

## EDUCATING FOR CURIOSITY

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Curiosity is a familiar feature of our cognitive lives. It is often associated with young children, who demonstrate, perhaps more than most, a tenacious and unconstrained attitude towards acquiring knowledge. In adulthood, curiosity is regarded by many as a source of creativity and innovation, perhaps most ardently within the scientific community: it is Curiosity, after all, that roams the surface of Mars. But didn't it also 'kill the cat'. Throughout much of intellectual history, curiosity has been marked out as a vice, a form of pride, particularly scorned in the early Christian context of Medieval Europe. Still today, curiosity is associated with prying and meddling in the affairs of others. These mixed associations render curiosity a rich and complex subject matter, as the diverse contributions to this volume make clear.

In this chapter, I consider whether curiosity is something that contemporary society should cultivate: should we educate for curiosity. I examine three basic questions concerned with educating for curiosity: what is curiosity (Section 1), how can we educate for curiosity (Section 2), and why should we educate for curiosity (Section 3). To cover this expansive ground in a relatively short space, I narrow the focus of each of these questions. In Section 1, I offer a characterisation of curiosity *as an intellectual virtue*. In Section 2, I pursue *three key aspects* of this characterisation relevant to the task of educating for curiosity as an intellectual virtue. Rather than presenting pedagogical strategies, my aim in this section is to highlight features of virtuous curiosity that may helpfully inform strategies aimed at educating for the virtue. In Section 3, I present, what I take to be *two of the most compelling* reasons to educate for the intellectual virtue of curiosity, although I believe there are many more. My aim, in short, is to present a characterisation of the intellectual virtue of curiosity that offers some insight into educating for the virtue, and provides theoretically grounded motivations for doing so.

## 1. What is Curiosity

Despite its familiarity, curiosity has garnered curiously scant attention in intellectual history. Indeed, as rightly noted by authors working on curiosity in contemporary philosophy (many of whom are contained within this volume), relatively infrequent mentions of curiosity are to be found in the Western philosophical canon. Where curiosity does appear explicitly, it is rarely more than mentioned. Together, these comments on the nature of curiosity suggest its historical treatment as a *desire* directed towards an epistemic good. Rene Descartes, in his *Passions of the Soul* (1989), for example, gives curiosity as an example of one of the many species of desire, describing it as the ‘desire to understand’ (p.67, quoted in Inan 2012, p.5-6). Thomas Hobbes, in *Leviathan* (1994) describes curiosity as the ‘desire to know why, and how’ (p.124, quoted in Inan 2012, p.6). David Hume provides a more extended discussion of curiosity, in *Treatise of Human Nature* (1986), connecting curiosity with a ‘love of truth’, and praising it as “the first source of all our enquiries” (Book II, Part III, Section X). Here, Hume also refers to curiosity as “an insatiable desire of knowing”. The notion of a ‘desire to know’ can be traced back, at least, to Aristotle’s famous opening line of the *Metaphysics*, although Aristotle does not offer any notable treatment of curiosity in the *Metaphysics*, or elsewhere. Nonetheless, a thin historical consensus appears to emerge and, despite a lack of sustained philosophical reflection, this treatment of curiosity as a desire has persisted in contemporary definitions of the term. The Oxford English Dictionary Online, for example, defines curiosity as, “The desire or inclination to know or learn about anything, esp. what is novel or strange; a feeling of interest leading one to inquire about anything” (Oxford English Dictionary online. Accessed: 25 April 2017).

The diverse and extended discussions of curiosity found in this volume illustrate the extent to which this treatment of curiosity, in both philosophy and psychology, has undergone notable scrutiny in recent years. Curiosity is viewed by some as an emotion (Silvia 2008; Brady 2009), by others as a mental state (Inan 2012), and still others as an intellectual or moral virtue (Baumgarten 2001; Peterson and Seligman 2004; Miscevic 2007; Baehr 2011). Where curiosity is still treated as a desire it has received significant and nuanced attention in contemporary accounts (Kvanvig 2003; Whitcomb 2010). It would, moreover, be misguided to assume that all these categories are mutually exclusive. Rather, they represent the distinct foci taken by authors across disciplines and sub-disciplines, involved in a wide range of research on this novel topic.

