zagzebski's account of intellectual virtue includes a reliability component: intellectually virtuous agents possess knowledge in part because their character enables them reliably to form true beliefs. The account of perseverance developed in this paper neither requires nor excludes such a reliability component on intellectual virtue. What results is an ecumenical account of perseverance that can be adapted to suit the purposes of virtue epistemologists of several different stripes.

⁷ Thus, Greco and Turri (2011): "[I]t is plausible that a complete epistemology must feature both faculty-virtues and character virtues. Faculty-virtues seem indispensable in accounting for knowledge of the past and the world around us. Character virtues seem equally indispensable in accounting for richer intellectual achievements such as understanding and wisdom, which may presuppose knowledge, but which may also exceed it." For more on the ways in which character and faculty-based virtue epistemology can complement each other, see Baehr (2011, Chap. 4), and Greco (2002) and (2010).

worthy of their name, and that the analysis of individual intellectual virtues is a fitting one for virtue epistemology.

In order to further clarify the concept of an intellectual character virtue, it will help to distinguish such virtues from other cognitive excellences. For not all cognitive excellences are character virtues. One can exhibit cognitive excellence by having a reliable faculty (e.g., reliable vision), or by having a naturally excellent temperament (as when one is naturally conscientious), or by displaying a natural talent for some broad sort of activity (say, reasoning), or by performing well at some particular skill (e.g., modal logic proofs). To be sure, there are philosophically respectable senses in which all of these may be called “virtuous.” But none of these excellences suffice for the possession or exercise of an intellectual character virtue. For the purposes of this paper, we may understand *intellectual character virtues* as traits of excellent cognitive character involving a motivation for acquiring, maintaining, or distributing intellectual goods, and which typically require efforts on the agent’s part for their acquisition and maintenance; further, they are traits that tend to make their possessor excellent *qua* person.⁸ In what remains, for the sake of convenience, such traits will be dubbed simply “intellectual virtues.”

It is their status as character traits that separates intellectual virtues (of the sort in view here) from innate faculties, general abilities, temperaments, and skills. Faculties and abilities are properties of persons, but they are not character traits, and so not virtues of the sort discussed in this essay. Similarly, that intellectual virtues are typically *acquired* traits distinguishes them from innate faculties and temperaments. Intellectual virtues, but not faculties and temperaments, are acquired largely by the agent’s activity. Intellectual skills are like virtues in this respect, but they do not automatically render a person excellent in the way virtues do—one is *personally* excellent for being intellectually courageous in a way that she is not excellent for being (say) skilled at algebra. Further, intellectual virtues require a motivation for intellectual goods. Skills don’t require this. One can acquire skills for purely mercenary reasons, as when a child learns her math sums solely in order to receive candy. Intellectual virtues, by contrast, require motivation for intellectual goods themselves.⁹

We’ve now distinguished intellectual character virtues from other varieties of cognitive excellence. Next it will be helpful to consider what is *intellectual* about the intellectual virtues; that is, to distinguish intellectual virtues from moral virtues. It is standard to distinguish between moral and intellectual virtues in terms of the spheres of activity that these virtues involve, including the ends of the relevant activities.¹⁰ The moral virtues are largely dispositions to act with excellence in some particular sphere of human activity (e.g., action in the management of fear, money, or the appetites) with some morally valuable end in mind (e.g., the good of other persons). *Intellectual* virtues are dispositions to think and act excellently as one carries out intellectual

⁸ For similar notions of intellectual virtue, and discussion of the differences between virtues and other features of agents, see Zagzebski (1996), Roberts and Wood (2007), and Baehr (2011).

⁹ This is not to say that an agent must be consciously aware of such motivation in order to exhibit intellectual virtue; in many cases, the agent may exhibit the motivation while in “default mode.”

¹⁰ See Zagzebski (1996), Roberts and Wood (2007), Greco and Turri (2011), and Baehr (2011).

activities; that is, activities with intellectual ends such as knowledge and true belief. For example, intellectual courage and caution can be distinguished from their moral analogues by the way the former virtues are, but the latter need not be, related to intellectual projects that aim to discover, retain, or communicate epistemic goods. Likewise for intellectual perseverance.

This characterization of the relationship between the intellectual and moral virtues is not comprehensive. It doesn't tell us whether the two sets of virtues are disjoint, overlapping, or whether (say) the intellectual virtues are a proper subset of the moral. However, sorting out the precise relationship between these sets of virtues would take us too far afield. This paper's primary aim is the analysis of intellectually virtuous perseverance. Proper setup with respect to that task does not require sorting out the set relations between moral and intellectual virtues. Rather, we simply need to highlight something about intellectual virtues that sets them apart from other virtues, whether these others are species in the same genus (say, moral virtues) or not. The current way of drawing the distinction suffices for this.

2 Intellectually virtuous perseverance

2.1 Paradigm cases

To get an initial grip on our target concept, it can help to consider paradigm cases. In addition to those mentioned in the introduction, consider the following examples.

First, return to the case of Helen Keller. Born with sight and hearing, as an infant Keller suffered an illness that left her blind and deaf. Having great difficulty in giving and receiving communication, as a young child she was prone to despair, anger, and fits of violence. At the age of seven, Keller came under the tutelage of Anne Sullivan. Sullivan taught Keller tactilely, by spelling words into the student's hands. Once the method became clear to Keller, she immediately demanded that Sullivan teach her signs for many more objects, so that within a few hours, Keller had mastered some thirty words. This was no temporary flurry of intellectual excitement. Of Sullivan's early years with Keller, biographer Van Wyck Brooks writes,

... Anne was already observing certain traits of Helen that were to become more marked as time went on—for one, the pertinacity and the love of perfection that accompanied her singleness of purpose. She was unwilling to leave a lesson if she did not understand it all, and even at the age of seven she would never drop a task until she had mastered it completely.¹¹

This was merely the beginning of a long process that would see Keller complete a bachelor's degree and become an internationally-known advocate for the disabled, and for women's suffrage.

Second, consider the case of Roger Bannister. Sports fans know that Bannister was the first miler to crack the 4 minute barrier. Less well-known are Bannister's considerable efforts and achievements in exercise physiology and neurology. Much of

¹¹ Brooks (1956, p. 17).

the relevant research came at the cost of considerable physical exertion. To recount just one example: in order to obtain experimental results regarding the effects of inhaling oxygen-enriched air, Bannister did not merely test subjects and record and collate results. Rather, he made himself a subject in his own experiments. Over a dozen times, he wrapped his mouth around a rubber pipe, stepped onto a steeply-graded treadmill, and climbed to exhaustion as assistants pricked his fingers for blood samples. Finally spent, Bannister collapsed and shot out the back of the treadmill onto a makeshift pile of blankets and mattresses—all in order to gain a better understanding of exercise physiology.¹²

Third, consider the case of Tycho Brahe. Working near the end of the 16th century, Brahe sought to develop a system that synthesized Aristotelian philosophy with the new Copernican (heliocentric) system. Of central importance was to demonstrate the consistency of heliocentrism with the Aristotelian doctrine of circular orbits. Such a synthesis was a live possibility in Brahe's day. The doctrine of elliptical orbits not yet having been established, it was reasonable for him to seek the synthesis. But by his lights, achieving the synthesis required painstakingly detailed observations of planetary motion. In order to make these observations, he founded and built his own observatories, which included instruments designed with exacting precision. He spent decades amassing a cache of observations whose accuracy was unrivaled in his time. This work never achieved Brahe's aspirations for it. In an unfortunate and ironic series of events, Brahe died suddenly before completing his work. His disciple, Johannes Kepler, went on to refute the doctrine of circular orbits—using Brahe's data to do so.¹³

