

EDUCATING FOR INTELLECTUAL VIRTUES

*An introductory guide for college
and university instructors*

Jason Baehr, Ph.D.
Professor of Philosophy
Loyola Marymount University
www.jasonbaehr.wordpress.com
jbaehr@lmu.edu

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1. INTRODUCTION*

Intended audience

This guide is for college and university instructors interested in making a more conscious effort to “educate for intellectual virtues.” By “intellectual virtues” I mean the deep personal qualities or character traits of a good thinker or learner. Intellectual virtues are different from and shouldn’t be confused with other kinds of cognitive strengths, including raw intelligence or intellectual skills (Baehr 2011: Ch. 2). More precisely, this guide is for college and university instructors interested in teaching their respective subject matters—whatever these might be—in ways that will help their students better appreciate, practice, and cultivate virtues like curiosity, open-mindedness, intellectual humility, and intellectual courage.

Sources

The ideas and suggestions contained herein come from three main sources. One is theoretical work in “virtue epistemology,” which is an approach to the philosophical study of knowledge that focuses on intellectual virtues and their role in the cognitive life. Virtue epistemologists have developed sophisticated theoretical models of intellectual virtue and of several specific intellectual virtues, including the ones noted above (see e.g. Roberts and Wood 2007, Baehr 2011, and Zagzebski 1996). This guide draws on some of this literature, particularly in its conception of the basic nature and structure of an intellectual virtue. A second source of ideas in the guide is research produced by educational psychologists and theorists at Harvard University’s [Project Zero](#) (e.g. Tishman, Perkins, and Jay 1995). Of special note here is work by Ron Ritchhart, educational psychologist, principal researcher at Project Zero, and author of *Intellectual Character: What It Is, Why It Matters, and How to Get It* (2002). Many of the ideas in this guide are adapted from Ritchhart’s work (especially his 2002, 2011, and 2015). A third source is work I have done in recent years in the area of “intellectual character education,”

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work that has been sponsored by two major grants from the John Templeton Foundation. This has included serving as director of the Intellectual Virtues and Education Project, which assembled teachers and scholars for a series of events from 2012-2015 that involved learning about, discussing, and conducting original research on the enterprise of educating for intellectual virtues (see Baehr 2016 for an example of this research). It has also included helping oversee the implementation of an intellectual virtues educational model in the founding of the Intellectual Virtues Academy of Long Beach, a charter middle school in Long Beach, CA, that opened in the fall of 2013.

In short, then, what follows is my answer, as an expert in virtue epistemology and as someone who has recently been immersed in educational research and some ambitious school-based work related to educating for intellectual virtues, to the question: “What can college and university instructors do to introduce a focus on intellectual character development into their courses?”

In developing a response to this question, I will share several things I do in my own courses to acquaint students with the notion of intellectual virtues and to provide them with ongoing opportunities to practice and thereby to begin cultivating these qualities. While these courses tend to be either introductory or advanced undergraduate courses in philosophy, most of the strategies and practices I discuss could easily be adapted to courses in other disciplines. Indeed, my aim is to provide resources for introducing a focus on intellectual virtues in almost any college or university course.

What this guide isn't

There are several things that guide is *not* intended to be or to provide. First, I will assume that you, the reader, have some familiarity with what intellectual virtues are and of several of the specific qualities (e.g. curiosity, open-mindedness, intellectual humility) that count as such. If you lack this familiarity but wish to learn more about intellectual virtues, the following resources might be of interest:

- *Cultivating Good Minds: A Philosophical and Practical Resource Guide for Educating for Intellectual Virtues* (Baehr 2015). While this guide is aimed primarily at middle school and high school teachers, chapter 1 ex-

plores the nature and structure of an intellectual virtue and chapters 4-12 offer characterizations of nine specific virtues: namely, curiosity, intellectual autonomy, intellectual humility, attentiveness, intellectual carefulness, intellectual thoroughness, open-mindedness, intellectual courage, and intellectual tenacity.

- Blog posts on each of the virtues just noted are also available on the website of the Intellectual Virtues Academy of Long Beach and can be accessed [here](#).
- Ritchhart's book *Intellectual Character: What It Is, Why It Matters, and How to Get It* (2002). Chapters 1-3 present a psychologically rich model and address the educational significance of "thinking dispositions" like open-mindedness and inquisitiveness.
- *Virtuous Minds* by Phillip Dow (2013). In Chapters 1-7, Dow offers characterizations of intellectual courage, intellectual carefulness, intellectual tenacity, intellectual fair-mindedness, intellectual curiosity, intellectual honesty, and intellectual humility. While written for a religious audience, Dow's book is highly readable and provides engaging and well-illustrated discussions of intellectual virtues that can be appreciated by a very broad audience.
- *Intellectual Virtues: An Essay In Regulative Epistemology* (2007) by Robert Roberts and Jay Wood. This book, written by two philosophers, is largely academic in its approach. However, Chapter 3 provides a good discussion of the concept of an intellectual virtue and Chapters 6-12 offer illuminating and readable profiles of the following virtues: love of knowledge, courage, caution, humility, autonomy, generosity, and practical wisdom.

Further, I will not make any attempt to motivate or defend the notion of intellectual character education. Instead, I will assume that you are more or less "on board" with—or at least that you are interested in and open to—the idea that we can and should do more to positively impact the intellectual character of our students. If you harbor doubts—based, say, on "situationist" research in social psychology—about the very existence of intellectual

virtues, I will direct your attention to my paper “The Situationist Challenge to Educating for Intellectual Virtues” (forthcoming-a). Or, if you are dubious that intellectual character can really be shaped or improved by educational means, you may want to read my “Is Intellectual Character Growth a Realistic Educational Aim?” (forthcoming-b). You may also be interested in reading Chapter 3 of my *Cultivating Good Minds*, “Objections to Educating for Intellectual Virtues” (2015). For a general explanation of intellectual character education and for several arguments in support of this enterprise, you can consult my “Educating for Intellectual Virtues: From Theory to Practice” (2013) or Chapter 2 of *Cultivating Good Minds*, “Why Educate for Intellectual Virtues?” (2015).

A caveat

Finally, a significant caveat. In offering the examples and suggestions below, I am imagining the relevant pedagogical context to be one in which the instructor has ongoing, relatively frequent opportunities for personal interaction with his or her students. Specifically, I will be discussing principles and practices that apply most readily to classes with up to 30 or 35 students. Given that courses at some universities can be much larger than this, some of what I have to say will be inapplicable to some contexts. A similar point applies to courses that are offered online. Nonetheless, while many of my suggestions are relevant primarily to smaller settings, several others could be adapted to a larger or online setting (though, admittedly, my sense is that, especially in the latter case, they are unlikely to have as much of an impact in these contexts).

2. GUIDING PRINCIPLES

I will begin by discussing several guiding principles that together provide a framework for implementing the practical suggestions introduced in the section that follows. Some of these principles are largely a matter of common sense. However, my experience suggests that it can be easy to deviate from them. Therefore, I think they are worthy of at least brief consideration.

Formulating concrete and realistic goals

Intellectual character education is aimed at helping students experience “meaningful growth” in intellectual virtues (Baehr forthcoming-b). But what might such growth look like, especially over the course of a single semester? Exactly what kind of impact can we expect or hope to have? These are important questions. Our answers to them should shape the specific strategies and practices we employ.

We can begin to answer these questions by doing two things. First, we can—and should—narrow our focus to a limited number of “target virtues.” That is, we should consider the question, “Which specific virtues (e.g. curiosity, open-mindedness, etc.) do I want to focus on with my students this semester?” I would suggest limiting your focus, during any given semester, to between two and five virtues, especially if you are just beginning to incorporate an emphasis on intellectual character development into your teaching. For an overview of some potential target virtues, see the resources offset by bullet points above. For the purposes of this guide, I will focus mainly on the four virtues already mentioned, which I have found especially applicable to the intellectual character and educational experience of my students: namely, curiosity, open-mindedness, intellectual humility, and intellectual courage.

Second, we need to spend some time thinking about what it might look like for a significant number of our students to experience meaningful but realistic growth in a select number of intellectual virtues during the time we have with them. That is, realistically, what kind of growth might they experience in curiosity, open-mindedness, intellectual humility, or intellectual courage in the course of a single semester or year? Again, this merits very careful consideration. If we aim too high, we (and our students) are liable to be frustrated and feel like we are failing at something important. Below I will have more to say about what such goals might amount to. I will also explain how they can be incorporated into syllabi alongside other course objectives or outcomes.

Forging respectful, caring, and trusting relationships

Impacting a student's intellectual character is a matter of shaping his or her fundamental beliefs, attitudes, and feelings about thinking and learning; it is also a matter of affecting the student's dispositions to act in certain ways and to pursue certain goals. As such, it is a deeply personal affair. Research and commonsense tell us that the kind of change or personal formation in question is unlikely to occur in environments that feel hostile, disrespectful, unsupportive, or unsafe. Susceptibility to personal change—including changes in intellectual character—occurs more readily in contexts marked by respect, care, and trust (Ritchhart 2015: Ch. 8; Berkowitz and Bier 2006; Siegel 2012). Accordingly, if we are interested in educating for intellectual virtues, we must do what we can to earn the trust of our students by showing that we respect and care about them. We must also establish a classroom environment in which students can count on being respected by each other. This means that any form of personal critique, mockery, ridicule, or related attitudes and behaviors must be off limits. We must place a premium on showing students that we care and on ensuring that they treat each other with respect and dignity. This amounts to a kind of social or moral precondition on effective intellectual character education.

A pervasive focus on (good, active) thinking

Intellectual virtues are the character traits required for good thinking and learning. They come about, among other ways, through the *practice* of good thinking (a point I will elaborate on in more detail below). Accordingly, educating for intellectual virtues requires a pervasive and ongoing focus on actively engaging with and thinking about the subject matter in question. While this may seem like a trivial point, ask yourself: “When I think about what my students are doing for the majority of the time in my classes, is it clear that they are given frequent, well-supported opportunities to engage in active thinking about the material we are covering? Or is most of their time spent listening to me talk, with occasional opportunities to ask questions (if they happen to have any) or to engage in class discussion?” If the latter scenario more accurately describes what tends to happen in your courses, you may want to introduce more opportunities for active thinking into your

instruction. Below we will consider several examples of what this might look like.

It is worth noting briefly that providing students with ongoing opportunities to engage with the subject matter in thoughtful and active ways is consistent with a certain amount of lecturing. After all, our students need something to think *about*, and lecturing, if done thoughtfully and skillfully, can be an acceptable way of providing them with this content. It is also worth noting that what “opportunities for active thinking” look like is at least somewhat a discipline-specific matter. Thus such opportunities may look different in a physics course than they do, say, in a history or a foreign language course. Still, when approached in the right way, virtually any course can be designed to include a significant emphasis on active thinking.

Deep understanding as a central aim

Intellectual virtues aim at deep understanding. Put another way, an intellectually virtuous person is one who thinks and inquires in ways that are open, honest, fair, careful, and courageous *out of* a desire for an understanding of important subject matters. She is not content with simply memorizing what others (including her teachers) have to say; nor is she satisfied with a superficial or cursory grasp of important topics. She wants to know why things are the way they are, how they have come about, how they work and relate to each other, and so on. She desires deep understanding. It follows that educating for intellectual character growth requires educating for deep understanding.

This too may seem like an obvious point: what teacher worth his salt doesn’t want his students to acquire a deep understanding of the subject matter? Alas, what we want for our students doesn’t always align with how we teach or assess their intellectual performances. Suppose a student were to memorize every word of your lectures on a particular topic. If when taking your exam this student were to repeat all the relevant information exactly as you presented it in class, how would the student fare on the exam? Would she earn an A? If she might do quite well, this is an indication that you are not requiring your students to develop or demonstrate a deep understanding of what they are learning. For, as any experienced teacher knows, students

can memorize a great deal of information while understanding very little of it! Therefore, we must teach and examine our students in such a way that they acquire and are able to demonstrate a firm personal understanding of the material. They need to be able to explain what they have learned in detail, accurately, and in their own words. (For more on what such understanding amounts to and how to educate for deep understanding see, Perkins 1993.) As in the case of active thinking, when we step back and consider what tends to go on in our classes, a focus on deep understanding should be salient.

A unique perspective on risk-taking, struggle, and failure

Many familiar pedagogical practices communicate neutral or negative messages about intellectual risk-taking and struggle. For instance, when we praise the accuracy of student responses over or to the exclusion of the effort or thoughtfulness that went into them, we encourage students who aren't certain of their replies to remain silent, to avoid taking a risk ("If all that really matters is whether my answer is the right one, and I'm not sure my answer is right, why should I bother speaking up?"). Similarly, when we only ask students who we know will not struggle or make a mistake to answer a question, explain a concept, or solve a problem on the board, we imply that intellectual struggle is an indication of intellectual weakness.

However, as with other kinds of personal growth, intellectual character growth occurs in the context of intellectual risk-taking and struggle. At a minimum, one cannot expect to grow in virtues like intellectual courage and intellectual tenacity without regularly taking intellectual risks or persisting in the face of intellectual struggle. Nor can one expect to grow in other virtues. Growth in intellectual virtues requires pushing ourselves. It requires doing what we can to extend and cultivate our cognitive abilities. Sometimes this involves making efforts without prior knowledge of any outcomes (risk-taking); and it almost always involves a kind of stretching of our existing abilities (struggle). For instance, if I want to grow in open-mindedness—if I want to become a more open-minded person than I am today—this is likely to require giving a fair and honest hearing to views that I previously have found threatening. It is also likely to require a considerable amount of intellectual attention and work. Thus if I am unwilling to take intellectual risks or to engage in intellectual struggle, I will be unlikely to grow in open-

mindedness. Accordingly, if we want to help our students cultivate intellectual virtues, we need to place a premium on intellectual risk-taking and struggle. Below I will have more to say about what this might look like.

