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Jordan Stewart-Rozema June 5, 2019

Careful Curiosity:
Curiosity as an Epistemic and Ethical Virtue

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B.A., The Evergreen State College, 2011

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An abstract of
A dissertation submitted to the Faculty of the
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Abstract

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By Jordan Stewart-Rozema

My dissertation argues for curiosity's status as both an epistemic and ethical virtue, by exploring curiosity's potential for aiding learning and care. In philosophical discourse, curiosity has historically been positioned within a framework of virtue and vice. In medieval contexts, curiosity was a vice that distracted us from religious duty by pulling us towards worldly knowledge. In the early modern era, curiosity was a crucial virtue for scientific discovery. In today's philosophical landscape, curiosity has been discussed in the context of epistemic virtues—intellectual processes that reliably lead to knowledge. In each of these cases, curiosity's status as virtue or vice has been established in regards to its function in knowledge acquisition, neglecting to consider other ways that it contributes to ethical life.

Curiosity has both epistemic and moral relevance, and can operate as both benefit and detriment. However, there is a deep unevenness in which sides of curiosity have received attention over time. Though there are exceptions, curiosity has typically been lauded epistemically and lambasted morally. In this project, I seek to start correcting this uneven attention by providing a framework by which we can recognize the beneficial *moral* impact of curiosity.

I first clarify the term "curiosity" through multidisciplinary exploration, bolstering my philosophical analysis with intellectual history, psychology, and everyday understandings, and in so doing, establish precedent for curiosity's consideration as a virtue. I then propose that we widen our understanding of what it means for curiosity to be considered as a virtue to include connections to *learning* and *care*, as well as an understanding that considering curiosity as a virtue does not rule out the existence of vicious forms of curiosity. This allows me to defend curiosity's status as both an epistemic and ethical virtue.

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Finally, a special thanks to my partner, Praphat Xavier Fernandes. I will always remember the smell of cigar smoke, the sound of cicadas, and the feel of the warm Atlanta air on those nighttime walks with you where I first talked about curiosity.

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I would contend at all costs in both 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.

– Socrates[1]

It is precisely because the tendency to treat each other well is so fragile that we must strive so consistently to care.

– Nel Noddings[2]

[1] Plato, *Meno*, in *Five Dialogues*, trans. G.M.A. Grube (Indianapolis, Hackett Publishing Company, Inc., 2002), 86c.
[2] Nel Noddings, *Caring: A Feminine Approach to Ethics and Moral Education* (Berkeley, CA: University of California Press, 1984), 99.

Introduction

Curiosity today is typically considered a general good, associated with inquiry, scientific discovery, and the alert, thriving minds of young students. In philosophical discourse, recent discussion of curiosity has occurred within virtue epistemology, where it is normally (though not always) listed among the epistemic virtues. Yet there is also a deep historical acknowledgment of the dangers of curiosity, expressed in the idiom "curiosity killed the cat" or associated with Eve's fateful bite of the fruit of forbidden knowledge. It was the subject of strong admiration by Michel Foucault and criticism by Martin Heidegger, who nevertheless both saw it as a general mood, a way of seeing or being, that directs and influences how we interact with the world around us.

Curiosity is clearly complex, and has both epistemic and moral relevance. It would be a mistake to say that curiosity is always either one thing or another—good or bad, benefit or detriment, virtue or vice. However, historical and philosophical analysis will reveal a deep unevenness in which sides of the phenomenon have received attention and conceptualization. Though there are of course exceptions, curiosity has typically been lauded epistemically and lambasted morally. In this project, I seek to start correcting this uneven attention by providing a framework by which we can recognize the beneficial moral impact of curiosity. In what follows, I will clarify the term "curiosity" through philosophical and multidisciplinary exploration, arguing that curiosity is a natural capacity which is passionate and pleasurable, multiple and/or mutable, involved in learning, oriented toward diverse, novel objects, and is morally significant. I will then defend curiosity's status as both an epistemic *and* ethical virtue.

Aims of the Project

In a world increasingly under pressure from the devastating impacts of climate change, in which the chasm between rich and poor continues to expand, and in which powerful influencers encourage a disregard for truth and undermine the concept of evidence—in the face of such dire existential threats to such a vast portion of the human community, to the very earth we depend on to sustain us, and to the means by which we could discover and fight against these threats, we need to identify what intellectual and social resources we *do* have at our disposal to counter them. This project champions a certain kind of curiosity that I believe holds great promise for responding to these concerns: a kind of virtuous curiosity that helps us to be more understanding friends and community members, more attentive civic participants, and more capable learners—a *careful* curiosity, which encompasses the full compassionate, cautious, and custodial senses of the word.

But this optimism towards the virtuous capabilities of curiosity does not preclude the warnings of those who point out its problems. Curiosity is multifaceted, and its "mean" and "extremes" are often called by the same name. Thus, my aim here is twofold:

1. To lay out the rich philosophical history of curiosity, bolstered by intellectual history, psychology, and everyday understandings, and in so doing, *establish precedent for its consideration as a virtue*.
2. To *widen our understanding* of what it means for curiosity to be considered as a virtue, both epistemically and morally, to include connections to *learning* and *care*, as well as an understanding that considering curiosity as a virtue does not rule out the existence of pernicious, vicious forms of curiosity.

Curiosity may indeed be an epistemic virtue since it pertains to epistemic ends—the acquisition of knowledge and the operations of learning. But it also has to do with our appetites, with passion and feeling, as the emotional catalyst of other epistemic operations. This opens the door to moral virtue. Curiosity has been associated with both temperance (abstaining from a lust for knowledge), and with a kind of courage (overcoming obstacles to knowledge)—both extremely important moral virtues, historically speaking. We have also been repeatedly concerned throughout history[3] with the evil that it may bring our friends and neighbors (as the victims of gossip), and in the past few decades in particular, with the evil that may come with colonial exoticization carried out as a kind of "curiosity." Thus curiosity not only has to do with the direction and moderation of passion—it also has to do with how we treat others.

These concerns about curiosity's capacity to harm seem to me best answered by the contemporary value of *care*, a "virtue"[4] that is arguably just as prized today as temperance and courage were to past eras. To call curiosity a virtue today, in my view, requires recognizing care as paramount in our moral landscape. And in order to be considered a virtue, curiosity (or, to be more precise, the best, most virtuous form of curiosity) must at the very least not conflict with care. I argue that virtuous curiosity and care are not only compatible, but complementary—curiosity both aids and is aided by care. Focusing on the relationship between curiosity, virtue, and care is one of many possible ways to conceptualize curiosity's ethical dimension. However, it is one that is well-rooted in curiosity's etymology, history, and philosophical precedents. Neil

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[3] See my analysis in chapter two of Plutarch, Hume, and Heidegger for examples.

[4] Whether or not care is a virtue, or whether care ethics is a sub-species of virtue ethics, is of course a matter of debate. While some theorists see care as a part of virtue (including Michael Slote, Raja Halwani, and Margaret McLaren; see, for example: Margaret McLaren, "Feminist Ethics: Care as a Virtue," in *Feminists Doing Ethics*, Lanham, MD: Rowman and Littlefield, 2001) others see it as a practice or value distinct from virtue, and want to avoid unifying them (Virginia Held is among these theorists, and Maureen Sander-Staudt; see for example: Maureen Sander-Staudt, "The Unhappy Marriage of Care Ethics and Virtue Ethics," *Hypatia* 21.4, 2006: 21-40). Although I will not engage the issue at length here, my position is that care is either a central moral virtue or is at least akin enough to virtue that it can easily be accommodated within or alongside a virtue framework.

Kenny, one of several authors who have recently explored the history of curiosity, notes how early modern writers often delimited curiosity to fit within the particular definition they had in mind, effectively shaping the available understandings of curiosity in their time. Even today, he writes, "historians are taking up where those writers left off, continuing to reshape curiosity now"[5] according to their own socially-informed views. By focusing on care, I hope to follow in the tradition of the writers, historians, and philosophers before me who took part in shaping and reshaping curiosity—not by importing foreign definitions to the phenomenon, but by identifying latent associations that have always existed within our descriptions of curiosity and giving them new and privileged emphasis.

As Miranda Fricker says in the introduction to her book *Epistemic Injustice: Power & the Ethics of Knowing*, she was interested in "the possibilities that open up for epistemology when we take epistemic psychology more seriously—that is, when we take our primary subject matter to be those human practices through which knowledge is gained, or indeed lost."[6] Curiosity is a human practice that occurs everyday, in the most predictable as well as unexpected places, in regards to predictable and unexpected topics. We gain knowledge through curiosity time and time again, though it remains one of the human practices less studied in the field of epistemology. Like Fricker, I am interested more in the *possibilities that open up for us* when we start to consider these human practices of knowledge acquisition more holistically, not merely within the realms of neuroscience or epistemology but integrated into our social, emotional, and moral lives. Charles Mills is also clear about the normative stakes of social epistemology when discussing his project of defining and describing "white ignorance"—"[T]he idea is that

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[5] Neil Kenny, *The Uses of Curiosity in Early Modern France and Germany* (New York, NY: Oxford University Press, 2004), 7.
[6] Miranda Fricker, *Epistemic Injustice: Power & the Ethics of Knowing*, New York: Oxford University Press, 2007, vii.

improvements in our cognitive practice should have a practical payoff in heightened sensitivities to social oppression and the attempt to reduce and ultimately eliminate that oppression."[7] I follow these theorists in hoping that by expanding our understanding of curiosity to encompass its most ideal epistemic form as an engine for learning, we can better cultivate and enact it in ways that result in *moral* learning and accompanying practical, pro-social change.

Curiosity could be an especially powerful tool for cultivating awareness and commitment around shared ethical pursuits, since it is often spontaneous, responsive, particular, passionate, and widely accessible outside of formal intellectual training. Many of these features have made it an object of scorn as the distracted, less-serious version of philosophical wonder, or as amenable to oppressive forces that capitalize on its attraction to novelty to exploit the vulnerable. But these same features also allow curiosity to enable moments of breakthrough, connection, caring, learning, and growth. Articulating curiosity's potential for moral learning can, I hope, unlock some of its power and possibility as a moral aid, power that is especially potent if we understand curiosity as a virtue—a universal natural capacity that is open to cultivation and social reinforcement.

It is my goal here to shed light on how curiosity can be a force for moral good—when carried out appropriately and complemented by other intellectual and moral virtues. Let me be clear: by saying that curiosity has this capacity I am not claiming that it cannot also have a deleterious impact in both the epistemic and moral realms. It does, in many cases. However, by *focusing* on the ways that curiosity can help us overcome ignorance, develop habits of attention and learning, and prime us for caring action, I hope to help guide our thinking about curiosity toward these ends. Rather than ruling out curiosity's beneficial impact, vicious forms of curiosity

[7] Charles Mills, "White Ignorance," in *Race and Epistemologies of Ignorance*, ed. Shannon Sullivan and Nancy Tuana (New York: State University of New York Press, 2007), 22.

can help us understand what to avoid and what may be necessary to transform curiosity into a force for good. As Aristotle says, "it is possible to fail in many ways … while to succeed is possible only in one way."[8] Curiosity may act as a vice in different circumstances according to intemperate, uncourageous, or uncaring reasons. But when virtues and circumstances align in the *right* way, curiosity can act as a complex and multifaceted virtue—one that overcomes intellectual apathy, that directs your attention without prejudicing your conclusions, that allows you to listen and make room for new and complex truths to emerge, and that results not merely in gaining knowledge but in helping you care about the world and others in more fully realized ways.

There are several philosophical contributions that this project makes. Firstly, I have helped to make sense of the long-lasting ambivalence when it comes to curiosity's ethical value and added to the small number of voices who have discussed curiosity's *beneficial* ethical impact.[9] Second, I have also contributed a unique multidisciplinary take on curiosity. Third, though some philosophers, such as Plutarch and Aquinas, are often presented as straightforwardly against curiosity, I have shown that they had significantly more nuanced takes that allow for the existence and cultivation of positive forms of the phenomenon. Fourth, I have added to the virtue epistemology landscape by adding to the discussion of virtue criteria and epistemic ends, an issue which is far from settled, as well as presenting the case for one specific

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[8] Aristotle, *Nicomachean Ethics*, in *The Complete Works of Aristotle Revised Oxford Translation*, trans. Jonathan Barnes (Princeton: Princeton University Press, 1984), 1106b29-31.

[9] I am thinking chiefly of Foucault, here, in *The Use of Pleasure: The History of Sexuality, Vol. II*, trans. Robert Hurley (New York, NY: Random House, Inc., 1985) and "The Masked Philosopher," in *Ethics: Subjectivity and Truth*, ed. Paul Rabinow (New York: New Press, 1998), as well as Elias Baumgarten, "Curiosity as a Moral Virtue," *International Journal of Applied Philosophy* (Fall 2001).

epistemic virtue, a project which several in the field have stated is worth pursuing and would add value to the field.[10]

Additionally, with this dissertation I hope that I have contributed to a growing number of projects—within academic as well as other professional spaces—that are drawing more attention to the power of curiosity to affect positive change, some examples of which I have described in my last chapter. There I present the view that by articulating this new understanding of careful curiosity, one that specifically emphasizes its ethical import, we can better recognize virtuous and vicious curiosity at work in the world and help cultivate virtuous curiosity effectively.

Methodology

Although my hope is that this project will contribute to practical efforts to cultivate "careful curiosity," it is at heart a deeply philosophical project that argues for positioning curiosity within certain philosophical frameworks—virtue epistemology, virtue ethics, and care ethics—in conversation with one another. Yet although my contribution to the discourse surrounding curiosity is philosophical, there is value in surveying other fields that have also explored how we understand curiosity, such as history and psychology. Although this project will not engage in historical or psychological research directly, I will turn to it in order to paint a more accurate and thorough picture of curiosity's complex history.

I begin my project with surveys of curiosity within intellectual history, philosophy, psychology, and everyday language in order to establish a broad context of overlapping

[10] E.g., Jason Baehr, "Four Varieties of Character-Based Virtue Epistemology," *The Southern Journal of Philosophy*, Vol. XLVI (2008): 469-502; Linda Zagzebski and Michael DePaul, "Introduction," in *Intellectual Virtue: Perspectives from Ethics and Epistemology*, ed. Linda Zagzebski and Michael DePaul (New York: Oxford University Press, 2003), 4. Of course many in virtue epistemology are already working in some of these areas. For example, Robert Roberts and Jay Wood have profiled the specific intellectual virtue of humility in their essay "Humility and Epistemic Goods," in *Intellectual Virtue*, ed. Zagzebski and DePaul, 257-79, and Frederick Schmitt and Reza Lahroodi do so for curiosity in "The Epistemic Value of Curiosity" *Educational Theory* 58:2 (2008), 125-148.

consensus around the notion of curiosity, and in particular around its potential harms and benefits. This context-setting is necessary for establishing precedent for curiosity as a virtue, as well as for identifying a rough "definition" of curiosity from which to even make that claim. I do not attempt to isolate one essential, universal "definition" of curiosity, but rather provide a survey of historical connotations and developments in order to identify shared features across eras and accounts. This will be enough, I believe, to give new depth and richness to the concept of curiosity without being prescriptive or dogmatic about what "counts" as curiosity. Before arguing for curiosity's ethical potential, we must first come to a shared understanding of what we mean by "curiosity," one that should not be taken for granted nor derived purely from within philosophy if it is to have any relevance outside of philosophical discourse. Furthermore, establishing a historically- and empirically-responsive shared context for understanding curiosity is important for identifying where my view is continuous with previous understandings and where it provides a primarily new focus.

I see my primary contribution to the philosophical literature on curiosity as occurring in the final chapters where I argue for a particular conception of curiosity as a virtue. However, I believe that drawing on these separate but related disciplines in my first few chapters to tell a story about how we understand curiosity is itself an important academic contribution due to the scarcity of existing multidisciplinary accounts, and due to the nature of my findings, which identify a broad, overlapping consensus across disciplines. Because of the historical and disciplinary breadth of the ground I am going to cover, I will be relying somewhat on others' storytelling within my own. My philosophical analysis will primarily consist of my own readings of primary texts, but I will also stitch together a narrative that depends on some key secondary

material to help me cover the historical and psychological research that I am not equipped to undertake myself and that qualified others have already undertaken.

As mentioned, I do turn to primary philosophical texts to examine how prominent philosophers have described curiosity. This is not intended to be an exhaustive survey of curiosity within the history of philosophy. Significant omissions include American pragmatists William James and John Dewey. Rousseau has some memorable passages about curiosity in his classic *Emile*. And (while not perhaps strictly philosophy) psychoanalysts Sigmund Freud and Melanie Klein both discuss curiosity at some length in their work. However, since my purpose here is not simply to catalogue curiosity's inclusion in the entire history of philosophy but to make an argument for its consideration as a virtue, it is sufficient for my purposes to select a smattering of representative philosophers across multiple philosophical periods from whom we can develop a conceptual portrait of curiosity. With that in mind, I have focused on some of the most prominent and widely-remarked upon philosophical accounts of curiosity from each era, and have tended towards philosophers who address curiosity outside of educational psychology or psychoanalysis, counting on my turn to psychological research in chapter three to provide some of those perspectives.

I also turn to everyday experience and colloquial language in order to explore contemporary views on curiosity outside of academic discourse. What examples of curiosity are readily available in our everyday experience? What web of connotations, concerns, and uses emerge? This exploration is also not meant to be exhaustive, but I have strived to make it adequately representative of the variety of contexts in which curiosity appears on a daily basis. However, this section has taken my own experience as a starting point, so there are bound to be selection biases in my range of examples. Nevertheless, I think it is important for philosophical

projects—especially ones that are deeply rooted in *past* philosophy and history—not to lose touch with *present* understandings and uses of the concepts in question.

Our contemporary understanding and valuation of curiosity must play a part in determining its philosophical status. But its philosophical status also shapes the way we currently understand it, and plays a role in shaping how we will *continue* to understand it as time goes on, including how we could understand it *differently*. This is evidenced in the hugely influential accounts of previous philosophers such as Augustine, who shaped the general understanding of curiosity for decades. Although I believe in the crucial importance of shared understandings, historical context, and general agreement between conceptual and empirical accounts, I also believe in the power of philosophical framing and re-framing to open up *new* possibilities for thought as well as for "practical payoffs." With this methodological commitment in mind, I proceed to address the historical imbalance that tends to focus more on the intellectual than the ethical benefits of curiosity, its ethical harms more than its pro-social possibilities. While grounding my work in philosophical precedent and multidisciplinary consensus, I also choose to focus on latent and less-theorized connections to learning, attention, and care in order to elevate those associations and present new possibilities for curiosity that can help us respond to pressing social problems.

Chapter Summaries

My first three chapters all deal with the question *What is curiosity?* from different angles: intellectual history, philosophy, psychology, and everyday experience. In my first chapter, I examine curiosity's historical origin and evolution with specific focus on its relationship to the related concept of *wonder*. I begin by going to the source of Western philosophical thought:

ancient Greece. I examine both the early origins of curiosity terms within the Greek language, as well as the meanings associated with wonder within the philosophy of Plato and Aristotle. I then go on to trace the intellectual history of the wonder-curiosity relationship through the medieval and early modern periods. I find that while curiosity retains some of its original associations distinct from wonder—to meddlesome behavior and useless knowledge, for instance—it also ends up taking on many of the meanings first associated with wonder, such as connections to science, nature, and perplexity. The general value of curiosity as something negative or harmful also shifts to something positive and beneficial as it takes on some of these wonder associations.

In my second chapter, I look at the history of curiosity within philosophy by providing analysis of how curiosity was characterized within the work of seven philosophers. I proceed chronologically, beginning with Plutarch, who described curiosity as an interest in the hidden and secret, which could manifest in an unhealthy interest in spectacle and the tragedy of others or be channeled in a positive direction into the mysteries of the natural world or discovering our own faults. I then look to Augustine, who called curiosity the "lust of the eyes"[11] and was one of curiosity's biggest detractors, claiming that it pushed us toward forbidden knowledge and away from divine contemplation. And to Aquinas, who softened this position by giving curiosity two forms—curiosity was a vice for the same reasons Augustine laid out, or it could take the virtuous form of "studiousness." I then move to the modern era, focusing on Hobbes, who saw curiosity as distinctly human and at the root of all human endeavors, and Hume, whose definition is similar to Aquinas' "studiousness" in pinpointing application of the mind as its most crucial component. Finally I move to the present day: to Heidegger, who describes curiosity as an inauthentic mode of engaging the world, obsessed with novelty and lacking any meaningful

[11] Augustine, *Confessions*, trans. F.J. Sheed, ed. Michael Foley (Indianapolis, IN: Hackett Publishing Company, 2006), 10.35. Augustine takes this phrase from scripture: 1 John 2:16.

rootedness, and to Foucault, who takes a drastically opposite view, positioning curiosity as promising technique for self-transformation and radical insight. At the end of my second chapter I identify six broad trends that have emerged throughout the philosophical readings, and that align with the intellectual history of the first chapter. Curiosity is characterized as a natural capacity which is passionate and pleasurable, multiple and/or mutable, involved in learning, oriented toward diverse, novel objects, and morally significant.

When it comes to curiosity, there is natural overlap with both psychological and educational research. In my third chapter I explore findings from both of these disciplines that establish overlapping consensus between these accounts and my philosophical-historical characterization of curiosity. I find evidence affirming all of the trends named above, save for the ethical dimension of curiosity, which is notably absent from psychological and neuroscientific research. In chapter three, I also touch base with our everyday understandings of curiosity. Just as I want to make sure that the features of curiosity drawn from philosophy are responsive to relevant research from other disciplines (neuroscience, psychology, and education), I also want to make sure that my findings aren't too far afield from our intuitive, everyday understandings and experiences of curiosity. By looking at dictionary definitions and uses of the term in several different contexts—including educational mission statements, children's literature and political discourse—I find that our everyday connotations and contexts include all of the same recurring features I found in the first two chapters: it is described as both a natural capacity and an exhibited trait, as emotional and involving pleasure, as having multiple kinds, relating to a wide range of objects but having a special connection to learning and knowledge, and as having ethical implications and effects.