In Keller, Bannister, and Brahe, we see agents involved in paradigmatically intellectual activities—language learning, public dissemination of ideas, and scientific research. These agents display traits of personal excellence in their pursuit of goods, some of which are distinctively intellectual (e.g., true belief, knowledge, and understanding). The development and maintenance of these traits requires serious effort. Accordingly, in their possession and exercise of intellectual perseverance, these agents display intellectual virtue in the sense developed in Sect. 1.¹⁴

¹² For a sampling of Bannister's work in these areas, see [Mathias and Bannister \(2002\)](#). For a helpful summary of Bannister's medical research, see [Bascomb \(2004, Chap. 7\)](#). No doubt Bannister's research was aimed, not just at understanding, but also at improved athletic performance. But given his strict amateurism and early retirement from running in order to pursue a vocation in medicine, only those unfamiliar with Bannister's life could confuse him for someone solely interested in winning races; he clearly valued epistemic goods. On Bannister's amateurism see his (1955, p. 218 f.f.). Crucially, exclusive focus on epistemic goods is no requirement of intellectual virtue. See Sect. 2.6 for discussion on this point.

¹³ See [Pannekoek \(1961, Chaps. 20–23\)](#) for a summary of Brahe's observations and the use to which Kepler put them.

¹⁴ One might think that the Keller and Bannister cases are primarily examples of intellectual *courage* rather than of perseverance. But on extant accounts of courage, courage is a trait that requires persistence in the face of *fears* or *threats*. In the cases of Keller and Bannister, however, the relevant obstacles to intellectual goods are such items as discomfort, discouragement, and frustration. Thus, though Keller and Bannister seem to exhibit perseverance, their cases seem not to be paradigm cases of courage. See Sect. 3 for more on the distinction between courage and perseverance.

2.2 Definitions

Though they provide helpful orientation and inspiration, these cases are of limited theoretical value on their own. We need an *analysis* of our target concept. We can start by providing an initial account of intellectually virtuous perseverance, and then proceed to unpack the details of that account.

It will help to distinguish between *having* the virtue, *exercising* the virtue, and *acting in a manner characteristic of* the virtue. We may define these, respectively, as follows:

- An agent *A* *possesses the trait* of intellectually virtuous perseverance if and only if *A* is disposed to continue in *A*'s intellectual endeavors for an appropriate amount of time, with serious effort, in the pursuit of intellectual goods, and despite the presence of obstacles to *A*'s acquiring, maintaining, or disseminating these goods.
- An agent *A* *exercises* intellectually virtuous perseverance if and only if *A* possesses the trait of intellectually virtuous perseverance, and continues in *A*'s intellectual endeavor for an appropriate amount of time, with serious effort, in the pursuit of intellectual goods, and despite the presence of obstacles to *A*'s acquiring, maintaining, or disseminating these goods.
- An agent *A* *acts characteristically of* intellectually virtuous perseverance in circumstances *C* if and only if in *A* acts in a way a person possessing intellectually virtuous perseverance would typically act in *C*.

Two clarifications are in order straight away. First, though stated in terms of necessary and sufficient conditions, these definitions are consistent with the idea that virtues come in degrees. One who satisfies the conditions for intellectually virtuous perseverance can do so by meeting the bare minimum requirements, or by exceeding them significantly. For example, an agent who exercises perseverance *throughout* the course of inquiry is more virtuous than an otherwise excellent agent whose perseverance lapses at a few points during the inquiry. Second, the above definitions suggest several important logical relations. An agent must possess the trait of intellectually virtuous perseverance in order to exercise it. Further, her possession of the trait will dispose her to act in accordance with it. However, she may possess the trait without exercising it on all occasions (say, if the occasion doesn't demand the exercise of the virtue). Finally, an agent can act characteristically of a virtue without possessing it. Indeed, this is probably the norm while the virtue is being acquired.

The definitions just provided align well with the paradigm cases discussed above. However, they also raise several questions that need answering if our analysis is to be sufficiently rich: What are the vice-counterparts of intellectually virtuous perseverance? What is an *appropriate* amount of time to persist in one's intellectual projects, and what determines this? What kinds of *obstacles* are salient to intellectually virtuous perseverance? What is an obstacle to the achievement of intellectual goods? What are the *intellectual goods* that the virtuously persevering agent seeks? Does intellectually virtuous perseverance require an exclusive focus on intellectual goods? Does the possession or exercise of intellectually virtuous perseverance require the completion of

one's projects, or at least progress in that direction? Is intellectual perseverance the same for everyone? We can clarify our definitions of intellectually virtuous perseverance by taking these questions in turn. The remainder of Sect. 2 does just this, and in doing so unpacks the key clauses in our definitions.

2.3 Vice-counterparts and the role of practical wisdom

Like many other virtues, intellectual perseverance is a mean between two extremes, one a deficiency and the other an excess. In the present case, *irresolution* is the deficiency. This is a disposition to give up too early on one's intellectual projects in the face of obstacles to the successful execution of these projects; it also occurs when one continues in one's projects, but does so slothfully. Examples include the high school student who abandons his geometry homework after five minutes because he finds it difficult, the aspiring author who quits writing because he's distracted by reruns of "Gilligan's Island," and the grad student who drops out of school simply because the dissertation seems like a lot of work.

Irresolution should not be confused with *indifference*, though both sometimes explain why someone quits an intellectual project. The high-school dropout who quits because he finds school mildly difficult does something different from the one who drops out because he doesn't care to learn. The former student exhibits irresolution; the latter exhibits a failure to love knowledge. The irresolute person folds in the face of obstacles, though he may value the knowledge to be gained, retained, expressed, or applied in his projects. The indifferent person does not value the intellectual goods associated with the projects in the first place.¹⁵ It is principally the former, irresolute person who exhibits the deficiency that keeps him from intellectual perseverance.¹⁶

Intransigence is the excess that opposes both virtuous perseverance and the deficiency of irresolution. Whereas irresolution is a disposition to give up too early on one's projects, intransigence is the disposition to give up too late, or not at all. It is exhibited when one persists in a project that is not worthwhile, or persists despite strong evidence that no further progress on the project is forthcoming. Here one thinks of Hobbes trying to square the circle, of nuclear physicists trying to achieve cold fusion, and of imprudent explorers searching for the Fountain of Youth. These are cases in which the inquirers persist in their projects long after the projects should be abandoned.

Plausibly, though a mean between irresolution and intransigence, intellectually virtuous perseverance lies closer to the latter. In this respect, perseverance is akin to courage, which—in both its moral and intellectual varieties—lies closer to rashness than to cowardice. To see this, think of those cases of perseverance that involve agents persisting with great effort for a very long time, and despite a large number of obstacles.

¹⁵ The indifferent person will fail to satisfy our definitions of intellectually virtuous perseverance because he won't engage in intellectual projects for an appropriate amount of time; and he won't engage precisely because of his indifference. But indifference, though opposed to perseverance in this way, is more proximately opposed to virtues like conscientiousness and proper curiosity.