A closely related point is that we will also want to promote a unique perspective on failure, for failure is an ever-present possibility when we expose ourselves to risk or struggle. Many students—and teachers!—have a “fixed mindset” (Dweck 2006, 2010). They see intellectual or academic success as a function of certain fixed abilities that a person is either born with or not. Therefore, if they struggle or fail, they view this as evidence that they lack what it takes to succeed. Given that the qualifications for success (supposedly) are fixed, they then do what they can to avoid struggle and failure, which in turn hinders their intellectual growth. If you are interested in an intellectual virtues approach to education, chances are you don’t view intellectual or academic success as strictly a function of fixed cognitive abilities. You likely believe, correctly in my estimation, that success or failure, particularly in an educational context, depends to a significant extent on qualities that can be cultivated over time (for an overview of supporting research, see Tough 2012).

In light of these observations, we must do what we can to help our students rethink their understanding of the meaning and significance of failure. Specifically, we should do what we can to help them develop a “growth mindset.” A person with a growth mindset thinks of success as a function of abilities that are, to a significant extent, under her control; therefore, she sees struggle and failure, not as an indictment of her abilities, but as an opportunity to learn and grow. Again, this is a perspective we should try to impart to our students.

3. PRACTICES

In this section, I will describe several practices that I have regularly undertaken in an effort to acquaint my students with the concept of intellectual virtue and to integrate a focus on intellectual character development into my courses. I will also offer some level of explanation or justification for each practice. As noted above, my aim in discussing these

practices is to spark your own imagination—to help you identify things you can do in the classroom (whether similar or very different) to begin educating for intellectual virtues in a more deliberate and systematic way.

3.1. Course goals

At my university, we have been asked to include course goals of three types in all of our syllabi: goals related to knowledge, goals related to intellectual skills, and goals related to “values.” Given that the latter category is fairly open-ended, I have chosen to make intellectual character the focus of my “values” goals. I do this both as a way of signaling to my students that I am committed to helping them develop intellectual virtues and as a way of holding myself accountable to this commitment. Most of my syllabi include one version or another of the following three objectives:

- You will develop a firm understanding of what intellectual virtues are, how they differ from related cognitive and moral strengths, and why they are valuable in their own right and as a means to successful learning and living.
- You will develop an honest and detailed understanding of your own intellectual character relative to the virtues of [e.g. curiosity, open-mindedness, intellectual humility, and intellectual courage] and will begin to “take ownership” of your strengths and weaknesses in these areas.
- You will undertake several concrete and intentional efforts aimed at growth in [e.g. curiosity, open-mindedness, intellectual humility, and intellectual courage].

These are rather modest goals. The first goal pertains to *knowledge* of intellectual virtues and their value. Such knowledge can raise awareness of opportunities to practice intellectual virtues and provide some inspiration for doing so. But clearly it is no guarantee of intellectual character growth. The second goal is a matter of *self-knowledge*, of becoming more aware of one’s intellectual character strengths and weaknesses. The third goal pertains to the

intentional *practice* of intellectual virtues, for example, the practice of formulating thoughtful and insightful questions (curiosity), taking up alternative perspectives (open-mindedness), attending to and “owning” one’s intellectual limitations and mistakes (intellectual humility), and taking risks in a learning context (intellectual courage). It is not unrealistic to think that goals like these could be successfully achieved by many (perhaps most) of our students, even in the course of a single semester. And while this is no guarantee of deep or lasting intellectual character growth, it can amount to the planting of seeds that ultimately lead to the blossoming of intellectual virtues.

3.2. *Mission statement*

In my own efforts at educating for intellectual virtues, I have found it important to try to orient myself toward this goal prior to teaching. To this end, as I prepare for or walk to class, I often rehearse to myself something like the following statement: “My aim in the coming class period is to relate to my students in such a way that they feel invited to enter into the life of the mind. I care about their relationship to learning. While I want them to gain new knowledge, and especially to strive for a deep understanding of the subject matter, I recognize that I need to create the conditions for this kind of striving and growth. This requires being present with my students and demonstrating that I care about their intellectual well-being. It also requires giving them ongoing opportunities to practice intellectual virtues—e.g. to wonder, ask questions, probe for deep understanding, think for themselves, consider alternative perspectives, etc.” I have found that meditating on a message like this even for just a few moments prior to class can have a powerful effect on how I relate to my students and how I approach the subject matter I am teaching. It tends to make me more patient, more focused on the minds of my students, and less concerned about “getting through all of the material.”

In light of this, I have recently begun crafting a “mission statement” for my courses, which I rehearse with my students at the beginning of each class period (more or less). This is a way of giving my students and me an opportunity to get focused on the broader, more valuable, and more *personal*

aims of what we are doing in the course. The following is from a recent introductory philosophy course:

We are a community of inquirers tasked with philosophical learning and reflection. As your instructor, my primary aim is not to impart a body of knowledge; rather, it is to nurture your relationship to learning by providing ongoing opportunities for you to practice intellectual virtues.

The course in question met only once a week. At the beginning of each class meeting, I projected this statement on a screen and read through it slowly, often rephrasing or briefly elaborating on one or more parts of the statement. Again, this seemed to have an impact on the overall mood of the class, one that made the study of philosophy seem more personal and worthwhile. And it definitely had a positive reorienting effect on me as the instructor.

3.3. Direct instruction

One important element of educating for intellectual virtues involves acquainting students with what intellectual virtues are, how they differ from other cognitive and moral strengths, and how they are important to learning and living well (Perkins and Salomon 1989; Berkowitz and Bier 2006, 2007; Berkowitz and Puka 2009). Such knowledge cannot be taken for granted; indeed, the very term “intellectual virtue” is likely to be foreign to the vast majority of our students.

While having an understanding of these matters certainly is not sufficient for developing intellectual virtues, it can be very useful. First, by helping our students understand what intellectual virtues are, we can make them more aware of opportunities to practice intellectual virtues. For instance, if they are well acquainted with what open-mindedness looks like or requires of a person, they may be in a better position to recognize situations in which an exercise of open-mindedness would be appropriate. Second, such knowledge can underscore the value or importance of intellectual virtues, which in turn can have a favorable impact on the motivation of our students. Here again: if our students have been exposed to compelling examples of qualities like open-mindedness, intellectual courage, or intellectual humility, this can make

the prospect of thinking or behaving in ways that are open-minded, intellectually courageous, or intellectually humble more attractive to them. Third, providing our students with knowledge about intellectual virtues can be a way of imparting a common vocabulary and conceptual scheme that can help tie together and reinforce some of our other efforts to educate for intellectual virtues. For instance, if my students already have a good sense of what intellectual virtues are and why they are important, then when I point out that they are about to be given an opportunity to practice a certain virtue, or when I commend a student for having performed an intellectually virtuous action, this can add significant force and meaning to my remarks.

In light of the importance of “direct instruction” in intellectual virtues to the practice intellectual character education, I often devote the first week of my courses to an introductory unit on this topic. While this is a significant investment of time, I find it an effective way of getting students engaged in the course. When they see that a central goal of the course is to help them grow in intellectual virtues, this adds a “higher purpose” to and appears to boost their interest in it. Further, because the qualities in question are concrete, personal, and attractive, students enjoy thinking and talking about them, for example, about what exactly these virtues do or don’t require, why they are valuable or useful, whether they can be taken too far, what their “opposites” (or corresponding “vices”) look like, and so on.

In the Additional Resources section of this guide, I include slides from a PowerPoint presentation that covers much of this introductory content. As the slides make clear, my approach to direct instruction in intellectual virtues tends to have the following structure. I begin with a conversation about the value of education. Inevitably, this leads to some reflection on the value of being an educated *person*, that is, on the personal qualities that are required for good thinking and learning. This provides an obvious opportunity to talk about intellectual virtues. I begin my explanation of intellectual virtues by offering a definition of what intellectual virtues are and by distinguishing them from qualities like natural intelligence or IQ, knowledge, and mere intellectual skills. I also distinguish them from familiar *moral* virtues like kindness, compassion, and generosity. Once I am confident that my students have a good idea of what intellectual virtues are in general, we then turn our attention to certain “target virtues.” For each of these virtues, I provide a

definition, a brief slogan, and an extended example or two. I also engage the students in a discussion about each virtue.

As this suggests, the purpose of a mini-unit like this is to help students develop a general concept of intellectual character or intellectual virtue (one that distinguishes it from other forms of intellectual excellence and from more familiar and distinctively moral ways of thinking about virtue) as well as concepts of several specific virtues like curiosity, open-mindedness, and intellectual tenacity. It is also aimed at helping them acquire some appreciation of the *value* of these traits, which I have found easiest to communicate through compelling and attractive examples.

3.4. Self-reflection and self-knowledge

If a person wants to take wise and effective steps to “superintend” her growth in virtues like curiosity, open-mindedness, or intellectual courage, she will need to have a decent sense of the current state of her intellectual character—of her intellectual character strengths and weaknesses. Without such knowledge, the measures she takes to improve her intellectual character may be way off track. They may be too demanding, not demanding enough, or otherwise misguided.

The same holds, of course, for our students. While we may provide them with opportunities to practice and grow in intellectual virtues, they will still need to decide how exactly to seize or navigate these opportunities. And the quality of their efforts will depend in no small part on how aware they are of their existing intellectual character strengths and weaknesses. Accordingly, ongoing self-reflection and the kind of self-knowledge to which it can give rise are an important part of educating for intellectual virtues (Tishman, Perkins, and Jay 1995: Chs. 6, 7).

In light of this, I try to create regular opportunities for my students to reflect on their intellectual character strengths and weaknesses. Initially this involved a brief in-class self-reflection exercise at the beginning of the semester in which students were asked to rate themselves according to certain target virtues and write a corresponding reflection. In recent years, however, I have

sought to do something more substantial—something that would encourage my students to continue to pursue an understanding of their intellectual character over the course of the semester. The result is a two-part self-reflection project.

A copy of this assignment is included in the Additional Resources section of this guide, but the basic structure of it is as follows. The project consists of a pair of three to five-page papers, the first of which is due at the beginning of the semester and the second of which is due just prior to the final exam. The aim of the first part of the assignment is to help students identify their greatest intellectual character strengths and weaknesses, to reflect on ways these qualities impact their lives (whether positively or negatively), and to identify a “self-monitoring” discipline they will use on a weekly basis to attend to the “movements” of their intellectual character, especially as these relate to the strengths and weaknesses they have just identified. The aim of second part of the assignment is to have students reflect on their use of the self-monitoring discipline, communicate what they have learned about themselves and about the relevant virtues, think about and articulate the kind of intellectual character they aspire to possess, and identify some very specific and concrete steps they can take to help facilitate progress toward this goal.

My impression is that students tend to get quite a bit out of this assignment. Very few of them have had an opportunity to reflect on or write about the character they possess as a thinker or learner. Thus they seem to learn a lot and to be grateful for the new knowledge of themselves.

This assignment may seem rather burdensome. You might be thinking: “I already give my students a lot of assignments and work. I can’t add another project without deleting something else, which I’m not prepared to do.” You might also wonder how this assignment could reasonably be graded and thus whether it might be objectionably “fluffy.”

These are reasonable questions and concerns. In response, I will note, first, that I tend to make this assignment worth relatively few points (e.g. 5-10% of their overall grade in the course). Therefore, even if it were “fluffy,” the consequences would not be extreme. Of course, this might lead to the

further question of whether the students will take the assignment seriously (given that it isn't worth very many points). While this is probably valid concern in some cases, my experience has been that most students enjoy engaging in this kind of self-reflection and thus that their motivation for completing the assignment is largely intrinsic (it is not about getting a good grade in the course).

Nor, in fact, have I found it very difficult to grade the assignment in an acceptably demanding fashion. As the sample assignment included at the end of this guide shows, I use the following sorts of criteria when making these assessments:

- Did the student follow all the instructions, answering all the questions, meeting the specified requirements of length, margins, etc.?
- Has the paper been carefully proofread? What is the quality of grammar, mechanics, diction, spelling, etc.?
- Most importantly, are the student's answers to the questions well developed? Do they clearly demonstrate that the student took his/her time with this assignment and engaged in deep, thoughtful, and honest reflection?
- What is the quality of the student's examples? Are they realistic? Or do they seem fabricated or dishonest?
- Did the student clearly engage in a self-monitoring discipline?
- Overall, does the paper demonstrate careful and thorough thinking and reflection?

In my experience, using these and related criteria to evaluate these projects allows for a reasonably wide distribution of grades.

As with all of the practices discussed here, this assignment certainly could be improved upon. For instance, given how difficult it can be for anyone to develop, through mere self-reflection, an accurate representation of his or her character strengths and weaknesses, a better version of the assignment might incorporate feedback from one or more third-person perspectives. One might, for instance, consider having the students ask others who know them well (e.g. family members and close friends) to provide input about

their intellectual character strengths and weaknesses and to build this feedback into their reflections.

To repeat: self-reflection and self-knowledge are important in the context of intellectual character education because of the “epistemic” foundation they provide for other steps that we or our students might take to improve the quality of their intellectual character (as imperfect or incomplete as this foundation might be). They also present our students with opportunities to become more aware of and to “own” their intellectual strengths and weaknesses. As such, they provide an opportunity for them to practice virtues like intellectual autonomy (owning strengths) and intellectual humility (owning weaknesses).

3.5. Creating and calling attention to opportunities for practice

In his famous treatise on virtue and human flourishing, *The Nicomachean Ethics*, Aristotle claims famously that we acquire virtues by practicing them, that is, by practicing activities that are characteristic of the virtues we are trying to develop (2000: Book II). Thus we become courageous by performing courageous actions, generous by performing acts of generosity, and so on. The same idea applies to intellectual character virtues like the ones we are concerned with in this guide.

To see why, it is important to note that each intellectual virtue has a certain “characteristic activity,” an activity on the basis of which it can be distinguished from other intellectual virtues. For example, curiosity involves asking thoughtful and insightful questions, intellectual humility involves being aware of and willing to “own” one’s intellectual limitations or mistakes, open-mindedness involves taking up and giving a fair hearing to foreign or opposing points of view, and intellectual courage involves persisting in an intellectual activity despite the presence of fear or danger. Each of these activities can be practiced. Aristotle’s point, applied to intellectual virtues, is that such practice is crucial to the development of the virtues in question.