After answering the question "what is curiosity?" in the first three chapters, we are left with a "curious" finding: an extreme variation on the ethical status of curiosity. Though an enduring aspect of curiosity, no other component is so consistently ignored or widely disagreed upon. In my last two chapters, I aim to clarify curiosity's ambivalent ethical status by placing curiosity within a virtue framework. The description of curiosity formed in the first three chapters—as a natural capacity which is passionate and pleasurable, multiple and/or mutable, involved in learning, oriented toward diverse, novel objects, and morally significant—serves as a foundation for this exploration, as the concept of virtue aligns with all of these trends. Moral virtues are clearly morally significant as well as passionate, epistemic virtues have to do with knowledge and learning, there are multiple iterations of a "virtue" phenomenon across a virtue-vice spectrum, virtues are frequently described as natural capacities, and they often can have very diverse objects. In addition to the alignment of our definition with a virtue framework, there is also philosophical precedence for positioning curiosity within such a framework in the work of Aquinas.

In chapter four I focus on clarifying curiosity's role as an *epistemic* virtue. Though perhaps not as controversial as declaring curiosity a moral virtue, curiosity's beneficial intellectual impact has still been a slight object of debate, and it is not unanimously categorized within the ranks of epistemic virtues within contemporary virtue epistemology. I ask the question: *What does it take for something to be an epistemic virtue?* I answer this by evaluating general criteria, informed by debates between reliabilists, who tend to view epistemic virtues as reliable intellectual faculties or processes for attaining truth, and responsibilists, who tend to view epistemic virtues as character traits that are part of a broader landscape of moral virtues and tied to social practices. I describe how curiosity fits the criteria I propose we follow, chiefly that

it aim at and reliably deliver some "intellectual good." I define "intellectual good" broadly, including not just truth or knowledge, but also *learning* and understanding. I contend that curiosity is an epistemic virtue because it aims at truth, and reliably delivers learning, though it only reliably delivers truth when complemented by other truth-motivated and truth-delivering epistemic virtues. Finally, I explore what I see to be the value of characterizing curiosity as an epistemic virtue in this way, namely that we have a solid framework in which curiosity is positioned as something that leads to learning rather than to intellectual distraction, and which can potentially help us in overcoming prejudice and ignorance.

In chapter five, I argue that curiosity is an ethical as well as epistemic virtue. Building on my argument from the last chapter that curiosity is epistemically virtuous in part because it leads to learning, I claim that curiosity is ethically virtuous in part because it leads to *moral* learning. Curiosity aids moral learning by helping us learn about morally relevant things—including about other cultures, other people, about the world, and about ourselves—and about their moral relevance itself, and it helps us learn in a way that is morally praiseworthy, by combatting substantive ignorance and proceeding with care. Additionally, to be considered a virtue curiosity would need the support of other virtues, and would need to support other virtues in turn. I claim that curiosity lies in just such a mutually supportive relationship with *care*. Curiosity's historical resonances with "attention" and its goals of acquiring truth align with care's demand for an engrossed, receptive mode of discovery such that curiosity at its most virtuous would demonstrate care. Furthermore, curiosity aids care in the initial and final "phases" of caring, as set out by Joan Tronto—discovering a need for care and assessing whether the need has been met. Since curiosity in its most virtuous form is both guided by and guides care, I introduce a terminological distinction between virtuous and non-virtuous curiosity, dubbing virtuous

curiosity "careful curiosity" to more easily and accurately qualify curiosity in our language, as well as to bring to the fore the component of curiosity that I most want to us to keep in mind.

Finally, in my conclusion I address the question: *So what?* Having established curiosity as an epistemic and ethical virtue, what does that understanding do for us? I argue that it can help us to increase and cultivate careful curiosity, as well as recognize when such careful curiosity is already making an impact. For instance, research in character education programs and teaching epistemic virtues can both apply specifically to curiosity. I name several efforts within educational, nonprofit, and business environments that seem to me full of the promise of careful curiosity—efforts that are already engaging careful curiosity or that could help careful curiosity develop further. These examples are meant in part as a further fleshing out of what careful curiosity looks like in action, as well as a gesture to the possibilities of future work with this concept that would focus on specific suggestions for how to recognize, prioritize, and encourage careful curiosity within both traditional and non-traditional learning environments.

1

An Intellectual History of Curiosity

I. Introduction

What is curiosity? Although we may use or run across the word on an almost daily basis, its exact meaning is not so easily defined. How should we think about curiosity? Is there general agreement as to its boundaries, recurring characteristics, or necessary features? Before I can argue for curiosity's beneficial impact in both the epistemic and ethical spheres, we must at least have some broad base of understanding that grounds the object of our study. In other words, in order to make the case that curiosity be considered as a virtue, I will first establish that curiosity is the kind of phenomenon that can arguably fit within a virtue framework. At the end of my analysis in the first three chapters, we will see that curiosity has repeatedly been described in historical, philosophical, and psychological terminology that leads to its plausible consideration as a virtue.

Curiosity has had an interesting conceptual history, simultaneously developing as both a stable, definable term, and as made up of clusters of related, though sometimes antagonistic, meanings that have shifted over time. One of these clusters evokes the unexpected or novel. Another relates to inquiry. A third is linked to nosy or meddlesome behavior. Is curiosity what drives scientific innovation? Childhood development? Workplace gossip? All of these meanings are common today, though the most prevalent is a generally positive association with learning, exploration, and scientific progress. This is an inheritance from the modern era, which elevated curiosity to these noble meanings from its former negative, hubristic associations stemming from Christian thinkers. In the following two chapters I trace this history, from curiosity's roots in

ancient Greece to its entanglement with the concept of "wonder" and its evaluation by prominent philosophers of the medieval, modern, and contemporary eras: Plutarch, Augustine, Aquinas, Hobbes, Hume, Heidegger, and Foucault.

As I will explore further, curiosity was an emerging, developing concept in ancient Greece, where wonder featured more prominently in philosophical thought. Though the two concepts had fairly different associations in ancient Greece, many of these associations would merge and cross in later eras. Curiosity continued to play second fiddle to wonder throughout the medieval period, due in part to the strong influence of Augustine and the Church, until the early modern period when its use in written works rose dramatically.[12] From the seventeenth century onward, curiosity took on new, mostly positive connotations.[13] As curiosity became more and more associated with a laudable form of scientific exploration, it soon replaced previous philosophical motivators such as wonder as the most popular driving force of inquiry.

Though certain meanings have gained prominence, receded, or shifted over time, many historical and philosophical accounts do share a general picture of curiosity—for instance, descriptions of it as an intellectual passion, an integral part of human nature, and as related to gaining new knowledge have all persisted. Corey McCall has noted that despite differing positions on curiosity's *value*—as dangerous or virtuous, e.g.—philosophers have, on the whole, offered us fairly similar descriptions.[14] However, McCall also claims that curiosity is a complex phenomenon that bucks attempts at ascribing it a clear, univocal meaning.[15] Historian Neil Kenny has also highlighted this simultaneity of general agreement and contestation around the

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[12] Philip Ball, *Curiosity: How Science Became Interested in Everything* (Chicago, IL: University of Chicago Press, 2013), 3, includes a chart that shows how curiosity's frequency of use remains stable during the 1500s, but takes off around 1650.
[13] Neil Kenny, *The Uses of Curiosity in Early Modern France and Germany* (New York, NY: Oxford University Press, 2004), 4.
[14] Corey McCall, "Some Philosophical Ambiguities in the Work of Heidegger, Foucault, and Gadamer," *Journal of the British Society for Phenomenology* 42:2 (2011), 3.
[15] Ibid.

term in the sixteenth to eighteenth centuries, dubbing curiosity terms a kind of "discursive glue" that enabled argument over precise meanings to exist at all. [16] I agree with McCall and Kenny's analyses: as we will see in the next two chapters, while shared characterizations and general trends certainly do emerge, each philosophical account of curiosity carries with it possibilities and subtleties unseen in other accounts. Furthermore, the question of curiosity's value is one that will emerge as repeatedly unsettled. While many of curiosity's meanings have shifted over time, no shifts are as dramatic and ambivalent as the disagreement around curiosity's value—boon or scourge, helpful or hurtful, curiosity has certainly never been value-*neutral*.

II. Greek Origins: The Etymology of Curiosity

For the Greek forefathers of the Western philosophical tradition, *wonder* was one of the key philosophical orientations—profoundly esteemed as crucial for arriving at the greatest truths. Though curiosity would eventually take on some of wonder's positive, philosophical associations, as we will see later in this chapter, it first carried with it a whole different set of meanings in ancient Greece, many of which were not so praiseworthy.[17] In his book *From Polypragmon to Curiosus: Ancient Concepts of Curious and Meddlesome Behaviour*, Matthew Leigh identifies three roughly synonymous[18] Greek terms for curiosity: *polypragmosyne*, *philopragmosyne*, and *periergia*. I will quote here Leigh's etymology of these terms, since the

[16] Kenny, *The Uses of Curiosity*, 11. Cf. 2, where he also clarifies that although no consensus emerged in early modern discourse, this does not indicate that curiosity could mean absolutely anything, or that no history can be written about it; early modern writers often tried to give it a clear, universal, and definitive shape, though these shapes were not impervious to contestation over time.

[17] See Matthew Leigh, *From Polypragmon to Curiosus: Ancient Concepts of Curious and Meddlesome Behaviour* (Oxford, UK: Oxford University Press, 2013), whose work is unique in the historical literature for focusing on curiosity terms in particular in ancient Greece and Rome, rather than wonder. Because of this, I will be relying primarily on his scholarship in this section. However, the difference between curiosity in ancient Greece and curiosity in the medieval, modern, and contemporary eras has been noted in passing by other authors, such as Ball, *Curiosity*, 10-11.

[18] Leigh, *From Polypragmon*, 5-8.

relations between them—as well as their slight variations in meaning—are helpful in getting a full picture of the concept as it emerged out of ancient Greek and Roman usage:

> What underpins the close relationship between *polypragmon*, *philopragmon*, and *periergos* in Greek and *curiosus* in Latin, and connects the various fields to which they are applied, is the combination of a basic term for an occupation or preoccupation (*pragma* and *ergon* in Greek, *cura* in Latin) with an intensifying prefix (poly-, philo-, peri-) or suffix (-osus). In the case of *polypragmon*, the prefix poly- can imply both 'much' or 'many' and the term can therefore describe a human subject who either focuses intensely on one particular object or whose engagement is with many different objects at once. The *polypragmon* can thus be a meddler who is invited to look only to his own concerns and not to those of others or a creature of unrestrained curiosity who cannot help but hop from one topic of inquiry to another. The *periergos* is often indistinguishable from the *polypragmon*, but the prefix peri- can also suggest preoccupation with that which is peripheral as opposed to what is essential, and the concept of *periergia* is often associated with the purely ornamental and perhaps needlessly elaborate. The *philopragmon* in turn displays many of the traits of both the *polypragmon* and the *periergos*, but the prefix philo- suggests an essential disposition, a positive relish for different forms of engagement. In Latin *curiosus* is applied to all these traits. The key feature here is the suffix –osus, which is often associated with an excessive proclivity.[19]

Though the description above identifies individuals as the owners of these curious dispositions, the terms also had a broader societal context. In the fifth and fourth centuries BC, the concept of *polypragmosyne* "encapsulated the restless meddling and intervention of individual Athenian citizens in the lives of their peers as well as that of the Athenian state as a whole in the affairs of its neighbours and beyond."[20] This was the dominant meaning of "curious" at that time: as applied to the state, curiosity was interventionist, characterized by political plotting and intrigue; for individuals, it was nosy, gossipy, litigious, and undisciplined.[21]

However, by the time Polybius was writing in the Hellenistic period, *polypragmosyne* and its synonyms had come to encompass "more innocent, often entirely commendable forms of

[19] Ibid., 5.
[20] Ibid., 1.
[21] Ibid., 3, 6.

investigation,"[22] though they still retained their previous meanings as well. This is reflected in Plutarch,[23] and in the understanding of *curiosus* in Cicero and later writers.[24] Leigh identifies three main contexts in which this new usage of *polypragmosyne* emerged: 1) In discourses that related to geography and empire. 2) In delineating useful from useless inquiry—useless *periergia* was characterized by ornate style, and "in terms of content it manifests itself in a preference for the strange and the trivial over the serious and the systematic."[25] 3) In delineating licit from illicit inquiry—the *polypragmon* was "determined to transcend limitation imposed by others on his right to know,"[26] delving into realms generally thought to be exclusive to the gods. "Plato identifies *polypragmosyne* as the opposite of doing that which is proper to oneself," and Socrates is infamously charged with this type of meddlesome, impious behavior.[27]

In the ancient Greek meanings of curiosity that Leigh lays out, I believe we can see precursors of many of the themes that would continue to characterize curiosity throughout the medieval, modern, and contemporary eras. Although I will discuss the historical development of these themes in more depth in the rest of the chapter, the relationships I see are as follows: Curiosity may still carry with it connotations of nosiness and meddlesomeness (3), but it has also picked up relationships with knowledge and intellectual inquiry first ascribed to wonder. Curiosity has often been evoked in narratives of exploration and conquest (1), in "cabinets of curiosity," and the new customs, cultures, artifacts, and people who colonists came in contact with. Curiosity as concerned with useless information (2) is also retained in later descriptions, notably Heidegger's, who sees curiosity as trivial, shallow, and bustling. Finally, the idea that

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[22] Ibid., 196. See also ibid., 1: "[P]olypragmosyne had become a key concept in Polybius' description of scholarly research and of the energy driving such endeavors."
[23] See chapter two, section II.1.
[24] Leigh, *From Polypragmon*, 197.
[25] Ibid., 196.
[26] Ibid.
[27] Plato, *Apology*, in *Five Dialogues*, trans. G. M. A. Grube (Indianapolis, IN: Hackett Publising, 2002), 19b.

curiosity fuels investigation into "improper" domains (also 3) has been picked up by several philosophers, including Augustine and Aquinas, who decry curiosity's hubristic inquiry into divine nature, and Foucault, who identifies curiosity as a way to circumvent the status quo.

III. Greek Origins: Wonder

In addition to the family of historical meanings that accompany early Greek terms for curiosity, another central figure in curiosity's story is *wonder*. Since Plato and Aristotle's famous statements that all of philosophy begins in wonder,[28] wonder has had a special place amongst the philosophical passions. With little exception, it has been regularly praised as the vehicle through which we come to knowledge and science, and to an appreciation of nature, God, and beauty. Augustine esteemed wonder for its ability to lead to our proper contemplation of the glory of God. Sixteen centuries later, Heidegger saw wonder as the "authentic attunement" for philosophy. Both of these philosophers valorized wonder as distinct from curiosity—as related, but opposed phenomena. Despite these assertions of difference, the two concepts became linked in the early modern era when curiosity took on many meanings traditionally associated with wonder, including the philosophically significant "desire to know." In the late seventeenth- and early eighteenth-centuries, "curiosity was often displacing wonder […]. Whereas *admiratio* had long been considered in the Aristotelian tradition to be the beginning of all philosophy, some university texts now attributed that role to curiosity."[29] If some of what we mean by "curiosity" today is what was meant by "wonder" in preceding ages, then our understanding of curiosity will be helped along by an exploration of wonder and of the tangled history between them.

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[28] Aristotle, *Metaphysics*, in *The Complete Works of Aristotle Revised Oxford Translation*, trans. Jonathan Barnes (Princeton: Princeton University Press, 1984), 982b12-22; Plato, *Theaetetus*, ed. Bernard Williams, trans. M.J. Levett (Indianapolis, IN: Hackett Publishing Company, 1992), 155d.
[29] Kenny, *Uses of Curiosity*, 45-46.

Just as with curiosity, wonder does not have a fixed meaning.[30] The word "wonder," and the Greek equivalent *thauma*, simultaneously refers to objects possessing the quality of being "wonder-ful" as well as to the emotion felt in response to these objects,[31] and to the cognitive state that accompanies such an encounter.[32] "Wonders" can encompass both natural and aesthetic objects. Wonder as emotion runs the gamut "from hermeneutical astonishment to stupid amazement,"[33] a range of feeling which later languages would attempt to distinguish with more precision (by referring not only to "wonder," but to other words, like the ones just used above—"astonishment," "amazement," "admiration," etc.).[34] In addition, the experience of wonder is not only emotional, but cognitive and sensory as well.[35] Given this very wide playing field, it is no surprise that the concept has shifted over time and bumps up against the equally fuzzy concept of curiosity.

However, despite its wide range of applicability, Christine Hunzinger asserts that one can identify "collections" or "series" of things that arouse wonder. Art inspires aesthetic wonder, holy relics inspire religious wonder, and natural objects may inspire wonder directed at the natural world. Although these collections are helpful to get a sense of *what* people feel wonder towards, I believe identifying wonder in an object-centered fashion is only one possible approach. I propose that another possible approach is by ascribing normative value to wonder. Time and again, we shall see the separation between different "kinds" of wonder (or curiosity) as

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[30] Christine Hunzinger, "Wonder," in *A Companion to Ancient Aesthetics*, ed. Pierre Destrée, Blackwell Companions to the Ancient World (Chichester, West Sussex, UK: Wiley Blackwell, 2015), 422.
[31] Ibid., 424.
[32] Andrea Wilson Nightingale, *Spectacles of Truth in Classical Greek Philosophy: Theoria in Its Cultural Context* (New York: Cambridge University Press, 2004), 256.
[33] Hunzinger, "Wonder," 422.
[34] Ibid., 423. Admiration and astonishment in English have their equivalents in German as *Bewunderung* and *Staunen*, and in French as *admiration* and *étonnement*. Lorraine Daston and Katharine Park date this refinement to the late fifteenth or sixteenth century in their book *Wonders and the Order of Nature, 1150-1750* (Cambridge, MA: Zone Books, 1998), 16. Kant distinguished between astonishment, *Verwunderung*, which was fleeting, to a lasting sense of wonder, *Berwunderung*. The Latin for wonder is *admiratio*, and "wonders" (the objects) are *mirabilia* or *miracula*.
[35] Ibid., 428

either an estimable, tenacious drive to know or as a form of stupefied response, distracted or dumb.

This normative distinction is present in the Platonic dialogues, which contain both an acceptable, even laudable wonder as a form of intelligent inquiry, and an unintelligent "open-mouthed" or "blind" astonishment.[36] The latter often appears in response to illusion and spectacle (*thaumatopoiein*), whether from sophists or carnival performers (*thaumatopoioi*).[37] For Plato, this negative version of wonder falls into the realm of the ontologically impure and deceitful, which preys on the fallibility of our senses. As Hunzinger lists, instantiations of such wonder-arousing illusions can take the form of: "a mere marionette activated by the gods, like a human being (*Laws* 644d, 804b), a shadow in a cave (*Republic* 514b), a dream for wakened eyes (*Sophist* 266c),"[38] the illusory fantasy of mimetic art,[39] or the similar illusion of a sophist.[40]

However, despite all the wondrous illusions one may encounter, wonder has a central role in motivating us to search for a deeper, underlying truth. The clearest description of wonder as the origin of philosophy occurs in the *Theaetetus*. After reviewing a number of axioms and their puzzling contradictions with Socrates,[41] Theaetetus remarks: "I am amazed when I think of them; by the Gods I am! and I want to know what on earth they mean; and there are times when my head quite swims with the contemplation of them."[42] Theaetetus' remark shows the entire

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[36] Hunzinger, "Wonder," 422-423. Additionally, Nightingale writes: "In Homer and archaic literature, thaumazein and its cognates are very rarely used in the sense of puzzlement, perplexity, or curiosity." From Nightingale, *Spectacles of Truth*, 256. Nightingale also directs us to Raymond A. Prier, *Thauma Idesthai: Sight and Appearance in Archaic Greek* (Tallahasee, FL: Florida State University Press, 1989), 93-94.
[37] Hunzinger, "Wonder," 432.
[38] Ibid., 432.
[39] Generally associated with the trickery and spectacle form of wonder in the classic description of art as an imitation twice removed from reality (Plato, *Republic*, trans. G.M.A. Grube, Indianapolis: Hackett Publishing Company, 1974, 595a-602d), and specifically associated with it in the following passage: "Scene painting relies upon this weakness in our nature and is nothing short of magic; so does conjuring [*thaumatopoiia*] and other such trickery" (*Republic*, 602d).
[40] Hunzinger, "Wonder," 433, citing Plato, *Sophist*, 235b, 268d.
[41] Plato, *Theaetetus*, 154e-155c.
[42] Ibid., 155c.

interconnected arc of wonder, questioning, and our desire to know. When we encounter something puzzling, some "perplexity,"[43] we are filled with wonder. The wonder in turn sparks our desire to know, which leads to contemplation and the kind of philosophical investigation Theaetetus and Socrates carry out over the course of the dialogue. Socrates' famous reply to Theaetetus is as follows: "I see, my dear Theaetetus, that Theodorus had a true insight into your nature when he said that you were a philosopher, for wonder is the feeling of a philosopher, and philosophy begins in wonder."[44] Here the feeling of wonder goes hand in hand with cognitive perplexity, and this mixture spurs us to resolve the conceptual confusion, underwriting all of philosophy.[45]

Early on in Aristotle's *Metaphysics* there is another famous passage that places wonder at the root of philosophy:

> For it is owing to their wonder that men both now begin and at first began to philosophize; they wondered originally at the obvious difficulties, then advanced little by little and stated difficulties about the greater matters, e.g. about the phenomena of the moon and those of the sun and the stars, and about the genesis of the universe. … since they philosophized in order to escape from ignorance, evidently they were pursuing science in order to know, and not for any utilitarian end.[46]

Aristotle clearly echoes here the Platonic idea that philosophy begins in wonder, but there are more broad implications for wonder in how Aristotle employs it throughout his works. There are three aspects to Aristotle's wonder that I think are important to draw out for their alignment with future conceptions of curiosity.