¹⁶ Not all cases in which one fails to care about some particular item of knowledge are cases of vicious indifference. If I have no interest in the 40th entry in the Wichita, KS phonebook, I don't *ipso facto* exemplify vicious indifference. But presumably there are cases of vicious indifference. Indifference to large stretches of inquiry relevant to human flourishing is among them.

(For the sake of concreteness, consider authors whose manuscripts are persistently rejected or poorly reviewed before success finally arrives.)¹⁷ We admire these agents because they pursue their projects for longer and despite more difficulty than an average person would. Indeed, in many such cases, had the agents persisted much further, their actions would have bordered on intransigence. This suggests that many paradigm cases of intellectually virtuous perseverance are not far from intransigence, and that they are far indeed from irresolution. By contrast, it is difficult to imagine a *paradigm* case of virtuous perseverance in which an agent persists just long enough, through just enough difficulty, to count as persevering.

So, perseverance as an intellectual virtue is a mean between the vices of irresolution and intransigence. It requires a disposition to stick to one's intellectual projects for an appropriate amount of time. What amount of time is appropriate? A natural answer is that appropriateness will be discerned by *practical wisdom*. Practical wisdom will, when exercised, enable an inquirer to tell whether the given project is worthy of continued pursuit. It will thereby allow her to tell whether continuing in the project would be intransigent, and whether abandoning the project would be irresolute. In other words: the notion of practical wisdom goes some distance toward spelling out the "appropriateness of time spent" condition on intellectually virtuous perseverance.

But this appeal to practical wisdom is unsatisfying unless further explicated. We want to know more about what practical wisdom recommends in concrete cases; and we want to know *why* practical wisdom makes its recommendations.¹⁸ Here we find no tidy formula. Given the wide range of possible intellectual projects, inquirers, and circumstances, we should not expect one. But even in the absence of a decision procedure that tells us exactly how long we should stay at our intellectual projects, we can at least identify the *kinds* of considerations that practical wisdom will consult. That is, we can specify the kinds of considerations that will form the *basis* of judgment for practical wisdom.

First, in discerning whether a project is worthy of continued attention, practical wisdom must judge whether the project is worthy of interest in the first place. Such judgments enable the agent to avoid unworthy subjects, and thereby to avoid intransigence. Practical wisdom will account for the importance of the relevant task—whether to the agent herself or to human flourishing more generally.¹⁹ Other things being equal, practical wisdom will advise in favor of projects with potential to enhance our understanding of topics that are of enduring human interest (e.g., those that are relevant to human flourishing). There is no canonical list of such topics. However, some lists are better than others. Take the list including the following questions: Do humans have morally significant freedom? What is the nature of morality? Does God exist?

¹⁷ In the realm of academic philosophy, one thinks of Hume's struggles to disseminate the ideas of his *Treatise of Human Nature*. In the realm of popular literature, one thinks of J. K. Rowling's enduring a dozen rejections before the publication of her *Harry Potter* series. Such examples could be multiplied.

¹⁸ On this point see Jason Baehr's discussion of practical wisdom in connection with intellectual courage (Baehr 2011, pp. 187–90). This section owes much to that discussion.

¹⁹ Of course, practical wisdom will not sanction just *any* project in which an agent is interested. Such endeavors as reading the phone book straight through, or counting the blades of grass on one's front lawn, are unlikely to win the approval of practical wisdom.

Is there life after death? How can we cure the world's worst diseases? How can we solve the problem of widespread famine? Clearly, this list is better than the following one: Which team will win the New Hampshire state high school badminton title in 2037? Who designed the dress that Diane Keaton wore to the Oscars last year? What was William Faulkner's second-favorite color? What metal comprised the rear bumper bolts for the 1963 Corvair? Given the importance of the questions in the first list and the relative unimportance of those in the second, practical wisdom will tend to favor projects on the first list.²⁰ More generally, given a choice between an important project and a trivial one, practical wisdom will (other things being equal) direct us toward the important project. Where two or more important projects compete for our time, practical wisdom will (other things being equal) steer us toward the most important one. Subjects who choose to pursue *pointless* truths will not exhibit intellectually virtuous perseverance even if they endure obstacles in the pursuit of those truths. For in such cases, the subjects exhibit *folly* rather than *wisdom*, and intransigence rather than virtuous perseverance. (Thus, there is a distinction to be drawn between perseverance and virtuous perseverance. This point is discussed in greater detail in Sect. 2.4.)

As we've seen, the importance of an intellectual project is often a matter of the importance of some question to which the inquirer seeks an answer. But in other cases, the primary focus of an activity may be the acquisition of skills or knowledge that are expected to pay dividends for some future (perhaps undefined) inquiry. The student who is in the midst of a challenging set of math problems, or a difficult history reading, is rightly motivated by a desire for an education of the sort that will promote his intellectual and general flourishing beyond the classroom. The project of gaining an education is an important part of what makes his intellectual activities as a student worthwhile; the student who possesses practical wisdom will account for this.

Second, practical wisdom will consider the likelihood of a project's success. Suppose an agent has good reason to think that she'll succeed if she takes on project A. Other things being equal, practical wisdom will advise her to choose project A over some other project B whose prospects for success are slimmer. Good prospects for success count in favor of an endeavor, and poor prospects count against. Beyond this, things get messy. Pursuing a project with fairly dim chances of success need not bespeak intransigence (say, if the project is extremely important). And pursuing one with very good chances of success may bespeak intransigence despite these good chances. This may happen when undertaking a project comes at the opportunity cost of foregoing a vastly more important project with slightly dimmer prospects for success. Similarly, when a more important project is on the horizon, quitting a current one that will likely succeed does not by itself imply irresolution. Crucially, whether a current or alternative project is likely to succeed is, in typical cases, a highly discipline-specific matter. Agents who possess practical wisdom are not thereby qualified to make judgments about such matters *a priori*. Rather, the practically wise person factors evidence about a project's prospects for success into a decision about whether to continue the project. Thus, for example, if an archaeologist is considering whether an important

²⁰ In odd cases, questions on the second list may become more important than those on the first. This would happen if, e.g., I planned to wager my life on having the correct belief about Keaton's dress designer.

discovery is more likely at the current dig site than at an alternative site, the crucial facts in evidence will be archaeological facts.

In some cases, the long-run prospects for a successful inquiry hinge on certain social factors. These may in turn dictate whether continued inquiry bespeaks intransigence or virtuous perseverance. Suppose a researcher is working on a very difficult problem—say, she’s seeking a cure for AIDS or cancer. Whether continued efforts amount to perseverance or intransigence may depend on whether she’s part of a community that is dedicated to curing the disease over the long haul. If she’s part of such a community, virtuous perseverance may be consistent with many more failures, and much dimmer prospects for *her* discovering the cure, than if she’s laboring on her own. For in such a case, though she may not think that she is likely to make much progress toward a cure, she is part of a community that, taken together, is significantly more likely to make such progress. Community support can help save her from intransigence.