This point has several implications for our attempts to educate for intellectual virtues. Most significantly, it means that we must provide our

students with ongoing opportunities to practice the actions characteristic of our target virtues. We must build such opportunities into our lessons and assignments. Aside from modeling intellectually virtuous activity for our students (more on this below), this is perhaps the most powerful practice we can adopt. It is also a practice that requires a significant departure from certain ways of teaching that are fairly standard in many college and university settings. Therefore, I will treat it at some length. I will begin by noting some ways in which I have tried to create opportunities for my students to practice specific intellectual virtues. Next I will discuss an approach that I am just beginning to experiment with: namely, the use of so-called “thinking routines.” Finally, I will discuss the importance of calling attention to and framing the opportunities in question.

Practicing attentiveness and curiosity

In the past several years, I have made several adjustments to my pedagogical practices aimed at giving my students opportunities to practice virtues like curiosity, open-mindedness, intellectual humility, intellectual courage, and intellectual thoroughness. One of these adjustments, based on a practice of one of my professors in graduate school, has been to have students submit two or three “end-of-class questions” at the end of each class period. The questions, which students submit as they leave class, must be relevant to the material that has just been covered and demonstrate thoughtful reflection. I quickly review the questions as I am walking back to my office, making a note of the ones that are most relevant and thought provoking. Often, I begin the following class period by discussing a select number of these questions with my students. The assignment is not graded. But this has not seemed to prevent my students from taking it seriously.

One purpose of this exercise is to encourage students to remain engaged and focused during class. Again, I insist that the questions be thoughtful—that they demonstrate higher-order consideration or reflection on the subject matter. As such, the exercise presents students with an opportunity to practice the virtue of attentiveness. Further, because it requires students to formulate and articulate questions (rather than observations or conjectures), it also gives them an opportunity to practice curiosity.

Practicing open-mindedness and intellectual humility

The study of philosophy involves, among other things, the analysis and evaluation of arguments or reasons put forth in support of philosophical claims. Small discussion groups are a natural context in which to engage in this kind of activity. Therefore, like many philosophy instructors, I regularly divide my students into small groups and have them critically discuss or debate a particular thesis or argument. Often students have strong opinions about the topics discussed. This presents a good opportunity to have them practice virtues like open-mindedness and intellectual humility.

One way I have sought to do so is to charge my students with arguing for the *opposite* of the view they actually accept. So, for instance, once I have divided my students into small groups and ensured that there is at least some disagreement among the members of each group, I ask students who agree with each other to work together to come up with as many reasons as possible in support of the view they reject. I then ask them to defend this view in a (respectful) debate-style conversation with the members of the other group. Unsurprisingly, students can sometimes be a bit silly when doing this exercise; and, for it to work, they do need to be good sports. But when they engage in the exercise in good faith, they receive valuable (and rare) practice giving an opposing viewpoint a fair hearing and recognizing some limitations of their own viewpoint. That is, they are given an opportunity to practice open-mindedness and intellectual humility.

Practicing intellectual courage

In my conversations and informal polling of students about which virtues they feel like they need to grow in most, intellectual courage usually tops the list. Specifically, a large percentage of students observe that they fail to answer questions, share their thinking, respond to other students, and so on, out of fear of embarrassment or of giving a wrong answer. Accordingly, I regularly try to think of ways in which I can challenge my students to practice intellectual courage. One way of doing this is to share with them that a great many of their peers feel exactly as they do! Judging by the nervous smiles and looks of relief on their faces, this apparently strikes many of them as a bit of

a revelation. Knowing that a majority of their classmates also struggle with intellectual courage can make it feel safer to take risks themselves.

For a similar reason, I am also fairly careful and intentional about how I *praise* my students. Specifically, I take pains to praise intellectual risk-taking as much or more than I praise “right answers” or the ability to arrive at a right answer faster than anyone else. In short, I do what I can to demonstrate that I value intellectual risk-taking as much as I value accuracy or speed. The reason for this shouldn’t be too difficult to appreciate. As noted above, *growth*—even growth in knowledge and understanding—requires a willingness to struggle, experiment, and even to fail. Most students need to challenge themselves and take risks if they are going to engage rigorously with the subject matter and achieve the kind of mastery we envision for them. While something like accuracy—or, even better, deep understanding—is a very worthy educational goal, it is important to view intellectual risk-taking as an important means to this end. We must, then, seek to create opportunities for our students to practice intellectual courage, encourage them to seize these opportunities, and support them when they do.

One practice I regularly employ along these lines is randomly calling on students to answer questions. On the first day of class, I ask students to supply various bits of information about themselves (name, major, hometown, contact information, a unique and interesting fact about themselves) on an index card. I use these cards to take attendance each class period. I also use them to encourage my students to practice intellectual courage. As I am lecturing or discussing material with my students, I frequently pause and randomly draw a card from the pile. I then direct a question to the student whose card I have selected. As you might imagine, this practice helps keep students’ attention. However, especially when framed in the right way (see below), it also provides an additional bit of encouragement that many students need in order to share their thinking. As such it provides a good opportunity for them to practice intellectual risk-taking or courage. (Of course, students can and sometimes do give short, thoughtless answers to my questions. Nevertheless, I find that just as often this practice elicits thoughtful comments or observations from students who otherwise might have remained silent out of fear. Thus it gently assists many students

in the practice of a virtue that they themselves have identified as extremely important.)

Practicing virtues outside the classroom

The examples discussed thus far pertain to in-class exercises and activities. However, opportunities to practice intellectual virtues can and should also be built into other components of our courses. For instance, in most of the papers I assign, I have my students consider possible objections to the viewpoint or argument they are defending in the paper. I stress that the objections must be plausible and forceful, that they cannot be “straw man” objections or otherwise obviously weak or implausible. In doing so, I create an opportunity for my students to practice open-mindedness. Like many other instructors, I also sometimes require my students to write multiple drafts of a single paper. This is a challenging, time-consuming, and sometimes tedious task. As such it provides my students with opportunities to practice virtues like intellectual tenacity and perseverance. Similarly, on exams and homework assignments that involve explaining an idea, concept, or argument, I insist that my students demonstrate a firm personal grasp of the subject matter. Thus I require them to explain concepts and arguments in their own words and to use some of their own examples. This allows me to distinguish students who genuinely understand the material from students who are simply repeating exactly what they were told in class or exactly what was given to them on a PowerPoint slide or handout. In addition to requiring that they provide thoughtful explanations, I also insist that these explanations be accurate. In these ways, the exams and assignments in question provide students with opportunities to practice virtues like intellectual thoroughness and carefulness.

Creating your own opportunities

The foregoing are several examples of how I have sought to give my students opportunities to practice intellectual virtues. The specific exercises I have discussed may or may not be relevant to the subjects or students you teach. Therefore, I will reiterate that the main point of these examples is to inspire your own imagination. My hope is that by illustrating what it has looked like for one professor at one university to provide his students with opportunities

to engage in intellectual activities that are characteristic of good “habits of mind,” you will now consider what sorts of exercises might work best for you, your subject matter, and your students.

One way to make some headway on this question is to give serious consideration to the following questions: (1) “Which virtues would I most like to focus on in my classes?” (2) “Which intellectual actions or behaviors are characteristic of these virtues? That is, what do these virtues look like in action?” (3) “How can I create ongoing opportunities to perform these actions?” Again, I think that giving serious thought to these questions and letting your answers inform and shape your pedagogy and how you allot the time you have with your students are among the most important steps you can take in your attempt to educate for intellectual virtues.

Thinking routines

Before turning to consider how we might go about framing the sorts of opportunities in question, I want to give some consideration to a further, closely related form such opportunities can take. One of the main ways that teachers at the [Intellectual Virtues Academy of Long Beach](#) (see the Introduction) seek to foster intellectual virtues in their students is through the use of “thinking routines.” Thinking routines are structured intellectual exercises that are easily repeatable and can be used to analyze or engage with a given concept, question, text, argument, artifact, or other object. Most involve responding to a short set of questions or prompts. Thinking routines are designed to be used on a frequent basis, the idea being that the kind of thinking they require will eventually become habitual or “routine” (Ritchhart 2002: Ch. 5). For this reason, it is generally recommended that teachers select just one or two thinking routines to use in their classes. (For a useful website about thinking routines, see [here](#). An informative video is [here](#). For a useful book on the topic, see Ritchhart, Church, and Morrison [2011].)

Most of the research on thinking routines has come out of [Project Zero](#) at the Harvard Graduate School of Education. This research has focused primarily on the use of thinking routines in a secondary (rather than a college or university) setting. However, as I hope to make apparent, many of the routines in question can easily be adapted for use in a post-secondary setting

(for an example of such, see Garcia and King 2016). In what follows, I briefly discuss two routines, highlighting the intellectual virtues that they provide an opportunity to practice.

“See-Think-Wonder” is a routine structured around the following questions: (1) What do you notice? (2) What do you think is going on? (3) What does this make you wonder? See-Think-Wonder can be useful in the process of viewing and reflecting on a painting or photograph. It can also be used to reflect on the content of a video or as a way of analyzing an historical event or a scene in a novel or film. The first question asks students strictly to observe, not to interpret, and to identify as many details as possible. The second question asks them to formulate an interpretation, explanation, or theory concerning what they have observed. And the third question asks them to raise questions about the object based on what they have observed and hypothesized. With this and other thinking routines, it is important that the questions be answered in order and that students don’t skip to the next question prematurely (e.g. that they don’t begin interpreting or hypothesizing prior to observing and collecting details).

See-Think-Wonder gives students an opportunity to practice several intellectual virtues, including attentiveness (focusing on important details), open-mindedness and intellectual thoroughness (looking for and identifying possible explanations), and curiosity (generating questions). (For more on this routine see [here](#).)

“Connect-Extend-Challenge” is a routine that is especially useful in contexts in which new information or ideas have just been introduced. It is structured around the following questions: (1) How are these ideas and information connected to what you already know? (2) What new ideas did you get that extended or pushed your thinking in new directions? (3) What is still challenging or difficult for you to get your mind around? What questions, wonderings, or tensions do you now have? As the questions themselves suggest, Connect-Extend-Challenge is aimed at helping students connect what they have just learned to other things they already know, reflect on implications of their new knowledge, and identify remaining questions or points of confusion. (For more on this routine see [here](#).)

Like the previous routine, Connect-Extend-Challenge provides an opportunity to practice several intellectual virtues. By prompting students to make connections between new information or ideas and what they already know, it encourages the practice of intellectual thoroughness. The second step of the routine, which asks students to spell out new ideas or ways of thinking, encourages the practice of intellectual autonomy. And the last step, which asks them to identify further questions and to note where they are still confused or challenged, encourages the practice of curiosity and intellectual humility.

Both of the routines just discussed also provide opportunities to practice virtues relevant to situations involving intellectual struggle and risk-taking. These routines require students to share their thinking with others, to come up with their own ideas and questions, and to engage in high-level thinking. Activities like these can be intimidating or challenging for many students. Therefore, they often demand the practice of virtues like intellectual courage and tenacity.

At the college or university level, thinking routines can bring helpful and intellectually stimulating structure to the kinds of “break out” or discussion groups that are common in post-secondary education. Thus after introducing a new concept, topic, or object to your students, you might divide them into groups of four or five and have them use a thinking routine to reflect on and discuss what has just been introduced. Because thinking routines are designed to facilitate thoughtful and rigorous intellectual engagement, this can be a significant improvement over the way that many small group activities tend to go. And because they are easily repeatable, thinking routines can also be a more effective way of helping our students “internalize” virtuous thinking practices.

Calling attention to opportunities for practice

So far in this section we have focused on creating opportunities for students to practice intellectual virtues. Again, this practice should pervade our lesson-planning and interactions with our students. When we sit down to think through an upcoming lesson, we should constantly ask ourselves: “Which virtues am I giving my students an opportunity to practice? How?” While

creating such opportunities is of the utmost importance, it is also important to *call attention* to these opportunities.

It is, of course, possible to give students opportunities to practice intellectual virtues without explicitly noting these opportunities. However, such an approach fails to make the most of the opportunities in question. In particular, if I have taken the time to introduce the concept of intellectual virtue to my students and have convinced them of the value of several intellectual virtues and of how these virtues can be cultivated in an educational context, then signaling to students when they are being given opportunities to practice these virtues can encourage them to perceive these opportunities as significant and to boost their motivation to seize them. In other words, if I can connect the opportunities in question with broader, character-based goals that my students have already endorsed and shown some enthusiasm for, it stands to reason that they will be more likely to appreciate these opportunities and to engage in the proposed activities more willingly and thoughtfully.

Calling attention to such opportunities can take a variety of forms. For instance, when I randomly call on students to answer questions in an effort to help them practice intellectual courage (as described above), I often frame these moments as such and remind the students that intellectual courage is the virtue they most commonly say they need to grow in. This can help my students reframe the moment in question: speaking up becomes more than an occasion for potential embarrassment or failure; it is an opportunity to take at least one small step in the direction of greater intellectual courage.

I also make efforts to call attention to opportunities to practice intellectual virtues that arise spontaneously in the course of instruction. So, for instance, suppose that student A confidently asserts a certain opinion and that student B counters with a forceful objection or counterexample. Suppose, further, that A's initial response is dismissive, that A fails to appreciate the force of B's remarks. I might at that point say something like the following to A: "Let's slow down here. I think there might be something to what B is saying. This doesn't mean that B is completely right and you're completely wrong. But I do think you might work a little harder to try to understand B's objection. In fact, this is a really good opportunity for you to practice open-

mindedness and intellectual humility.” Assuming that student A has been introduced to these virtues and is convinced of their value, framing the moment in this way can provide this student with additional motivation to practice the virtues in question.