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[43] Ibid., 155d.
[44] Ibid.
[45] Cognitive perplexity stemming from wonder—and the sustained philosophic or scientific inquiry that follows—can also perhaps go "too far," as in the case of Thales (a figure associated with the beginning of philosophy) falling into the well because he was looking up at the stars, the object of his wonder and inquiry (174a-b). Wonder has the ability to uproot our assumptions, and with it our groundedness to everyday concerns.
[46] Aristotle, *Metaphysics*, 982b12-22.

First, Aristotle repeatedly emphasizes the intellectual aspect of the phenomenon. The very first lines of the *Metaphysics* read "All men by nature desire to know."[47] Our wonder and our desire to know are linked, at the very heart of what it means to be human. Wonder is the spark that sets the wheels of philosophy and science turning, and their course is fueled by our unceasing drive to know.[48] Second, and on a related note, wonder is not limited to certain objects—any and all things can fall under its umbrella. Though he gives examples of some objects of wonder (the moon, sun, stars), Aristotle does not qualify our desire to know with any specific content. A section of *Parts of Animals* is worth quoting at length:

> Having already treated of the celestial world, as far as our conjectures could reach, we proceed to treat of animals, without omitting, to the best of our ability, any member of the kingdom, however ignoble. For if some have no graces to charm the sense, yet nature, which fashioned them, gives amazing pleasure in their study to all who can trace links of causation, and are inclined to philosophy. […] We therefore must not recoil with childish aversion from the examination of the humbler animals. Every realm of nature is marvelous [*thaumaston*].[49]

Aristotle's defense of the study of "humbler" animals recalls the progression he noted in the opening passage on wonder. Though we do seek to understand unseen forces and ultimate causes, the philosopher's domain also encompasses what is nearer and more obvious—the *ordinary*. Whereas in Plato wonder is either connected to unworthy illusion or to the highest philosophical objects and puzzles, Aristotle here carves out a place for legitimate wonder in even the most mundane of places.

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[47] Ibid., 980a22.
[48] See Jonathan Lear, *Aristotle and the Desire to Understand* (New York: Cambridge University Press, 1988), for more on this topic.
[49] Aristotle, *Parts of Animals*, in *The Complete Works of Aristotle Revised Oxford Translation*, trans. Jonathan Barnes (Princeton: Princeton University Press, 1984), 645a4-17. Alternate translation of 645a16-17 by A.L. Peck, *Parts of Animals*, Loeb Classical Library (Cambridge, MA: 1961), 99-101: "For in all natural things there is somewhat of the marvelous."

Third, wonder and the desire to know are not driven by utilitarian purposes. Appropriate wonder has such a wide scope in part because our desire to know is independent of any particular knowledge we seek.[50] As human beings wondered, questioned, and pursued knowledge, they did so "in order to know, and not for any utilitarian end."[51] As Aristotle states in the opening lines of *Metaphysics*, we can tell that humans naturally desire knowledge because of "the delight we take in our senses."[52] We find the act of learning and the state of knowing pleasurable,[53] and it is for this reason rather than any concerns for utility that we pursue knowledge.

In addition to the "perplexing," inquiry-inspiring wonder that spawns philosophy, Aristotle also described a kind of aesthetic wonder, most prevalent in tragedy.[54] In the *Poetics*, he describes the conceptual features of art that prompt this kind of wonder: the improbable[55] and unexpected,[56] especially when there is evidence of some causal connection between the unexpected events or "if there is an appearance of design"[57] in them. In such cases, we are more ready to ascribe meaning to the events than in cases of random chance. This description aligns with Aristotle's general project that attempts to unfold the inner design of all nature's workings. We wonder at the events in tragedy just as we wonder at objects in nature: something appears to us, at once unexpected and yet clearly the result of some unknown natural process, which we assume to be regular and discoverable, though at the outset hidden. Our wonder at such

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[50] See also Denise Schaeffer "Wisdom and Wonder in *Metaphysics* A:1-2," *The Review of Metaphysics* (1999): 642.
[51] Aristotle, *Metaphysics*, 982b22
[52] Ibid., 980a22-23.
[53] "[T]o be learning something is the greatest of pleasures not only to the philosopher but also to the rest of mankind, however small their capacity for it; the reason of the delight in seeing the picture is that one is at the same time learning—gathering the meaning of things." Aristotle, *Poetics*, in *The Complete Works of Aristotle Revised Oxford Translation*, trans. Jonathan Barnes (Princeton: Princeton University Press, 1984), 1448b13-15.
[54] This wonder would feature prominently in Kant's notion of the sublime, as well.
[55] Aristotle, *Poetics*, 1460a14.
[56] Ibid., 1452a4.
[57] Ibid., 1452a7.

phenomena leads to learning, to knowledge—no less in viewing tragedy than in engaging in philosophy or natural science.

Many of the aspects found in Aristotle's wonder will continue to find a home in our family of meanings for curiosity. For example, the expansive scope of curiosity and its attention to the smallest and humblest of details (some might say trivial) was carried on in the developing associations around *polypragmosyne* and its synonyms, as well as later understandings of curiosity. In the early modern era, the operations of wonder as sparking the engines of inquiry and discovery would be transferred to curiosity. Aristotle's employment of wonder in exploring the natural world and developing a system of science also become more prominently associated with curiosity. And the emphasis on the novel and unexpected in his aesthetic wonder matches curiosity's typical range of objects—though curiosity can be directed toward any subject matter, it is most often inspired by novelty, or through an awareness of a gap in our knowledge or experience that makes the object appear unknown, unfamiliar, strange, new, or unique. This association with novelty will be seen both in other philosophical accounts in later eras as well as in contemporary psychology.

Andrea Wilson Nightingale, in the epilogue to her book *Spectacles of Truth in Classical Greek Philosophy,* points out that there are dissimilarities between Platonic and Aristotelian wonder. She argues that although the *Theaetetus* 155c–d articulates a sense of wonder as perplexity, inquiry, and the beginning of philosophy, and is no doubt a precursor to Aristotle's similar view in *Metaphysics* 1:2, Plato more often sees wonder as the *end* of philosophizing,[58] attained in the encounter with the Forms.[59] This can be seen in this passage from the *Symposium*: "When [the philosopher] views beautiful things, one after another in the correct way, he will

[58] In stark contrast to the definition of wonder in the modern period as impetus and motivation for learning, and in contrast to curiosity in the same vein.
[59] Nightingale, *Spectacles of Truth*, 257.

suddenly see, at the end, a wondrous vision, beautiful in nature, which is the final object of all his previous toils."[60] Nightingale argues that this type of "Platonic wonder" is quite different from the wonder present in Aristotle's philosophy.[61] The "Platonic wonder" of the *Symposium* (and of the *Phaedrus*, 251b) is a kind of wonder most accurately described as awe or reverence in the presence of the divine.[62] However, Aristotle's scientific and aesthetic castings of wonder (specifically in *Parts of Animals* 645a17) emphasizes the humble, ordinary and natural rather than the divine.[63]

While I don't see it as central to my purposes here to argue for or against Nightingale's claim about whether or not Plato and Aristotle *most often* invoke the kinds of wonder she describes, both philosophers certainly do make use of wonder in these multiple ways. I believe Nightingale's casting of these two different takes on wonder allows us to see even more clearly how the type of wonder employed in Aristotle's philosophy acted, in part, as a precursor to modern understandings of curiosity. Although both emphases fit within the scope of possible meanings for wonder, "Platonic" wonder's alignment with the divine is less akin to future castings of curiosity than "Aristotelian" wonder's scientific endeavor to understand the natural world. Furthermore, Nightingale's characterizations help affirm evolving clusters of meaning around curiosity and wonder in ancient Greek thought, clusters that will further transform and

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[60] Plato, *Symposium*, trans. Alexander Nehamas and Paul Woodruff (Indianapolis, IN: Hackett Publishing Company, 1989), 210e.
[61] Ibid., 261-262.
[62] However, this kind of wonder is not totally separate from reason, since the rational part of the soul is itself divine. Because of the divine nature of human rationality, in the wondrous "the Platonic philosopher does not simply see something divine and awesomely different from himself: he also sees something that is intimately related to him. … [T]he Forms are, at the same time, superhumanly strange and yet akin to the human viewer" (ibid., 259). As evidence for the "kinship" between the soul and the Forms, Nightingale lists the following passages: *Phaedo* 79d, *Republic* 490b, 585c, 611e, *Phaedrus* 246d–e, *Timaeus* 47b–e, 90a, 90c–d, and *Laws* 897c. The duality mentioned here aligns with Hunzinger's claim ("Wonder," 426) that a recurring trait of wondrous objects is some kind of paradoxical simultaneity. In the aesthetic "series," it is often the coexistence of the one and the multiple. In other non-aesthetic spheres there are similar coincidences, such as in Aristotle's *On the World*, which features the wondrous coexistence of opposites in the world and in the city (396a32-b3).
[63] Ibid., 264.

rise and fall in popularity during the medieval and modern ages. These clusters include associations with science, inquiry, and nature, perplexity and the divine, and stupefaction, spectacle and magic, among others.

IV. Curiosity & Wonder Intertwined

Many historians have traced wonder's appearance in texts throughout the Middle Ages and Enlightenment.[64] Wonder in the middle ages, Caroline Walker Bynum argues, was not the same as wonder in the early modern period: "Medieval theorists…understood wonder (*admiratio*) as cognitive, non-appropriative, perspectival, and particular."[65] It was cognitive in the sense that "you could wonder only where you knew that you failed to understand."[66] The wonder reaction was described in the texts she studied as not merely a physiological start or a flood of emotion, a definition that would be popularized by Descartes,[67] but as entailing the desire for information and an invitation to seek it—much as curiosity would entail in the modern era. In contrast to the appropriative narrative of early modern wonder, which tended toward collecting and cataloguing as part of a universal scientific framework bound up in projects of empire and colonization, medieval wonder recognized the specificity of the event or object that inspired wonder and the situatedness of the wonderer. It assumed a hidden significance *beyond* the object's place in a system or as an object of knowledge to be possessed.[68]

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[64] E.g., Carolyn Walker Bynum, "Wonder," *The American Historical Review*, 102:1 (1997): 1-26; Stephen Greenblatt, *Marvelous Possessions: The Wonder of the New World* (Chicago, IL: The University of Chicago Press, 1991); Daston and Park, *Wonders*; and Joy Kenseth, *The Age of the Marvelous* (Hanover, NH: Hood Museum of Art, Dartmouth College, 1991).
[65] Bynum, "Wonder," 3.
[66] Ibid., 24.
[67] Rene Descartes' definition of wonder: "Wonder is a sudden surprise of the soul which makes it tend to consider attentively those objects which seem to it rare and extraordinary." From *The Passions of the Soul*, trans. Stephen Voss (Indianapolis, IN: Hackett Publishing Company, 1989), Part II, Article 70. See also Part II, Article 53.
[68] Bynum, "Wonder," 4-5, 24.

In *Wonders and the Order of Nature*,[69] Daston and Park's assessment of medieval wonder hits similar notes—many wonders described in chronicles and encyclopedic accounts of the middle and late medieval period were "particular, localized, and concrete,"[70] with an "emphasis on verification through personal experience and oral report."[71] Travelogue reports of distant lands replete with wonders made up the bulk of medieval writing on wonder. In terms of *what* this epoch's wonder was directed towards, it typically fell into two categories: the rare, novel, and unfamiliar, or the common but unexplained or unexpected.[72] Peoples, individuals, animals, plants, minerals, geographic features—all could be wondrous if they fit into one of these categories.

In the late medieval period, these travelogues transformed into a craze for collecting rare, expensive, wondrous objects as a sign of social status and power, a practice which flourished among the elite members of court life in the late fourteenth-century to mid fifteenth-century.[73]

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[69] I will be relying on Daston and Park's book heavily throughout this section, as it presents a thorough and careful intellectual history of wonder and curiosity, the result of two decades of work by the authors—as attested to in the book reviews by Lynda Payne (*Journal of the History of Biology*, 33:2, Autumn 2000, 409) and Paula Findlen (*The British Journal for the History of Science*, 34:2, Jun. 2001, 239). In addition to the positive reviews by Lynda Payne and Paula Findlen, it received glowing reviews from Kathryn Brammall (*The Sixteenth Century Journal* 31:1, Spring 2000, 318-319), Charles Webster (*Isis*, 90:3, 1999, 560-562), Matthew Ramsey (*The American Historical Review*, 105:5, Dec. 2000, 1791-1792), Donald R. Kelley (*The Journal of Interdisciplinary History*, 30:2, Autumn 1999, 293-294), and many, many others, as well as the Pfizer Award from the History of Science Society in 1999. The most critical review I could find was by W.R. Laird (*Renaissance Quarterly*, 52:4, Winter 1999, 1139-1141), who faults the authors on a handful of minor factual claims and loose exaggerations. These inaccuracies mainly occurred in regards to philosophers such as Augustine and Aquinas, whom I cover myself in chapter two with reference to the primary texts. Furthermore, I have found additional secondary materials that support many of the authors' broad claims, and included those citations throughout the chapter. Finally, even Laird's more critical review still states that their work is "supported by copious textual and documentary sources and profuse illustrations, all usually deftly interpreted with great sensitivity to context and to the sensibilities and the intentions of the time" (1140). I am confident that this piece of my story is capably carried forward by their scholarship.

[70] Daston and Park, *Wonders*, 24.

[71] Ibid. See also 23, 35, 39 for further discussion and representative cases of the relativity of wonder.

[72] Ibid., 23.

[73] Ibid., 68, 100. See also: Krzysztof Pomian, *Collectors and Curiosities: Paris and Venice, 1500-1800*, trans. Elizabeth Wiles-Portier (Cambridge: Polity Press, 1990), Ch. I. And Katharine Park, *Europe 1470 to 1789: Encyclopedia of the Early Modern World*, Vol. 4, ed. Jonathan Dewald (New York: Charles Scribner's Sons, 2004) 47—though there is not a full discussion of medieval collecting practices, as this is outside the encyclopedia's scope, there is an acknowledgment that the wondrous objects and collections of the early modern period were an inheritance from the medieval era.

Though Latin natural philosophers[74] had rejected wonder throughout the thirteenth and fourteenth centuries, when they saw it primarily as an ignorance of causes, it slowly began to be incorporated into natural philosophy. This was carried out between the late fourteenth- and late sixteenth-centuries, principally by Italian medical writers who were philosophically trained but who served elite patrons for whom wonders held an increasingly positive connotation.[75] The mid-sixteenth to seventeenth centuries saw the emergence of an "age of wonder," in which wonder and wonders featured prominently across all spheres of cultural and intellectual life, from medicine and philosophy to art and literature.[76] The proliferation of sites of collective scientific inquiry and community such as courts, universities, academies, and academic societies meant that "early modern naturalists were more likely to have firsthand experience of wonders than their medieval predecessors."[77] Due to this prevalence, and to the preceding age's recasting of wonder as appropriate to natural philosophy, wonders were a main philosophical and scientific concern throughout the seventeenth century.

In this context curiosity and wonder became unified. Like wonder, curiosity was used in two primary senses—as a feeling or activity of a subject, and as a property of a unique or strange object, a "curiosity." Kenny notes, "These object-oriented senses [of curiosity] had been fairly rare in antiquity and still not very widespread in the sixteenth century. They then proliferated dramatically"[78] in the early seventeenth century when "curiosities" and "curiosity cabinets"—or

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[74] Daston and Park cite Adelard of Bath and Albertus Magnus as prime examples, contrasting Adelard with contemporary Arabic philosopher Avicenna, whose views on wonder followed the Aristotelian line rather than sharing the Latin skepticism regarding wonder (111). Of Aquinas, they say this: "While not denying wonder's affinity with pleasure and inquiry, Aquinas nonetheless treated it in a minor key. 'As sloth is to external behavior, so wonder and amazement are to the act of the intellect,' he noted (113).
[75] Daston and Park, *Wonders*, 133, 136.
[76] Park, *Europe 1470 to 1789*, p 47. Also Daston and Park, *Wonders*, 172.
[77] Daston and Park, *Wonders*, 216. Also Park, *Europe 1470*, 47, which briefly discusses the impact of newfound scientific societies.
[78] Kenny, *Uses of Curiosity*, 5.

Wunderkammern—were at the height of their popularity.[79] The "age of wonder" was also an "age of curiosity."

The newfound alignment of curiosity and wonder can be seen, for example, in Hobbes, who links the two very closely.[80] After describing the "passion which we commonly call admiration" (wonder), he states that "the same considered as appetite, is called curiosity."[81] Wonder, for Hobbes, inspires or catalyzes our curiosity. This remained a common reading of the connection between the two throughout the modern era into twentieth century scholarship.[82] In accounts that connect them this way, wonder as puzzlement sets off our desire to know, spurring to action our natural capacity for curiosity. As Daston and Park trace, wonder and curiosity became intimately linked, while still remaining conceptually distinct:

> Musing admiration, startled wonder, then bustling curiosity—these were the successive moments of seventeenth-century clichés describing how the passions impelled and guided natural philosophical investigations. The senses were first snared and lulled by delightful novelties; understanding snapped to attention as novelty deepened into philosophical anomaly; and body and mind mobilized to probe the hidden causes of the apparent marvel.[83]

The new, the hidden, the rare, strange, or unusual, unknown causes—these were all common instigators for the wonder-curiosity interaction. Though curiosity about the secrets of neighbors and friends, or about demonic magic,[84] was still a subject of scorn, probing the secrets of nature—just as contemptible within the religious context of the Middle Ages—was now fair game.

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[79] Daston and Park, *Wonders,* 260.
[80] I will look at Hobbes account of curiosity in more detail in chapter two, section III.1.
[81] Thomas Hobbes, *The Treatise on Human Nature and That on Liberty and Necessity*, (London: J.McCreery, 1812), 70.
[82] See, for example, Howard L. Parsons, "A Philosophy of Wonder," *Philosophy and Phenomenological Research*, 30:1 (1969): 88-89.
[83] Daston and Park, *Wonders*, 303-304. See also, Sarah Tindal Kareem, *18th Century Fiction and the Reinvention of Wonder* (Oxford: Oxford University Press, 2014), 7-8.
[84] Ibid., 314.

Not only were the operations of wonder and curiosity now intertwined, but the positive and negative value attached to each would soon perform a 180 degree exchange: "On the one hand, the wonder that had once been hailed as the philosophical passion par excellence was by 1750 the hallmark of the ignorant and barbarous. On the other hand, curiosity, for centuries reviled as a form of lust or pride, became the badge of the disinterested and dedicated naturalist."[85] Whereas curiosity had formerly been considered restless, wandering, and aimless, "early modern curiosity replaced the earlier dynamic of self-dissipating passivity with one of self-disciplined activity, all faculties marshalled and bent to the quest."[86] Instead of sloth or distraction, curiosity took on the connotations of hard work, concentration, and fortitude. On the flip side, wonder had shifted from connotations of reverence to those of stupor, no longer an emotion associated with the elite and intelligent. Often, texts were "deflecting accusations of superficiality from curiosity onto wonder, which they described as a soft option that does not commit one to investigating truth in the way that curiosity does, or at least should."[87] Curiosity, rather than wonder, was the motivator toward inquiry and thought. We can see these new connotations for wonder in Descartes, who uses the two French terms "*admiration*" for classically revered wonder and "*étonnement*" for the kind of wonder ("astonishment") that carried this new nexus of "stupefied" meanings.[88] Hume takes the new attitudes even further and does not even discuss wonder in his *Treatise of Human Nature*, writing only about curiosity.[89]

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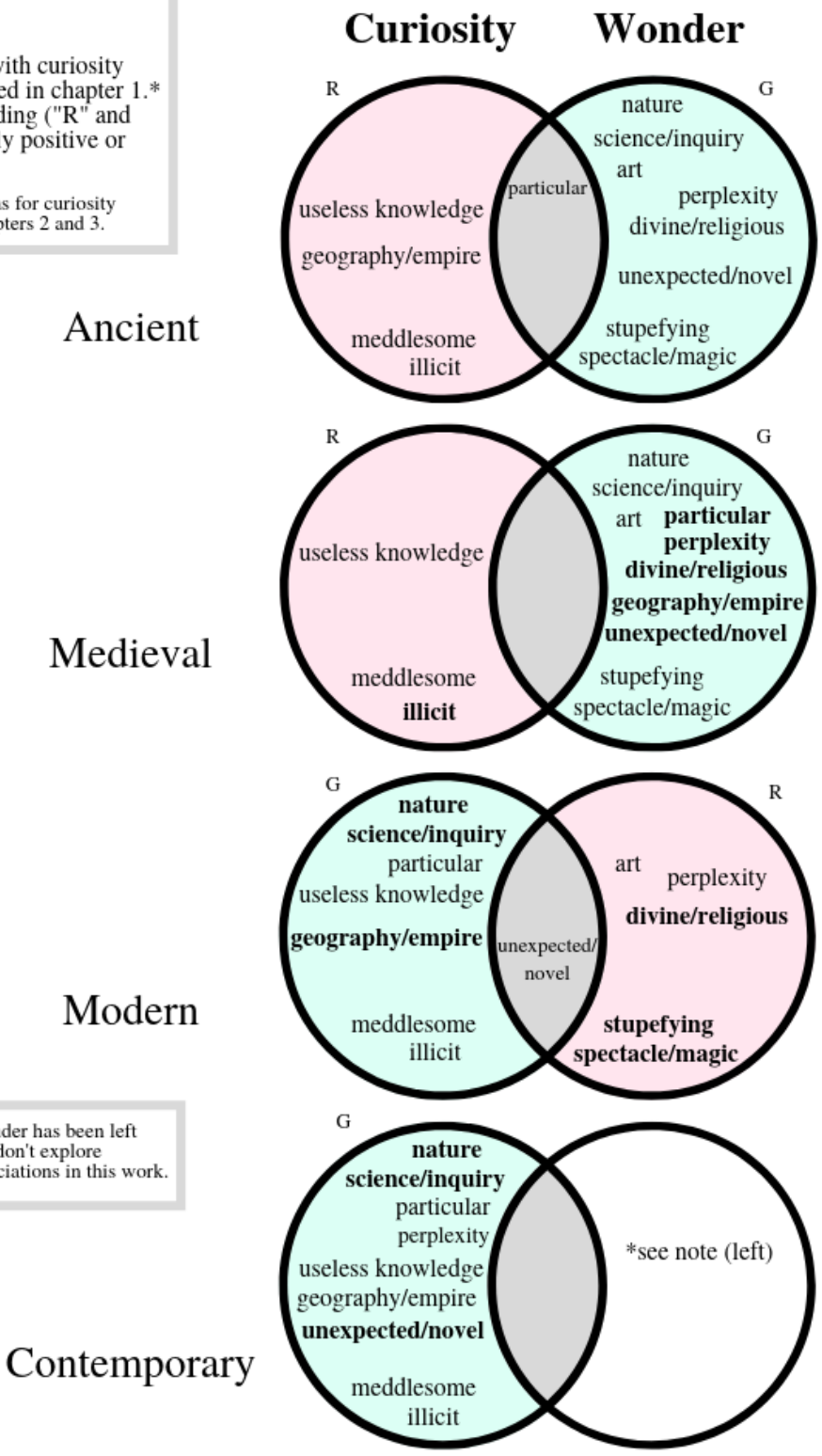
[85] Ibid., 304. Sarah Tindal Kareem also discusses the waning of wonder as an effective catalyst to scientific inquiry, though she argues that wonder's positive connotations were channeled in a new direction, finding a home in aesthetics, where wonder became an "aesthetic end in itself." (*18th Century Fiction,* 37 and all of chapter one.) Additionally, Mary Baine Campbell discusses this transition to a "speechless," "paralyzed," "uneducated" wonder in this time period, and the shifting of wonder into the aesthetic realm in her book *Wonder and Science: Imagining Worlds in Early Modern Europe* (New York: Cornell University Press, 1999), 3-5.
[86] Daston and Park, *Wonders*, 308.
[87] Kenny, *Uses of Curiosity*, 46.
[88] Descartes, *Passions of the Soul*, Part II, Article 73.
[89] See chapter two, section III.2 for more on Hume.