These considerations do not provide an algorithm that will enable one to determine whether to continue in some intellectual project. They tell us that practical wisdom will consider a project’s importance and its chances for success. But these factors do not always point in the same direction. And when they diverge, it is not always clear how to weigh their relative merits. This is unfortunate, but not debilitating for the account of intellectual perseverance developed here. The appeal to practical wisdom originated in response to the question, How much time is appropriate to devote to one’s intellectual projects? The considerations developed above provide significant guidance with respect to that question. They thereby keep the nod to practical wisdom from appearing vacuous. Knowledge about the abilities and circumstances of the relevant subjects can provide further clarity in concrete cases. At any rate, our brief discussion shows that what practical wisdom dictates in a given case will not be baseless, but will be grounded in considerations like those just developed. Such guidelines can help an agent to discern the boundaries of appropriate devotion to her projects, and they illustrate how practical wisdom can help an agent steer between the vices of intransigence and irresolution.

2.4 Effort and obstacles

Thus far, we have emphasized the temporal aspect of intellectually virtuous perseverance. This is a necessary part of our target concept—one can’t possess intellectually virtuous perseverance without the disposition to spend an appropriate amount of time on one’s projects. And one can’t act with virtuous perseverance (or characteristically of perseverance) without spending such time. However, we cannot understand perseverance merely in terms of time spent. Virtuous perseverance is not merely a matter of time, but a matter of time and serious effort. One does not count as *virtuously* persevering merely because one spends a long time on a project—for one may spend a long time on a project that is very easy. Or one may spend a long time simply by lollygagging. In neither case does one persevere in the relevant sense. This should prompt us to ask what else, in addition to time spent, is necessary for intellectually virtuous perseverance.

Here we find that central to the virtue is the disposition to stay at one's intellectual projects *with serious effort* in the face of *obstacles* to the success of these projects. The notion of serious effort is needed to rule out the case of the slacker, who stays at his task with minimal effort over an inordinately long period of time, perhaps eventually accomplishing his intellectual goal. The notion of an *obstacle* to inquiry (or other intellectual endeavor) is needed to rule out cases in which an agent continues in a project that is not in any way difficult.

The notion of an obstacle to success in intellectual projects deserves careful treatment—for not everything plausibly called an obstacle requires virtuous perseverance to overcome. As we'll see, on the account of an obstacle that is relevant to intellectually virtuous perseverance, an obstacle is something that makes it *difficult* for one to achieve one's intellectual aims. Let's work toward this account incrementally, by noting problems that arise for alternatives.

Suppose we initially characterize an obstacle to the achievement of intellectual goods as *anything one must do* in order to succeed in one's intellectual projects. This is not wholly implausible. After all, persevering individuals do what must be done in order to achieve their aims. Our paradigm cases illustrate this. But whatever its initial plausibility, this characterization is too weak to reflect the kinds of obstacles one must overcome for intellectually virtuous perseverance. This is because many intellectual projects are comprised of steps, and some of these steps may be very easy to perform. For example, in order to type a sentence, I must in the process type several words, themselves comprised of individual letters. The typing of these letters counts as an obstacle on our initial account. In some minimal sense, I must persevere in order to type to the end of a sentence (I could, after all, quit typing in mid-sentence). But the typing of individual letters does not comprise the kind of obstacle that requires virtuous perseverance in order to overcome. Merely overcoming such an "obstacle" does not suffice for virtuous perseverance—even if the other conditions for the virtue are met. Not all cases of perseverance are cases of *virtuous* perseverance.

A second attempt characterizes obstacles to intellectual goods as states or events that make it harder to achieve one's intellectual aims than it would otherwise be. This notion of an obstacle requires a certain relation between features of one's actual project and the way one's project would be *sans* those features. There's something right about this: intellectual obstacles *do* make it harder for one to achieve one's intellectual aims than it would otherwise be. However, the account is still too weak. Something can be an obstacle in this sense without making an intellectual project difficult for the agent. That is, it can make the project *more* difficult than it would otherwise be without making it *difficult*. (This happens when, e.g., the Caps Lock key momentarily sticks, forcing one to re-type a sentence.) And if an agent can overcome an obstacle without difficulty, then overcoming that obstacle does not require virtuous perseverance—even if the obstacle makes the project more difficult than it would otherwise have been. To overcome trivial obstacles is not thereby to display excellence, and so does not suffice as a display of virtuous perseverance.

Problems with the preceding accounts suggest the following one: an *obstacle*, in the sense that is relevant to intellectually virtuous perseverance, is a state or event that makes it difficult for an agent to achieve her intellectual aims. This account captures what it is about certain obstacles that prompts us to admire those who overcome them.

These obstacles are *difficult* to overcome; they are such that if one overcomes them (or tries to overcome them), one exhibits excellence as a person, provided the other conditions for intellectual virtue are met. This explains why staying at an intellectual task for a long time does not suffice for intellectually virtuous perseverance. Merely staying at a task (say, if it is a very easy task) is not *ipso facto* to display excellence—much less personal excellence of the sort needed for a character virtue. Overcoming difficult obstacles to the pursuit and achievement of intellectual goods, however, does display this sort of excellence.

So an obstacle, in the sense relevant to intellectually virtuous perseverance, is something that makes it difficult for an agent to achieve her intellectual aims.²¹ Such obstacles are legion, and it will be useful to catalog their varieties, along with some examples of each. Some obstacles arise by virtue of the nature of our projects themselves. Examples include the sheer difficulty of formulating a reliable psychological measure, or of transforming dense polemical prose into an argument stated in premise–conclusion form, or of replicating a quantum experiment that took months to set up. Other obstacles are extrinsic to our projects: discouragement from one’s community, environmental distractions (e.g., the internet, readily available entertainment, the toilet flushing in the bathroom adjacent to one’s office) and so on.²² Still other obstacles are largely internal to the agent, though they may arise from either kind of obstacle just discussed. An agent may become depressed or discouraged if she doesn’t gain support from her community, or if reviewers reject her project. Such an internal state can make it difficult for her to achieve her intellectual aims. Obstacles of the above varieties, whether alone or together, make it difficult for us to advance our intellectual projects. Intellectually virtuous perseverance is in part a matter of trying to overcome them.

Reflection on the internal states discussed here gives rise to a kind of potential counterexample to our account of perseverance: It seems possible that subjects can virtuously persevere in inquiry without the presence of *actual* obstacles to their achievement of intellectual goods. Suppose you’re in your office engaging in some important reading. You expect the reading to become much more difficult as the pages pass. You also expect that you’ll be interrupted by a colleague at any moment. Despite these expectations, you continue reading, and do so for an appropriate amount of time, thereby achieving a good understanding of the selected text. However, the reading never becomes difficult, and you’re never actually interrupted. This can seem like a case in which virtuous perseverance is present, but in which no actual obstacles present themselves—thus, so goes the objection, our analysis of intellectually virtuous perseverance is too strong.

²¹ What shall we say about those rare, terrifically intelligent individuals who never encounter difficulty in their intellectual pursuits? Given the above account, do these individuals of necessity fail to possess intellectually virtuous perseverance? No. The distinction between *having* the virtue and *exercising* the virtue is helpful here. Perhaps those geniuses who never actually encounter difficulty nevertheless possess the virtue of perseverance, and so would exercise it if difficulty presented itself.

²² In *Adventurer* 138, Samuel Johnson nicely captures the phenomenology of struggling with distraction: “Composition is, for the most part, an effort of slow diligence and steady perseverance, to which the mind is dragged by necessity or resolution, and from which the attention is every moment starting to more delightful amusements” (Johnson 2003). Thanks to Fred Johnson for drawing this passage to my attention.