A further way of drawing attention to opportunities to practice intellectual virtues involves noting to students at the beginning of a class period which virtues they will have an opportunity to practice during that period. If I am being thoughtful about creating opportunities for virtuous intellectual practice as I formulate my plan for a given class period, then I should have a good idea of which virtues are relevant to which parts of the lesson. Like many teachers, I often write a brief outline of what we will be doing or what will be covered during a given class period. When I have prepared accordingly, I sometimes note on this outline which virtues my students will be given an opportunity to practice. Thus I might write something like the following on the board:

- Review of last week’s exam (intellectual humility)
- Introduction to Descartes’ *Meditations* (attentiveness; curiosity)
- Small group exercise (open-mindedness; intellectual courage)

A parenthetical notation of the relevant virtues can be a simple and subtle reminder of how what is happening in class on a given day is related to the broader character-based goals of the course. Again, if students have been made aware of these goals, have an understanding of what the virtues in question amount to and why they are valuable, the mere notation of the virtues to be practiced can help reinforce the meaning and integrity of the lesson. In my own use of this practice, I provide only a very brief explanation of how each virtue fits with the corresponding part of the lesson. While taking very little time or effort on my part, I find this to be a helpful way of orienting myself and preparing my students to practice intellectual virtues.

3.6. *Virtue-based feedback*

It would be very odd if we were to be concerned about trying to educate for intellectual virtues, regularly build opportunities for students to practice intellectual virtues into our exercises and assignments, but rarely if ever

provide them with any meaningful feedback about their intellectual character strengths and weaknesses. This would signal a profound disconnect between our pedagogical aims and practices, on the one hand, and our methods of assessment or evaluation, on the other. Therefore, an additional practice central to intellectual character education involves providing students with ongoing virtue-based feedback.

Such feedback can be more or less formal. On the less formal side, we can practice “noticing and naming” virtuous intellectual performances as they occur (Ritchhart 2002: 162, 166; Ritchhart, Church, and Morrison 2011: 29). In keeping with the example above in which student B poses a cogent objection to a point made by student A, suppose A heeds my suggestion and, instead of responding defensively, chooses to give an open and honest hearing to B’s objection. Suppose further that A comes to appreciate the force of B’s objection, changes his mind, and acknowledges his mistake. In response to this exchange, I might pause briefly and say something like, “I’d like to quickly note what just happened. B confidently asserted his opinion. A raised an objection to B’s assertion. Initially B was tempted to dismiss B’s objection. But he didn’t. Instead he seized the opportunity to listen openly and fairly to what B had to say. He even changed his mind as a result. *That* is a terrific example of open-mindedness and intellectual humility.” In my experience, feedback like this tends to have a powerful effect. It draws attention to a concrete example of what certain virtues look like in action, provides the student in question with meaningful feedback about his or her intellectual character, and encourages future instances of the relevant activity.

I also try to use virtues language in the written feedback I provide on student papers, exams, and projects. If I read a paper that is free of typos, spelling errors, grammatical mistakes, and so on, or if it handles a very difficult subject matter or concept very accurately and precisely, I might write: “Great carefulness” or “You’ve avoided a lot of possible errors or pitfalls and in doing so have demonstrated intellectual carefulness.” I also find it useful to *underline* the virtue-terms in such statements. Doing so is a way of making even more explicit the connection between the feedback I am providing and the character-based goals of the course (which, again, the students should be very familiar with and which many of them will have endorsed). Alternatively, if a student is writing a paper in which she has been asked to interact

with opposing standpoints, and if she does an especially good job of identifying and giving a forceful representation of such standpoints, I might laud her open-mindedness. Or, if she does a good job of not overstating the case for her thesis, or of noting certain (reasonable) limitations of her argument, I might comment on her intellectual humility. If a project or exam asks students to come up with their own ideas or conjectures, and if a particular student excels at this, I might highlight the student's intellectual autonomy or ability to think for himself. Finally, as noted above, I require my students to demonstrate a firm personal understanding of course material on all exams and other written assignments; "mere regurgitation" of the material as it was presented in class is not sufficient for receiving a good mark. This is a way of encouraging my students to practice intellectual thoroughness. Accordingly, when a student does an excellent job of explaining a given concept or idea in her own terms, or when she makes insightful connections between a given point or concept and other ideas that have been covered in the class, this provides me with an opportunity to notice and commend her thoroughness as a thinker or learner.

I also try to provide virtue-based feedback to my students by incorporating virtue concepts and terminology into the formal criteria or rubrics I use to grade their work. Many of you probably already do this at least to some extent. For instance, most professors insist that in order to receive a good grade, student work must exhibit virtues like carefulness and thoroughness. Thus these concepts—sometimes even these terms—are incorporated into many formal rubrics used to grade student work. However, we can also incorporate other virtue concepts (implicitly or explicitly) in our formal evaluative criteria. In fact, this should be entirely natural if we are creating exercises and assignments that require the practice of intellectual virtues. Here are several examples of how virtue concepts and language might be worked into formal standards used to evaluate student work:

Thoroughness: "the work demonstrates a firm personal understanding of the material; includes detailed explanations of key concepts; does not simply repeat what was stated in class or the text."

Carefulness: "the work is free from mistakes and errors; it isn't hasty or sloppy."

Autonomy: “the work demonstrates the student’s ability to formulate his/her own ideas and to think independently.”

Curiosity: “the student’s guiding question is thoughtful and insightful; the student clearly spent time wondering about the topic.”

Intellectual tenacity: “the project has a strong finish; it doesn’t ‘peter out’ toward the end.”

Open-mindedness: “the student identifies relevant alternative perspectives and formulates reasonable objections.”

Fair-mindedness: “the student represents opposing views and objections in a fair and reasonable manner.”

When we grade student work in terms of how well it reflects certain intellectual virtues, we provide our students with meaningful virtue-based feedback. This can serve to reinforce the character-based goals we have for our students and to provide them with helpful information concerning their intellectual character strengths and areas where they still have room to improve.

3.7. Modeling

A final practice is among the most important and powerful: namely, the modeling of intellectual virtues for our students. If we introduce our students to the concept of intellectual virtue, encourage them to reflect on their own intellectual character, provide them with opportunities to practice several virtues, but fail to exhibit these qualities ourselves—if we fail to practice what we preach—we can expect our efforts to have a very limited effect. Conversely, as most of us have probably experienced, being exposed to “real life” examples of intellectual virtue can have a very powerful effect, even when this exposure isn’t accompanied by many of the other practices discussed above. In short, modeling intellectual virtues is critical to fostering

the intellectual character growth of our students (Lickona 2004: Ch. 5 and 1991: Ch. 5; Ritchhart 2015: Ch. 5 and 2011: 161-64)

What might this look like? Intellectual virtues manifest primarily in the activity of *thinking*. Therefore, if we wish to model intellectual virtues for our students, we must find ways of exposing them to how we think. One way of doing so is to develop a habit of “thinking aloud,” that is, of explicitly wondering, formulating hypotheses, giving serious consideration to opposing perspectives, admitting when we don’t know something, seeking and communicating explanations, and more. In doing so, we provide our students with a window into how our minds work; and, if we are thinking virtuously, into the nature and value of intellectual virtues.

Of course, if we are *not* thinking virtuously, then we will be modeling something else: intellectual *vices* perhaps. This underscores two important points. First, it is a reminder of the fact that whenever we think aloud, we are modeling *something* of our intellectual character for our students. There is, in this sense, no way around modeling intellectual character or some sort for our students (though it is up to us to model virtues rather than vices). Second, it is a sobering reminder of the fact that if a teacher possesses few if any intellectual virtues, then her ability to educate for intellectual virtues will be severely limited. Manifesting intellectual vices like narrow-mindedness, intellectual arrogance, or intellectual sloppiness can be a significant “turn off” to our students. And once we have lost their attention and respect, we have lost a critical tool for promoting their growth in intellectual virtues.

That said, even our intellectual foibles, provided that they aren’t too vicious or several, can provide an occasion for practicing one very important virtue: namely, intellectual humility. Suppose I have a habit of talking over other people, and that I often manifest this habit in my interactions with students, cutting them off before they can finish their comments or questions. If, when this habit manifests, I am able to stop myself and say something like, “I’m sorry. I have a bad habit of not letting other people finish what they’re saying. I’m working on it but obviously still have a ways to go. Please continue,” then I may have the opportunity to convert an intellectual misstep into an occasion for demonstrating intellectual humility. This can have a

powerful effect. It can reassure students that their professors are far from perfect and that it is safe, even respectable, to admit when one has erred.

Indeed, I have found intellectual humility to be among the most important virtues I can model for my students. As professors, we know a lot more and have many more cognitive skills and abilities than most of our students. This can prove intimidating to them. The “stronger” we are, the weaker they can feel, and therefore the more reluctant they can be to take the kinds of intellectual risks or to engage in ways that are crucial to their own intellectual development. Therefore, demonstrating a comfort with (albeit not a complacency about) our intellectual limitations, weaknesses, or mistakes can have a disarming and intellectually positive effect.

As the fundamental motivating virtue, curiosity is another virtue that is especially important to model for our students. Many of us were drawn to the subject matter we teach at least partly on account of the “passion” that certain teachers of ours had for this subject matter. If your experience is anything like mine, a central part of this passion was a kind of deep inquisitiveness or curiosity. I seek to model curiosity for my students by allowing myself—sometimes even deliberately choosing—to pause and wonder aloud about something we are reading or discussing or about a question or comment that has been posed by a student. This kind of non-scripted, open-ended wondering stands in contrast to a pedagogical approach—all too familiar in many post-secondary classrooms—that is dominated by “hurried content delivery,” for example, a professor rushing through several PowerPoint slides in order to “disseminate” a large quantity of information before the class period ends.

Regardless of which specific virtues we seek to model for our students, it is critical that we do so in a manner that is *authentic*—that such modeling fits the context and is a genuine representation of who we are (or at least of who we are trying to be!) (Ritchhart, Church, and Morrison 2011: 29; Ritchhart 2002: 162). This is especially true at the college or university level, where students tend to be especially privy and averse to inauthenticity. While our modeling of intellectual virtues needs to be authentic, it can still be deliberate and intentional. Indeed, in the same way that I might think through the opportunities my students will have to practice certain virtues in an upcom-

ing lesson, I can also reflect on which virtues I am likely to have the opportunity to practice. Having thought about this in advance, I will be more likely to recognize the occasions when they arise. I may also be in a better position to respond or conduct myself in an intellectually virtuous manner.

To get a better sense of which virtues you might work at modeling and how you might do so, consider reflecting on the following questions: (1) “Which intellectual virtues am I best at practicing or manifesting in my teaching?” (2) “What does this virtuous practice tend to look like?” (3) “How could I model these virtues for my students better or more frequently?”

3.8. Conclusion

The foregoing are several practices that we as college or university instructors can engage in to help our students achieve “meaningful growth” in the deep personal qualities or character traits of a good thinker or learner. I hope it is clear that and how several of the practices fit together and reinforce each other. Indeed, in my experience, educating for intellectual virtues in the manner described above is a case in which “the whole is greater than the sum of the parts.” Adopting a comprehensive approach to intellectual character education can have a transformative and deeply rewarding effect on our teaching. And, with a little luck, it can also have a deep and lasting impact on our students (for what to think or do when it appears not to, see Porter 2016). Finally, I hope the guide has stimulated your imagination: that you now have a more lively sense of what educating for intellectual virtues amounts to, why it is a worthwhile enterprise, and how exactly it might be approached in the specific courses and with the specific students you teach.

4. REFERENCES

- Aristotle. 2000. *Nicomachean Ethics*, trans. Roger Crisp (Cambridge: Cambridge University Press).
- Baehr, Jason. Forthcoming-a. “The Situationist Challenge to Educating for Intellectual Virtues,” *Epistemic Situationism*, eds. Mark Alfano and Abrol Fairweather (Oxford: Oxford University Press).
- Baehr, Jason. Forthcoming-b. “Is Intellectual Character Growth a Realistic Educational Aim?” in a special issue of the *Journal of Moral Education* on “Virtue and Control: Lessons from East and West,” eds. Heather Battaly and Ryan Nichols.
- Baehr, Jason. 2016. *Intellectual Virtues and Education: Essays in Applied Virtue Epistemology* (New York: Routledge).
- Baehr, Jason. 2015. *Cultivating Good Minds: A Philosophical and Practical Guide to Educating for Intellectual Virtues*. A link to download this guide is available at <https://jason.baehr.wordpress.com/research>.
- Baehr, Jason. 2013. “Educating for Intellectual Virtues: From Theory to Practice,” *Journal of the Philosophy of Education* 47: 248-262.
- Baehr, Jason. 2011. *The Inquiring Mind: On Intellectual Virtues and Virtue Epistemology* (Oxford: Oxford University Press).
- Berkowitz, Marvin and Melinda Bier. 2007. “What Works in Character Education,” *Journal of Research in Character Education* 5/1: 29–48.
- Berkowitz, Marvin and Melinda Bier. 2006. “What Works in Character Education: A Research-Driven Guide for Educators” (Washington, DC: Character Education Partnership).
- Berkowitz, Marvin and Bill Puka. 2009. “Dissent and Character Education,” in *Reclaiming Dissent: Civics Education for the 21st Century*, ed. Mordechai Gordon (Rotterdam: Sense Publishers): 107-30.
- Dow, Philip. 2013. *Virtuous Minds* (Downers Grove: InterVarsity Press).
- Dweck, Carol. 2010. “Even Geniuses Work Hard,” *Educational Leadership* 68/1: 16-20.
- Dweck, Carol. 2006. *Mindset: The New Psychology of Success* (New York: Random House).