The focus of this chapter is on educating for curiosity, and the features of curiosity that make educating for it desirable. While we do not typically speak of educating for desires, emotions, or mental

states, talk of educating for virtues - moral, civic, or intellectual – is more familiar, arising from long-standing debates in the philosophy of education. In the latter case, this represents an area of burgeoning contemporary research within epistemology (Baehr 2011; Kotzee 2013; Kidd 2016; Watson 2016). It is primarily for this reason that, rather than addressing curiosity as a desire, an emotion, or a mental state, I offer a characterisation of curiosity as an intellectual virtue. Having developed and defended this characterisation elsewhere (Watson *forthcoming*), I provide an abridged account here, highlighting features of the characterisation that are pertinent to the questions of educating for curiosity raised above: how, and why, should we do it. Thus, I contend that the virtuously curious person is *characteristically motivated to acquire worthwhile epistemic goods that she believes she lacks*. Three key features of this characterisation will be significant for the discussion. Firstly, the virtuously curious person is identified in terms of their *motivation to acquire* epistemic goods, as opposed to the manner in which they do so, or their success in this pursuit. Secondly, the virtuously curious person must *believe that she lacks* the epistemic goods about which she is curious. Thirdly, the virtuously curious person must be motivated to acquire *worthwhile* epistemic goods. I will briefly elaborate on each of these before turning to their significance in relation to educating for virtuous curiosity.

Beginning with motivation, the virtuously curious person, as with all intellectually virtuous inquirers, values epistemic goods (as opposed to other goods, such as property or health). Moreover, the virtuously curious person shows that she values epistemic goods by being motivated to acquire them. This is as opposed to other ways in which a person can value goods, for example, by being motivated to preserve them, to display them, or to bury them on a desert island. The virtuously curious person is characteristically motivated to acquire epistemic goods. This basic insight into virtuous curiosity is significant when considering the how and why of educating for the virtue. In addition, over and above possessing a characteristic motivation to acquire epistemic goods, the virtuously curious person must have recognised, or at least believe, that she is missing the epistemic goods about which she is curious. Without this, a person cannot be said to be curious (virtuously or otherwise). I am, for example, motivated to understand the power dynamics of the Roman Empire and, as such, I am curious about the power dynamics of the Roman Empire. I am not, however, motivated to know who the first Roman Emperor was because I already believe that it was Augustus. If I came across good reasons for doubting that the first Roman Emperor was Augustus, then I would become curious about who the *real* first Roman Emperor was. I'm not currently curious about this precisely because I believe that I already know it. The virtuously curious person must have recognised, or at least believe, that she is missing epistemic goods, in order to be curious about them. The relationship between curiosity

and ignorance is explored in depth by Inan (2012, 2016) who contends that, “Awareness of ignorance... when it arouses curiosity that is strong enough, it causes what may be called an “epistemic” desire; a desire to know, to understand, to learn, or to gain new experiences” (2012, p.285). Alongside the motivation to acquire epistemic goods, the role of ignorance in the manifestation of virtuous curiosity is also significant when considering how and why we should educate for the virtue.

A third significant feature of virtuous curiosity is the requirement that the virtuously curious person must be characteristically motivated to acquire *worthwhile* epistemic goods (that she believes she lacks), as opposed to trivial, irrelevant or insignificant epistemic goods. I am, for example, motivated to understand the role that women played in the power dynamics of the Roman Empire. I take understanding this to be worthwhile and, as such, my curiosity about this topic can be considered intellectually virtuous. I might also be motivated to know whether the number of grains of sand in Rome was even or odd on the day that Augustus became Emperor. I take knowing this to be trivial and, as such, whilst I could perhaps be described as curious in ordinary language terms, I do not satisfy the conditions for intellectually virtuous curiosity because I am not motivated to acquire worthwhile epistemic goods. This final constraint provides a success condition for curiosity. Notably, this condition demands, not that the virtuously curious person *must acquire* worthwhile epistemic goods, but that the epistemic goods she is motivated to acquire *must be worthwhile*. It is the virtuously curious person’s skilful identification of worthwhile epistemic goods that renders her curiosity virtuous.<sup>1</sup> The virtuously curious person is characteristically motivated to acquire worthwhile epistemic goods that she lacks, or believes that she lacks.