This sort of case is worthy of reflection, but it's not a genuine counterexample. To see why, we need only ask whether your expectations in the case (that the reading would become difficult, and that you'd be interrupted) themselves make your work difficult. If they don't, then the case doesn't seem to be a case of virtuous perseverance, and so can't serve as a counterexample. (It may be a case in which perseverance of some minimal sort is exemplified, but it isn't a case of *virtuous* perseverance. Virtuous perseverance is an excellence, and the present kind of perseverance is not.) If, on the other hand, your expectations *did* make your work difficult, then the case satisfies the difficult obstacle condition on virtuous perseverance, and can't be employed to show that the condition is too strong.²³ Either way, the purported counterexample fails to make trouble for our account.

2.5 Intellectual goods

Let us now consider the goods at which intellectually virtuous perseverance aims. In many cases in which such perseverance is exercised, it is exercised in the pursuit of truth, knowledge, or understanding.²⁴ But it would be a mistake to think the pursuit of as-yet-undiscovered truth is *necessary* for the exercise of intellectually virtuous perseverance. Similar remarks apply to knowledge and understanding. In some cases, perseverance is present even *after* the truth has been acquired. Here perseverance is expressed in the *maintenance* or *dissemination* of already achieved epistemic goods. For example, an Alzheimer's patient may exhibit intellectually virtuous perseverance in her efforts to preserve current knowledge in the face of impending memory loss. A novelist can exercise perseverance when writing a book that teaches the same moral truths she learned at her mother's knee. This same author can exercise perseverance as she endures rejection from acquisitions editors when trying to get the book published, or when she stands firm in the face of undeserved criticism from reviewers. Such examples show that, while the pursuit of undiscovered epistemic goods often accompanies intellectually virtuous perseverance, it need not be the persevering agent's aim.

What intellectual virtue—and thus intellectually virtuous perseverance—*does* require, is motivation for intellectual goods. This sort of motivation unifies the intellectual virtues, and distinguishes intellectually virtuous traits from non-virtuous ones. Agents who seek to form, retain, or disseminate beliefs without regard for the truth or epistemic status of these beliefs, fail to exhibit intellectual virtue. This is so, for example, of the child who labors to learn her math sums solely to receive candy. The point also applies to an agent who exhibits perseverance or courage with aims that are explicitly epistemically bad. For example, suppose a researcher overcomes fears or perceived threats in promoting a belief she knows to be *false*. Indeed, sup-

²³ Thanks to Josh Orozco and an anonymous referee for helpful discussion on this point.

²⁴ In countenancing a range of intellectual goods, I do not hereby enter the debate between epistemic value pluralists and value monists. All parties agree that knowledge and understanding are epistemic goods, *at least* by virtue of their relation to true belief. The debate over epistemic value concerns whether there is more than one *fundamental* epistemic value or goal. My account is silent on this matter; pluralists and monists are free to "plug-in" their own views accordingly. For a helpful introduction to work on epistemic value, see Pritchard (2007).

pose she goes to great lengths to promote this belief, and overcomes obstacles that humans rarely overcome. Such an agent exhibits a trait that is properly called “intellectual perseverance.” But she doesn’t exhibit intellectually *virtuous* perseverance.²⁵ *Virtuous* perseverance requires not merely that the subject be disposed to overcome obstacles to her goals while undertaking intellectual activities, but also that her goals be intellectual *goods*.²⁶

2.6 Conditions that *aren’t* necessary: exclusive focus, completion, progress, and rational affections

Thus far we have considered several conditions necessary for intellectually virtuous perseverance. Perhaps surprisingly, these conditions do *not* include: (i) exclusive focus on intellectual goods; (ii) completion of the relevant project; (iii) genuine progress in the direction of completion; or (iv) that the relevant subject be thoroughly rational. Confusion regarding (i)–(iv) could blur the edges of our concept of intellectually virtuous perseverance. Let us therefore consider each point more closely.

That intellectually virtuous perseverance must aim at intellectual goods does not imply that such goods are its only aim. We need not suppose, for example, that Bannister’s perseverance in medical research was divorced from his desire to improve his mile time. His desire for a faster mile does not diminish Bannister’s intellectual virtue, because he is genuinely interested in the relevant intellectual goods. Rather, his pursuit of intellectual goods is organically related to his life as a whole—and this is as it should be. A similar point applies to Keller’s case, and her case makes the point even more forcefully. Keller clearly exemplifies intellectually virtuous perseverance in her attempts to learn to communicate with others. It would be perverse to suggest that her virtue was diminished because, in addition to seeking a range of intellectual goods, Keller also sought friendship, psychological peace, and an increased ability to secure

²⁵ The distinction between mere perseverance and virtuous perseverance gains further support from the case of the person who “perseveres” through a very easy project, taking a long time to do so only because he is slothful (see Sect. 2.4). Again: not all cases in which one perseveres in some minimal sense are cases in which one *virtuously* perseveres. Cases of slothful and ill-motivated perseverance both suffice to illustrate this point. The distinction between perseverance and intellectually virtuous perseverance also provides a plausible reply to the concern that, because perseverance can aim at bad ends, it isn’t a virtue at all. Though some varieties of perseverance may aim at bad ends, perhaps this can’t be the case for *virtuous* perseverance. Thanks to Wayne Pomerleau for pressing me on this point.

²⁶ An additional case worthy of mention is that of the dogmatist, who seeks above all to retain his current beliefs. Does he count as intellectually persevering? And if so, is that a problem for the present account of perseverance? There’s much to say here, but the following two points will have to suffice. First, the dogmatic agent fails to satisfy the motivation condition for intellectual virtue of any sort (including perseverance). For the dogmatist is chiefly concerned with retaining his beliefs *come what may*. He is not suitably sensitive to evidence against his view. And those who aren’t sensitive to contrary evidence are not plausibly considered motivated for truth or knowledge. (On this point see Zagzebski 1996, pp. 192–3.) Second, the virtue that most directly combats dogmatism is not perseverance, but *humility*. This explains why dogmatism is not treated extensively here. Recall, however, that practical wisdom plays an important role in the “appropriateness condition” of the present view. Among other things, practical wisdom is a virtue that enables those who possess it to balance the virtues. Thus, the agent with practical wisdom will characteristically balance perseverance with humility and other virtues (e.g., carefulness) that combat dogmatism.

her own well-being. Genuine motivation for intellectual goods is required for intellectually virtuous perseverance; but this virtue does not require that such motivation have an exclusive monopoly.

Next, consider the issues of completion of intellectual projects, and progress towards completion. In many cases, intellectually virtuous perseverance culminates in the successful completion of an intellectual endeavor. These are the happy cases in which a cure is discovered, one's hypothesis is vindicated, or one's readers grasp the truth in what one is saying. But such success is not required for the exercise of intellectually virtuous perseverance, or for the possession of the trait itself. Recall the case of Tycho Brahe discussed above. Brahe exhibited extensive intellectual perseverance in his research. Given the duration, rigor, and detail of his observations, if Brahe did not exhibit intellectually virtuous perseverance, no 16th-century astronomer did. Yet Brahe's efforts failed to secure his intellectual aims. He not only failed to vindicate his own hypothesis, but also contributed to its unraveling. Worse still, he did not live long enough to discover the truth of the matter. Brahe neither completed his project nor obtained the epistemic goods he had initially sought. He exhibited intellectually virtuous perseverance nonetheless. If so, the exercise of such perseverance does not require the *completion* of one's intellectual projects; nor does failure to complete a project automatically bespeak irresolution.