- Garcia, Robert and Nathan King. 2016. "Toward Intellectually Virtuous Discourse: Two Vicious Fallacies and the Virtues that Inhibit Them," in *Intellectual Virtues and Education: Essays in Applied Virtue Epistemology*, ed. Jason Baehr (New York: Routledge).
- Lickona, Thomas. 2004. *Character Matters: How to Help Children Develop Good Judgment, Integrity, and Other Essential Virtues* (New York: Simon and Schuster).
- Lickona, Thomas. 1991. *Educating for Character: How Our Schools Can Teach Respect and Responsibility* (New York: Bantam Books).
- Perkins, David. 1993. "Teaching for Understanding," *American Educator: The Professional Journal of the American Federation of Teachers* 17/3: 28-35.
- Porter, Steven L. 2016. "A Therapeutic Approach to Intellectual Virtue Formation," in *Intellectual Virtues and Education: Essays in Applied Virtue Epistemology*, ed. Jason Baehr (New York: Routledge).
- Ritchhart, Ron. 2015. *Creating Cultures of Thinking: The Eight Forces We Must Master to Truly Transform Our Schools* (San Francisco: Jossey-Bass).
- Ritchhart, Ron. 2002. *Intellectual Character: What It Is, Why It Matters, and How to Get It* (San Francisco: Jossey-Bass).
- Ritchhart, Ron, Mark Church, and Karin Morrison. 2011. *Making Thinking Visible* (San Francisco: Jossey-Bass).
- Roberts, Robert and Jay Wood. 2007. *Intellectual Virtues: An Essay In Regulative Epistemology* (Oxford: Oxford University Press).
- Siegel, Daniel. 2012. *The Developing Mind: How Relationships and the Brain Interact to Shape Who We Are*, second edition (New York: Guilford Press).
- Tishman, Shari, David Perkins, and Eileen Jay. 1995. *The Thinking Classroom: Learning and Teaching in a Culture of Thinking* (Boston: Allyn and Bacon).
- Tough, Paul. 2012. *How Children Succeed: Grit, Curiosity, and the Hidden Power of Character* (New York: Houghton Mifflin Harcourt).
- Zagzebski, Linda. 1996. *Virtues of the Mind* (Cambridge: Cambridge University Press).

5. ADDITIONAL RESOURCES

In this section I provide several additional resources that may be of use in your own attempts to educate for intellectual virtues. They include:

- A. Two classifications of intellectual virtues that may provide you with a better understanding of the full range and varieties of intellectual virtues.
- B. The slides from a PowerPoint presentation I have used to introduce freshman students to intellectual virtues and their importance to education and living well.
- C. A “Master Examples” document that contains two extended examples for each of the Intellectual Virtues Academy’s (IVA) nine “master virtues.” (This document is referenced several times in the PPT presentation noted above.)
- D. A copy of a self-reflection project aimed at helping students develop a better understanding of their intellectual character strengths and weaknesses.
- E. Brief self-assessment measures of IVA’s “master virtues” that can be used to help students develop a better understanding of their intellectual character strengths and weaknesses. (These measures are geared toward middle school students. You may need to revise some of the items to better suit the developmental stage of your students.)
- F. A bookmark that includes the definitions of and slogans for IVA’s “master virtues.”

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A. Two Classifications of Intellectual Virtues

There is no perfect classification of intellectual virtues. Certainly there is no single widely embraced or authoritative classification. Rather, different classifications are appropriate for different purposes and contexts. To illustrate this point, and to provide a sense of what such classifications look like, I identify two different ways in which several intellectual virtues might be classified or grouped. In neither case is the classification intended to be exhaustive; nor are the various categories or groupings of intellectual virtues mutually exclusive. Nevertheless, having some sense of how intellectual virtues fit together can be a useful way of better understanding what they are and how they function.

Both classifications divide intellectual virtues into groups based on their role in the learning process or in the process of “inquiry,” by which I mean a deliberate attempt to get to the truth about (or to learn about or understand) some specific matter. This includes a very wide range of intellectual activities, from a student trying to understand how a series of historical events fit together to a scientist or philosopher developing a complex theoretical model in an effort to explain a given phenomenon.

I.

The first classification is relatively simple and limited (which is both a strength and a weakness). It is taken directly from the Intellectual Virtues Academy of Long Beach. It groups each of the school’s nine “master virtues” into three categories, with each category pertaining to a particular stage or dimension of the learning process.

The first stage consists of *getting the learning process started and headed in the right direction*. This requires a certain kind of motivation as well as certain “checks and balances.” *Curiosity* supplies the motivation to learn. *Intellectual autonomy* equips a person to direct and guide her own thinking—it equips her to “think for herself.” Intellectual autonomy needs to be balanced by a willingness to admit what one doesn’t know and to rely on others where appropriate. Hence the need for *intellectual humility*. (For definitions, explanations, and ex-amples of these and the other six virtues in this classification, see Chapters 4-12 of the guide.)

The second stage is a matter of *keeping the learning process on track*. This requires that one be “personally present” and observant—it requires *attentiveness*. It also requires “going deep,” probing for explanations and deep understanding. Thus it requires *intellectual thoroughness*. Finally, to keep the learning process on track, one must also be aware of possible errors and mistakes and take pains to avoid them. One must practice *intellectual carefulness*.

The third set of virtues pertains, not necessarily to a particular stage of the learning process, but to *certain challenges that often arise during this process*. One such challenge is seeing things from foreign or alternative points of view, that is, “thinking outside the box.” *Open-mindedness* is often needed to overcome this challenge. Fear is another obstacle to productive learning. In a school setting, this often looks like a fear of making mistakes or a fear of embarrassment. *Intellectual courage* equips a person to overcome these fears and to do so in the interest of learning or understanding. A final obstacle is the temptation to quit or give up before one has figured things out or developed an understanding of the subject matter. In situations like this, *intellectual tenacity* is required.

Stage or Dimension of the Learning Process	Corresponding Virtues
Getting the process started and headed in the right direction	Curiosity Intellectual autonomy Intellectual humility
Keeping the process on track	Attentiveness Intellectual carefulness Intellectual thoroughness
Overcoming challenges to productive learning	Open-mindedness Intellectual courage Intellectual tenacity

II.

The second classification of intellectual virtues differs from the first one in a few notable ways. First, it includes a greater number of groupings and virtues. Second, it groups virtues according to a different and wider array of demands or challenges that arise in the context of inquiry. Third, certain virtues appear in more than one classification. (This classification is adapted from Baehr 2011: Ch. 2.)

Successful inquiry makes the following demands. First, it is something that must be *initiated or undertaken*. Therefore, it requires virtues like *curiosity*, *attentiveness*, *contemplativeness*, and *thoughtfulness*. People with these virtues wonder, ask questions, notice important details, and engage in other kinds of intellectual activity that often prompt inquiry, that is, that prompt an attempt to learn or to understand. Second, inquiry often demands that the inquirer *get and remain properly focused*. Thus it requires ongoing *attentiveness*, *keen observation*, *scrutiny*, *perceptiveness*, and *concentration*.

Third, because inquiry often involves consulting and evaluating a wide variety of sources, some of which might be foreign or disagreeable, it can give rise to the *temptation to evaluate different views using different criteria or standards* (e.g. “going easy” on views similar to one’s own and being overly critical about competing views). A similar challenge can arise when one is investigating a subject matter or evaluating sources over a long period of time. To overcome these challenges, one needs virtues like *intellectual fairness*, *consistency*, and *objectivity*.

Fourth, inquiry can also fall prey to a different intellectual temptation, namely, the *temptation of self-deception*. When a certain piece or body of evidence threatens one of our cherished beliefs, or when it might otherwise be deemed inconvenient, we often face the temptation to ignore, distort, or repress this evidence (sometimes this occurs at an entirely subconscious level). Obviously, this can have a negative effect on our attempts to form accurate beliefs and to develop a genuine understanding of the world around us. To mitigate such effects, we need to possess and exercise virtues like *intellectual self-awareness*, *self-scrutiny*, *honesty*, *open-mindedness*, *intellectual humility*, and *intellectual courage*. When we do, the result is an important and powerful form of *intellectual “wholeness” or integrity*.

Fifth, successful inquiry often involves “*thinking outside the box*.” This can be challenging in a couple of ways. It can demand an extreme kind of intellectual stretching, requiring us to conceive of creative new solutions or possibilities. It can also require taking up a perspective that we find

disagreeable or objectionable. As such, this aspect of inquiry demands the practice of virtues like *imaginativeness, creativity, intellectual adaptability, flexibility, agility, and open-mindedness*.

Sixth, reaching the truth or acquiring genuine understanding sometimes requires *considerable exertion or endurance*. This can be the result of a variety of factors: reaching the truth may be dangerous; it may be especially time-consuming; it may require ongoing repetition of a mundane technical procedure; etc. In cases like this, successful inquiry requires virtues like *intellectual courage, determination, perseverance, patience, tenacity, and diligence*.

Challenge or Obstacle to Successful Inquiry	Corresponding Virtues
Initial motivation	Curiosity, attentiveness, contemplativeness, and thoughtfulness
Proper focusing	Attentiveness, keen observation, intellectual scrutiny, perceptiveness, and concentration
Consistency in evaluation	Fair-mindedness, objectivity, and intellectual consistency
Intellectual “wholeness” or integrity	Self-awareness, self-scrutiny, intellectual honesty, open-mindedness, intellectual humility, intellectual courage, and intellectual integrity
Mental flexibility	Imaginativeness, creativity, intellectual adaptability, intellectual flexibility, intellectual agility, and open-mindedness
Endurance or persistence	Intellectual courage, intellectual determination, intellectual perseverance, intellectual patience, intellectual tenacity, and intellectual diligence

B. PPT for Direct Instruction

Intellectual Character Growth

What is it? And why does it matter?

Jason Baehr, Ph.D.
Philosophy Department
Loyola Marymount University

What's the point of formal education?

“Extrinsic reasons”

- Career preparation
- Financial well-being
- Social mobility
- Betterment of society

“Intrinsic reasons”

- Becoming an educated person
- Learning to think well
- Foundation for lifelong learning

These intrinsic reasons can be summed up in terms of *intellectual character growth* or growth in *intellectual virtues*.

Intellectual virtues = the character traits of a good thinker or learner.

Some examples: curiosity, open-mindedness, attentiveness, intellectual humility, and intellectual tenacity.

Intellectual virtues are different from:

- IQ and other (largely) hardwired intellectual abilities and talents.
- Moral and civic virtues: moral virtues are the character traits of a good *neighbor*; civic virtues are the character traits of a good *citizen*; intellectual virtues are the character traits of a good *thinker or learner*. While these categories can overlap, there are some obvious differences as well.

Intellectual Virtues: Some Examples

In this class, we'll focus on nine "master virtues." These virtues can be divided into three groups.

The first group are important for getting thinking started and on the right track: curiosity, intellectual humility, intellectual autonomy.

The second group are important for keeping thinking on the right track: attentiveness, intellectual carefulness, intellectual thoroughness.

The third group are important for overcoming certain challenges or obstacles to good thinking: open-mindedness, intellectual courage, and intellectual tenacity.

CURIOSITY: a disposition to wonder, ponder, and ask why; involves a thirst for understanding and a desire to explore.
Slogan: Ask questions!

Arthur Miles from *The Search* by C.P. Snow (see "Examples" document)

This passage illustrates the point that curiosity has an *emotional* or *feeling* dimension: Arthur experiences *excitement*; the night *takes hold* of him; and the beauty of the stars *stirs* him.

It also shows that curiosity is an active vs. a passive state: Arthur and his father *wonder*—they actively raise and contemplate *questions*—about the stars (the word "wonder" appears four times in this brief passage).

INTELLECTUAL HUMILITY: an awareness of and willingness to “own” one’s own intellectual limits; a lack of concern with intellectual superiority and status. Slogan: Admit what you don’t know!

Pulitzer Prize-winning historian Doris Kearns Goodwin (see “Examples” document)

Goodwin is not overly apologetic, but she does take very seriously and “own” her intellectual mistake. The fact that she takes great pride in the carefulness of her research underscores how difficult it must have been for her to exercise intellectual humility in this case.

INTELLECTUAL AUTONOMY: a capacity for active, self-directed thinking; an ability to think and reason for oneself. Slogan: Think for yourself!

Nora from Henrik Ibsen’s *A Doll’s House* (1879) (see “Examples” document)

Against all expectations and assumptions about women and wives of her time, Nora resolves that she must *think* and *reason* for herself—that she can no longer simply accept things she has been taught in books and by society.

ATTENTIVENESS: a disposition to stay focused and on task; notices and attends to important details. Slogan: Look and listen!

Geneticist Barbara McClintock (1902-1992) (see “Examples” document)

McClintock’s attentiveness was so strong and powerful that, as she focused intently on the details of the chromosomes, it was as if these microscopic entities grew up all around her and inhabited her world (cf. Arthur Miles and the stars).

This ability to focus for prolonged periods on important details is a big part of what made her work in genetics so innovative and groundbreaking—it’s what allowed her to advance scientific understanding of her subject matter.

INTELLECTUAL CAREFULNESS: an awareness of and sensitivity to the requirements of good thinking and learning; quick to avoid intellectual pitfalls and mistakes. Slogan: Avoid errors!

The Mariner 1 disaster from Philip Dow’s *Virtuous Minds* (see “Examples” document)

This example illustrates how one small act of intellectual *carelessness* can have devastating consequences, even within a community in which intellectual carefulness is the norm.

INTELLECTUAL THOROUGHNESS: a willingness to seek and provide deeper meaning, explanations, and understanding; not content with mere appearances or easy answers. Slogan: Go deep!

Hermione Granger from the *Harry Potter* series (see “Examples” document)

Hermione is a good example of intellectual thoroughness because she pursues deeper *understanding* (vs. superficial knowledge) and is good at *explaining* what she understands.

OPEN-MINDEDNESS: an ability to “think outside the box”; gives a fair and honest hearing to the “other side”; also enables intellectual creativity and originality. Slogan: Think outside the box!

Abraham Lincoln from Philip Dow’s *Virtuous Minds* (see “Examples” document)

Lincoln’s status as the 16th president of the United States did not prevent him from thinking he might be able to learn from one of his subordinates (an *insubordinate*, in fact). He even sought Stanton out. And when he determined that Stanton had the better argument, he changed his mind and altered his course.

INTELLECTUAL COURAGE: a disposition to persist in thinking, inquiring, discussion, and similar activities despite the presence of some threat or fear, including the fear of failure or embarrassment. Slogan: Take risks!