## **2. How Can We Educate For Curiosity**

What can this characterisation of curiosity as an intellectual virtue tell us about educating for the virtue. It will be instructive to draw on the three aspects of virtuous curiosity just described, in order to illuminate how an appreciation of these features of virtuous curiosity can helpfully inform strategies aimed at educating for the virtue.

### **2.1 Educating For Curiosity Requires Focusing On Student Motivation**

Firstly, virtuous curiosity is defined in terms of the motivation to acquire epistemic goods. Recognising this provides a first insight into the nature of the educational enterprise: educating for virtuous

curiosity requires focusing on and cultivating a student's *motivation* to acquire epistemic goods, such as information, knowledge, and understanding. It requires nurturing their inner drive to learn. This can be emphasised by drawing attention to the *absence* of any specific activity or behaviour in the characterisation of virtuous curiosity. Perhaps most notable is the absence of any reference to the activity of questioning. There is no doubt, of course, that curiosity, virtuous or otherwise, is often, if not typically, manifested in the activity of questioning. However, the activity of questioning does not define the virtue. One can be virtuously curious without engaging in questioning. Indeed, the virtuously curious person may engage in a wide range of alternative information-seeking activities including, for example, listening attentively when a topic of interest is being discussed, seeking out additional sources of information on a topic of interest, or engaging others in further discussion. These are just some of the information-seeking activities that the virtuously curious person may engage in as a result of their motivation to acquire epistemic goods. Alongside these, the virtuously curious person will often engage in questioning but it is not on this basis that they are deemed virtuously curious. Rather it is a person's motivation to acquire epistemic goods, leading them to exhibit a range of information-seeking behaviours, which accurately distinguishes the curious from the incurious. As such, educating for virtuous curiosity requires attending to a student's *motivation* to acquire epistemic goods, as opposed to any particular information-seeking activities or behaviours.

Observing the significance of motivation in the analysis of curiosity is not, in itself, surprising. Nor is identifying the import of student motivation in education new to educational theorising. The role of student interest and motivation in education was brought prominently to the fore in the late nineteenth and early twentieth century, largely due to the work of John Dewey (1897, 1916, 1929, 1933). In an early statement of his views on education, for example, Dewey (1897) contends that "the constant and careful observation of interests is of the utmost importance for the educator" (p.79). He goes on to state: "To repress interest is to substitute the adult for the child, and so to weaken intellectual curiosity" (*ibid*, p.79). This emphasis on student interest in education was subsequently advanced by the progressive education movement (Cremin 1959, Dearden 1967, Schulman 1987) which was, in part, distinguished from more traditional educational approaches precisely due to the emphasis it placed on the student's role in directing their own learning, in line with their interests. Alongside Dewey, Maria Montessori (1964) and Rudolf Steiner (1996) are two of the earliest and most influential advocates of this approach, both of whom developed distinctive pedagogies based on the central significance of student interest and motivation in learning, now practised by independent

schools across the globe. The precedent for attending to and cultivating student motivation has thus been firmly set in both educational theory and practice over the past century.

This approach in educational research, however, has not typically been tied explicitly to the task of cultivating curiosity as an intellectual virtue. This is perhaps largely due to the absence of a vocabulary of intellectual virtues in education theory, until recently. In its place, much theorising has employed the notion of dispositions to capture the distinctively characterological aspects of learning (Siegel 1988, 1999; Ennis 1996; Facione 2000). In the case of curiosity, this characterological aspect may be taken, very broadly, to be a disposition to ask questions or, even more generally, to ‘find things out’. Such a characterisation in terms of dispositions, however, limits the educational enterprise. One may cultivate a disposition to ask questions, or to ‘find things out’, through habituation or via external rewards, without thereby instilling or nurturing an internal *motivation* to acquire epistemic goods. As noted by Sharon Bailin and Mark Battersby (2016), “the concept of disposition...does not address the issue of underlying motive” (p.368). Nicholas Burbles (1995) comments, “A virtue, on the other hand, is not a mere expression of habit, but an expression of judgment and choice” (p.86). The language of intellectual virtues captures the motivational component central to curiosity well. This language can be employed in order to further articulate the emphasis placed on interest and motivation found in the progressive education movement.