We can go further. Intellectually virtuous perseverance does not even require real progress toward completion. The Brahe case illustrates this point as well. If we construe Brahe's project as aiming to demonstrate the *truth* of the doctrine of circular orbits, then he can't sensibly be said to have made progress in his endeavor. One can't make genuine progress in showing that a false hypothesis is actually true. Still, Brahe sincerely believes that the circular orbit hypothesis is true—and he has reasons for believing this. His persistence in trying to support this paradigm isn't irrational or blameworthy, but simply mistaken. The rationality of Brahe's belief that he *could* make progress helps explain why his is a case of virtuous perseverance rather than intransigence. His continued efforts help ensure that, despite his lack of progress, Brahe is not irresolute—rather, he is a paradigm of virtuous perseverance.

The Brahe case also illustrates that a rational belief that one's projects will succeed is one way to avoid intransigence. And as we saw above, intellectually virtuous perseverance rules out irrational belief to the effect that one's projects will succeed or progress. But we should not infer that, in order to exhibit intellectually virtuous perseverance, one must be rational through-and-through. To the contrary, intellectually virtuous perseverance is compatible with certain irrational *affective* states. Consider:

Timid Tim earns a B.A. in philosophy from Harvard, and graduates at the top of his class. He is admitted to several top-tier Ph.D. programs. But because he is timid, he opts instead for a middling program. Now nearing the end of his first semester, Tim is gripped with fear over writing his term papers. Indeed, he fears—quite irrationally—that the papers he produces will be assigned failing grades, and that he'll be dismissed from the program. However, in the end, he overcomes his fears and writes the papers, taking himself to have discovered some important truths along the way.

Plausibly, Tim virtuously perseveres in this case, despite his irrational fears. In setting these fears aside, he thereby sets aside internal obstacles to the successful pursuit of his education. His sort of case shows that one needn't be wholly rational in order to virtuously persevere.

There is a danger in admitting this: in supporting this judgment, we could make virtuous perseverance appear too easy to come by—and this could create tension with the idea that intellectually virtuous perseverance is an excellence. If agents gripped with irrational fears can virtuously persevere, one might wonder, in what sense is the virtue excellent?

Distinctions sketched above can help here. First, recall the distinction between actions characteristic of virtue and genuine exercises of virtuous character. This distinction would allow us to compliment Tim's action without complimenting his character. On this line, his actions are characteristic of intellectually virtuous courage and perseverance (after all, he does what the intellectually virtuous person would do in his circumstances). But perhaps he does not yet *possess* these virtues as character traits. Second, recall the distinction between meeting the minimum requirements for a virtue and having the virtue to its fullest extent. Citing this distinction, one could claim that Tim exhibits *minimal* (or at any rate, sub-maximal) degrees of virtuous perseverance. His irrational fears do not preclude this; rather, they preclude his exhibiting the virtue *in the fullest sense*. Discerning which of these options is better would require further detail about Tim's case. Just *how* irrational are his fears? Does he have a stable disposition to overcome his fears? Or is his behavior in this case uncharacteristic? In Tim's case—and in the many real-world cases that resemble it—such information can solidify our intuitions. We won't delve into such details here. Instead, it should suffice to note that even without them, the virtue epistemologist can account for the intuition that there's something admirable in Tim's actions without thereby giving up the claim that intellectually virtuous perseverance is an excellence. Thus, there's ultimately no tension between the claim that intellectual virtues are excellences and the idea that such virtues don't require their possessors to be rational through and through.

2.7 Relativity

Finally, as with other virtues, intellectual perseverance is to an extent person-relative. What serves as an obstacle for one person may not be an obstacle for another. A 5-year-old may exhibit virtuous perseverance as she spends an afternoon learning basic math sums. Given her current training, she must overcome certain obstacles (e.g., distraction, discouragement, and cognitive strain) in order to complete a brief problem set. Her parents will not need to overcome such obstacles in order to do the same; so the task won't require them to exercise virtuous perseverance. Likewise, a seasoned professor can write a brief essay without the difficulty that her sophomore students encounter. The students, but not the professor, exercise intellectually virtuous perseverance in continuing the writing project, provided they do so in the pursuit of intellectual goods. In short, what counts as an obstacle to the completion of one's intellectual projects is partly dependent on one's training, native abilities, time con-

straints, and so on. These are person-relative factors. But because the disposition to overcome such obstacles is partly constitutive of intellectually virtuous perseverance, whether such perseverance is exemplified in a particular person's character or actions is to some extent an individual matter. Similar remarks apply, *mutatis mutandis*, to this virtue's vice counterparts.

To sum up: Intellectually virtuous perseverance is a disposition to continue with serious effort in one's intellectual projects in the pursuit of intellectual goods, for an appropriate amount of time, despite having to overcome obstacles to the completion of these projects. This virtue is often exhibited in attempts to discover new epistemic goods, but it does not require this—attempts to maintain, distribute, and apply old truths (or knowledge or understanding) can exemplify perseverance. And the exercise of intellectually virtuous perseverance does not require the completion of one's intellectual projects, or even real progress in that direction. Though this virtue does not require a rational belief that one's projects will succeed, it does require that one have reason to think that further progress is not extremely unlikely. This sort of rationality need not extend to one's affections, inasmuch as possession of the virtue—at least in its minimal form—is compatible with irrational fears and other irrational motivational states. Finally, the matter of which acts or characters exemplify perseverance is to some extent person-relative.

3 Relations to other intellectual virtues

Having considered the virtue of perseverance itself, let's locate it in relation to other intellectual virtues. It will help to begin by considering intellectual perseverance in its purest form. This will put us in a good position to highlight the ways in which perseverance is distinct from, but often alloyed with, other virtues. A key *positive* motivation of the agent with intellectually virtuous perseverance is the motivation for intellectual goods. It is this motivation—perhaps often expressed as the love of knowledge—that supports and upholds her virtue in the face of obstacles. The persevering agent will be aware of the relevant obstacles, but will persist in her efforts despite them. Beyond this, her psychological profile may take on any number of additional features. But in the purest kind of case, we can imagine an agent hard at work in her intellectual pursuits, aware of their difficulty but proceeding undaunted, unafraid, undistracted, and without discouragement. Call the kind of virtuous perseverance this agent exhibits *perseverance proper*.²⁷ In addition to instances of perseverance proper, the virtue is present in many other cases as part and consequence of other virtues. Generally speaking, intellectually virtuous perseverance is present in other virtues whenever the possession or exercise of those virtues requires overcoming obstacles to the achievement of intellectual goods. Many virtues require that agents be disposed to overcome emotions and motivations that run contrary to the pursuit of intellectual goods. Whenever these emotions and motivations serve as obstacles to the pursuit or

²⁷ Cases of perseverance *proper* help to distinguish perseverance from such virtues as courage, which carry a thicker psychological profile than the former. Such cases also show that perseverance isn't merely a species of (say) courage. They thereby put significant pressure on taxonomies of the intellectual virtues which locate perseverance as a species of courage [see, e.g., Montmarquet (1993, p. 23) for such a taxonomy].

achievement of intellectual goods, perseverance is required to overcome them. We can illustrate this point with a case study of intellectually virtuous courage. As we'll see, the main lessons of the case study generalize widely, and do so in a way that reveals perseverance to be essential to any complete account of the intellectual virtues.