As we can already begin to see, how philosophers discuss curiosity is influenced by the broad historical meanings circulating around curiosity and related terms such as wonder, and influences those meanings in turn. Before moving on to discuss a handful of philosophical takes in more depth, let's take stock of the meanings thus far attributed to curiosity and wonder in our historical survey. Below (figure 1), I have roughly summarized the clusters of meaning associated with curiosity over four generic time periods. While the keywords included may not capture *all* the varieties of meaning covered in this chapter, they do hit many of the main ones. More importantly, this figure is intended as a quick reference guide and to visually reinforce how the range of meanings associated with curiosity have shifted over time, while still remaining relatively stable. Most significantly, the most prevalent meanings in a given time period (bolded, below) tend to go hand-in-hand with the prevailing normative judgments around curiosity's value. When affiliated more so with meddlesome behavior, illicit inquiry, or excessive attention to "useless" particularities, curiosity is cast in a generally negative light. However, when curiosity gained more associations with "worthwhile" scientific endeavors it gained a new respectability.

Fig. 1

Shifting associations with curiosity and wonder as described in chapter 1.* The red and green shading ("R" and "G") indicates generally positive or negative connotations.

*Contemporary associations for curiosity have been pulled from chapters 2 and 3.



*Note: Contemporary wonder has been left empty and unshaded, as I don't explore wonder's present-day associations in this work.

V. Conclusion

How philosophers discuss curiosity is influenced by the broad historical meanings circulating around it at the time. Similarly, how philosophers discuss these phenomena also influence the direction of broad historical meanings to follow. In the next chapter, I will turn to seven philosophical accounts of curiosity in detail to see which associations with wonder and curiosity covered in this chapter continue to reappear, shaping and reshaping curiosity—the meddling *polypragmosyne* interested in the trivial or illicit, the particularity emphasized in medieval wonder, Aristotle's concern with all aspects of nature no matter how ordinary?

Furthermore, will the trend of normative evaluation continue, and continue to vary so wildly? By the end of the historical-philosophical analysis carried out in these first two chapters we will have a set of recurring characteristics that serve to "define" curiosity and will influence how we look at its epistemic and ethical impact and potential.

2

A Philosophical History of Curiosity

I. Introduction

I will now turn more directly to philosophy to continue my attempt at laying a groundwork for understanding what curiosity is, what its status has been within the history of philosophy, and, based in that history, providing precedent for what it philosophically *could* be. The best way to see if there is philosophical continuity in the concept of curiosity—and where the theoretical fault-lines lie—is by turning to individual philosophers themselves, and dealing directly with the complexities of what we find there. In this chapter, I will present a handful of readings of prominent accounts of curiosity, grouped historically: Plutarch, Augustine, and Aquinas from classical and medieval periods, Hobbes and Hume from the early modern era, and contemporary philosophy represented by Heidegger and Foucault. My analyses will uncover broad normative trends that continue to treat curiosity as either good or bad, as well as six areas of overlapping consensus across these philosophical accounts, areas of consensus which also correspond to the historical research surveyed in the first chapter. I find that curiosity is repeatedly characterized as a natural capacity, as passionate and pleasurable, as multiple and/or mutable, as involved in learning, as oriented toward diverse, novel objects, and as morally significant. Together, these six characteristics can be treated as a rough philosophical "definition" of the phenomenon that I will utilize in the following chapter to see if our philosophical understandings generally match the findings of contemporary scientific research into human cognition and the understandings we utilize in our everyday uses of the term. Ultimately, the overlapping consensus established between philosophical accounts as well as

between disciplines will allow me to argue that curiosity be considered within a virtue framework, and then to put forth a particular proposal for *how* we see curiosity operating as a virtue within both epistemic and ethical realms.

II. Classical and Medieval Curiosity

II.1 Plutarch

The picture we see of curiosity in Plutarch's *De Curiositate*[90] is clearly negative, though not entirely bleak. Plutarch's definition of curiosity is both narrow and broad—while carrying on the ancient Greek association with "meddlesomeness" by understanding curiosity chiefly as a nosiness regarding others' misfortune, he also thinks that it can be channeled toward more worthy ends. He begins the essay by classifying curiosity as an "unhealthy and injurious state of mind"[91] and defining it as "a desire to learn the troubles of others."[92] Although he thinks it would be better to rid ourselves completely of harmful states of mind, "if that is impossible, it is best at least to interchange and readjust them in some way or other, turning or shifting them about."[93] In the case of curiosity, this shift would take the form of "diverting our inquisitiveness […] by turning the soul to better and more pleasant subjects."[94] Since curiosity is interested in wrongdoing and misfortune, then one obvious candidate for this shifted attention is to one's *own* faults and transgressions. Once this re-focused curiosity roots out our flaws, we can then address and eliminate them. This would transform curiosity's activity from something harmful into

[90] Translated alternately as "On Curiosity" and "On Being a Busybody." Plutarch, "*De Curiositate*," in *Moralia, Volume VI*, trans. W.C. Helmbold (Cambridge, MA: Harvard University Press, 1939).
[91] Plutarch, *De Curiositate*, 473.
[92] Ibid., 475.
[93] Ibid., 473.
[94] Ibid., 485.

something "useful and salutary."[95] Even those who are not sated by such pleasant inquiries, he says, can turn to tales of *historical* depravities, rather than harm their neighbors with nosy prying. Instead of satisfying our curiosity about misfortune and flaws by looking at others we know personally, or at ourselves, instead we can look toward historical persons that cannot be harmed by our inquiries.

Plutarch gives us another option, too. In a charming passage, he directs us spend our curious energy on theoretical knowledge and natural science:

> Direct your curiosity to heavenly things and things on earth, in the air, in the sea. Are you by nature fond of small or of great spectacles? If on great ones, apply your curiosity to the sun: where does it set and whence does it rise? Inquire into the changes in the moon, as you would into those of a human being: what becomes of all the light she has spent and from what source did she regain it […] Or suppose you have renounced great things. Then turn your curiosity to smaller ones: how are some plants always blooming and green and rejoicing in the display of their wealth at every season, while others are sometimes like these, but at other times, like a human spendthrift, they squander all at once their abundance and are left bare and beggared?[96]

One important thing to note is that this solution to how to usefully spend our curious energy does not seem to rely on the definition of curiosity as an interest in flaws, tragedies, and wrongdoings. Another definition that Plutarch introduces later in the essay will help us here: "For curiosity is really a passion for finding out *whatever is hidden and concealed*."[97] When this passion is directed towards people, it has a tendency toward malicious information for "no one conceals a good thing when he has it."[98] But when it comes to the causes and inner nature of objects we see,

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[95] Ibid., 477.
[96] Ibid., 485, 487.
[97] Ibid., 489, my emphasis.
[98] Ibid.

or the details and trajectory of historical events,[99] there is much that is hidden and concealed that isn't malicious, flawed, or shameful.

In addition to this strategy of "shifting" or re-channeling curiosity in other directions, Plutarch also gives two other remedies for ameliorating the harmful effects of curiosity. First is for the curious person to remember the things they have discovered about others' hidden personal matters previously and how these discoveries failed to bring with them any "favour or profit."[100] Second is through preemptive training and habituation in practicing self-control.[101] Plutarch cautions patience and restraint when it comes to our interest in novelty, news, and matters that do not concern us. The allowance he seems to have made about curiosity—that it can help us learn about theoretical matters—comes up again in this context: "For as eagles and lions draw in their claws when they walk so that they may not wear off the sharpness of the tips, so, if we consider that curiosity for learning has also a sharp and keen edge, let us not waste or blunt it upon matters of no value."[102] Thus, though Plutarch classifies curiosity as a vice, his condemnation is not unequivocal. If directed towards the right objects, it can be helpful both in improving our moral character and as an aid to learning.

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[99] Historical "events" rather than historical "persons," who would still be subject to the same focus on wrongdoings, flaws, and concealments as living people.
[100] Ibid., 501.
[101] Ibid.
[102] Ibid., 503. A potentially contradictory statement occurs several pages later, when Plutarch writes: "But when one nourishes his curiosity upon permissible material until he renders it vigorous and violent, he is no longer able to master it easily, since it is borne, by force of habit, toward forbidden things. And such persons pry into their friends' correspondence, thrust themselves into secret meetings, become spectators of sacred rites which it is an impiety for them to see" and so on (513, 515). I do not think this poses a serious problem, however, as it is clear from his examples and from the context preceding the quote that he is again talking about "permissible" matters such being overly hasty to open a letter, hear news from a friend, read messages and graffiti when traveling, and other similar situations that do not share a resemblance to the questions posed about the sun, moon, and plants.

II.2 Augustine

Though both Plutarch and, as we will later see, Aquinas also refer to curiosity as a "vice," Augustine was the most explicit and severe in his condemnation of curiosity. He continues curiosity's associations with both useless and illicit knowledge, and at various points in the *Confessions* even refers to curiosity as "sacrilegious"[103] and a "poison."[104] His reasons for denouncing it are twofold: First, it turns us away from the contemplation and worship of God. Our attention and activity is focused not on Him but on the world, and correspondingly our notions of how and where to find knowledge and truth also rest in the world rather than in God. Because of this, we are led into "error" and learn only what is empty and vain. Second, curiosity elevates us above our station; it is an attempt to know things that should belong to God alone. However, through a careful reading we can also see that Augustine does not ignore the fact that curiosity is a powerful agent when it comes to learning. Though his staunchly Christian position leads him to decry the objects toward which it is directed and the consequences this has for our humility, he nevertheless allows that it is at least an effective tool when it comes to education.

Augustine's perspective on curiosity is grounded in his Christian commitment to limit the scope of knowledge in favor of modesty and "enlightened ignorance."[105] He claims that it is God's will that we praise Him for what we do not know,[106] and that "the modesty of a mind admitting incapacity is a finer thing than the knowledge I was in search of."[107] We should seek truth in God rather than the world around us;[108] otherwise, we will be led inevitably to error.[109]

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[103] Augustine, *Confessions*, 3.3.5, 39.
[104] Ibid., 13.21.30, 307-8.
[105] Ibid., 12.5.5.
[106] Ibid., 1.6.9-10, 7.
[107] Ibid., 5.7.12, 82.
[108] Ibid., 1.20.31.
[109] Ibid., 4.15.25, 2.5.10. See 1.20.31, 4.15.25 for the corresponding sins of each of the three souls (see below footnote) and the specific harmful effects of a disordered state for each.

Augustine states: "Curiosity may be regarded as a desire for knowledge, whereas You supremely know all things."[110] The common assumption that curiosity seeks *knowledge* is for Augustine mistaken—curiosity can indeed lead to the acquisition of skills and facts, but true *knowledge* will forever be beyond its reach, resting in its purest and most complete form in God.

Augustine separates three branches of sin: "lust of the flesh," "lust of the eyes," and "the pride of life."[111] Though the first two sins are similar in that they both make use of our senses, the lust of the eyes has more of an intellectual bent:

> For over and above that lust of the flesh which lies in the delight of all our senses […] there can also be in the mind itself, through those same bodily senses, a certain vain desire and curiosity, not of taking delight in the body, but of making experiments with the body's aid, and cloaked under the name of learning and knowledge. Because this is the appetite to know, and the eyes are the chief of the senses we use for attaining knowledge, it is called in Scripture *the lust of the eyes*.[112]

Here we see the link Augustine draws between vanity and curiosity. Curiosity is an attempt to elevate ourselves above our proper station through a hubristic desire to know more than is appropriate under Christian humility.

In keeping with his view of knowledge, which limits the range of human inquiry according to the twin pillars of God's omniscience and man's fall, Augustine condemns the acquisition of merely theoretical "knowledge." This kind of knowledge lacks purpose, is empty and vain—like Augustine's studies in theater, literature, and poetry as a youth. But contrary to such sensual arts that pursue beauty, curiosity goes after even unpleasant knowledge and

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[110] Ibid., 2.6.13, 31.
[111] As is well known, Augustine utilizes the Platonic tripartite division of the soul in his own breakdown of sin and desire. These categories of sin correspond respectively to the appetitive, rational, and spirited souls.
[112] Ibid., 10.35.54.

experience "for the sake of experiment […] through a mere itch to experience and find out."[113] People inquire even "though the knowledge is of no value to them: for they wish to know simply for the sake of knowing."[114] Augustine describes this desire to know and experience merely for its own sake as "perverted learning," and compares it to the desire to experience magic or miracles outside the context of achieving salvation.

Curiosity first enters into the *Confessions* in the context of Augustine's childhood education. The first reference comes when he identifies the causes of his boyhood waywardness: *vanity* (in his desire to win at sports and games) and *curiosity*, aimed primarily at circus, theater, and gladiatorial shows.[115] As he aged, he became drawn to similarly "vain" and "empty"[116] studies such as literature, poetry, and history instead of to superior "useful" studies such as purposeful writing and simple sums.[117] Augustine does not deny that one can learn many useful things in "vain" study, and he admits to this being the case in his own education—but he remains adamant in his view that a safer and preferable route to obtaining useful knowledge lies in meaningful (Christian) studies.[118] Thus the two links are formed between curiosity and vanity, and between curiosity and so-called "empty" or useless knowledge.

Curiosity comes up once more in the context of Augustine's youthful study, when he describes his experiences with language-learning. While the threat of punishment cast a shadow over his Greek language-learning, lending it an air of "bitterness," his childhood mastery of Latin

[113] Ibid., 10.35.55. Augustine here gives examples of our attraction to view mangled corpses and "freaks" of the theater.
[114] Ibid., 10.35.55.
[115] Ibid., 1.10.16, 12.
[116] Ibid., 1.13.22.
[117] Ibid., 1.13.22.
[118] Ibid., 1.15.16.

had no such bitter notes—he learned through exposure and desire rather than compulsion.[119] Augustine states:

> *All this goes to prove that free curiosity is of more value in learning than harsh discipline.* But by Your ordinance, O God, discipline must control the free play of curiosity—for Your ordinance ranges from the master's cane to the torments suffered by the martyrs, and works that mingling of bitter with sweet which brings us back to You from the poison of pleasure that first drew us away from You.[120]

In the above passage, we see that Augustine has a more complex estimation of curiosity than it seems at first glance, since he does, in fact, recognize the efficacy of curiosity in learning. However, given the ascetic Christian context—in which curiosity for illicit knowledge brought Adam and Eve to their catastrophic fall, and worldly pleasure is a sin that distracts us from our Christian purpose—the power of curiosity to motivate our learning is subordinate to its negative quality which makes learning pleasurable and takes us away from God.

II.3 Aquinas

Aquinas takes more of a moderate position than Augustine, allowing, as Plutarch did, for both positive and negative forms of curiosity. Aquinas, however, employs an explicit terminological distinction to separate the two. The positive, morally acceptable form he refers to as "studiousness" (*studiositas*). "Curiosity" (*curiositas*) retains the sinful character that Augustine emphasized in his treatment. What precisely is the difference between these two "opposite"[121] characteristics?

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[119] Ibid., 1.14.23, 15-16.
[120] Ibid., 1.14.23, 15-16, my emphasis.
[121] Aquinas, *Summa Theologica*, trans. Fathers of the English Dominican Province (New York: Benziger Brothers, Inc., 1947), 2-2.166 pr.

In the *Summa Theologica*, Aquinas determines that the proper subject matter of studiousness is knowledge: "study denotes the keen application of the mind to something."[122] He qualifies this definition, clarifying that "studiousness is directly, not about knowledge itself, but *about the desire and study in the pursuit of knowledge.*"[123] But a complete definition of studiousness needs to elaborate on this even further. What kind of knowledge are we talking about, and, depending on our answer, what kind of virtue does that make studiousness?

In "Of Studiousness" and "Of Curiosity," Aquinas provides a breakdown of different types of knowledge and their relation to virtue and vice. First, Aquinas reiterates the classical split between intellective and sensitive knowledge, and then makes further divisions between knowledge and its pursuit, or between different applications of knowledge. For each, he enumerates the ways in which they can qualify as sinful.[124] (See figure 2 below.)[125]

[122] Ibid., 2-2.166.1 co.
[123] Ibid., 2-2.167.1 co., my emphasis.
[124] As you will see in the figures below, the breakdown is slightly off-balance, with more categorizations falling under intellective than sensitive knowledge. This is because Aquinas makes a distinction in regards to intellective knowledge between "*the knowledge itself* of truth, and of *the desire and study in the pursuit of the knowledge* of truth" (2-2.167.1 co., my emphasis). Intellective knowledge itself is, "strictly speaking," *good*; it only "goes wrong" in how it is put to use, and in how or why it is acquired. But Aquinas does not, in these sections, make a similar distinction between sensitive knowledge and its pursuit.
[125] The information in figure 2 has been taken from 2-2.167.1 co. and 2-2.167.2 co., with some language quoted precisely from the text and some paraphrased. Although good/evil, right/wrong, and sinful/virtuous may be labels that are, technically speaking, slightly different from one another, Aquinas treats them here as synonymous pairings. Finally, although Aquinas does not explicitly come out and say that each of the four ways that our appetite for or study of truth can be inordinate qualify as curiosity in 2-2.167.1, I believe it can be safely assumed from the context of the question. As regards sensitive knowledge, the two ways in which sensitive knowledge qualify as studiousness is clearly spelled out in 2-2.167.2 co.