Indeed, this emphasis is easily aligned with the goal of educating for virtuous curiosity. Contemporary work in the epistemology of education, particularly by Jason Baehr (2011, 2015), demonstrates this. Baehr, for example, comments:

“in education, while a teacher’s goal for his students may be for them to engage in certain forms of behavior or to master certain skills, one of the most effective ways of achieving this goal involves focusing, not on behavior or skills themselves, but on the students’ underlying motivation. To a large extent, this means working to inspire and nurture the virtue of curiosity.” (Baehr, 2015, pp. 60-61)

The characterisation of curiosity presented above captures and endorses this vision of educating for the virtue, highlighting the significance of motivation. This helps to shift emphasis in the task of educating for curiosity away from a focus on cultivating particular information-seeking skills or behaviours, such as questioning, towards nurturing a students’ inner drive to learn. Rather than training students in skills or behaviours conducive to acquiring epistemic goods, educating for virtuous

curiosity requires focusing on and cultivating a student's motivation to acquire these goods in the first place. This insight helps to avoid a potential conflation between the motivation to acquire epistemic goods and the activities that the virtuously curious person engages in in order to satisfy that motivation. By avoiding this conflation, practices aimed at educating for curiosity can be designed to target the essential, and perhaps more elusive, motivational component of curiosity. This brings the significant insights of the progressive education movement, stemming from Dewey, Montessori, and Steiner, to bear on the project of educating for curiosity as an intellectual virtue, whilst harnessing the resources of intellectual virtues language and so avoiding the emergence of flat-footed attempts to educate for curiosity merely, for example, by encouraging students to ask more questions. Strategies aimed at educating for virtuous curiosity should focus, first and foremost, on the student's internal motivation to learn.<sup>2</sup>

## **2.2 Educating For Curiosity Requires Valuing Student Ignorance**

A second insight into educating for virtuous curiosity arises from recognising the significance of ignorance in the manifestation of the virtue. The virtuously curious person must recognise, or at least believe that she lacks epistemic goods in order to be curious about them. I cannot be curious about something that I believe I already know. Unless, that is, I am motivated to acquire some further epistemic goods in relation to that thing. I may, for example, be motivated to understand *how* Augustus came to be the first Roman emperor, over and above simply knowing that he was the first Roman emperor. If, after studying, I come to believe that I now do understand how Augustus came to be the first Roman emperor, I will no longer be curious about this, and may instead be curious about a further feature of Augustus' accession to power; one which I do not yet know or understand. This process is significant in the context of learning: it is only by recognising my ignorance at each stage of an inquiry that I can come to be curious about further relevant information and thereby deepen my understanding of the subject matter. Observing this provides a second insight into the nature of the task: educating for virtuous curiosity requires facilitating and valuing students' recognition of their own *ignorance*.

This observation is, again, not entirely new to educational theorising. Indeed, the seeds of this idea in Western philosophy can be traced as far back as Socrates and his use of the distinctive *elenctic* method, often referred to, particularly within contemporary philosophy of education, as the Socratic Method. One famous example of this method is found in the *Meno* during Socrates' exchange with

one of Meno's slaves. Socrates guides the boy through a series of questions concerning a geometrical problem. The boy offers two wrong answers to the problem, landing him in a state of *aporia* (commonly translated as 'uncertainty' or 'confusion'), before arriving at the correct solution. During the exchange Socrates dwells on this state of *aporia*, highlighting its value to Meno:

“At first he did not know what the basic line of the eight-foot square was; even now he does not yet know, but then he thought he knew, and answered confidently as if he did know, and he did not think himself at a loss, but now he does think himself at a loss, and as he does not know, neither does he think he knows... Indeed, we have probably achieved something relevant to finding out how matters stand, for now, as he does not know, he would be glad to find out” (*Meno*, 84a-c).

Here Socrates offers a clear indication of the value he places on the boy's recognition of his own ignorance. It is only by recognising that he does not know that the boy can move on in the inquiry and uncover the correct answer to the problem. The slave boy learns precisely in virtue of Socrates' efforts to bring him to a point of recognising that he does not know. Moreover, Socrates connects this experience directly to the boy's motivation: it is *because* the boy now recognises that he does not know the answer that he is motivated to find out. The recognition of ignorance and the motivation to acquire epistemic goods are intimately connected. These are defining features of curiosity. Educating for curiosity thereby requires not only focusing on a student's motivation to learn but, in doing so, enabling her to recognise her own ignorance in a safe and constructive environment.