3.1 Courage

Consider the example of Colonel John Stapp. In the post-WWII era, the U.S. military began to develop supersonic aircraft. As of 1947, it was known that human pilots could safely fly these planes. What was *not* known was how best to keep pilots safe in the event of a crash, whether pilots could safely fly these planes without a canopy, or at what speeds pilots could safely eject. Stapp and his cohorts were tasked with discovering the relevant facts. In an age before crash test dummies, Stapp required human subjects in order to gain the needed knowledge. Thinking it unfair to subject others to dangers without being willing to undergo them himself, Stapp frequently volunteered in his own experiments. In one test, he flew a jet accelerating to a speed of 570 mph with the canopy removed. In another, he rode a rocket-propelled sled along a track that was equipped, at the end, with a sudden deceleration mechanism. This mechanism, designed to simulate an ejection, brought the sled to an abrupt stop, on one occasion subjecting Stapp to the staggering force of 46 G. In the course of these experiments, Stapp passed out numerous times and suffered two fractured wrists, broken ribs, and a detached retina.²⁸ His work greatly extended our knowledge of aviation safety, and also resulted in significant improvements to automotive seatbelts. Stapp's is a clear case of intellectually virtuous courage in action. But as we'll see, reflection on the nature of courage shows that Stapp *also* exemplifies intellectually virtuous perseverance. He shows perseverance in his courage, but this courage is distinct from perseverance *proper* because he persists in the face of such specific and courage-relevant obstacles as fears and threats.

In the philosophical literature on courage, one finds two main accounts of this virtue. These accounts in turn give rise to two different accounts of intellectually virtuous courage (or alternatively, accounts of two kinds of intellectually virtuous courage). As we'll see, both of these are intimately linked to intellectually virtuous perseverance.

First, on Aristotle's account, virtuous courage is a matter of overcoming *fears*: "As we have said, then, courage is a mean with respect to things that inspire confidence or fear...and it chooses or endures things because it is noble to do so, or because it is not base to do so."²⁹ In describing this sort of courage, Robert Roberts and Jay Wood note that

In connection with courage, motivation comes up in two ways: There is the motivation that stands behind the virtue of courage and the characteristic... motivation for courageous actions; but there is also the motivation that challenges the virtue, so to speak, and may be overcome or circumvented or transcended in

²⁸ For details on Stapp's exploits, see [Frisbee \(1983\)](#) and the History Channel film, "Modern Marvels: Edwards Air Force Base." Thanks to Nathan Ballantyne for drawing Stapp's career to my attention.

²⁹ Aristotle (1984, BK III, Chap. 7, line 10).

or by the courageous action. This competing or resisting motivation is fear and its cognates: anxiety, terror, fright, dread.³⁰

Call the view on which courage consists in overcoming fears the *traditional view*. If we combine the traditional view with the account of intellectual virtue assumed in Sect. 1, we can understand intellectually virtuous courage as a disposition to overcome fears that arise in the midst of intellectual projects, while seeking the goods at which a project aims.

This sort of courage is importantly linked to intellectually virtuous perseverance. In an extremely wide range of cases, *fears* serve as *obstacles* to the agent's obtaining, maintaining, or transmitting the epistemic goods toward which a project aims. Often, it is because an author fears rejection that he finds it difficult to develop a novel view on his chosen topic. It is because a reporter fears political repercussions that he struggles to break a story. It is because a biologist fears physical harm that she finds it hard to study a neglected but dangerous species. It was in part because Stapp and his cohorts feared injury and death that their experiments were difficult to undertake. The disposition to overcome such obstacles in order to achieve the relevant intellectual goods requires intellectually virtuous perseverance. In cases where fear is present, it tends to make it difficult for us to achieve our intellectual aims; the more strongly fear is felt, the more difficult our tasks tend to become. Of course, there may be exceptions; e.g., the rare person who thrives in the face of fear, or uses fear as an impetus to success.³¹ But in other cases where it is present—perhaps *most* cases—fear impedes or prevents progress toward our intellectual goals. Thus, in such cases, the courage required to overcome fear in turn requires perseverance. In such cases, it is fear *qua* obstacle to successful inquiry that distinguishes courage from perseverance proper.

³⁰ Roberts and Wood (2007, p. 217). In some places, Roberts and Wood construe courage chiefly as a response to perceived *threats*. However, they also argue that the concept of fear plays a fundamental role in paradigm cases of courage. It is this aspect of their account that I highlight here.

³¹ Such cases call into question a tempting argument for the conclusion that intellectual courage is a species of intellectual perseverance. The argument runs as follows. By the traditional definition of courage, (1) If a person X exhibits intellectual courage, then X exhibits a disposition to overcome X's fears for the sake of some intellectual good. But (2) If X exhibits a disposition to overcome X's fears for the sake of some intellectual good, then X exhibits a disposition to overcome an obstacle to her pursuit of the good in question. In other words, fears are a kind of obstacle. It follows from (1) and (2) that (3): If X exhibits intellectual courage, then X exhibits a disposition to overcome an obstacle to X's pursuit of some intellectual good. Now, the virtue of intellectual perseverance just is a disposition to overcome obstacles to the achievement of intellectual goods. Thus, (4): If X exhibits a disposition to overcome obstacles to the pursuit of the given intellectual good, then X exhibits intellectual perseverance. It follows from (3) and (4) that (5): If X exhibits intellectual courage, then X exhibits intellectual perseverance; that is, cases in which courage is exhibited are cases in which perseverance is exhibited. Cases of courage are a subclass of cases of perseverance.

The case of the person whose fears positively contribute to good intellectual performance (rather than serving as an obstacle) shows that step (2) in this argument is false. The argument is nevertheless instructive—for it is plausible that in the vast majority of cases in which it is present, fear *does* serve as an obstacle to the successful pursuit of intellectual goods. And in such cases, the courage needed to overcome fear itself requires perseverance.

In a recent book, Jason Baehr departs from the traditional view of courage, opting instead for an account on which courage is a proper response to perceived *threats*, whether these threats are feared or not. Here is Baehr's account of intellectual courage:

- (IC) Intellectual courage is a disposition to persist in or with a state or course of action aimed at an epistemically good end despite the fact that doing so involves an apparent threat to one's own well-being.³²

Baehr distinguishes between intellectual courage and intellectually virtuous courage. He argues that in possessing intellectually *virtuous* courage, one must aim at an epistemically good end. We can take IC, plus this latter claim, to convey the core of his account of intellectually virtuous courage.

Baehr's arguments for IC and against the traditional view are worthy of serious consideration, but we won't address them here. For present purposes, it will suffice to note that the sort of courage Baehr has in mind is, like the courage of the traditional account, closely linked to intellectually virtuous perseverance. For in many cases in which an agent is aware of an apparent threat to her well-being, awareness of this threat serves as an obstacle to successful inquiry. Awareness of such threats tends to make intellectual projects difficult. (Consider again the threat of harm that Stapp had to overcome in order to perform his experiments, or that Washington had to overcome in disseminating his political views.) When such threats do make intellectual projects difficult, continued inquiry in the face of them requires intellectually virtuous perseverance. So at least in this class of cases, courage requires perseverance, though it is distinct from perseverance proper because threats are specifically courage-relevant obstacles.