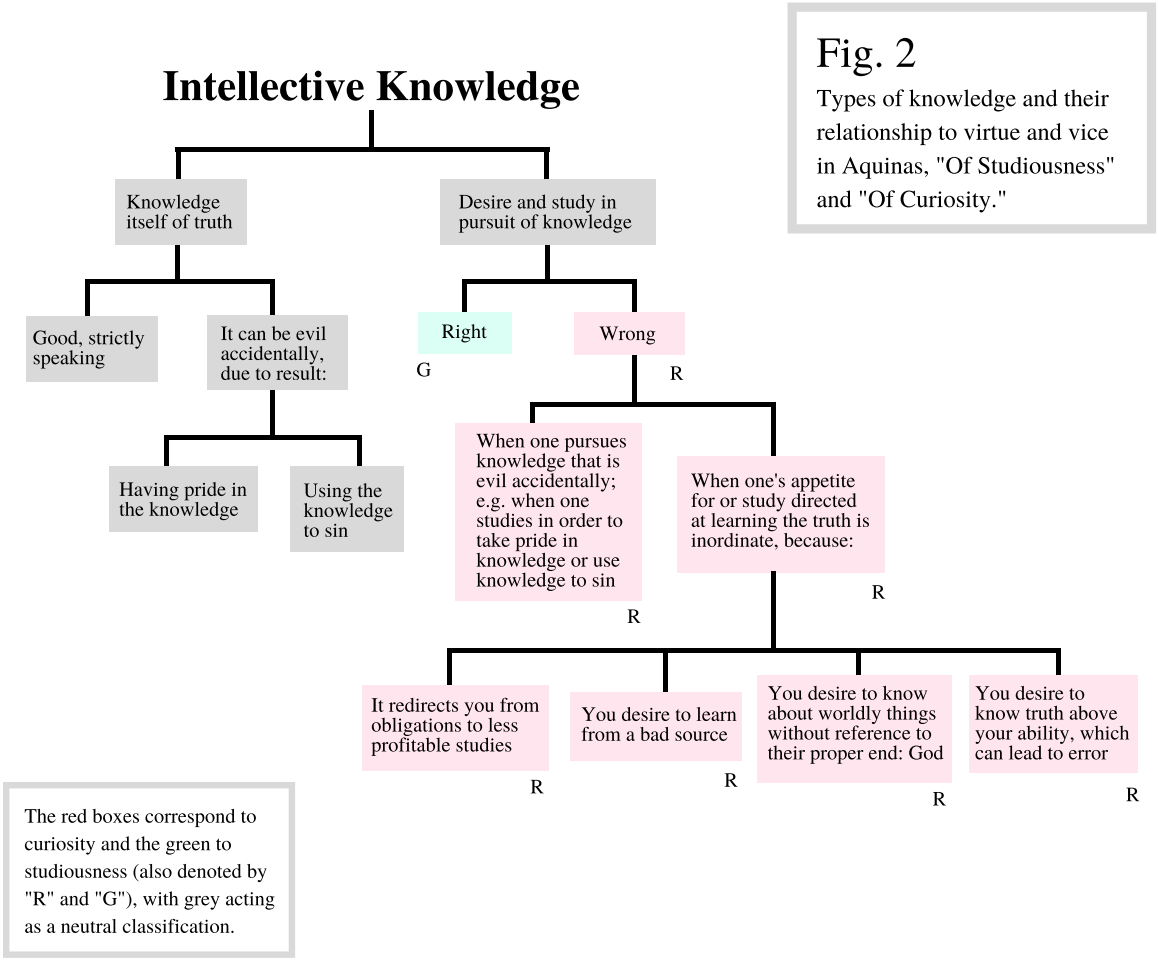
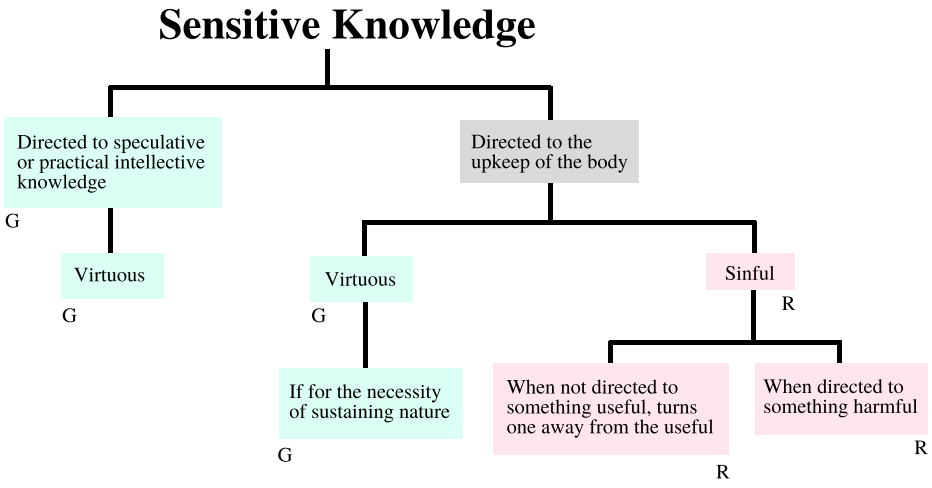


Fig. 2

Types of knowledge and their relationship to virtue and vice in Aquinas, "Of Studiousness" and "Of Curiosity."



The search for knowledge is thus coded into good and bad forms. Curiosity and studiousness are alike, as all virtue and vice pairings are—they start at the same place, but curiosity "goes wrong" by desiring to know the wrong things, or pursuing knowledge for the wrong reasons. On the other hand, when our desire to know is directed toward the right things, for the right reasons, it acquires the label of studiousness.

In addition to differentiating studiousness and curiosity, Aquinas also gives them shape by determining what *type* of virtue or vice they fall into—is studiousness an intellectual or moral virtue? Can it be classified as a kind of temperance? His answers rely on Aristotelian psychological distinctions between the rational and animal souls, and a corresponding taxonomy of virtue. Aquinas states:

> [K]nowledge regards a twofold good. One is connected with the act of knowledge itself; and this good pertains to the intellectual virtues, and consists in man having a true estimate about each thing. The other good pertains to the act of the appetitive power, and consists in man's appetite being directed aright in applying the cognitive power in this or that way to this or that thing. And this belongs to the virtue of seriousness. Wherefore it is reckoned among the moral virtues.[126]

Essentially, to "know rightly" signifies two things: 1) to have *right knowledge*, or an accurate measure of truth, and 2) to go about the business of *knowing in the right way*. It is through this distinction that Aquinas squarely places studiousness and curiosity within the moral sphere. The *object* of studiousness happens to be knowledge, but the *operation* of the virtue is akin to other virtues of appetite regulation and application such as abstinence, sobriety, chastity, and continence.

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[126] Ibid., 2-2.166.2 ad. 2. Although Aquinas uses the word "seriousness" here, he appears to be using it as a synonym for studiousness since he refers back to this section in 2-2.167.1 co. as a definition of studiousness: "I answer that, As stated above (2-2.166.2 ad. 2) studiousness is directly, not about knowledge itself, but about the desire and study in the pursuit of knowledge."

Such virtues all fall within the general domain of temperance, one of the four cardinal virtues. In Aquinas' framework, the cardinal virtues possess three parts: *integral*, necessary features that make up the cardinal virtue, *subjective* species of sub-virtues organized by similar topic matter that directly relate to the cardinal virtue, and *potential* "secondary virtues" which follow the model of the cardinal virtue in an indirect way.[127] Temperance is *integrally* concerned with the pleasure of touch (as the pleasure most difficult to temper), so its *subjective* parts are virtues related to moderating touch-based pleasures such as nourishment and procreation. However, the *potential* parts of temperance include a much broader range of virtues: "Wherefore any virtue that is effective of moderation in some matter or other, and restrains the appetite in its impulse towards something, may be reckoned a part of temperance, as a virtue annexed thereto."[128] Aquinas quotes Aristotle's famous *Metaphysics* 1:1 as evidence that man has a natural appetite towards knowledge, the restraint of which—*studiousness*—would then qualify as a virtue under the wide umbrella of temperance. [129]

However, an interesting complication arises in Aquinas' defense of this classification.[130] While, he says, our *soul* desires knowledge, our *body* is inclined in the opposite direction—it wants to avoid the trouble of learning and the work of seeking knowledge.[131] So while virtuous

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[127] Ibid., 2-2.48, 2-2.128.
[128] Ibid., 2-2.143.1 co.
[129] I want to remark here that "restraint" should be thought of qualitatively more than quantitatively—curiosity is not simply a vice of excess, like gluttony or lust. Rather, as we saw in figures 1.1 and 1.2, curiosity's real sin is "inordinateness," which can come in many forms.
[130] Ibid., 2-2.166.2 ad. 3.
[131] For reference, the full text of the passage I am describing (2-2.166.2 ad. 3) is as follows:

> As the Philosopher says (Ethic. ii, 93) in order to be virtuous we must avoid those things to which we are most naturally inclined. Hence it is that, since nature inclines us chiefly to fear dangers of death, and to seek pleasures of the flesh, fortitude is chiefly commended for a certain steadfast perseverance against such dangers, and temperance for a certain restraint from pleasures of the flesh. But as regards knowledge, man has contrary inclinations. For on the part of the soul, he is inclined to desire knowledge of things; and so it behooves him to exercise a praiseworthy restraint on this desire, lest he seek knowledge immoderately: whereas on the part of his bodily nature, man is inclined to avoid the trouble of seeking knowledge. Accordingly, as regards the first inclination studiousness is a kind of restraint, and it is in this sense that it is reckoned a part of temperance.

activity in regards to our *soul's* inclination is to restrain and moderate, virtuous activity in regards to our *body's* inclination is to overcome our avoidance of strenuous learning. This second aspect of studiousness is where the virtue gets its positive definition as an *application* of the mind to some topic (rather than a name that evokes its negative function as a tempering virtue, such as "abstinence" or "chastity"). However, Aquinas claims that intellectual *restraint* is the more essential of the two elements, despite the positivity of mental application that is more recognizable in the name "studiousness."[132] More questions are sparked by this complication than Aquinas satisfactorily answers—Why does studiousness take its name and popular connotations from this second, positive aspect of its nature if it is actually the less essential? If this second aspect of studiousness is not a matter of restraining our desire, but overcoming it, can it still be thought of as a kind of temperance or does it classify under a different cardinal virtue?

The concern I have is that this "second aspect" is actually not so secondary, and that by relegating it to an inessential phenomenon, added almost as an afterthought, Aquinas is ignoring a common and interesting kind of "curiosity" that is concerned with something altogether different from the typical narrative of inordinate, immoderate desire for knowledge and its need for restraint. Does determining the priority of these aspects in such a way as to brush off this operation limit the scope of the virtue, or restrict our understanding of it? Intellectual desire ends up outweighing bodily desire, yet I think it is a mistake to disregard the strength of this bodily appetite. Though it is easier to recognize the pull and pleasure of positive objects such as food or

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> But as to the second inclination, this virtue derives its praise from a certain keenness of interest in seeking knowledge of things; and from this it takes its name. The former is more essential to this virtue than the latter: since the desire to know directly regards knowledge, to which studiousness is directed, whereas the trouble of learning is an obstacle to knowledge, wherefore it is regarded by this virtue indirectly, as by that which removes an obstacle.

[132] This is purportedly because the desire to know has more directly to do with knowledge than overcoming an obstacle to knowledge. However, this explanation doesn't completely add up, since he previously took care to state that studiousness (and curiosity) was not actually about knowledge itself, but the desire and pursuit of it. It is unclear that either of these aspects is more "directly" related than the other on this score.

drink, the attraction of ease and comfort over mental toil can be just as strong.[133] An additional concern is that we must recognize that desires differ in strength and severity from person to person, so that one can be naturally or habitually inclined to indulge in food or drink or to avoid mental labor more than others. Theoretically, in some people this avoidant desire could be even stronger or more prominent than the pull of the intellect toward knowledge.

Both the primary definition of studiousness (the restraint of intellectual desire) and the "secondary aspect" of studiousness (the application of our intellect despite bodily desire to avoid mental strain) act against some desire. However, they do so in different ways: the first according to the model of temperance, the second in the template of *fortitude*. The distinction between the two is explained in the following:

> For the need of putting the order of reason into the passions is due to their thwarting reason: and this occurs in two ways. First, by the passions inciting to something against reason, and then the passions need a curb, which we call "Temperance." Secondly, by the passions withdrawing us from following the dictate of reason, e.g. through fear of danger or toil: and then man needs to be strengthened for that which reason dictates, lest he turn back; and to this end there is "Fortitude."[134]

As we remember with temperance, these cardinal virtues have "special" subject matter that is most appropriate to them[135]—e.g. the pleasures of touch—as well as potential virtues annexed to it as sub-parts that follow the form and mode of the general virtue, but with different objects (abstinence: the pleasures of food, sobriety: the pleasures of drink, chastity: the pleasures of sex, and so forth). Fortitude is no different than temperance in this regard: "what fortitude practices in face of the greatest hardships, namely dangers of death, certain other virtues practice in the

[133] As an example, just speak to anyone who struggles with procrastination.
[134] Ibid., 2-1.61.2 co.
[135] Ibid., 2-1.61.3, 2-1.61.4, 2-2.123.2 co.

matter of certain minor hardships and these virtues are annexed to fortitude."[136] The so-called "second aspect" of studiousness accords with a general description of fortitude: we are faced with an obstacle or difficulty, and the virtue helps us overcome it—in this case, through "a certain keenness of interest in seeking knowledge."[137] Not only does this pattern fit conceptually under fortitude, but Aquinas uses many of the same descriptors in discussing the operation of fortitude and discussing the "second aspect" of studiousness—words such as trouble, avoidance, and obstacle. Though Aquinas does not explicitly call the second inclination of studiousness a kind of fortitude, I think fits with this classification according to Aquinas' own descriptions.

Where does that leave us when it comes to curiosity? Although Aquinas is firm in his denunciation of curiosity, he nevertheless outlines a similar, virtuous form of inquiry in a way Augustine did not. Since studiousness and curiosity are so intimately connected here, I think it is fair to examine both according to our strategy of looking at related phenomena in addition to what has strictly been called curiosity. We may not, today, have such meticulous distinctions between praiseworthy and blame-worthy forms of curiosity the way that Aquinas does here—a point to which I will return in my fifth chapter—thus, Aquinas' "studiousness" may have many similar features to others' "curiosity." Although Aquinas places curiosity and studiousness within the familiar framework of a "desire to know," as something appetitive in need of moderation, he also brings a unique perspective to the phenomenon by acknowledging its role as a spur-to-action in the face of obstacles, motivating us to overcome our instinct towards comfort and familiarity in order to learn.

[136] Ibid., 2-2.128.1 co.
[137] Ibid., 2-2.166.2 ad. 3.

III. Modern Curiosity

III.1 Hobbes

Hobbes' attitude regarding curiosity is, in keeping with his general philosophy of human nature, not so easy to classify as categorically "positive" or "negative." While Hobbes views curiosity as what separates us from lower animals, it is also ultimately what leads to the greed, competition, and suffering that characterizes our condition. Hobbes provides his definition in the following passage from *Leviathan*:

> Desire to know why, and how, curiosity; such as is in no living creature but man: so that man is distinguished, not only by his reason, but also by this singular passion from other animals; in whom the appetite of food, and other pleasures of sense, by predominance, take away the care of knowing causes; which is a lust of the mind, that by a perseverance of delight in the continual and indefatigable generation of knowledge, exceedeth the short vehemence of any carnal pleasure.[138]

Though humans and animals share passions such as hunger and fear, curiosity—which stems from our unique capacity to reason—thus qualifies as a distinctly *human* passion.[139]

However, Hobbes presents a more nuanced definition elsewhere in the *Leviathan*. Although the passage above suggests that curiosity merely consists of searching out causes,[140] another passage indicates two interrelated but nonetheless distinct "types" of curiosity: The first searches for causes, working backwards from an experienced event (e.g., a sound or smell) to its potential cause. The second is the opposite—searching for and imagining possible *effects* of

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[138] Thomas Hobbes, *Leviathan*, ed. J.C.A. Gaskin (New York, NY: Oxford University Press, 1996), I.VI.
[139] In addition to describing curiosity in the familiar language of "lust," Hobbes also uses the phrase "appetite of knowledge" (*Elements of Law*, Cambridge: Cambridge University Press, 1928, I.9, 45) to place it on par with the physical appetites listed here.
[140] This simple definition is also found in *Leviathan*, I.VIII, "curiosity to search natural causes," and I.XI, "Curiosity, or love of the knowledge of causes…"

causes. This second kind of curiosity, Hobbes says, "I have not at any time seen any sign, but in man only."[141] The first kind, however, we actually do share with animals, though there is still a distinction between our uses. Animals seek causes only insofar as they relate to immediate sensual pleasures and needs. Although humans certainly do pursue self-interest,[142] our inquiry extends further, encompassing *all* causes and all real or potential effects, even when they are not directly related to human well-being.[143] This opens the space for theoretical reason and knowledge to emerge.

This is not to say, however, that pleasure has no place in Hobbes' curiosity. Hobbes follows the Aristotelian view that desire is itself pleasurable; as Hobbes says frankly, "all appetite, desire, and love is accompanied with some delight."[144] Therefore curiosity, as an intellectual desire—a "delight in the continual and indefatigable generation of knowledge"—is pursued on account of the pleasure it brings us.[145] Several distinct pleasures are actually involved in curiosity: the pleasure that comes from encountering novelty, bound up with the operation of wonder,[146] as well as a kind of joy Hobbes defines as "glorying"[147] which we receive by imagining our own power and ability (for instance, our ability to intervene in a chain of events for our own instrumental purposes).

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[141] Hobbes, *Leviathan*, I.III.
[142] "[W]hen imagining anything whatsoever, we seek all the possible effects that can by it be produced; that is to say, we imagine what we can do with it when we have it." Ibid.
[143] See Kathryn Tabb, "The Fate of Nebuchadnezzar: Curiosity and Human Nature in Hobbes," *Hobbes Studies*, 27:1 (2014): 21, 23, 26. As Hobbes puts it: "For when a beast seeth anything new and strange to him, he considereth it so far only as to discern whether it be likely to serve his turn, or hurt him […] whereas man […] looketh for the cause and beginning of everything that ariseth new unto him." (*Elements of Law*, I.9, 49)
[144] Hobbes, *Leviathan*, I.VI.
[145] See also Tabb, "Fate of Nebuchadnezzar," 21.
[146] This pleasure properly precedes and catalyzes curiosity, as the operation of "admiration," or *wonder*: "novelty. . . pleaseth by excitation of the mind; for novelty causeth admiration, and admiration curiosity, which is a delightful appetite of knowledge." Hobbes quoted in Jeffrey Barnouw, "Hobbes's Psychology of Thought: Endeavours, Purpose and Curiosity," *History of European Ideas*, 10:5 (1989): 538. See also a similar description at *Leviathan* I.VI 36. The relationship between admiration-wonder and curiosity here accords with the general trend in mid-seventeenth century thought described chapter one, section IV.
[147] Hobbes, *Leviathan*, I.VI 36

Hobbes drew radical consequences from his understanding of curiosity, including a direct lineage between curiosity and many of the most important features of human existence—language, society, religion, and competition. Because humans perpetually assume the existence of causes, and because we are singularly equipped to investigate the relationship between cause and effect, we are plagued with anxiety: "For being assured that there be causes of all things that have arrived hitherto, or shall arrive hereafter, it is impossible for a man, who continually endeavoureth to secure himself against the evil he fears, and procure the good he desireth, not to be in a perpetual solicitude of the time to come."[148] Humans investigate causes and imagine effects because understanding these relationships make us "better able to order the present to [our] best advantage."[149] This allows us, in turn, to secure for ourselves more and more powers to assure our *future* comfort and well-being. The struggle to advance our position and attain more and greater goods is the inescapable result of the anxiety we face as curious beings, beings able to project causal relationships into an unknown future time.

Hobbes also claims that language, science, and knowledge of God all stem from curiosity. Though Hobbes does not share the Christian concern that curiosity will distract us from religious contemplation, he shares Aquinas' belief that curiosity (or in Aquinas' terms—studiousness) is a kind of theoretical investigation that will ultimately lead to God.

> Curiosity…draws a man from consideration of the effect to seek the cause; and again, the cause of that cause; till of necessity he must come to this thought at last, that there is some cause whereof there is no former cause, but is eternal; which is it men call God. So that it is impossible to make any profound inquiry into natural causes without being inclined thereby to believe there is one God eternal.[150]

[148] Ibid., I.XII
[149] Ibid., XI
[150] Ibid., XI. See also XII, which further discusses reaching knowledge of God by reasoning through a chain of causes. Additionally, though Hobbes saw the path to God outlined in this passage as more natural, he also saw the potential for curiosity to result in a "superstitious" religious attitude involving fear of unknown causes. Barnouw notes a similar view in Hume: "Hobbes is suggesting a distinction that will be made explicitly in Hume's *Natural History of Religion* between speculative curiosity and 'trembling curiosity,' which are at the root of philosophical

Thus Hobbes sees curiosity as a kind of natural bridge linking our knowledge of the material world to knowledge of God. Our desire for causal knowledge also leads directly to the development of language, and by extension, science and all civil institution. Hobbes describes the process like so: in order to fulfill our intellectual desire, we must have some mechanism of comparison, which relies upon memory and imagination—we compare impressions of past events with present, and recall the past according to a system of signs.[151] Thus curiosity gives rise to language, and, from there, human communication and scientific endeavor.

Finally, it is worth noting that Hobbes acknowledged that although curiosity is a universal human trait, it is not held in equal proportions by all people nor does it result in equally accurate causal knowledge. He says: "[I]t is peculiar to the nature of man to be inquisitive into the causes of the events they see, *some more, some less*, but all men so much as to be curious in the search of the causes of their own good and evil fortune."[152] The desire to assure perpetual and future happiness is universal; the differences between people lie in their means of carrying this out. Though we are all equipped with the passion of curiosity, we do not all have it in the same manner or to the same degree, nor do we experience other passions uniformly. [153] Furthermore, curiosity does not result in the same knowledge for all, as we can arrive at different conclusions or opinions about cause and effect based on a number of factors. One such factor is that stubborn self-interest:

> And from the degrees of curiosity proceed also the degrees of knowledge among men: for, to a man in the chase of riches or authority, (which in respect of

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theism and superstitious religion respectively. Curiosity can be perverted by fear compounded with ignorance, but in itself it is innocent." Barnouw, "Hobbes's Psychology," 534.

[151] Reference to the original passage from Hobbes' *Thomas White's "De Mundo" Examined* is found both in Barnouw, "Hobbes's Psychology of Thought," 540, and Tabb, "Fate of Nebuchadnezzar," 23-24. See Tabb for further discussion of the primacy of curiosity over language as the marker of human distinction. Hobbes also quite clearly states that names arise out of curiosity in (*Elements of Law*, I.9).

[152] Hobbes, *Leviathan*, XII, my emphasis.

[153] Ibid., XI.