Socrates famously denied that he was a teacher (for example, *Apology* 33a) and at several points in the *elenctic* exchange with Meno's slave he contrasts his method with that of teaching (84d and 85d). Nevertheless, as Thomas Brickhouse and Nicholas Smith (2000) observe, “[I]n Socrates we find a man so exceptional and so relentlessly dedicated to the life of inquiry that we are inclined to call him a teacher” (p.72). Indeed, the educational insights provided by an examination of Socrates and the Socratic Method are hard to deny and reference to this method is found throughout contemporary educational theory and practice. For the most part, the Socratic Method, in this context, refers to a method of teaching by means of dialogue or inquiry whereby students are encouraged to ask questions and explore their ignorance (Lipman 1991; Brogan and Brogan 1995; Fisher 1995; Smith 2011). Bernard Brogan and Walter Brogan (1995) draw attention to the emphasis Socrates placed on the recognition of ignorance in their discussion of this method; “Socrates enabled his pupils to abandon

the pretense to knowing so that they could begin to think about a problem at a more fundamental and original level. Today, we again experience the need for such a “Socratic moment.”” (Brogan and Brogan, 1995, p.288)

Here Brogan and Brogan identify the educational value of ignorance in terms of a students’ ability to rethink a problem at a new and ‘more fundamental’ level. A similar sense of this educational value is found in the dialogical teaching movement where researchers place an emphasis on *aporetic* states such as ‘discontinuity’ (English, 2013) and ‘disequilibrium’ (Murriss, 2008). There is, therefore, growing precedent for attending to the value of recognising and providing space for the safe expression of student ignorance in the classroom, within educational theory and practice.

As before, however, recognition of the import of ignorance in educational research has not typically been tied explicitly to the project of educating for curiosity as an intellectual virtue. Nonetheless, this insight from educational research can be applied directly to the project of educating for the intellectual virtue of curiosity, given the characterisation offered in Section 1. The virtuously curious person must believe that she lacks epistemic goods in order to be curious about them. Enabling students to recognise when they are lacking information, knowledge, or understanding, is thus essential to establishing the conditions under which they can become curious. This observation is supported by psychological theory. George Loewenstein (1994), in his influential ‘review and reinterpretation’ of curiosity, for example, characterises curiosity as a ‘cognitively-induced deprivation’ which arises in response to a perceived gap in knowledge or information. Loewenstein (1994) also comments that “curiosity has been consistently recognized as a critical motive that influences humans” (p.75). Here again, the recognition of ignorance is connected with the motivational component of curiosity. These two aspects of curiosity are importantly and intimately related, suggesting that attention to both is required in order to educate for virtuous curiosity. Alongside a focus on cultivating students’ motivation, strategies aimed at educating for virtuous curiosity should aim to enable students to recognise when they are missing epistemic goods, and create environments where doing so is safe and encouraged.

### **2.3 Educating For Curiosity Requires Cultivating Student Judgement**

A third and final insight into educating for virtuous curiosity, based on the characterisation in Section 1, centres on the condition that the virtuously curious person must be motivated to acquire *worthwhile* epistemic goods. This condition ensures that the virtuously curious person is not indiscriminately

motivated by the acquisition of any and all epistemic goods, but that the epistemic goods she is motivated to acquire are worthwhile. Significantly, unlike the previous two aspects of curiosity, this condition does the work of distinguishing virtuous from non-virtuous curiosity. Non-virtuous curiosity can be thought of as a trait, a tendency, or a characteristic, and will sometimes be a vice. Crucially, in whatever form, non-virtuous curiosity by definition, does not form part of a person's intellectually virtuous character. In order for curiosity to form part of a person's intellectually virtuous character, the person must exhibit virtuous curiosity, meaning that, over and above being motivated to acquire epistemic goods that she is lacking, the virtuously curious person must be able to judge which, of the many epistemic goods she is lacking, it is intellectually virtuous to acquire. Baehr (2015) notes this feature of virtuous curiosity and attempts to capture it by contrasting curiosity about celebrity lifestyles with curiosity about other 'worthy' topics:

“the virtue of curiosity aims at understanding “significant” rather than trivial or salacious subject matters. Thus a person who has a voracious appetite for celebrity gossip (even one who seeks to understand the personal details and lives of celebrities) is not a great example of the virtue of curiosity. Rather, curious people tend to wonder about issues, questions, and topics that are, in some sense, worthy of human inquiry and attention.” (Baehr, 2015, p.62)