Galileo Galilei (1564-1642) (see “Examples” document)

On several occasions, Galileo defended the controversial Copernican view that the earth is not the center of the universe in the face of powerful and threatening authorities (e.g. the Inquisition). Despite these grave threats (and the scorn of many of his fellow scientists) Galileo stood up for what he was convinced was the truth.

INTELLECTUAL TENACITY: a disposition to persevere in the face of intellectual struggles and obstacles; embraces intellectual challenges; doesn't quit. Slogan: Embrace struggle!

Frederick Douglass (1818-1895) (see “Examples” document)

Faced with countless challenges and limitations, Douglass was determined to become educated. He devised ingenious ways to overcome the obstacles that stood between him and a good education.

The Structure of an Intellectual Virtue

Three main components:

1. Skill/ability
2. Motivation (immediate and ultimate)
3. Judgment/sensitivity

My intellectual character goals for you in this course ...

1. Knowledge: you will have a firm grasp of what intellectual virtues are; of the nature of several individual intellectual virtues; of how intellectual virtues differ from other cognitive and moral excellences; and of why intellectual virtues are important to learning and living well.
2. Self-knowledge: you will develop an honest and detailed knowledge of your own intellectual character strengths and weaknesses and of how they impact your life inside and outside of the classroom.
3. Frequent practice: in your reading, contributions to class discussion, and work on class assignments, you will practice a wide range of intellectual virtues, paving the way for the formation of new intellectual habits (and the breaking old ones).

How a focus on intellectual character will be integrated into this course ...

1. Direct instruction: learning what intellectual virtues are, what they aren't, and why they matter, together with some related concepts and ideas (e.g. a growth vs. a fixed mindset and "thinking routines").
2. Self-reflection and self-assessment: applying your knowledge of intellectual virtues to how you think about and understand yourself.
3. A "safe" and respectful classroom culture.
4. Practicing intellectual virtues: thinking routines.
5. A classroom culture that values active thinking, intellectual risk-taking, and deep understanding over activities like memorization and the ability to quickly generate right answers.
6. Applying virtue concepts in classroom discussions and activities (e.g. in your observations about what we're reading, in your assessment of classmates' contributions to classroom discussion, and in my evaluation of your work).

C. “Master Examples”

This document is designed to provide IVA stakeholders with some useful “stock” examples of each of the school’s nine master virtues. It is a “living” document. All IVA stakeholders are encouraged to be on the lookout for additional examples of the master virtues. This list will be elaborated on and updated accordingly.

Overview

1. Curiosity
 - A. Arthur Miles from *The Search* by C.P. Snow
 - B. Lina from *The Wheel on the School* by Meindert DeJong
2. Intellectual autonomy
 - A. Copernicus
 - B. Jane Eyre
3. Intellectual humility
 - A. Socrates
 - B. Historian Doris Kearns Goodwin
4. Attentiveness
 - A. Sherlock Holmes
 - B. Scientist Barbara McClintock
5. Intellectual carefulness
 - A. Mariner 1
 - B. Fact Checkers
6. Intellectual thoroughness
 - A. Hermione Granger from *Harry Potter and the Goblet of Fire* by J.K. Rowling
 - B. Thomas Aquinas
7. Open-mindedness
 - A. Abraham Lincoln
 - B. Sarah Crewe from *The Little Princess* by Frances Hodgson Burnett
8. Intellectual courage
 - A. Galileo (in speaking/holding to the truth)
 - B. Scientist Jane Goodall
9. Intellectual tenacity
 - A. Frederick Douglass
 - B. Attorney Alison Tucher

1. Curiosity

A. Arthur Miles from *The Search* by C.P. Snow

The Search is a novel about the ups and downs of the career of Arthur Miles, a scientist at the University of Cambridge in England. The book begins with a description of some of Arthur's first scientific thoughts and feelings. He is 11 at the time:

When I was a child of about eleven, a new excitement suddenly flared up in my life
...

This particular Sunday night was warm and twilit, and I fancy summer was nearly over. As we came to the end of the town, the sun had just gone down behind the river, and – I remember it as though it were yesterday – in the yellow sunset sky there was a sickle of new moon, and high over our heads a sprinkling of stars just coming dimly out. We stopped and looked.

My father said:

“I wonder if they're what we think they are? Stars! Stars like this!” He waved vaguely. “People think we know about them. I wonder if we do.”

I gazed up at him.

“I wonder if we *can*,” he added.

I didn't know what he was thinking. All of a sudden I felt that all the things around me were toys to handle and control, that I had the power in a tiny, easy world.

“I wonder if they are what we think they are,” my father was saying again.

“Let's find out,” I said. And then: “I'm going to find out.”

My father looked puzzled. “Well,” he said.

The night had taken hold of me. I wanted to do something with those stars. I did not quite know what, but I was elated. Their beauty stirred me, but it was not only that. If I had been older, I should have said I wanted to know, to understand, to alter. I wanted to rush out and have them for my own. I laughed:

“I'm going to find out all about them.” (11)

At its core, curiosity is very much a matter of desiring “to know, to understand, to alter.” This is evident in the curious person's tendency to ask why, how, and what if. This passage also does a nice job of capturing two other aspects of curiosity. First, an emotional or feeling aspect: Arthur experiences *excitement*; he *feels* a close connection with the stars; the night *takes hold* of him; and the beauty of the stars *stirs* him. Second, an active aspect: curiosity is not a passive state; it is not opposed to vigorous thinking. On the contrary, it is often what inspires and motivates inquiry. This is evident in the *wondering* Arthur and his father do (the term “wonder” appears four times in this short selection).

B. Lina from *The Wheel on the School* by Meindert DeJong

The Wheel on the School by Meindert DeJong is a novel about how thinking and wondering can lead to insights and observations that can transform people's lives. At the beginning of the book, the main character, Lina, wonders why there aren't any storks in Shora, the small fishing village in which she lives. Impressed by her curiosity, the teacher proposes to dismiss class early so that Lina and her classmates can have time to “think about storks.” He says:

But now what do you think would happen if we all began to think a lot about storks? School's almost over for today, but if, from now until tomorrow morning when you come back to school, you thought and thought about storks, do you think things would begin to happen?

The students are skeptical. They feel unable to think about storks because they know very little about them. The teacher responds:

We can't think much when we don't know much. But we can wonder! From now until tomorrow morning when you come to school again, will you do that? Will you wonder why and wonder why? Will you wonder why storks don't come to Shora to build their nests on the roofs, the way they do in all the villages around? For sometimes when we wonder, we can make things begin to happen.

The rest of the book is about what happens when they do begin to think and wonder about storks and why there aren't any in Shora. A great adventure ensues. The idea that “when we wonder, we can make things begin to happen” captures a critically important aspect of curiosity. Just imagine what the world would look like today if no one had ever wondered or asked why—if no one had ever been intellectually curious! As Lina's teacher suggests, curiosity leads to ideas, which in turn can lead to actions, which in turn can change peoples' lives. Curiosity, though one of the most “intellectual” of the intellectual virtues, often turns out to be extremely practical.

2. Intellectual autonomy

A. Jane from *Jane Eyre* by Charlotte Bronte

The protagonist from Charlotte Bronte's famous 19th century novel *Jane Eyre* is known for her strong will and sharp intellect. This is significant because Jane lives at a time when women were given very narrow roles in society: wife, mother, servant, governess, etc. Instead of remaining intellectually passive or limiting her intellectual activity to her work as a governess, Jane becomes a rigorous thinker and pursues a broad education. She is willing to think for herself even when society says she can't or shouldn't. In the passage that follows, we get a glimpse of the power of Jane's mind—of her formidable intellectual autonomy:

I could not help it; the restlessness was in my nature; it agitated me to pain sometimes. Then my sole relief was to walk along the corridor of the third story, backwards and forwards, safe in the silence and solitude of the spot, and allow my mind's eye to dwell on whatever bright visions rose before it—and, certainly, they were many and glowing; to let my heart be heaved by the exultant movement . . . and, best of all, to open my inward ear to a tale that was never ended—a tale my imagination created, and narrated continuously; quickened with all of incident, life, fire, feeling, that I desired and had not in my actual existence. It is in vain to say human beings ought to be satisfied with tranquility: they must have action; and they will make it if they cannot find it.

Jane's mind is active, alert, engaging the world around her. She exemplifies the kind of active orientation described above. In the next passage, Jane reflects on her lot as a woman and again reveals the powerful character of her mind:

Millions are condemned to a stiller doom than mine, and millions are in silent revolt against their lot. Nobody knows how many rebellions besides political rebellions ferment in the masses of life which people earth. Women are supposed to be very calm generally: but women feel just as men feel; they need exercise for their faculties, and a field for their efforts as much as their brothers do; they suffer from too rigid a restraint, too absolute a stagnation, precisely as men would suffer; and it is narrow-minded in their more privileged fellow-creatures to say that they ought to confine themselves to making puddings and knitting stockings, to playing on the piano and embroidering bags. It is thoughtless to condemn them, or laugh at them, if they seek to do more or learn more than custom has pronounced necessary for their sex.

Jane exemplifies intellectual autonomy by learning to think for herself and to develop her mind in a society that largely expects women to be "seen and not heard."

This quality also shows itself in how Jane manages her emotions. Jane is a very emotional person. In some ways this is very good: her passion for learning helps fuel her intellectual autonomy. However, she also shows intellectual autonomy by trying hard to prevent *irrational* emotions from clouding her perspective and judgment. As such, she illustrates the important point emotion is both important to but can also override one's ability to think for oneself.

B. Copernicus

Nicolaus Copernicus (1473-1543) was a Polish mathematician and astronomer. He is most famous for offering the first comprehensive and compelling defense of a "heliocentric" model of the universe, that is, a model according to which the sun—not the earth—lies at the center of the universe.

Intellectual autonomy is a willingness and ability to think independently—to think for oneself. The thinking and beliefs of an intellectually autonomous person are not overly influenced by "group think" or other forms of peer pressure. While Copernicus was not the first to propose a heliocentric model, his explanation and defense of it required a great deal of intellectual autonomy. It required him to imagine and think in ways that represented a radical departure from prevailing theories of the cosmos. Copernicus's intellectual autonomy was also evident in how he *synthesized* major bodies of scientific knowledge. His theory was the first to combine mathematics, physics, and cosmology.

By thinking through and explaining a radically different understanding of the universe and our place in it, Copernicus demonstrated an extraordinary degree of intellectual autonomy. His heliocentric theory was so revolutionary that it inspired the term "Copernican Revolution," which today is used to describe any profound and counterintuitive shift in understanding.

3. Intellectual humility

A. Doris Kearn Goodwin

Intellectual humility requires being aware of but also "owning" one's intellectual limitations, weaknesses, and mistakes. It is one of the hardest intellectual virtues to practice. This is because, as a general rule, we are not very good about admitting when we have made a mistake—even when that

mistake is plainly brought to our attention. Instead, our tendency is to justify, rationalize, or cover up our mistakes.

Doris Kearns Goodwin is a prominent American historian and Pulitzer Prize winning author. In 1987 she published a book on the family of former US President John F. Kennedy. After the book was released, it was discovered that several passages had apparently been “lifted” from another source without proper attribution. In an article in *Time* magazine titled “How I Caused That Story,” she said the following:

I am a historian. With the exception of being a wife and mother, it is who I am. And there is nothing I take more seriously ... [N]ot long after the publication of my book *The Fitzgeralds and the Kennedys*, I received a communication from author Lynne McTaggart pointing out that material from her book on Kathleen Kennedy had not been properly attributed. I realized she was right. Though my footnotes repeatedly cited Ms. McTaggart’s work, I failed to provide quotation marks for phrases that I had taken verbatim, having assumed that these phrases, drawn from my notes, were my words, not hers. I made the corrected changes ... What made the incident particularly hard for me was the fact that I take great pride in the depth of my research and the extensiveness of my citations. The writing of history is a rich process of building on the work of the past with the hope that others will build on what you have done. Through footnotes you point the way to the future historians. The only protection as a historian is to institute a process of research and writing that minimizes the possibility of error. And that I have tried to do, aided by modern technology, which enables me, having long since moved beyond longhand, to use a computer for both organizing and taking notes. I now rely on a scanner, which reproduces the passages I want to cite, and then I keep my own comments on those books in a separate file so that I will never confuse the two again ... Still, there is no guarantee against error. Should one occur, all I can do, as I did 14 years ago, is to correct it as soon as I possibly can, for my own sake and the sake of history.

This is a nice expression of intellectual humility. Good is not overly apologetic about her mistake (which, incidentally, is a very good illustration of a lack of intellectual carefulness). But she clearly “owns” and takes responsibility for it: she acknowledges that McTaggart is right and that she failed to do her duty as an historian. It is also significant that Good takes “great pride in the depth of [her] research and the extensiveness of [her] citations.” This must have made *admitting* her mistake that much more difficult. We all make mistakes in our intellectual work and activity. The intellectually humble among us are the ones who don’t let their egos get in the way of “owning” and learning from these mistakes.

B. Socrates

Socrates is a famous ancient Greek philosopher (470-399 BC). While he was an actual historical figure, he is also the leading character in the dialogues of another famous ancient Greek philosopher, Plato. (Plato wrote philosophy in the form of dialogues or philosophical conversations – kind of like plays – that typically feature Socrates as the main character.) In the dialogue called *The Apology*, Socrates visits the Oracle at Delphi. He asks the oracle to identify the wisest person of all. She responds that Socrates is! He doesn’t get it. Socrates is sure he knows a lot of people who are much wiser than he is. So he sets out to prove the oracle wrong. However, what he finds, after talking with many different types of people (politicians, poets, craftsmen, etc.), is that they all claim to know

things they don't or to know much less than what they think they know. Socrates, on the other hand, is keenly aware of his intellectual limitations. He is very quick to admit his own ignorance about things. In fact, he asserts famously that true wisdom is a matter of recognizing and acknowledging what you don't know. He is a prime example of intellectual humility.