> knowledge are but sensuality) it is a diversion of little pleasure to consider, whether it be the motion of the sun or the earth that maketh the day, or to enter into other contemplation of any strange accident, than whether it conduce or not to the end he pursueth.[154]

Though human curiosity is characterized by an interest in the unknown and is not limited only to objects that affect our immediate self-interest, Hobbes indicates here that we do not always live up to these capabilities. We often self-limit our curiosity to that of an animal kind—as pertaining only to things which we sensually desire or which affect us materially—and our knowledge shrinks accordingly.

III.2 Hume

Hume's account of curiosity fits with the general pattern we have seen thus far in our philosophers in two respects: First, curiosity is an essential part of our human nature. Second, curiosity can be split into a "good" kind and a "bad" kind.[155] Hume's account also aligns with Aquinas' account of "studiousness" in placing importance on mental effort and strain.

In the section "Of Curiosity" in his *Treatise of Human Nature*, Hume describes curiosity as "that love of truth" which has "its origin in human nature."[156] This "affection," however, is extremely "peculiar."[157] Despite its being a love of truth, the primary pleasure involved in satisfying our curiosity is not merely uncovering truth. Hume states:

> [T]he pleasure of study conflicts chiefly in the action of the mind, and the exercise of the genius and understanding in the discovery or comprehension of any truth. If the importance of the truth be requisite to compleat the pleasure, it is

[154] Hobbes, *Elements of Law*, I.9. Thanks to Barnouw, "Hobbes's Psychology," 535, for bringing this passage to my attention.
[155] However, I should note that, like Heidegger, Hume does not explicitly moralize the "nosy" form of curiosity; its negative status is only implied by the language used, and by its position in contrast to the first kind of curiosity.
[156] David Hume, *A Treatise of Human Nature*, ed. David Fate Norton and Mary J. Norton (Oxford: Clarendon Press, 2007), 2.3.10.1, 286.
[157] Ibid.

> not on account of any considerable addition, which of itself it brings to our enjoyment, but only because it is, in some measure, requisite to fix our attention.[158]

As Hume puts it simply: "What is easy and obvious is never valu'd."[159] The mental strain with which we acquire the knowledge we seek is the most essential feature of curiosity for Hume. Although he does admit that we need some semblance of utility and purpose to begin our study, and that over the course of the inquiry a "concern for the end itself"[160] is often established, it is not what drives or generates our passion. Nor does mere "love of truth" describe it accurately—again, though Hume acknowledges that "a degree of success" in discovering truth is necessary for curiosity,[161] it is not the most primary component. Since our curiosity does not apply in equal attraction or force to the discovery of any truth whatsoever, such as the sums of large integers or the color of books not in our presence, curiosity cannot be reduced simply to "love of truth" in the abstract. The passion of curiosity comes chiefly from the *chase*, the difficulty of attaining knowledge not yet in our grasp.

But Hume distinguishes the kind of curiosity described above (which he clearly regards as curiosity "proper") from the garden-variety sort that plagues every person with a gossipy friend:

> But beside the love of knowledge, which displays itself in the sciences, there is a certain curiosity implanted in human nature, which is a passion deriv'd from a quite different principle. Some people[162] have an insatiable desire of knowing the

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[158] Ibid., 2.3.10.6, 288.
[159] Ibid., 2.3.10.3, 287.
[160] Ibid., 2.3.10.7, 288.
[161] Ibid. A need of some "fixing" instrumental purpose to begin the inquiry and some degree of success at its end are not the only requirements for curiosity. As Axel Gelfert notes in his essay "Hume on Curiosity," *British Journal for the History of Philosophy*, 21:4 (2013): 718, 730, Hume mentions many other circumstantial requirements that, while not central to the act of curiosity, are nevertheless necessary for its emergence: leisure, security, youth, education, genius, and example.
[162] It is interesting that Hume says "some people" here even though he describes this second kind of curiosity as equally a part of human nature as the first, which is implicitly described as universal throughout the section.

> actions and circumstances of their neighbours, tho' their interest be no way concern'd in them, and they must entirely depend on others for their information; in which case there is no room for study or application.[163]

This description has much in common with Plutarch's description of curiosity as a desire to know what is secret and hidden, especially in the personal, social realm. Hume again indicates here that the important feature of the "good" kind of curiosity is the mental exertion—he uses the terms "study" and "application," which also call to mind Aquinas' "studiousness"—and the *individual* discovery of information, or finding the answers for oneself.

IV. Contemporary Curiosity

IV.1 Heidegger

Heidegger is probably curiosity's most famous modern detractor, faulting curiosity for being interested in "useless" knowledge and concerned with particulars. Heidegger's position, though avowedly secular, remains similar to Augustine's in several major ways. Heidegger essentially sees curiosity as waywardness from deeper human concerns and projects; a distracted, superficial engagement with the things of the world rather than with Being itself. Heidegger is clearly indebted to Augustine's reading of curiosity as a "lust of the eyes"—he even cites Augustine in this regard.[164] For Heidegger, as well, curiosity is linked to our natural desire "to see."[165] In Christian language that also recalls Augustine, curiosity is a "fallen," "tempting"[166]

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[163] Hume, *A Treatise of Human Nature*, 2.3.10.11, 289.
[164] Martin Heidegger, *Being and Time*, tr. Joan Stambaugh (Albany, NY: State University of New York Press, 2010), 171. Referring to Augustine, *Confessions,* X.35.
[165] The first half of §36 is devoted to a brief analysis on the importance of sight for Dasein and within the Western philosophical tradition in general, a topic he discusses throughout *Being and Time* as well as in many other works.
[166] Heidegger, *Being and Time*, 177.

perversion of our desire for perception. Nowhere is this view more clear than in §36 of *Being and Time*.

Heidegger's discussion of curiosity comes after he has posited Dasein's true meaning, and laid out the basic framework of our everyday existence. This becomes important for understanding curiosity's place in the broader structure of our being, so I will briefly re-cap some of this framework. After Heidegger has determined "being-in-the-world" as the fundamental constitution of Dasein, he breaks down what each part in that phrase entails. "Being-in" itself has several constitutive parts:[167] attunement, understanding, and discourse.[168] Understanding also includes interpretation, which "develops"[169] or makes "explicit"[170] understanding. These constitute "the existential constitution of the there." However, Heidegger posits that there is also an *everyday* "being of the there"—how we, as Dasein, most often experience our own being as a part of the world. The state of our everyday being is described by Heidegger as "fallenness" in "the they." Instead of living up to our authentic potential, we are subsumed in the ambiguous, superficial, and evasive behavior of the masses, seduced by the familiarity of routine and communal traditions. Curiosity is one part of this fallen state.

In §36, Heidegger recaps that Dasein's being-in-the-world means *taking care*, and is guided by circumspection (*umsicht*).[171] Circumspection helps us discover things and accomplish tasks that are *at hand*. When our circumspect taking-care is paused in any way—when our discovery and work is interrupted, our activity momentarily at rest, or our task completed, circumspection becomes unbound from care. It no longer deals with what is near to hand, but

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[167] Ibid., 133.
[168] In §28, ibid., attunement and understanding are described as the "two equiprimordially constitutive ways to be the there," and both "are equiprimordially determined by discourse." Thus discourse is equally as primordial as the other two basic existentials, and even appears to underlie them.
[169] Ibid., 148.
[170] Ibid., 150
[171] Ibid., 172.

instead looks to the "distant and strange world," enticed only by the "outward appearances"[172] of that world. Dasein does not seek to understand or use the things it sees, but is satisfied with *merely* seeing. When care and circumspection become unbound, temporarily divorced from their occupation with the world of meaningful projects and concerns, Dasein experiences *curiosity*.

Curiosity is characterized by several things: First, as described above, it is only concerned with things superficially. Rather than *understanding*—"comprehending and knowingly being in the truth,"[173]—it is preoccupied with *seeing*, or knowing *only* "in order to have known," and thus takes in only outward appearances. Second, it is attracted to novelty: "It seeks novelty only to leap from it again to another novelty."[174] Third, and relatedly, it is restless. By wanting what is new, but by only wanting a surface-level glimpse of things, novelty quickly becomes stale and curiosity must move on to something else that satisfies its desire for newness. Heidegger calls this a "*not-staying* [*Unverweilen*] with what is nearest."[175] As opposed to being "reflective" and occupied with "contemplation"—a more authentic way of encountering things—curiosity is "excited" and characterized by "distraction." Because it is constantly jumping from thing to thing, distractedly occupied with appearances instead of reflectively staying with the objects or encountering them in the flow of meaningful projects, Heidegger says that curiosity has the nature of "never dwelling anywhere. Curiosity is everywhere and nowhere."[176] When in this mode, Dasein "constantly uproots itself."[177] When paired with idle talk, curiosity's constant companion, these everyday modes of being-in-the-world are *lost* in the world, and *absorbed* by it. Like Augustine, Heidegger seems to share the view that curiosity is a distraction from more

[172] Ibid.
[173] Ibid.
[174] Ibid.
[175] Ibid.
[176] Ibid., 173.
[177] Ibid.

valuable pursuits and orientations toward the world—orientations that reveal the deeper structures of Being, rather than mere preoccupation with the environment we are in.

Heidegger proposes a roughly analogous structure between the components of fallenness and the fundamental existential components of our being-in the world (attunement, understanding, and discourse), but this parallel is curiously incomplete. At the end of §28, Heidegger summarizes this analogous structure as follows: "[W]e shall analyze idle talk (§35), curiosity (§36), and ambiguity (§37) … as corresponding to the constitutive phenomenon of discourse, *the vision which lies in understanding*, and the interpretation (meaning) belonging to that understanding."[178] While discourse and understanding (as well as the important sub-component of understanding—interpretation) are represented here, what is missing is the everyday way in which Dasein is *attuned*.

As stated previously, Heidegger associates curiosity with the everyday form of understanding, and idle talk is associated with discourse. But where is the everyday form of attunement? Heidegger describes the mood[179] of *fear* as the fallen, inauthentic, specifics-driven form of anxiety,[180] so it does seem like there can be many fallen "attunements"—and that curiosity may be one of them. In *Basic Questions of Philosophy*, curiosity is treated as the modern "mood" that has displaced wonder,[181] and even in *Being and Time* he compares the two.[182] By treating them as of apiece—curiosity as a degenerate, fallen form of wonder, as fear is a degenerate, fallen form of anxiety—there is clearly some basis in Heidegger for seeing curiosity as a kind of attunement, and not just a form of understanding. I am proposing this

[178] Ibid., 134, my emphasis.
[179] I will be using "attunement" (Stambaugh's translation of *Befindlichkeit*) and "mood" interchangeably. As Daniel Dahlstrom notes in *The Heidegger Dictionary*, (New York: Bloomsbury, 2013), 63, Heidegger acknowledged that his later *Stimmung* (mood) corresponded with his earlier *Befindlichkeit*.
[180] Ibid., 189.
[181] Martin Heidegger, *Basic Questions of Philosophy: Selected "Problems" of "Logic,"* tr. R. Rojcewicz and A, Schuwer (Bloomington, Indiana: Indiana University Press, 1994).
[182] Heidegger, *Being and Time*, 172.

interpretation because by acknowledging the possibility that curiosity is a mood, we then open up the idea that curiosity is disclosive.

Attunements (*Befindlichkeit*) are essentially disclosive; they reveal things as meaningful to us—they reveal something as a threat, as joyful, and so on. However, Richard Polt notes that "not all moods are equally disclosive. Someone may be trapped in an inauthentic or inappropriate mood. In this case, the mood still shows things, but it shows them in an overly restricted way."[183] Heidegger is known for favoring the disclosive potential of certain moods over others, including wonder, love,[184] anxiety (*Angst*), boredom,[185] and "deep foreboding."[186] Some moods tend to disclose events, people, or things in ways that obscure more fundamental or important ways of seeing them, so that while the mood does disclose in some ways, it simultaneously closes off other interpretations. The moods named above are more important for Heidegger because of their "more" disclosive nature—they open up being-in-the-world in *general*. The more a mood is able to disclose things as a *whole*—the whole of life or Being—rather than deal with specific, particular things or beings, the more revealing and worthwhile it is for Heidegger.[187]

Heidegger's take on curiosity rests on two fundamental assumptions that I want to pose as questions. First, does curiosity really only allow us to superficially grasp at the objects we

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[183] Richard Polt, *Heidegger: An Introduction*, (Ithaca, NY: Cornell University Press, 1999), 66.
[184] Martin Heidegger, "What is Metaphysics?," in *Basic Writings 2nd Ed.*, ed. DF Krell, (San Francisco, CA: Harper-SanFrancisco, 1993), 99.
[185] Martin Heidegger, *The Fundamental Concepts of Metaphysics: World, Finitude, Solitude*, tr. W. McNeill and N. Walker (Bloomington, Indiana: Indiana University Press, 1995), also "ennui" in Martin Heidegger, *An Introduction to Metaphysics*, tr. R. Manheim (New Haven, Connecticut: Yale University Press, 1959), 1.
[186] Martin Heidegger, *Contributions to Philosophy (From Enowning)*, tr. Parvis Emad and Kenneth Maly (Bloomington, Indiana: Indiana University Press, 1999). See Stone, "Curiosity as the Thief of Wonder," 226.
[187] Note the difference between Bynum and Daston and Park's take on wonder during the medieval period as *particular* and Heidegger's definition of wonder as properly applying only to the *whole* of being, with curiosity the relevant passion for particulars. See Brad Elliott Stone, "Curiosity as the Thief of Wonder: An Essay on Heidegger's Critique of the Ordinary Conception of Time," *Kronoscope* 6:2 (2006), 213. Stone quotes Heidegger: "wonder now opens up what alone is wondrous in it: namely, the whole as the whole, the whole as beings, beings as a whole, that they are and what they are, beings as beings" (from *Basic Questions in Philosophy: Selected "Problems" of "Logic,"* GA45 168-169/146).

encounter in daily life without opening onto our being, our situatedness, our givenness, or our relationality in meaningful ways? Second, even if curiosity tends towards (or only allows for) superficial, partial engrossment with the world and our being in it rather than the "whole," does that necessarily mean that it *is* less disclosive of our being? Why should it be the case that our being is revealed to us the more we see our situation as a whole, in a macroscopic way, rather than in starts and fits, one slice at a time, one imperfect view after imperfect view? After all, we cannot see, know, feel or be everything all at once; why then would a mood that deals with particulars be less disclosive of the kind of being we are? Despite these questions, we can understand Heidegger's primary concern with curiosity as a concern about a type of inquiring mood that is devoid of *care*, that lacks *understanding*, and that does not *attend* to what is important or lasting. Without these characteristics, curiosity does not help us to be self-reflective or engage in ethical, meaningful projects.

IV.2 Foucault

Michel Foucault does not write at length explicitly about curiosity, but his statements are uniquely oriented towards curiosity's relation to ethics, and provide a stark counterpoint to Heidegger's views. Foucault's remarks primarily occur in two places—an interview from 1980 entitled "The Masked Philosopher," and the introduction to *History of Sexuality Volume II*, published in 1984. In the interview, Foucault levels criticism at the then-contemporary climate of public "intellectualism" in France, arguing against the pessimistic view that there was, at the time, a dearth of worthwhile criticism, ideas, or authors.[188] Instead of perceiving a "void," which betrays a nostalgic desire for inflated epiphanies from past eras, Foucault sees an "overabundance"—there is plenty to know, and plenty of desire to know it. In fact: "the desire to

[188] Michel Foucault, "The Masked Philosopher," 324-325.

know [*savoir*] more, and to know it more deeply and to know other things increases as one tries to stuff peoples' heads."[189] This desire to know, he says, is curiosity.[190]

Foucault engages in a brief defense of curiosity against its historical detractors. Despite its connotation with "futility" from Christian philosophical traditions (traditions which Heidegger explicitly built upon), curiosity for Foucault doesn't *lack* care but is in fact closely related to it—

> [I]t evokes the care one takes of what exists and what might exist; a sharpened sense of reality, but one that is never immobilized before it; a readiness to find what surrounds us strange and odd; a certain determination to throw off familiar ways of thought and to look at the same things in a different way; a passion for seizing what is happening now and what is disappearing; a lack of respect for the traditional hierarchies of what is important and fundamental.[191]

Foucault's description emphasizes curiosity's power to discover what is different and new by confronting the world within a certain mode—similar to the Heideggerean view I proposed in the previous section that curiosity is a mood that orients us toward the world in certain ways. Dissimilar, however, is that Foucault's curious mode/mood flouts traditional priorities of what is worth knowing, an attitude which presumably helps lead to the discovery of new and strange things by paying attention to earthy particulars. Earlier in the interview, Foucault alludes to this emphasis in listing all the things that make up the "overabundance" of material out there to be known—things that are "fundamental, terrible, wonderful, funny, *insignificant*, and crucial at the

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[189] Ibid., 325.

[190] Throughout the interview, Foucault uses "*savoir*" for knowledge, despite referring to knowledge in ways that sound more in line with his definition of "*connaissance*"—an abundance of "information," "insignificant" knowledge, facts. I take this to indicate that although curiosity may indeed be directed at positive knowledge of specific topics, it also includes the type of knowledge included in the concept of "*savoir*"—a "deep" knowing (as described in the quote in the previous sentence before this footnote) that includes an awareness and questioning of norms, assumptions, and underlying conditions of specific discourses. The fact that curiosity encompasses this type of knowing and questioning is extremely important in light of its contrary position to previous characterizations of curiosity, and it is perhaps this reason that guides his choice of "*savoir*" over "*connaissance*" in these passages.

[191] Ibid., 325.

same time."[192] Rather than deny what is surely one of the reasons curiosity has been historically charged with "futility" and superficiality—its preoccupation with "insignificant" particulars—Foucault instead problematizes the very distinction between significance and insignificance. What is insignificant may very well be crucial. Foucault puts it this way: "We mustn't adopt a protectionist attitude, to stop 'bad' information from invading and stifling the 'good.'"[193] Foucault's perspective here runs counter to Heidegger's assumption that curiosity disposes us only towards superficial things, and relatedly, that superficial, partial, concrete, specific curiosity about beings and things is never as disclosive a mood/mode as one that opens up onto the meaningful "whole."

"[T]here is an infinity of things to know,"[194] Foucault states. But the desire to know—which he equates here with curiosity—may not be adequately tapped, channeled, or deployed in the current age. He repeatedly stresses the need for more "channels of communication" and "bridges" between the vast world of things to be known and the ample desire for knowledge.[195] As examples of such bridges, he suggests an expanded role for students in this connective work, that knowledge not be earmarked for certain types of people or restricted to particular age groups, and that we ignore unhelpful distinctions between various sources of information that only serve to impede our thought. These and other increases in the channeling, flow, availability, and *productive* differentiation of knowledge would all be part of a "new age of curiosity"[196] toward which Foucault wants us to collectively move.

After voicing this somewhat utopian vision, however, Foucault is met with some resistance by his interviewer:

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[192] Ibid., my emphasis.
[193] Ibid., 326.
[194] Ibid., 325.
[195] Ibid., 324-327.
[196] Ibid., 325.

> C.D. Isn't this desire for knowledge [*envie de savoir*] somewhat ambiguous? What, in fact, are people to do with all that knowledge that they are going to acquire? What use will it be to them?

In reading Foucault's response, it will be helpful to remember that Foucault has been using curiosity and the desire to know as synonyms so far in this interview. The question could also be phrased, *of what use is curiosity to the average person?*

> M.F. One of the main functions of teaching was that the training of the individual should be accompanied by his being situated in society. We should now see teaching in such a way that it *allows the individual to change at will*, which is possible only on condition that teaching is a possibility always being offered. […] [P]eople must be constantly able to plug into culture and in as many ways as possible. There ought not to be, on the one hand, this education to which one is subjected and, on the other, this information one is fed.

Foucault sets up his response as a contrast, informed by his previous work on discipline in the school.[197] Instead of tying social markers—such as class position or age—to the process of learning such that education occurs only within static spheres, times, or locations and involves only stratified groups of people, learning should instead be something that further increases the mobility and exchange of information. Through curiosity, people can take an *active* role in their learning and, more generally, their lives—they can change themselves, direct their future, and alter their position in relation to social norms.

Another emphasis of Foucault's description of curiosity is this theme of *activity*, of curiosity's ability to enable self-change, discovery, or the flouting of societal or intellectual norms. Curiosity is "never immobilized" before the world, but is in a state of constant "readiness"—a readiness to be destabilized by what was once presumed familiar now becoming

[197] One of several institutional domains he critiques in his work *Discipline and Punish*, trans. Alan Sheridan (New York: Vintage Books, 1995).

odd. Curiosity is "determined," it has a "passion" and "seizes"—hardly the passive experience of other kinds of information-consumption, like Foucault's description of the "education to which one is subjected" and the "information one is fed." This theme of curiosity empowering and enabling you to be "destabilized" and to "change at will" appears much more straightforwardly and prominently in his next discussion of curiosity four years later.

Foucault's *History of Sexuality Vol. II: The Use of Pleasure* begins with a three-part introduction in which Foucault presents the methodology and aims of his project. In the first introductory section, Foucault claims that his motivation for undertaking the genealogical investigation of the sexual subject is "simple"—"it was curiosity."[198] He qualifies what he means by curiosity, however, with the following: "[It was] the only kind of curiosity, in any case, that is worth acting upon with a degree of obstinacy: not the curiosity that seeks to assimilate what it is proper for one to know, but that which enables one to get free of oneself."[199] At first blush it seems like this statement endorses *only* a kind of curiosity that leads to norm-shattering new discoveries, to critical projects of a grand scale (like Foucault's own projects), to places in the margins and off the beaten track. In other words, it seems to be a kind of curiosity reserved for philosophers. Indeed, in just a few sentences he cements this connection: "[W]hat is philosophy today—philosophical activity, I mean—if it is not the critical work that thought brings to bear on itself? In what does it consist, if not in the endeavor to know how and to what extent it might be possible to think differently, instead of legitimating what is already known?"[200] How does this qualification of "worthwhile" curiosity and its link to philosophical activity—usually predicated upon a large amount of formal training, economic stability, institutional backing, and freedom from the constraints of other forms of labor—fit in with the populist message of the "Masked

[198] Michel Foucault, *Use of Pleasure*, 8.
[199] Ibid.
[200] Ibid. 8-9.