As noted previously (note 2), the issue of determining which topics are 'worthy of human inquiry and attention' is complex and potentially contentious. Baehr's use of celebrity gossip as an example of a trivial or salacious subject matter is open to debate given the significant amount of human energy, attention, and resource that is expended on the generation and proliferation of such gossip. A better understanding of what grounds the worthiness of any epistemic good is required in order to confidently relegate celebrity gossip to the domain of the unworthy, without qualification. Nonetheless, insofar as some subject matters may be deemed more or less unworthy, the virtuously curious person will be able to make this judgement, in a given context, and will pursue worthwhile, as opposed to trivial, irrelevant, or inappropriate epistemic goods.

Providing further context to Baehr's example helps to make clearer the salience of this feature of virtuous curiosity to the educational enterprise. Imagine, for example, that I am attending a talk on the role that woman played in the power dynamics of the Roman Empire, given by University of Cambridge professor, Mary Beard - a recognised authority on the topic. I have already professed to my ignorance on the topic and stated my motivation to understand more about it, and we have

assumed that the topic is, in some sense, worthwhile. As such, by attending the talk I am manifesting virtuous curiosity. Imagine, however, that during the talk I check my phone and see that Kim Kardashian has tweeted that she ate too many cupcakes at her birthday party the previous evening. Upon seeing this I spend the remainder of Professor Beard's talk scrolling through my Twitter feed and checking celebrity gossip sites for further information and corroboration of the exact number of cupcakes Kim Kardashian ate at her birthday party. In this case, it seems plausible to contrast my virtuous curiosity about the role that women played in the power dynamics of the Roman Empire, with the non-virtuous curiosity that I exhibit by obsessing about the exact number of cupcakes consumed by Kim Kardashian at her birthday party. This contrast arises, not merely from the inherent worth of the competing epistemic goods, but from the fact that they *are competing*. By spending the talk searching the internet on my phone I am forgoing an immediate and valuable opportunity to learn about a worthwhile topic which is of interest to me, from a recognised and respected authority. Instead I am pursuing relatively trivial information, by means of relatively untrustworthy sources (Twitter, celebrity gossip sites), which I could easily find out at a later time. By acting in this way, I am plausibly manifesting curiosity as a trait, perhaps even a vice, but I am failing to exhibit the intellectual virtue of curiosity because I am not motivated to acquire the worthwhile epistemic goods on offer.

This case can be easily extrapolated to regular classroom learning. Most teachers will be familiar with the challenge of directing student attention towards a topic and sustaining it over the duration of a course, lesson, or class discussion. Of course it will not always be the case that students are pursuing trivial, or irrelevant epistemic goods when they are not focused on the prescribed class topic (and it will not always be the case that the prescribed class topic represents worthwhile epistemic goods), but it is hard to deny that this is sometimes the case. The sheer volume of information available in contemporary educational environments, moreover, compounds this issue, with many students having immediate access to the internet via smartphones and tablets. This provides ample opportunity for the pursuit of trivial or irrelevant epistemic goods, at the cost of more worthwhile epistemic goods, just as in the Kim Kardashian example, and so for the manifestation of non-virtuous curiosity. This fact heightens the significance of attending to the third feature of virtuous curiosity when considering the educational task. Knowing which epistemic goods to pursue and which epistemic goods to either temporarily or permanently set aside, in a given context, is an essential feature of being able to conduct intellectually virtuous inquiry, both in and out of the classroom. Without this, student curiosity can be easily misdirected or misaligned, leading to the pursuit of trivial, irrelevant, or worse, inappropriate or private epistemic goods. Rather than educating for curiosity as an intellectual virtue, this may result in

the manifestation of curiosity as an intellectual vice. Over and above attending to student motivation and ignorance, strategies aimed at educating for virtuous curiosity should help students to make good judgments in the identification and pursuit of worthwhile epistemic goods.