4. Attentiveness

A. Sherlock Holmes

In the short story "A Scandal in Bohemia," the famous detective Sherlock Holmes draws a distinction for Watson between *seeing* and *observing*. He begins by asking Watson how many steps there are to the entrance of his residence at 221B Baker Street. Watson doesn't have a clue. Holmes responds:

"You see, but you do not observe. The distinction is clear. For example, you have frequently seen the steps which lead up from the hall to this room."

"Frequently."

"How often?"

"Well, some hundreds of times."

"Then how many are there?"

"How many? I don't know."

"Quite so! You have not observed. And yet you have seen. That is just my point. Now, I know that there are seventeen steps, because I have both seen and observed."

Discussing Holmes's distinction between observing and seeing, Julie Haire, author of *Mastermind: How to Think Like Sherlock Holmes*, says:

What Holmes is really telling Watson when he contrasts seeing and observing is to never mistake mindlessness for mindfulness, a passive approach with an active involvement. We see automatically: a stream of sensory inputs that requires no effort on our part, save that of opening our eyes. And we see unthinkingly, absorbing countless elements from the world without necessarily processing what those elements might be. We may not even realize we've seen something that was right before our eyes. But when we observe, we are forced to pay attention. We have to move from passive absorption to active awareness. We have to engage. It's true for everything—not just sight, but each sense, each input, each thought.

This distinction between seeing and observing gets to the very heart of attentiveness. The attentive person is one who zeroes in on—who *notices*—small but critical details and is able to remain *focused* on these details. This is precisely the way of Sherlock Holmes. He picks up on clues that others are oblivious to. And he doesn't merely notice these details. He focuses on and ponders them. They receive his undivided attention.

B. Barbara McClintock

Barbara McClintock (1902-1992) was a Nobel prize-winning geneticist who studied the role of chromosomes (which contain DNA and other genetic materials) in the reproduction of corn. As mundane as corn chromosomes might seem, McClintock was amazingly passionate about her work: "I was just so interested in what I was doing I could hardly wait to get up in the morning and get at

it. One of my friends, a geneticist, said I was a child, because only children can't wait to get up in the morning to get at what they want to do" (Roberts and Wood, *Intellectual Virtues*, 299). McClintock's research required her to pay extremely close attention to incredibly miniscule physical details. She excelled at this. She described her experience observing corn chromosomes as follows:

I found that the more I worked with them the bigger and bigger [they] got, and when I was really working with them I wasn't outside, I was down there. I was part of the system. I was right down there with them, and everything got big. I even was able to see the internal parts of the chromosomes—actually everything was there. It surprised me because I actually felt as if I were right down there and these were my friends. (300)

McClintock's attentiveness was so strong and powerful that as she focused intently on the microscopic details of the chromosomes, it was as if they grew up all around her and she inhabited their world. In fact, it was precisely her extraordinary attentiveness to detail that made much of her work in genetics so innovative and groundbreaking.

5. Intellectual Carefulness

Mariner 1

Author Philip Dow tells an interesting story about the importance of intellectual carefulness. It concerns an event that occurred at the National Aeronautics and Space Administration (NASA).

Before hearing the story, note that the general culture at NASA surely is one marked by extreme intellectual carefulness. As Dow says: "The space program that eventually people on the moon would never have gotten to square one because in this field accuracy and precision are essential to every detail, of every step, of every project" (*Virtuous Minds*, 33). However, even at NASA, accidents sometimes happen:

When John F. Kennedy announced that America would put a man on the moon by the end of the 1960s most people chalked it up to political grandstanding or arrogance. However, the time, energy, and money (vast amounts of money) that soon began pouring into the American space program made the skeptics sit up and take note. Within months NASA announced a series of ambitious plans culminating in a manned trip to the moon. A key component of this program was the exploration of the atmosphere of Venus through the use of Mariner I. Using state-of-the-art technology this craft was expected to reach speeds of up to 25,820 miles per hour on its trip to Venus before unveiling 9,800 solar cells that would power the vessel while its computers investigated the unknown composition of the Venetian atmosphere. It was to be a five million dollar leap forward for NASA and a signal to the Russians that the Americans were gaining the upper hand in the space race. Unfortunately, four minutes after take off Mariner I, America's national pride, and its five million dollar price tag crashed into the Atlantic Ocean. The cause? A NASA scientist had left out a minus sign from the instructions fed into the craft's computer. Not a great day at the office for that particular rocket-scientist. (32-33)

Dow's story illustrates how one small act of intellectual carelessness can have devastating consequences, even within a community in which intellectual carefulness is the norm.

Fact Checkers

“Fact checkers” are people whose job it is to verify the accuracy of others’ written work. They are typically employed by newspapers, magazines, and other organizations responsible for communicating important information to the public. They do background research, make phone calls to verify sources, and take other steps to ensure that published material is accurate and is otherwise (legally, ethically, etc.) up to snuff.

Sarah Harrison Smith is a former fact checker for the *New Yorker* and the *New York Times Magazine*. She believes, rightly, that in a world in which we are bombarded with a constant stream of information, images, and messages (on Wikipedia, Twitter, YouTube, not to mention countless other online sites and services), we need to be our *own* fact checkers. We need to exercise intellectual carefulness in how we process and respond to information that is communicated to us. This belief led Smith to write a book called *The Fact Checker’s Bible*. In it she shares a number of principles that capture nicely an important part of what intellectual carefulness looks like in action:

- Reading for accuracy
- Determining what needs checking
- Researching facts
- Assessing sources
- Understanding legal liabilities
- Looking out for and avoiding the dangers of plagiarism

What might this look like at the middle school level? Here are some principles that apply to thinkers of all ages:

- *If you’re looking for information online, think twice about the sources you’re relying on.* Is your source reliable? Does it have any “indicators” of unreliability? For example, is it a personal website (in which case the information might be more opinion than fact)? Is the information clearly and consistently presented? Or is it sloppy and filled with by mistakes or contradictions? Does it cite evidence, reasons, and other sources? Or does it just make assertions?
- *Ask questions while you read.* If you passively accept everything you read on the internet, your mind will be filled many confusions and falsehoods. To avoid getting “duped,” we need to read in a critical fashion: this means asking questions while we read—questions like: Is this true? Does this make sense? Is there anything suspicious about what’s being said? Does it gel with other things I know or have heard?
- *Follow up on your questions.* It’s equally important to follow through with these questions! Often, this means checking other sources and comparing them with each other.

So, we need to operate like fact checkers when we process information. But we also need to operate like fact checkers in our own written and spoken communication. Smith says:

There are now fact-checking departments all over the country. While fear of lawsuits certainly motivates publishers to maintain these departments, most realize that they need checkers to keep their readers' good faith. Big errors may occasionally end up in court: small errors, such as wrong dates or incorrect name spellings, will be remarked on by thousands of people. If each reader begins to trust the publication a little less with every error, the eventual cost will be its reputation.

Similarly if we aren't intellectually careful in our thinking, reading, schoolwork, and conversations, our very trustworthiness and reputation may suffer.

6. Intellectual thoroughness

A. Hermione Granger

Intellectual thoroughness is about "going deep." An intellectually thorough person isn't content with surface knowledge: she wants to really *understand* what she's learning or thinking about. When she has to communicate an idea to another person, she does her best to provide a good *explanation* of the idea—not a simplistic definition or statement. Because she cares about truth and accuracy, she "digs deep" into subjects that interest her.

Hermione Granger from the *Harry Potter* series is good example of intellectual thoroughness. She displays this virtue in many ways and on many occasions. After a cat belonging to another character mysteriously gets petrified, Hermione digs deep for an explanation: "The attack had also had an effect on Hermione. It was quite usual for Hermione to spend a lot of time reading, but she was now doing almost nothing else." On another occasion, when Harry asks Ron where to find Hermione, Ron replies: "Somewhere over there ... [She's] looking for another book. I think she's trying to read the whole library before Christmas." When writing essays for class, Ron comments on the length of Hermione's paper compared to his: "I don't believe it! I'm still eight inches short ... and Hermione's done four feet seven inches and her writing's tiny!" (all selections are from the *Chamber of Secrets*). As this suggests, Hermione is intellectually thorough both in her *pursuit* of understanding and in her *communication* of what she understands.

B. Thomas Aquinas

Thomas Aquinas (1225-1274) was a medieval philosopher and theologian. While some of the things he wrote about might seem old-fashioned by today's standards, his method of thinking and writing are just as relevant today as they were in the 13th century—and they're a great example of intellectual thoroughness.

In his writings, Aquinas always begins (a) with a clearly and carefully formulation *question*. For example: Is prudence always a virtue? Can a person who is charitable become uncharitable? Is justice the most important virtue? Then, if he plans to defend an affirmative answer to the question (to argue "yes" in response), he immediately proceeds (b) to list several possible *objections* to an affirmative answer. That is, he lays out all the possible reasons against his own view. Very importantly, he does his best to make these objections as *forcible* or *strong* as possible. (It's worth considering: why would he do such a thing?) Next, he (c) states his own opinion and supports it with concrete reasons and evidence. Finally, he proceeds to (d) carefully *respond* to each of the objections he has listed, explaining carefully and with reasons what he thinks is mistaken about each objection.

While a bit overwhelming, perhaps, this is a wonderful picture of intellectual thoroughness! Aquinas's method involves (a) viewing an issue from many different perspectives, (b) trying to locate what is best or strongest about each perspective, but then also (c) supporting a single perspective with good reasons and evidence, and (d) responding to possible objections to this perspective.

7. Open-mindedness

A. Abraham Lincoln

An open-minded person is willing to listen and give a fair hearing to the "other side." She does not dismiss other people's points of view. Instead, she seeks to learn from them. And she is willing to change her own beliefs when the evidence calls for it. Author Phil Dow tells a story about the 16th President of the United States that illustrates this virtue nicely:

At the height of the American Civil War, President Abraham Lincoln was doing everything in his power to preserve the unity of his crumbling country. As both the nation's elected president and as one of the most intelligent men of his generation, Lincoln had every right to expect deferential respect from his subordinates. And yet, as the war waged he found himself being criticized and ridiculed by friends and foes alike. One man Lincoln was supposed to count as a friend was his Secretary of War, Edwin Stanton. However, both publicly and privately Stanton had made no secret of his disrespect for Lincoln. Even though Lincoln was aware of Stanton's insubordination, Lincoln kept his Secretary of War, believing Stanton's sharp mind and independent perspective would be a valuable balance to his own.

At one of the war's most critical points Lincoln sent a direct order to Stanton. Not only did Stanton refuse to carry it out, but he again publicly mocked Lincoln, calling him a fool. Instead of reacting out of anger or spite, Lincoln is said to have replied, 'If Stanton said I'm a fool, then I must be, for he is nearly always right. I'll see for myself.' Lincoln was no wimp. He had demonstrated many times over that he was more than willing to buck the opinions of others if he believed they were wrong. Still, as the story goes, the two men had a meeting in which Lincoln listened carefully to his subordinate, concluded that Stanton was right, and withdrew his order. Lincoln ignored the demands of pride in order to pursue the wisest course. Ultimately, this intellectual humility helped save his crumbling nation and ensured that he would go down as one of the greatest statesmen in his nation's history. (*Virtuous Minds*, 72-73)

Lincoln was the President of the United States. But this did not prevent him from thinking he might be able to learn a thing or two from one of his subordinates. And not just any subordinate; indeed, as Dow says, Stanton was *insubordinate*. Note, too, that Lincoln wasn't just willing to hear what Stanton had to say. He sought Stanton out himself. And when he determined that Stanton had the better argument, he altered his course.

B. Sara Crewe

Sara Crewe is the young female protagonist of the book *A Little Princess* by Frances Hodgson Burnett. While Sara is not actually a princess, she is the daughter of a very wealthy man, and she has the grace and poise of a real princess. One of the remarkable things about Sara is that her wealth and

superior social status appear not to have any impact on how she views or relates to others: she is caring, thoughtful, and welcoming to all. But Sara also has a remarkable mind. Her mind provides a good example of the *creative* or *imaginative* dimension of open-mindedness. After all, open-mindedness isn't just a matter of being willing to listen to people who disagree with you. It is also a matter of being able to open your thinking to remote or far away possibilities or perspectives.

Sara is a master at this. Her mind is constantly engaged by one imagined scenario or another: "She liked books more than anything else, and was, in fact, always inventing stories of beautiful things and telling them to herself" (5); "When I am telling [stories],' she would say, 'it doesn't seem as if it was only made up. It seems more real than you are—more real than the schoolroom. I feel as if I were all the people in the story—one after the other. It *is* queer'" (53); "I've often thought,' said Sara, in her reflecting voice, 'that I should like to be a princess; I wonder what it feels like. I believe I will begin pretending I am one.'"

This last comment prompts one of her classmates to observe: "One of her 'pretends' is that she is a princess. She plays it all the time—even in school. She says it makes her learn her lessons better" (71). If Sara weren't open-minded, she wouldn't be able to exercise her imagination in such powerful ways. And note the connection between her open-minded imagination and "learning her lessons better": her ability to "transport" her own thinking into different times and places makes her a better learner. It enables her to wrap her mind around new concepts and ideas.

Sara's open-mindedness becomes even more apparent—and impressive—when, by a tragic series of events, she is left orphaned and penniless and forced to be the house servant of a cruel headmaster, Miss Minchin. Ermengarde, one of Sara's friends, says of Sara's tragic circumstances: "I don't see any good in them." To this, Sara responds, honestly but impressively:

'Neither do I—to speak the truth,' admitted Sara, frankly. 'But I suppose there *might* be good in things, even if we don't see it. There *might*,'—doubtfully—'be good in Miss Minchin'. (129)

Because of her open-mindedness, Sara does not get stuck in a rut of negative, pessimistic thinking; nor does she choose to vilify Miss Minchin (which she easily could have done). She is able to "transcend" or think beyond her difficult circumstances and to see some potential good in them and in Miss Minchin.