Philosopher?" In his 1980 interview Foucault saw curiosity—and the learning it led to—as something accessible and indeed already possessed by the majority, lacking only more multitudinous means of realization. He implicated the mass media, the academic market, and learning institutions as potential agents in increasing curiosity's purchase and spread. Yet these agents can also be said to propagate, at least at times, a standard of what is "proper for one to know."

Although there is a tension between these two messages, I do not think Foucault's statements in *The History of Sexuality* need contradict his first portrayal of curiosity—after all, they both highlight two of the same features of curiosity: its ability to reach outside common understandings and norms, and its ability to allow us to confront ourselves, to change ourselves, or "get free" of ourselves. The point, he says, of curiosity is not merely to gain "a certain amount of knowledgeableness." Though this will undoubtedly happen, the value instead rests: "in one way or another and to the extent possible, in the knower's straying afield of himself."[201] Foucault is not being prescriptive here about what "straying from oneself" entails, but rather allows room for different ways that movement can happen and different extents possible for that movement. This room for variability is valuable if we want to apply Foucault's ideas about curiosity—chiefly, its potential for moving beyond accepted norms to new ways of seeing and doing—to non-philosophical, "everyday" experience.

Curiosity, for Foucault, is ethical in nature because of its ability to open and reveal new awareness of our relations to the world and, by extension, to ourselves as members of that world—as subjects conditioned by the world and by our very understanding of ourselves as subjects. In order to more fully understand how curiosity links up with ethics in Foucault's framework, it would first be helpful to clarify his definition of "ethics." In broad terms, Foucault

[201] Quoted sections from the last two sentences: Ibid., 8.

thinks that ethics is concerned with how the self constitutes itself as a moral subject. He calls ethics "*rapport à soi*," or "the kind of relationship you ought to have with yourself."[202] Foucault claims that most "ethical" theory has really focused on moral codes—either specific doctrines or "universal" systems—and how human behavior adheres to or falls short of these moral codes. Furthermore, the emphasis has been on how we treat others and what moral obligations we have toward them. What has been neglected is how we treat *ourselves*—how we conceive of ourselves as moral beings, how we come to develop that conception, and how that conception shapes the nature of our ethical subjectivity.

To reiterate, morality for Foucault consists of three parts: moral code, human action in relation to these codes, and ethics—one's relation to oneself as a moral being. Ethics can be further broken up into four distinct parts, each of which has a name and can be summed up in the form of a question:[203] First, the ethical substance—which part of ourselves is relevant to moral considerations or judgments (e.g., feelings, intention…)? Second, the mode of subjectivation—in what way do we recognize our moral duty (e.g., divine or natural law)? Third, self-forming activity—how do we fashion ourselves into ethical subjects (e.g., abstinence, channeling desire toward certain ends)? And fourth, *telos*—what do we aspire to in behaving morally (e.g., freedom, purity)?

When it comes to the description of curiosity, it is the third of these ethical categories that is most relevant—how the self acts upon itself using self-transformative "technologies." In his essay "Technologies of the Self," Foucault describes these technologies as means to confront

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[202] Michel Foucault, "On the Genealogy of Ethics: An Overview of Work in Progress," in *Ethics, Subjectivity and Truth*, trans. Robert Hurley, ed. Paul Rabinow (Cambridge, MA: Cambridge University Press, 1988), 263.
[203] Ibid., 263. Arnold I. Davidson has a useful diagram of these distinctions in "Archaeology, Genealogy, Ethics," in *Foucault: A Critical Reader*, ed. David Hoy (Cambridge, MA: Blackwell Publishers, 1986), 229.

one's thoughts, conduct, or way of being in order to transform oneself.[204] If we return to Foucault's descriptions of curiosity, we see a similar theme of the self confronting itself. Through a certain practice—being ready and willing to find things strange, ignoring hierarchy, looking at things differently—one is able to change oneself and "get free" of oneself. Although the language of "getting free" or going beyond oneself is slightly different from the "forming" and "fashioning" language Foucault uses when discussing technologies of the self, it seems close enough to warrant consideration whether or not curiosity itself can be thought of as this kind of ethical technology. Given the fact that Foucault does not subscribe to the idea of a given subject, it seems plausible that he would consider a dialectical move "away" from the self a crucial component of the self-forming process. Curiosity's power lies in its ability to reveal the world as strange to us, and in so doing, estrange us from our established selves—changing us in the process. In the preface to *The Use of Pleasure*, Foucault writes: "[I]t would probably not be worth the trouble of making books if they failed to teach the author something he had not known before, if they did not lead to unforeseen places, and if they did not disperse one toward a strange and new relation with himself."[205] Curiosity was his motivation in writing *The Use of Pleasure*, and it was curiosity that allowed him to form a strange, new relation to himself—new, precisely because it is free and far afield of the "old" self.

V. Conclusion: A Cohesive Curiosity?

Through this diverse material, we have seen how philosophically complex curiosity really is, refusing to fit neatly into one uniform definition. However, I believe we have also seen

[204] Michel Foucault, "Technologies of the Self," in *Ethics, Subjectivity and Truth*, trans. Robert Hurley, ed. Paul Rabinow (Cambridge, MA: Cambridge University Press, 1988), 225.
[205] Michel Foucault, "Preface to the History of Sexuality, Vol. II," in *Ethics, Subjectivity and Truth*, trans. Robert Hurley, ed. Paul Rabinow (Cambridge, MA: Cambridge University Press, 1988), 205.

evidence that certain trends and characterizations recur across philosophical accounts, just as clusters of meaning recurred throughout our historical survey in chapter one. Chiefly, curiosity has continued to be viewed *normatively*: each philosopher is positioned more or less on one side of an evaluative dividing line that views curiosity in either a positive or negative light. This normative duality has its roots all the way back in the characterizations of wonder found in Aristotle and Plato.

But I believe these normative positions as they relate to curiosity can be refined further: 1) Curiosity is viewed as good (or bad) because of *its nature*, as a part of our general human nature—for example, our human distinction from the animal, or human hubris in relation to the divine. Philosophers such as Hume and Hobbes see curiosity as fitting into the distinctive human capacity for inquisitiveness and thus extend to it their general appreciation of natural human excellence. On the other hand, philosophers such as Aquinas and Heidegger see curiosity as related to ways of knowing or objects of knowledge that do not reflect our higher purpose or potential: curiosity is essentially oriented towards inappropriate or shallow inquiry that distracts us from the best human endeavors.

The other normative track that we see repeated throughout these accounts is: 2) Curiosity is viewed as good (or bad) due to what it *brings about*—its affect on human behavior, human potential, and our overall character. Plutarch, for example, sees curiosity as bad primarily for its negative effects on our ethical character and the lives of others. If these negative effects are mitigated in some way, curiosity loses its reprehensibility. Foucault, however, thinks curiosity opens up possibilities of acting and thinking that are ethically formative and transformative. Curiosity is a positive force in that it helps us think outside the box—recognizing and overcoming existing norms by producing something different.

Additionally, several characterizations tend to repeat with notable regularity. These characterizations can form the rough outline of a *philosophical* "definition" of curiosity, one that I think undergirds any other evaluative position we may want to take regarding curiosity. The trends are as follows:

1) *Curiosity is defined as a natural capacity or disposition, often integral to human nature.* Plutarch, Augustine, Aquinas, Hobbes, Hume, and Heidegger all explicitly characterize curiosity as a part of human nature, like Aristotle did with "the desire to know" before them. There are variations on this theme—Hume assumes it to be universal, though ambiguity in his phrasing allows for the possibility that it is merely characteristically (and not universally) human. Augustine sees curiosity as part of our nature, but a regrettable part that seeks to overcome our human limitations and attain Godly status. Hobbes sees curiosity as one of the primary ways we are distinct as humans, and as the basis for all other human achievements. However, the main assumption in all these accounts is that curiosity comes with being human.

2) *Curiosity is also often placed within the realm of feeling or passion, and described as pleasurable.* Hobbes identifies multiple pleasures associated with the process of curiosity. Hume stresses the pleasure of mental strain and study. Augustine and Aquinas both refer to the pleasures of acquiring knowledge as something that needs moderation. And all of these accounts are indebted to Aristotle's description that the "desire to know" is pleasurable, and the passionate, bodily descriptions of both wonder and curiosity throughout the medieval and modern eras.

3) *Curiosity can take multiple forms; either as two distinct types, or as one phenomenon that has the ability to mutate and shift.* Aquinas split curiosity into a virtue-vice pairing. Others, like Foucault, are ambiguous as to whether there are multiple "kinds." Plutarch and Hume allow

for the character of curiosity to change—it has the potential to be either scientific or meddlesome, depending on its objects and applications. In Hobbes, curiosity has both a full form accessible to humans only, as well as a form that both humans and animals share. This multiplicity was also present in the distinction between "scientific/inquiring" forms of wonder and "stupefying," gawking forms of wonder in the ancient, medieval, and modern eras, and in the shifts between wonder and curiosity over time.

4) *Curiosity has to do with knowledge and learning, as well as overcoming obstacles to achieve these goals.* All of the philosophers discussed in this chapter recognize the link between curiosity and knowledge, whether scientific knowledge, knowledge of hidden gossip, or knowing things differently by delving into the realm of "illicit" or ostensibly "useless" knowledge. Even Augustine, who thought curiosity led to knowledge of the wrong things, saw how efficacious curiosity was for learning. Several philosophers—chiefly Aquinas, Hume, and Foucault—also discussed curiosity's ability to help us overcome obstacles to learning. In these cases, curiosity can be framed as a kind of courage or resistance, either to intellectual sloth or the status quo. Finally, Plutarch identified the potential of *training* to help re-channel our curiosity toward non-injurious ends.

5) Curiosity is typically oriented toward "novel" objects, which can range from scientific knowledge to superficial gossip, instrumental knowledge or knowledge for its own sake. Aside from what curiosity *is*, our philosophers also have different opinions as to what curiosity *is directed toward*. What does curiosity want to know? Plutarch takes the view that curiosity drives us toward *hidden* knowledge, associating what is hidden with the gossip and secrets of our neighbors. Ancient Greek curiosity terms began the associations with illicit knowledge and useless or inconsequential knowledge. Heidegger shares the perspective that curiosity is oriented

towards superficial knowledge deeply embedded in the social sphere, and Hume also points to a specific kind of curiosity interested in these types of objects. Yet Hume also presents curiosity as invested in theoretical inquiry, and indeed there is a vast range of what Plutarch counts as "hidden," including knowledge of history or science that lies beyond our frame of reference. In addition to these two general domains of interest—superficial gossip and scientific knowledge—Plutarch and Foucault share a sense of curiosity as potentially interested in *anything*, including the smallest particulars, an interest that dates back to Aristotle's interest in the lowliest of animals.

Two other object-related themes reoccur throughout our accounts: the question of knowledge for its own sake vs. instrumental knowledge, and the importance of *novelty*. For Augustine, curiosity's disinterestedness—wanting to know *merely for the sake of knowing*—is what makes it such a dangerous distraction from our religious duties. Curiosity cannot be put into the service of God; it persists in pushing us toward knowledge that has no spiritual purpose. Aquinas saw curiosity in its virtuous form (studiousness) as more amenable to the demands of Christianity, and it was precisely its instrumental effects that made it worthwhile. Hobbes and Foucault both tie curiosity to its effects as well, but there is no indication that one is inspired towards curiosity or that one acts on curiosity out of a desire for those effects and not a desire simply for the knowledge in question. Hume explicitly endorses the position that while some instrumental purpose behind (scientific) knowledge is usually a component of curiosity, it is not the driving force behind our information-seeking. Finally, many, if not all, of the philosophers I discuss here—regardless of whether they viewed curiosity as attracted to weighty or superficial objects—saw curiosity expressed towards *novel* objects. If curiosity is a kind of "drive to know,"

the unknown that is sought will inherently express a kind of novelty for the seeker. This is the most common ground of agreement in the many different positions on curiosity's objects.

6) *Curiosity has moral significance and can move us towards virtuous or vicious ends.* Hobbes, Hume, and Foucault all saw curiosity as a virtue. Plutarch, Augustine, Aquinas, and Heidegger saw curiosity—in a straightforward sense—as a vice. However, Hume did see the potential pitfalls of curiosity, and Plutarch and Aquinas both allowed "good" forms of curiosity to accompany the bad; Plutarch even joined Hobbes and Foucault in describing the potential for curiosity to be ethically self-transformative, resulting in the betterment of our own character. While the philosophers I surveyed here clearly disagreed on the ethical value of curiosity, it is also clear that curiosity has been repeatedly viewed in normative terms—from the duality of wonder in the Platonic dialogues, to the early modern swap of condemnation and approbation bestowed upon wonder and curiosity, to the explicit moral emphasis of Augustine and Foucault.

What these repeating trends and shared characterizations leave us with is a picture of curiosity as a natural capacity that is passionate and pleasurable, multiple and/or mutable, involved in learning, oriented toward diverse, novel objects, and morally significant. Furthermore, curiosity is something that has been normatively evaluated throughout its long history. This "definition" is one that is strikingly amenable to a virtue framework, and to an account that emphasizes curiosity's epistemic operations and ethical effects. In chapters four and five I will look at both the epistemic and ethical dimensions of curiosity within a virtue/vice framework, but first I will turn to two other domains of knowledge and experience that have bearing on our understanding of curiosity in order to continue to build overlapping consensus with the understandings we have gained thus far.

3

The Lived Experience of Curiosity

I. Introduction

Before further considering the epistemic and ethical dimensions of curiosity within a virtue framework, I will first explore curiosity in the context of psychological research and everyday experience. These descriptions around what characterizes curiosity will continue to establish consensus with the historical and philosophical findings presented in chapters one and two. What has psychological research found out about curiosity? What is our everyday experience of curiosity like, and how do people generally describe that experience? I will show that psychological research and everyday, general understandings both align with the features of curiosity present in the philosophical and historical literature. Concretely, curiosity is affirmed in both psychological research and everyday experience as a part of human nature, as having to do with emotion, as having multiple forms, as involved in learning, as oriented toward a wide range of interests including novelty, and as having bearing on our moral lives—though this last point is less present in the psychological literature.

This chapter is divided into two main sections. In the first section I offer a brief survey of psychological research on curiosity (including educational and neuroscientific research) in order to explore overlapping features and significant differences between the psychological findings and our historical-philosophical accounts. I draw on both surveys and individual studies in order to reach specific claims about how curiosity operates that are grounded in particular experiments, while also placing those in a greater context so as not to disproportionately favor certain conclusions. I organize these discussions according to the six characterizations of curiosity

culled from the philosophical sketches in the last chapter, to see how those specific characterizations compare to findings in these fields.

In the second section I offer a discussion of intuitive and general understandings of curiosity from the perspective of ordinary language. Here I have included both standard dictionary definitions as well as examples of curiosity terms that I have seen at work in my daily life. These examples are also arranged mostly according to the six characteristics that form our rough philosophical definition. By proceeding in this way, I do not intend to capture as much as I possibly could about curiosity in these domains, but rather aim to build consensus—or discover significant differences—between the conclusions of my historical-philosophical analyses and other discourses that have a stake in how we understand curiosity.

II. The Psychology of Curiosity

II.1 A Problem of Definition

The task of defining curiosity has always been difficult—in chapter one, we reviewed its shifting associations over time and the variant value attributed to it. In chapter two, many points of overlap between philosophical accounts were only available after a thorough review of the author's tertiary or implicit points about the phenomenon. Contemporary psychological research is no different: a recent survey of psychological research on curiosity by Celeste Kidd and Benjamin Hayden acknowledges the difficulty in defining, describing, and classifying the phenomenon precisely.[206] Within psychological literature, curiosity is generally thought of as a type of "information-seeking phenomena." But it is less clear how to precisely classify that type of phenomena to reflect intuitive differences between curiosity and behavior such as play,

[206] Celeste Kidd and Benjamin Y. Hayden, "The Psychology and Neuroscience of Curiosity," *Neuron* 88 (2015), 449.

exploration, and other kinds of learning.[207] This has proved especially problematic for research pursuits, Kidd and Hayden note, since it affects researchers' ability to design an effective test for demonstrating curiosity in laboratory environments. For instance, it is an open question whether researchers should employ tests that observe attention, exploratory behavior, or other learning activities in order to form conclusions about curiosity's neurological functioning or developmental purpose.

George Loewenstein provides a thorough assessment of the first few decades of psychological research into curiosity in an influential 1994 paper. He summarizes as follows:

> The first wave, which crested in the early 1960s, focused on three basic issues. Foremost was the question of curiosity's underlying cause […]. Secondarily, curiosity researchers pondered why people voluntarily seek out situations that they know will induce curiosity, such as mysteries and puzzles. Curiosity seeking posed a paradox for those early theorists who interpreted curiosity as a drive, because drive-based accounts viewed curiosity as aversive and, hence, seemed to predict that people would want to minimize curiosity rather than seek it out. Finally, a very limited body of research examined the situational determinants of curiosity […] The second wave of curiosity research began in the mid-1970s and ebbed a decade later. It concentrated almost exclusively on the problem of measuring curiosity, a task that has proven to be extraordinarily difficult…[208]

To pick up where Loewenstein left off, it seems that there has been a "third wave" of psychological research into curiosity in the last ten years that focuses on its neural functions and role in our evolutionary biology.[209] Improved neural imaging technologies and neuroscience

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[207] See ibid., 449 for a more expansive list of information-seeking behaviors and related research associated with each type of behavior.

[208] George Loewenstein, "The psychology of curiosity: a review and reinterpretation," *Psychological Bulletin* 116 (1994), 75–98. 75-76.

[209] Despite a longstanding interest in the phenomenon, Kidd and Hayden note, "only recently have psychologists and neuroscientists begun widespread and coordinated efforts to unlock its mysteries (e.g., Gottlieb et al., 2013; Gruber et al., 2014; Kang et al., 2009)" (449). The studies cited here are as follows: J. Gottlieb, "Attention, learning, and the value of information," *Neuron* 76 (2012), 281–295; M.J. Gruber, B.D. Gelman, and C. Ranganath, "States of curiosity modulate hippocampus-dependent learning via the dopaminergic circuit," *Neuron* 84 (2014); and M.J. Kang, et. al., "The wick in the candle of learning: epistemic curiosity activates reward circuitry and enhances memory," *Psychological Science* 20:8 (2009).

research methods have made new kinds of measurement possible, though the question of definition remains blurry. Instead of proceeding from a single psychological definition of curiosity or describing these phases in a more detailed chronological account, I will instead move through an exploration of some of the psychological literature on curiosity according to the six foci forming our rough historical-philosophical definition introduced at the end of the last chapter, asking: does psychological research affirm this characterization, or come to significantly different conclusions?

II.2 Psychological Characteristics

1) Curiosity is a natural capacity.

Psychologists have attempted to answer the question *what is curiosity?* by turning to evolutionary theory. Researchers have explored its function as a biological trait, such as seminal curiosity researcher Daniel Berlyene, who saw curiosity as a learning mechanism grounded in evolutionary benefit: "The learning that produces knowledge can clearly be biologically helpful because (1) it can enable goal-directed behavior to be more efficient through being better prepared for what is impending, and (2) it can enable warning signals to be recognized, so that danger can be avoided."[210] A couple assumptions are typical: 1) curiosity is a behavior or activity that results in the acquisition of information, or *learning* considered more broadly,[211] that is biologically advantageous, and 2) curiosity is exhibited by infants and children[212] as well as

[210] D.E. Berlyne, "A theory of human curiosity," *British Journal of Psychology*, 45:3 (1954), 180-191. 181.
[211] I will discuss this more in depth in point four below with reference to supporting studies.
[212] C. Kidd, S.T. Piantadosi, and R.N. Aslin, "The Goldilocks effect: human infants allocate attention to visual sequences that are neither too simple nor too complex," *PLoS ONE* 7 (2012); C. Kidd, S.T. Piantadosi, and R.N. Aslin, "The Goldilocks effect in infant auditory attention," *Child Development* 85 (2014), 1795–1804; Wallace H. Maw and Ethel W. Maw, "Self-appraisal of Curiosity," *The Journal of Educational Research* 61:10 (1968), 462-465; Wallace H. Maw and Ethel W. Maw, "Self-Concepts of High- and Low-Curiosity Boys," *Child Development*,

adults[213] and animals[214]—though perhaps not in identical ways. Just as we saw in Hobbes' account, some psychologists (like Berlyne) separate out a predominately *human* kind of curiosity from a type also found in other animals.[215] Whether this classical separation is reaffirmed or curiosity is treated more on a continuum between animals and humans according to brain size,[216] it is either way viewed as a fundamental part of our biological nature.

Another way psychologists theorize this connection to our fundamental biological nature is by interpreting curiosity as a drive. A widely-held view of Freud's position on curiosity is that it was derivative of the sex drive;[217] curiosity is essentially libidinal energy that has been sublimated into other channels of exploration. Other psychoanalysts[218] and behavioral psychologists[219] viewed curiosity as a primary drive on the same level as other basic drives such as hunger, an interpretation which resonates with the philosophical descriptions of curiosity as a "drive to know" or a desire for knowledge similar to our desire for physical pleasure (such as in Aquinas' account). Many who viewed curiosity as a primary drive also characterized it as internally-motivated,[220] which overlaps somewhat with the description of curiosity as wanting to

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41:1 (1970), 123-129; Wallace H. Maw and A. Jon Magoon, "The Curiosity Dimension of Fifth-Grade Children: A Factorial Discriminant Analysis," *Child Development* 42:6 (1971), 2023-2031.