We can thus derive three key insights into the task of educating for the intellectual virtue of curiosity from the characterisation of virtuous curiosity provided in Section 1. Firstly, I have argued that educating for curiosity requires placing an emphasis on student motivation to learn, over and above encouraging particular habits or behaviours, such as question-asking. Secondly, that educating for curiosity requires facilitating and valuing students' recognition of their own ignorance in a safe environment. Thirdly, that educating for *virtuous* curiosity requires helping students to identify which epistemic goods are worth pursuing, in a given context, and which to set aside or to leave for future inquiry. I have, moreover, argued that attending to the first two of these insights, without attending to the third, leaves room for the cultivation of a vicious kind of curiosity – that which seeks out irrelevant, trivial, or worse, private or inappropriate information. All three aspects of virtuous curiosity must be attended to in order to achieve the educational task at hand. Educating for the intellectual virtue of curiosity is thus a complex and multi-faceted task. It is, nonetheless, one for which significant resources are readily available in twentieth and twenty-first century educational research, particularly within the progressive education, Socratic, and dialogical teaching movements. Employing these resources explicitly with a view to educating for curiosity as an intellectual virtue will enhance attempts to do so, whilst retaining the significance of the success condition required of virtuous curiosity which guards against the cultivation of its vicious counterparts.

### **3. Why Should We Educate For Curiosity**

The characterisation of virtuous curiosity offered in Section 1 has provided an insight into the task of educating for the intellectual virtue of curiosity, as outlined above. Still, a key question remains unasked, namely, whether we *should* educate for curiosity, virtuous or otherwise. This topic deserves dedicated attention, and has received such attention, to varying degrees, in philosophy, psychology, and educational research (Susskind 1979; Day 1982; Rosenshine, Meister, and Chapman 1996; Schmitt and Lahroodi 2008; Kang et al. 2009; Baehr 2015). There is not space to review these contributions here, or to build on any one in particular. Nevertheless, two broadly compelling reasons to educate for virtuous curiosity can be drawn out of the discussions in Sections 1 and 2 and these, it is hoped, will suffice to offer the reader an indication of the educational benefits of the virtue.

Firstly, we have seen that educating for virtuous curiosity requires cultivating student motivation to acquire epistemic goods. Notably, this aligns the virtuously curious person's motivation with the common motivation underlying all intellectually virtuous inquiry: the motivation to improve epistemic standing.<sup>3</sup> The motivation to acquire epistemic goods and the motivation to improve epistemic standing are not identical given that one can improve epistemic standing without being motivated to acquire epistemic goods - by carefully examining the epistemic goods one already has, for example, or, indeed, by *reducing* one's stock of epistemic goods. Nonetheless, the motivation to acquire epistemic goods is closely aligned with the motivation to improve epistemic standing given that a person cannot be motivated to acquire epistemic goods, in the full sense required for virtuous curiosity (i.e. worthwhile epistemic goods), without also being motivated to improve epistemic standing. This alignment accords with a common treatment of curiosity, in contemporary virtue epistemology, as a 'fundamental' or 'basic' motivating intellectual virtue. Nenad Mišćević (2007), for example, describes curiosity as the "mainspring of motivation", Jason Baehr (2011) categorises curiosity under 'initial motivation' (p.21), and Ilhan Inan (2012) refers to curiosity as a 'basic motivation' for inquiry (p.1). Virtuous curiosity is thus commonly defined in the contemporary literature in terms of a person's motivation, and this motivation is regarded as, in some sense, 'basic' or 'fundamental' to the initiation of intellectually virtuous inquiry.

The identification of curiosity as a basic or fundamental motivating intellectual virtue highlights the special significance of curiosity in an educational setting and, specifically, for intellectual character education. More so than many, if not all of the other intellectual virtues, the virtuously curious person embodies the basic motivation to improve epistemic standing. Cultivating virtuous curiosity thereby provides *a key to unlocking intellectually virtuous inquiry*, in general. As Baehr (2015) puts it, curiosity plays a "special role in the overall economy of learning" (p.59). A similar observation can be found in the psychological literature on curiosity. Frederick Schmitt and Reza Lahroodi (2008), for example, note that "It is a commonplace that curiosity facilitates education and inquiry" (p.125). Likewise, Min Jeong Kang et al. refer to curiosity as 'the wick in the candle of learning' (p.963), and report the role that it plays in preparing the brain for new information and enhancing recall. These diverse approaches to curiosity corroborate the key role that curiosity plays in learning and inquiry and, thereby, the central role that it can and should play in education. Taking the close relationship between virtuous curiosity and intellectually virtuous inquiry into account highlights the central role that virtuous curiosity can and should play in intellectual character education. It is at least sometimes, if not typically, because of the virtuously curious person's motivation to acquire epistemic goods, that

intellectually virtuous inquiry begins. This, in turn, opens the door to cultivating others of the intellectual virtues and, to the development of intellectually virtuous character, more generally. Given this distinctive role, virtuous curiosity can and should be viewed as an essential and valuable educational tool, particularly in the context of intellectual character education.