8. Intellectual courage

A. Galileo

Galileo Galilei (1564-1642) is widely regarded as the father of modern science. He made major contributions to the fields of physics, mathematics, philosophy, and especially astronomy. Among these were major innovations to the telescope, which allowed us to peer more deeply into space than ever before. What he found (e.g. satellites revolving around Jupiter, phases on Venus, and sunspots) provided powerful confirmation of the Copernican idea that the earth revolves around the sun.

Despite this new evidence, many powerful figures of his time were unprepared to give up their belief that the earth is the center of the universe. This included the Pope and other powerful religious leaders. On several occasions, Galileo courageously defended the truth of this theory before the

Inquisition, which was charged with rooting out and punishing heretics. About this experience, he commented: “It is surely harmful to souls to make it a heresy to believe what is proved.” This is a bold statement indeed! Galileo also endured the scorn and ridicule of many of his scientific colleagues, who were also resistant to the mounting evidence in favor of a heliocentric model. Despite resistance from many quarters, and real threats to his career and personal well-being, Galileo continued to fight for and defend what he believed to be very important truths.

(Postscript: It is also well known that eventually Galileo was “forced” by the Inquisition to recant his theory. Presumably, “forced” means required on the threat of death or torture. Does this suggest that Galileo wasn’t as intellectually courageous as he should’ve been? Or does it show that there are limits to when a person should exercise intellectual courage?)

B. Jane Goodall

Jane Goodall (1934-present) is a famous biologist, anthropologist, and conservationist. She is best known for her groundbreaking scientific research on chimpanzees. Earlier in her career, she spent 25 years studying chimpanzees in the Gombe National Park in Tanzania, Africa. The research she did there revolutionized our understanding of primates. It taught us, among many other things, that chimpanzees can create and use simple tools, that they sometimes hunt and eat meat, and that they are capable of controlling their emotional expressions.

Goodall exemplifies many intellectual virtues, including attentiveness, curiosity, and intellectual thoroughness. Her work with the Gombe chimpanzees also clearly illustrates her intellectual courage. In her desire to understand the chimpanzee way of life in as much detail as possible, she regularly subjected herself to extremely rugged and physically threatening conditions. Describing her pursuit of two chimpanzees, Fifi and Fanni, she recalls:

As I scrambled after them, every branch seemed to catch in my hair or my shirt. Frantically I crawled and wriggled through a terrible tangle of undergrowth. Ahead of me the chimpanzees, fluid black shadows, moved effortlessly. The distance between us increased. The vines curled around the buckles of my shoes and the strap of my camera, the thorns caught in the flesh of my arms, my eyes smarted till the tears flowed as I yanked my hair from the snags that reached out from all around. After ten minutes I was drenched in sweat, my shirt was torn, my knees bruised from crawling on the stony ground—and the chimps had vanished. (Goodall, *Through a Window*, 1990, 8)

Goodall’s quest for understanding compelled her to subject herself to even more serious dangers, for the chimpanzees were at times unpredictable and violent. Below she describes encounters with chimpanzees Goblin and Frodo:

Goblin leapt down and charged past me, slapping and stamping on the wet ground, rearing up and shaking the vegetation, picking up and hurling a rock, an old piece of wood, another rock. Then he sat, hair bristling, some fifteen feet away. He was breathing heavily. My own heart was beating fast. As he swung down, I had stood up and held onto a tree, praying that he would not pound on me as he sometimes does. (2)

[Frodo] wants me to play, and, because I will not, he becomes aggressive. At twelve years of age he is much stronger than I am, and this behavior is dangerous. Once he stamped so hard

on my head that my neck was nearly broken. And on another occasion he pushed me down a steep slope. I can only hope that, as he matures and leaves childhood behind him, he will grow out of these imitating habits. (4)

Goodall's courage is remarkable. It is *intellectual* courage because it is manifested or displayed by in the context of Goodall's scientific quest for a deeper understanding of the Gombe chimpanzees.

9. Intellectual Tenacity

A. Frederick Douglass

Frederick Douglass (1818-1895) was an American slave who went on to become a famous orator and abolitionist. He is famous, rightly, for many things; and he was a man of many virtues. One of these virtues is intellectual tenacity. As a slave living in Baltimore, Douglass's master prevented him from learning to read on the grounds that it would make him useless and unhappy. In his autobiography, Douglass explains that what was to his master "a great evil, to be carefully shunned, was to me a great good, to be diligently sought; and the argument which he so warmly urged, against my learning to read, only served to inspire me with a desire and determination to learn." So Douglass took his education into his own hands:

The plan which I adopted, and the one by which I was most successful, was that of making friends of all the little white boys whom I met in the street. As many of these as I could, I converted into teachers. With their kindly aid, obtained at different times and in different places, I finally succeeded in learning to read. When I was sent on errands, I always took my book with me, and by going on part of my errand quickly, I found time to get a lesson before my return. I used also to carry bread with me, enough of which was always in the house, and to which I was always welcome; for I was much better off in this regard than many of the poor white children in our neighborhood. This bread I used to bestow upon the hungry little urchins, who, in return, would give me that more valuable bread of knowledge. (34)

Douglass's plan was successful indeed. Within a couple of years he was voraciously consuming whatever literature he could get his hands on, from the Bible to newspapers to political treatises.

An intellectually tenacious person does not shy away from, avoid, or give up in the face of intellectual challenges or obstacles. Fueled by a desire to know and understand, she embraces challenges and fights her way through them. She does not give up. The story of Douglass's education is a portrait of intellectual tenacity. As a mere child unable to read or write, he took his education into his own hands, devising ingenious ways to overcome the many formidable obstacles that stood between him and a meaningful education.

B. Alison Tucher

In 1991, Rick Walker of Palo Alto, CA, was convicted of murder. However, from Rick's and his family's perspective, his conviction was poorly handled and had sent an innocent man to prison for life. Rick's mother Myrtle contacted a friend whose daughter, Alison Tucher, was in law school at Stanford. After reviewing the facts of the case, she concluded that Rick was indeed innocent. Alison continued to investigate Rick's case, but since she was only a graduate student, there was not much

she could do. In the meantime, Rick's attorney filed several unsuccessful appeals and Alison moved along in her career. However, she never forgot about Rick's case. Eventually, she concluded that "the only way to set him free would be to solve the murder" ("Lawyer Hailed As Hero," February 11, 2009, cbsnews.com). So she undertook a reinvestigation of the case, combing through all the evidence, interviewing witnesses, reviewing public records, and much more. Eventually, she was able to locate five witnesses to the crime whose testimony led to Rick's exoneration. Having spent 12 years in prison on a wrongful conviction, Rick was freed.

Here's a brief selection from a news report on Rick's story:

Is Alison Tucher a hero?

"Yea, she is," Rick Walker says.

Myrtle Walker says, "It would be easy for her to say, 'Sorry, I'm moving on with my life,' you know, but she didn't do that."

Tucher continued to believe. Myrtle Walker adds, "She had babies, babies, at the time she was working on this and she didn't give up!"

Tucher's actions on Rick Walker's behalf are a great illustration, not just of tenacity in general, but of *intellectual* tenacity in particular. Because it was a legal matter, exonerating Walker was primarily an *intellectual* challenge—it required combing through evidence, constructing explanations, mounting arguments, and, ultimately, trying to get at and demonstrate the *truth* of the matter.

D. Self-Reflection Project

PHIL 198 Self-Reflection Project

The primary aim of this assignment is to encourage you to develop an honest and detailed understanding of your own intellectual character strengths and weaknesses and to “own” these strengths and weaknesses (and therefore to work on developing intellectual autonomy and intellectual humility).

There are two main parts to the assignment: (1) an initial narrative-based self-examination and commitment to a self-monitoring discipline; and (2) a final narrative-based assessment.

Part I of the assignment is due at the beginning of class on 2/4; Part II is due at the beginning of class on 4/29. Further instructions are likely to follow; so be sure to be in class and to stay tuned.

Part I

In this part of the assignment, you will write a 3-5 page (double-spaced, one-inch margins, 12 point Times New Roman type) narrative essay in which you address the following questions:

- Drawing from the list of nine “master virtues,” what are your top two intellectual character *strengths*? What, specifically, do they look like in your life? How have they benefited you in your life as a student or otherwise? Illustrate with some honest, concrete, and detailed examples.
- Similarly, what are your top two intellectual character *weaknesses*? What, specifically, do they look like in your life? How have they hindered or harmed you (or others) in your life as a student or otherwise? Illustrate with some honest, concrete, and detailed examples.
- When you look back over the course of your life (at where/how you were raised, at the community and/or culture in which you grew up, your role models, formative experiences, etc.) how do you think these intellectual character strengths and weaknesses *came about*? Illustrate with some honest, concrete, and detailed examples.
- In one substantial paragraph, describe the kind of intellectual character you would *like to have*. Be detailed and specific.
- Identify and describe a “*self-monitoring discipline*” that you will use on at least a weekly basis for the duration of the semester to reflect on your current practice or failure to practice the intellectual virtues that matter to you most. Describe the details of this practice. (Here’s one possibility that you’re free to use: on a weekly basis, take at least 15 minutes to reflect on specific ways in which you have practiced or failed to practice the virtues in question in the previous seven days. Record your observations. Also address why you think you acted in these ways and what these observations might teach you about yourself.)

Part II

In this part of the assignment, you will write another 3-5 page (double-spaced, one-inch margins, 12 point Times New Roman type) narrative essay that addresses the following questions:

- Looking back at your initial description of your intellectual character strengths and weaknesses, how has your understanding of these strengths and weaknesses *changed* over the course of the semester? Be specific and detailed. Illustrate with concrete examples.
- Provide a lengthy discussion of your *experience using a self-monitoring discipline*. What discipline did you end up practicing? How did it go? What did you struggle with? What did you find useful or insightful?
- What have you *learned about yourself* in this process?
- Moving forward, describe again the kind of intellectual character you would *like* to have, being very specific and detailed.
- Finally, describe *three practices, habits, or activities* that you think would help you grow in this direction and explain how or why you think they would have this effect.

Grading

Obviously, this is, in many respects a “subjective” assignment. However, this does not mean that everyone will be scored equally well on it. In grading these assignments, I’ll be asking myself the following sorts of questions:

- Did the student follow all the instructions, answering all the questions, meeting the specified requirements of length, margins, etc.?
- Has the paper been carefully proofread? What’s the quality of grammar, mechanics, diction, spelling, etc.?
- Most importantly, are the student’s answers to the questions well-developed? Do they clearly demonstrate that the student took his/her time with this assignment and engaged in deep, thoughtful, and honest reflection?
- Are the examples well-developed? Are they realistic? Or do they seem fabricated or dishonest?
- Did the student clearly engage in a self-monitoring discipline?
- Overall, does the paper demonstrate careful and thorough thinking and reflection?

E. “Master Virtue” Self-Assessment Measures

[An asterisk (*) indicates that the item in question should be reverse-scored.]

Curiosity	Intellectual autonomy	Intellectual humility
<ul style="list-style-type: none"> I am eager to explore new things. My classes often leave me wondering about the topics we discussed. I am interested in a lot of topics. I rarely think of questions about what we’re learning in class.* 	<ul style="list-style-type: none"> I am an independent thinker. I have a hard time coming up with my own ideas.* When I get stuck on a problem, I immediately ask my parents or teacher for help.* I think differently from my classmates. 	<ul style="list-style-type: none"> It is easy for me to admit when I am wrong. I feel embarrassed when I don’t know something.* I have a lot to learn. I like to correct my classmates’ mistakes.*
Attentiveness	Intellectual carefulness	Intellectual thoroughness
<ul style="list-style-type: none"> I enjoy paying attention to details. I notice small details in stories that might become important later on. I like to look closely at things. I tend to notice things that other people miss. 	<ul style="list-style-type: none"> I always read the directions before starting an assignment. I go back over my assignments before turning them in. I like to finish assignments quickly even if this means getting a few answers wrong.* I make careless mistakes in my schoolwork.* 	<ul style="list-style-type: none"> I am good at explaining things to people. My answers on written tests and assignments are usually very brief.* When I get interested in something, I like to keep learning about it. I think it is more important to understand what I am learning than to get a good grade.
Open-mindedness	Intellectual courage	Intellectual tenacity
<ul style="list-style-type: none"> I am willing to change my beliefs. I don't like to be around people who disagree with me.* I enjoy learning why people believe what they believe. I like to hear different perspectives. 	<ul style="list-style-type: none"> I am willing to answer questions even if I think my answer might be wrong. I stand up for what I believe. When my answer is different from everyone else's, I don't speak up.* I don't ask questions in class because I don't want to get embarrassed.* 	<ul style="list-style-type: none"> When I am frustrated with a problem, I try to stick with it. I continue thinking about difficult problems even though I can't find a solution. When I can't figure out a problem, I quit trying.* I enjoy challenging assignments.

F. Bookmark



INTELLECTUAL VIRTUES ACADEMY

Curiosity: Ask questions!

A disposition to wonder, ponder, and ask why. A thirst for understanding and a desire to explore.

Intellectual humility: Admit what you don't know!

A willingness to "own" one's intellectual limitations and mistakes. Unconcerned with intellectual status or prestige.

Intellectual autonomy: Think for yourself!

A capacity for active, self-directed thinking. An ability to think and reason for oneself.

Attentiveness: Look and listen!

A readiness to stay focused and on task. Notices and attends to important details.

Intellectual carefulness: Avoid errors!

A sensitivity to the requirements of good thinking. Quick to notice and avoid intellectual pitfalls and mistakes.

Intellectual thoroughness: Go deep!

A willingness to probe for deeper meaning and understanding. Unsatisfied with mere appearances or easy answers.

Open-mindedness: Think outside the box!

An ability to "think outside the box." Gives a fair and honest hearing to competing perspectives.

Intellectual courage: Take risks!

A readiness to persist in thinking or communicating in the face of fear, including fear of embarrassment or failure.

Intellectual tenacity: Embrace struggle!

A willingness to embrace intellectual challenge and struggle. Keeps its "eyes on the prize" and doesn't give up.