3.2 More general considerations

What goes for fears and perceived threats also goes for intellectual laziness, frustration, and discouragement. These states very often serve as obstacles to successful inquiry. They make inquiry difficult. The virtues required to overcome such obstacles—virtues like industriousness and patience—therefore require intellectually virtuous perseverance. For perseverance just is the virtue needed to overcome intellectual obstacles. If this is right, then perseverance is required for the exercise of many other virtues in many real world situations.

We can say something stronger. At least for human agents, all intellectual virtues, *qua* personal excellences, require intellectually virtuous perseverance for their possession and exercise. That is, the concept of intellectually virtuous perseverance is implicit in the concepts of the other intellectual virtues. To see this, consider how proponents of character virtue-based epistemology characterize the virtues. Roberts and Wood, for instance, claim that “a human virtue is an acquired base of excellent functioning in

³² Baehr (2011, p. 177). As Baehr notes, the relevant sense of “apparent threat” is that of having a rational belief that something is a threat to one's well-being. The threat need not be *actual* in order for one to exhibit courage.

some generically human sphere of activity that is *challenging* and important.”³³ The challenging nature of the relevant activities, in part, explains why character virtues are excellences; overcoming such challenges requires *excellence* rather than mere pedestrian activity. As Roberts and Wood make clear, in the sphere of intellectual activity, the relevant challenges consist in obstacles to the achievement of intellectual goods. It is precisely the intellectual virtue of perseverance that is needed to overcome such obstacles.

Similarly, in his taxonomy of the intellectual virtues, Jason Baehr differentiates the virtues by way of the challenges or obstacles to inquiry they require. For example, intellectually virtuous carefulness requires overcoming challenges to one’s ability to focus on the task at hand; fair-mindedness and open-mindedness require overcoming challenges to one’s ability to remain consistent in the course of evaluation; creativity requires overcoming ossified ways of thinking; and so on.³⁴ The possession and exercise of these virtues requires a disposition to overcome obstacles and challenges in the pursuit of intellectual goods. Accordingly, possessing these virtues requires intellectually virtuous perseverance. Similar remarks apply to the exercise of these virtues. Thus, far from being just one among a number of virtues, perseverance is a requirement of the other virtues. And if this is right, intellectually virtuous perseverance deserves the attention we have paid it.

4 Concluding remarks

We have developed at length an account of intellectually virtuous perseverance, a mean between intransigence and irresolution. It is a disposition to continue with serious effort in one’s intellectual projects for an appropriate amount of time, in the pursuit of intellectual goods, and despite obstacles to one’s achieving those intellectual goods. Such perseverance is closely linked to other intellectual virtues. It is a requirement of intellectually virtuous courage—a trait that has received significant attention from virtue epistemologists. Still further, intellectually virtuous perseverance is a requirement of all intellectual virtues, given that these virtues require a disposition to overcome obstacles to the successful pursuit of intellectual goods. To be sure, further chipping and chiselling may extend, amend, and improve the account of perseverance developed here. Such work is to be welcomed. To the extent that it is challenging, the work will itself require perseverance.³⁵

³³ Roberts and Wood (2007, p. 59) (emphasis mine).

³⁴ Baehr (2011, p. 21).

³⁵ For generous comments and helpful discussion, I thank Andrew Bailey, Nathan Ballantyne, Robert Garcia, Gordon Jackson, Fred Johnson, Richard McClelland, Josh Orozco, Adam Pelser, Wayne Pomerleau, Kamesh Sankaran and two anonymous referees. Thanks also to audiences at Baylor University, the Gonzaga University Socratic Club, and the 2012 Pacific APA. This publication was made possible through the support of a grant from The Character Project at Wake Forest University and the John Templeton Foundation. The opinions expressed in this publication are those of the author and do not necessarily reflect the views of The Character Project, Wake Forest University, or the John Templeton Foundation. Finally, thanks to Whitworth University for providing research leave for this project.

References

- Aristotle. (1984). *Nicomachean ethics*. In J. Barnes (Ed.), *The complete works of Aristotle*. Princeton, NJ: Princeton University Press.
- Baehr, J. (2011). *The inquiring mind*. New York: Oxford University Press.
- Bannister, R. (1955). *First four minutes*. London: Billing and Sons.
- Bascomb, N. (2004). *The perfect mile*. New York: Houghton Mifflin.
- Brooks, V. W. (1956). *Helen Keller: Sketch for a portrait*. New York: E.P. Dutton.
- Code, L. (1987). *Epistemic responsibility*. Lanham, MD: University Press of America and Brown University Press.
- Duckworth, A. L., & Seligman, M. E. P. (2005). "Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science*, 16(12), 939–944.
- Frisbee, J. L. (1983). The track to survival. *Air Force Magazine*, 66(5), 64.
- Greco, J. (2002). Virtues in epistemology. In P. K. Moser (Ed.), *The Oxford handbook of epistemology* (pp. 287–315). New York: Oxford University Press.
- Greco, J. (2010). *Achieving knowledge*. Cambridge: Cambridge University Press.
- Greco, J., & Turri, J. (2011). Virtue epistemology. In *The Stanford encyclopedia of philosophy*. Stable <http://plato.stanford.edu/entries/epistemology-virtue/>.
- Hookway, C. (2003). How to be a virtue epistemologist. In M. DePaul & L. Zagzebski (Eds.), *Intellectual virtue: Perspectives from ethics and epistemology* (pp. 183–202). New York: Oxford University Press.
- Isaacson, W. (2007). *Einstein: His life and universe*. New York: Simon and Schuster.
- Johnson, S. (2003). *Samuel Johnson: Selected essays*. New York: Penguin Classics.
- Josephson, M. (1959). *Edison*. New York: McGraw Hill.
- Mathias, C. J., & Bannister, R. (Eds.). (2002). *Autonomic failure: A textbook of clinical disorders of the autonomic nervous system*. New York: Oxford University Press.
- Monk, R. (1991). *Ludwig Wittgenstein: The duty of genius*. New York: Penguin Books.
- Montmarquet, J. (1993). *Epistemic virtue and doxastic responsibility*. Lanham: Rowman and Littlefield.
- Pannekoek, A. (1961). *A history of astronomy*. New York: Interscience Publishers.
- Peterson, C., & Seligman, M. E. P. (2004). *Character strengths and virtues: A handbook and classification*. New York: Oxford University Press.
- Pritchard, D. (2007). Recent work on epistemic value. *American Philosophical Quarterly*, 44(2), 85–110.
- Riggs, W. (2010). Open-mindedness. In H. Battaly (Ed.), *Virtue and vice: Moral and epistemic* (pp. 173–188). Malden, MA: Wiley-Blackwell.
- Roberts, Robert C., & Wood, Jay. (2007). *Intellectual virtues: An essay in regulative epistemology*. New York: Oxford University Press.
- Sosa, E. (1991). *Knowledge in perspective*. New York: Cambridge University Press.
- Sosa, E. (2007). *A virtue epistemology: Apt belief and reflective knowledge*. New York: Oxford University Press.
- Sosa, E. (2009). *Reflective knowledge: Apt belief and reflective knowledge*. New York: Oxford University Press.
- Washington, B. T. (1963). *Up from slavery*. Garden City, NY: Doubleday.
- Westfall, R. (1980). *Never at rest: A biography of Isaac Newton*. New York: Cambridge University Press.
- Zagzebski, L. (1996). *Virtues of the mind*. New York: Cambridge University Press.