Secondly, as we have seen, in order to be virtuously curious, a person must not be motivated to acquire any and all epistemic goods that she believes she lacks, but those epistemic goods that are worthwhile. Thus, educating for virtuous curiosity requires that the student is not merely motivated to learn, but that she is motivated to learn worthwhile things. In essence, educating for virtuous curiosity is about cultivating students' *motivation and ability to be informed as opposed to ignorant*. Significantly, this is not merely a contrast between acquiring and not acquiring information. The sense in which one is informed as opposed to ignorant takes on a normative valence in this context. In this normative sense, one is informed when one has information that is worth having and one is ignorant when one lacks such information, or has information that is not worth having. In the highly complex informational environments made possible by twenty-first century technology and media, cultivating the motivation to be informed, as opposed to ignorant in this sense, is a non-trivial task. As noted, opportunities for misdirected and misaligned curiosity abound for us all. It is in the face of these ample opportunities for non-virtuous curiosity, that the intellectual virtue of curiosity has a significant part to play. Virtuous curiosity provides students with the motivation and, at least some of the tools, required to competently navigate increasingly complex informational environments. The role for virtuous curiosity, thereby, extends beyond the classroom and into the wider world, facilitating and enhancing students' ability to participate in societal and political institutions in an informed manner. Given this distinctive role, virtuous curiosity can and should be viewed as an essential and valuable educational tool in preparing students for civic engagement and participation in a complex and political world.

This discussion offers a mere indication of the potential benefits of educating for virtuous curiosity. Significantly more can be said. Appeals to the value of curiosity in education are not new and, as noted, much work has been done across disciplinary boundaries in order to establish this case. Perhaps the earliest statement to this effect in Western intellectual history, however, can be found by returning to the *Meno* and observing Socrates' bold endorsement of the virtues of uninhibited inquiry following his *elenctic* exchange with Meno's slave:

“I would contend at all costs both in word and deed as far as I could that we will be better men, braver and less idle, if we believe that one must search for the things one does not know, rather than if we believe that it is not possible to find out what we do not know and that we must not look for it” (*Meno* 86b-c).

This impassioned approach to inquiry famously pitted Socrates against many of the most powerful men of his time, and ultimately contributed to his condemnation to death in the Athenian court. Since this time, curiosity has received limited attention in philosophical and intellectual history. Despite this, and perhaps, in some cases, precisely for reasons related to this kind of intellectual oppression, curiosity has emerged in recent decades as a rich topic of philosophical, psychological, and educational significance, as seen by the diverse contributions in this volume. Its value as a tool for nurturing intellectually virtuous character, and navigating increasingly complex informational environments are just two of the most compelling reasons in favour of attending to and educating for the intellectual virtue of curiosity.

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## NOTES

<sup>1</sup> The issue of determining which epistemic goods are worthwhile and which are not is complex and potentially contentious. Nonetheless, if one grants that some epistemic goods are indeed worthwhile, whilst others are not, then this constraint on virtuous curiosity is required.

<sup>2</sup> I argue elsewhere that we should, indeed, encourage student questioning in schools and, in particular, educate for the skills involved in good questioning (Watson 2016). I contend, however, that doing so is central to the task of educating for the intellectual virtue of inquisitiveness, as opposed to curiosity (Watson *forthcoming*). Highlighting the distinction between curiosity and inquisitiveness, on these grounds, opens up a space for two closely related but distinct educational endeavours: one which focuses on the student's motivation to know and understand the world (virtuous curiosity), and another which focuses on a fundamental skill required in order to realise this motivation (good questioning, as a defining feature of virtuous inquisitiveness).

<sup>3</sup> The motivation to ‘improve epistemic standing’ can be viewed as a close synonym of Zagzebski’s (1996) ‘cognitive contact with reality’, or the more general conception of a love of truth, knowledge, or wisdom. The relatively fine-grained distinctions between these conceptions are not significant for the purposes of this paper.