[213] Kang, et. al., "The wick in the candle of learning;" Gottlieb, "Attention, learning, and the value of information."

[214] Richard Byrne, "Animal Curiosity," *Current Biology* 23:11 (June 2013), R469-470; S.E. Glickman and S.R. Sroges, "Curiosity in Zoo Animals," *Behaviour* 26 (1966), 151–158.

[215] Berlyne, "A theory of human curiosity," 180.

[216] As in Glickman, "Curiosity in Zoo Animals," which was a seminal and still oft-cited study into animal curiosity.

[217] See Loewenstein, "The psychology of curiosity," 80, for an example of this characterization. However, as with many of Freud's theories, there is evidence that Freud's position is more complicated than it first appears. See K. Daniel Cho, "Curiosity according to Psychoanalysis: Blumenberg, Freud, and the Destiny of an Affect," *New German Critique* 104 (2008), 191-205 for more on statements Freud made in *Three Essays on the Theory of Sexuality* (translated by James Strachey, CT: Martino Fine Books, 2011) that indicate that curiosity may be a drive in its own right, or at least not entirely subordinated to sexuality.

[218] Primarily Melanie Klein, who dubbed curiosity the "epistemophilic instinct" on par with the life and death instincts, discussed in "Early Stages of the Oedipus Conflict," in *Love, Guilt and Reparation and Other Works 1921-1945*, (London: H Karnac Books Ltd 1928), 186-198 and "The Importance of Symbol Formation in the Development of the Ego," *The International Journal of Psychoanalysis* 11 (1930), 24-39.
1930).

[219] Notably Thorndike. See Loewenstein, "Psychology of curiosity," 80-81, 94 for relevant studies.

[220] Other vocabulary used to describe this distinction is "intrinsic" vs. "extrinsic," or "homeostatic" vs "stimulus induced." See Loewenstein, "Psychology of curiosity," 80, 94.

know *just to know* and for no other instrumental purposes. Berlyene, however, held the position that although curiosity was a primary drive, it was externally stimulated by incongruity and "conflict." As Loewenstein recounts, other influential psychologists in this first wave of curiosity research also focused on the importance of incongruity to the appearance of curiosity, notably Piaget, Hebb, and Hunt.[221] They believed that "curiosity reflects a natural human tendency to try to make sense of the world… [T]his need is not constant but is evoked by violated expectations."[222] Although I will discuss incongruity more in point five below, it is worth noting here the shared characterization with Foucault's curiosity, which linked it to being able to see things as strange (or *incongruous*). Ultimately, despite differences in the character of the drive function—whether primary or secondary, internally or externally motivated—the view of curiosity as a drive situates it as an integral component of our natural functioning or "human nature."

2) Curiosity is passionate and pleasurable.

In addition to the similar "drive" language that often undergirds other traditional passions such as hunger, psychological research has overlap with the description of curiosity as a *pleasurable feeling*. Multiple studies have shown curiosity to function in tandem with the reward centers of the brain: curiosity triggers reward anticipation, which supplies a pleasurable feeling for the person experiencing curiosity. For example, in a study by Kang et al., test subjects answered trivia questions and self-reported their perceived level of curiosity while undergoing functional magnetic resonance imaging (fMRI).[223] The fMRI scans showed a correlation between

[221] Loewenstein, "Psychology of curiosity," 82.
[222] Ibid.
[223] Kang, "The wick in the candle of learning," 963–973.

curiosity and activity in the left caudate and bilateral prefrontal cortex.[224] Both of these regions have been extensively associated with reward anticipation in previous studies.[225] Although caudate activation seems to be reliably associated with reward anticipation, the activity in the left prefrontal cortex was a result of neural input from the dorsal striatum, which has been shown to respond to memory and motor functioning as well as reward prediction.[226] Because the testing conditions contained memory and motor functions, the researchers designed a follow-up study to further test the link between curiosity and reward anticipation. The follow-up study, which involved cost expenditure in exchange for information, reinforced the reward findings from the first study. Furthermore, another similar fMRI trivia study (Gruber et al.) reached findings that were largely supportive of the Kang et al. research. The Gruber study even showed activity in the nucleus accumbens,[227] one of the "most reliably activated structures for reward anticipation,"[228] which the Kang et. al. research had not.[229]

Another reoccurring feature of the research around reward is the generality of the reward interpretation, which supports philosophical assertions that the desire for knowledge that characterizes curiosity (and the pleasure of learning as a result of it) is akin to the desire for food

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[224] Ibid., 966.
[225] See Kang, "Wick in the Candle of Learning," 971, and Kidd and Hayden, "Psychology and Neuroscience," 454 for a list of studies.
[226] Kang, "Wick in the Candle of Learning," 971.
[227] Gruber, "States of curiosity," 486–496.
[228] Kidd and Hayden, "Psychology and Neuroscience," 454.
[229] Different testing conditions and emphases could possibly account for the difference in primary reward center activity (see Gruber, "States of Curiosity," 491-492). In Kang et al., brain activity was first tested when subjects saw the trivia question—at which point they guessed at the answer, rated their curiosity level about the answer, and assessed their confidence level as to guessing correctly—and then again when the answer was revealed to the subject. In Gruber et al.'s study, by contrast, questions were first screened according to the curiosity level of the subject, and then brain activity was scanned during an anticipatory, prolonged delay between the presentation of the question and its answer, during which new, unrelated information was also presented to the subject. Gruber et al. state that their study "revealed that activation in the midbrain and nucleus accumbens was enhanced during anticipation of answers, but not during the presentation of the answer itself" (492). The differences between the studies in terms of emphasis—in Kang et al., how curiosity interacts with the subject's previous knowledge; in Gruber et al., "how curiosity influences new learning" (492)—may also play a role in the different brain regions measured as active by the two similarly-designed fMRI studies.

(and the pleasure of eating that comes with it). The Gruber et al. study mentioned above assumes a working definition of curiosity as a state of "intrinsic motivation," and attempts to test if the motivating mechanisms of curiosity are like ones employed in extrinsic motivation. They found that this was indeed the case: that "although curiosity reflects intrinsic motivation, it is mediated by the same mechanisms as extrinsically motivated reward."[230] Kidd and Hayden also point to further research that demonstrates the relation of dopamine neurons (whose presence is indicated by the midbrain activity in the Gruber et al. study) to both learning and reward. They describe how curiosity is related to "domain-general" reward anticipation: non-specialized reward centers that are active in anticipation of "primary," external rewards like food.

> Information is not a primary reward (as juice or water would be in this context) but a more indirect kind of reward. The fact that dopamine neurons signal both the primary and informational reward suggests that the dopamine response reflects an integration of multiple reward components to generate an abstract reward response. … These results suggest that, to subcortical reward structures, informational value is treated the same as any other valued good.[231]

These experiments show that informational goods and other valued goods have a similar reward structure. This point, in turn, supports the links made in philosophical accounts between a desire for knowledge and a desire for other bodily pleasures such as food or drink, and perhaps even the link between curiosity as pleasurable and the imagined utility of the information (as seen in Hobbes and Hume).

Though the relation between curiosity and reward is affirmed by Kang et al., Gruber et al., and other studies,[232] the definitional fuzziness of curiosity results in different interpretations

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[230] Kidd and Hayden, "Psychology and Neuroscience," 454.
[231] Ibid.
[232] At least two other studies link curiosity (in the form of exploratory choice) to reward centers of the brain: N.D. Daw, J. P. O'Doherty, P. Dayan, B. Seymour, and R.J. Dolan, "Cortical substrates for exploratory decisions in humans," *Nature* 441 (2006), 876–879, and J.M. Pearson, B.Y. Hayden, S. Raghavachari, and M.L. Platt, "Neurons

of just what its role is when it comes to the pleasurable nature of reward. The most significant outlier seems to be a 2012 study by Jepma et al.[233] Their study consisted, in part, in presenting test subjects with ambiguous, blurry images followed by the same images depicted clearly. Kidd and Hayden describe the findings thus:

> Curiosity activated the anterior cingulate cortex and anterior insula, regions sensitive to aversive conditions (but to many other things too). Resolution of curiosity activated striatal reward circuits. Like Kang et al. (2009), they found that resolution of curiosity activated learning structures and also drove learning. However […] [i]n the Jepma study, curiosity is a fundamentally aversive state […], whereas, in the Kang study it is pleasurable […]. Specifically, curiosity is seen as a lack of something wanted (information) and, therefore, unpleasant, and this unpleasantness motivates information, which will alleviate it.[234]

This interpretation of curiosity seems to fit with Hume's (and to some extent, Aquinas') contention that curiosity involve overcoming some mental strain and difficulty—an effortful, perhaps anxious state that makes its resolution and result in learning all the more satisfying (and evokes, too, the popular phrase: "curiosity killed the cat, but satisfaction brought it back"). It is also consistent with accounts like Berlyne's that see curiosity as a drive, where the experience of curiosity is aversive—characterized by some arousal or discomfort. In any case, though the studies differ as to when pleasure occurs—with the *appearance* of curiosity (as in the Kang et al. study), with the *anticipation* of its alleviation (as in Gruber et al.), or with its actual *alleviation*

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in posterior cingulate cortex signal exploratory decisions in a dynamic multioption choice task," *Current Biology* 19 (2009), 1532–1537. In these studies, test subjects performed a fourarm bandit task, a test in which subjects make either exploratory or exploitative choices by picking "options probabilistically based on expected values of the options" ("Psychology and Neuroscience," 452). (This type of study will be discussed more in point four.) In addition to activity in other regions of the brain associated with reward, these types of tasks also "highlight the contribution of the PCC [posterior cingulate cortex], a critical but mostly mysterious hub of the reward system, in both the transition to exploration and in its maintenance... The PCC is linked to both reward and regulation of learning, therefore underscoring the possible link between these processes and curiosity" (ibid., 452).

[233] M. Jepma, et. al., "Neural mechanisms underlying the induction and relief of perceptual curiosity," *Frontiers in Behavioral Neuroscience* 6:5 (2012), 1-9.

[234] Ibid.

(in Jepma et al.)—curiosity has been shown in multiple neuroscientific studies to relate to pleasure using the psychological framework of reward.[235]

3) Curiosity is multiple and/or mutable.

One of the most influential outcomes of Daniel Berlyene's seminal research in curiosity during the 1950s and '60s was the creation of a clear psychological taxonomy of curiosity.[236] In Berlyene's classificatory system, there are two distinct types of curiosity: *perceptual* and *epistemic*. Furthermore, there each type can operate in a way that can be categorized as *specific* or *diversive*.[237] The first kind of curiosity, perceptual curiosity, is described as "a drive which is aroused by novel stimuli and reduced by continued exposure to these stimuli,"[238] and is found in animals as well as humans. In humans, it is especially prominent in infants and young children. This type of curiosity increases our perceptive capacities; it is receptive and sensitive to strange or new information. Epistemic curiosity, on the other hand, is more of an active seeking out of information. It is therefore more targeted and results in the acquisition of knowledge. Finally, epistemic curiosity is described as a characteristic of humans in distinction from other animals due to its knowledge-imparting quality.[239]

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[235] Additionally, Jordan Litman, "Curiosity and the Pleasures of Learning: Wanting and Liking New Information," *Cognition and Emotion* 19:6 (2005), 793-814, proposes that "wanting" and "liking" undergird curiosity as an emotional and motivational state, and that these structures link curiosity with pleasure.

[236] As an indication of just how influential Berlyene's taxonomy was on future psychological research, all of the studies discussed in the previous section mentioned Berlyene's curiosity types. The Kang et al. and Gruber et al. studies both target specific epistemic curiosity, while the Jepma et al. study targeted specific perceptual curiosity. (Jepma et al., "Neural mechanisms," 8).

[237] Berlyne, "A theory of human curiosity."

[238] Ibid., 180.

[239] Berlyne does allow an important caveat to this distinction: "The curiosity which leads to increased perception of stimuli and the curiosity whose main fruits are knowledge may well turn out to be closely related. But, as we are using different defining operations for them, we shall have provisionally to use two different terms" ("A theory of human curiosity," 180).

The second difference, between specific and diversive curiosity,[240] relates to the degree to which information is the target of a directed inquiry versus a more general, receptive desire for information. Specific curiosity actively seeks information, and that information is usually discrete, a single "piece" or several interrelated "pieces" of information. For this reason, epistemic curiosity is most often of the specific sort, since it seeks to answer questions. Diversive curiosity, on the other hand, is not targeted towards particular information, but is instead receptive in a way that promotes general information gain by encounter with novel stimuli. Here again, the nature of this kind of curiosity lends itself more to *perceptual* curiosity.[241]

In addition to Berlyene's fourfold curiosity distinctions, curiosity research has also distinguished between "state" and "trait" curiosity—or curiosity as it occurs within the confines of a particular situation versus curiosity as a kind of capacity or disposition that persists over time. One significant curiosity scale called the Melbourne Curiosity Inventory, developed by F.D. Naylor in 1981, includes questions relating to both types.[242] Though much of the neurological research discussed here has focused on "state" curiosity, educational researchers

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[240] D. E. Berlyne, "Curiosity and Exploration," *Science* 153:3731 (1966), 25-33, 26. H.I. Day also made use of the "specific" and "diversive" categories in his work: Day, H.I. An instrument for the measurement of intrinsic motivation. An interim report to the Department of Manpower and Immigration, (1969), and "The measure of specific curiosity," *in Intrinsic motivation: A new direction in education*, edited by H.I. Day, D.E. Berlyne, and D.E. Hunt (Toronto: Holt, Rinehart & Winston of Canada, 1971), 99-112. (See also Jordan Litman, "Measuring Epistemic Curiosity and its Diversive and Specific Components," *Journal of Personality Assessment,* 80:1, 2003, 76.)

[241] To be clear, however, both epistemic and perceptual curiosity can be either specific or diversive, depending on the situation. More recent studies by Jordan Litman ("Measuring Epistemic Curiosity," and Litman et. al., "The Measurement of Perceptual Curiosity," *Personality and Individual Differences,* 36 (2004), 1127-1141) argue for the continued validity of curiosity as a "multifaceted personality trait, with [perceptual and epistemic curiosity] as two distinctive though substantially correlated dimensions," ("Measuring Epistemic Curiosity," 85) each of which can be potentially expressed in both specific and diversive ways.

[242] I am indebted to Loewenstein, "Psychology of Curiosity," 78, for this information. See F.D. Naylor, "A state-trait curiosity inventory," *Australian Psychologist,* 16 (1981), 172-183.

W.H. and E.W. Maw and their associates conducted several studies[243] assessing self-concepts of young students, as well as teacher evaluations, to study "trait" curiosity.

Both of Berlyene's distinctions—between perceptual and epistemic, and specific vs. diversive—resonate with those found in our philosophical accounts between a kind of curiosity that is dedicated to finding something out and disciplined in its search, overcoming mental strain to studiously reach its knowledge goal, and a kind of curiosity that is wandering, easily stimulated and distracted by novel stimuli. The distinction between state and trait curiosity, likewise, was at least implicitly acknowledged in descriptions like Hobbes' and Heidegger's that describe the state of experiencing curiosity, and in accounts that treat curiosity like a dimension of character that can be trained or cultivated (as in Plutarch's view) and that differs in people by degree (as in Hume's writing).

4) Curiosity is involved in learning.

Curiosity's role in learning is a key area of overlap for both philosophical and psychological "definitions" of curiosity. It has already become apparent in the preceding points just how central knowledge (or "information") and learning are to curiosity from a psychological and neuroscientific perspective. Curiosity has been shown in several neurological studies to be directly related to learning and memory. In the Kang et al. study—in which subjects were shown trivia questions, guessed the answer, and rated their confidence in their guess and their level of curiosity—when the answer to the trivia question was revealed, "activations generally were found in structures associated with learning and memory, such as the parahippocampal gyrus and hippocampus. … [T]he learning effect was particularly strong on trials on which subjects'

[243] Maw and Maw, "Self-appraisal of Curiosity" and "Self-Concepts of High- and Low-Curiosity Boys"; Maw and Magoon, "The Curiosity Dimension of Fifth-Grade Children."

guesses were incorrect—the trials on which learning was greatest."[244] This was confirmed by a behavioral study, where "[h]igher curiosity in an initial session was correlated with better recall of surprising answers 1 to 2 weeks later."[245] Both the Gruber et al. study and the Jepma et al. study also showed that curiosity benefited learning and memory through activity in the hippocampus.[246]

Another important finding is that curiosity also increases learning of peripheral, incidental information that was not the specific target of test subjects' curiosity. This was shown in the Gruber et al. study,[247] when subjects were shown photographs of human faces in between the trivia question and answer reveal. "When tested later, subjects recalled the faces shown in high-curiosity trials better than faces shown on low-curiosity trials. Therefore, the curiosity state led to better learning, even for the things people were not curious about."[248] This finding has interesting implications for curiosity's overall educational effect, as it indicates that a state of curiosity aiming at a specific target actually has a wider impact on learning than acquisition of just the specific information sought. Capitalizing on curiosity states to increase learning of auxiliary information separate from the target information is one way in which these findings could have a positive influence on learning outcomes. This aspect of the Gruber et al. study also demonstrates how interwoven the various "kinds" of curiosity can be, since the test targeted specific, epistemic curiosity according to Berlyene's taxonomy, but the curiosity state also ended up motivating the learning of perceptual, diversive information.

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[244] Kidd and Hayden, "Psychology and Neuroscience," 454.
[245] Kang, et. al. "Wick in the Candle of Learning," 963.
[246] Gruber, et. al., "States of curiosity," 489; Jepma, et al., "Neural mechanisms," 1.
[247] Gruber, et. al., "States of curiosity," 491: "Behavioral results from two studies revealed that states of high curiosity enhance not only learning of interesting information, but also learning of incidental material. Imaging results demonstrated that these learning benefits are related to anticipatory brain activity in the mesolimbic dopaminergic circuit including the hippocampus. In particular, curiosity-driven memory benefits for incidental material were supported by activity in the SN/VTA [substantia nigra/ventral tegmental area complex] and the hippocampus and by increased midbrain-hippocampus functional connectivity."
[248] Kidd and Hayden, "Psychology and Neuroscience," 454.

Although there is not a direct correlate in the psychological research to the philosophical idea that curiosity helps to overcome some *obstacle* to learning, there is one implication of curiosity's purpose that is in some ways similar. As previously mentioned, some of the neurological studies cited in Kidd and Hayden's survey use "information tradeoff tasks"—specifically, the "k-arm" or "fourarm" bandit task[249]—to measure curiosity. In these tasks, test subjects choose one out of several options that stochastically distribute rewards.

> The optimal strategy requires adjudication between exploration (sampling to improve knowledge and, therefore, future choices) and exploitation (choosing known best options). Sampling typically gives a lower immediate payoff but can provide information that improves choices in the future, leading to greater overall performance. … Above and beyond the strategic benefit of exploration, we have a tendency to seek out new and unfamiliar options, which may offer more information than familiar ones.[250]

This tendency is termed a "novelty bonus"[251]—and several studies support Kang et al.'s conclusion[252] that curiosity can be interpreted as a "psychological manifestation"[253] of this evolutionary strategy. In one study, the researchers "proposed that the activation of higher-level prefrontal regions during exploration indicates a control mechanism *overriding* the exploitative tendency."[254] These findings indicate that curiosity can push us to pursue and learn new information even when tempted by other biological tendencies to stick with the "safe" or immediately rewarding option. This is a long-term benefit linked to memory and development of a learning system, as described in point one above. Indeed, "with longer horizons, subjects were

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[249] Ibid., 451.
[250] Ibid., 452.
[251] Kang, et. al. "Wick in the Candle of Learning," 963; Kidd and Hayden, "Psychology and Neuroscience," 452.
[252] Kidd and Hayden, "Psychology and Neuroscience," 452.
[253] Kang, et. al. "Wick in the Candle of Learning," 963.
[254] Kidd and Hayden, "Psychology and Neuroscience," 452, referring to Daw, "Cortical Substrates," 2006, my emphasis.

more likely to choose an exploratory strategy than an exploitative one."[255] This shows that there may be some internal resistance to exploration that causes us to maintain familiar, beneficial choices, beliefs, or patterns of behavior. A conflict may exist between security-driven maintenance and curiosity-driven exploration, a conflict alluded to by Foucault (who saw curiosity as pushing beyond normal boundaries), Aquinas (whose studiousness overcomes physical reluctance to learning new things), and Hume (where mental strain was a key component to curiosity). These findings even seem to support Hobbes' view that imaginative capacity and self-interest are at the root of curiosity.

5) Curiosity is oriented toward diverse, novel objects.

As we saw in point three, psychological research has typically divided curiosity into multiple types depending on the type of information sought. Perceptual curiosity is interested in diversive stimuli (colors, shapes, noises, and unexpected sense data of any sort that arises in the flow of experience), epistemic curiosity by targeted knowledge (facts, propositions, questions, etc.). These divisions encompass an extraordinarily broad range of possible objects for curiosity, especially as research does not typically differentiate between further categories of knowledge that might be sought through epistemic curiosity like the division we have seen in philosophical accounts between scientific inquiry and interest in social or interpersonal matters.

In addition to aligning with our prior characterization of curiosity as interested in many different types of objects, psychological research also overlaps in pointing to the importance of *novelty* for those objects. Loewenstein's definition of curiosity—a definition upon which many later neuroscientific studies draw—is ‘‘a cognitively induced deprivation that results from the

[255] Ibid.

perception of a gap in one's knowledge."[256] This definition has become known as the "information gap theory." This theory depends upon incongruity—in other words, the subject must already possess some basic amount of information about the surprising fact, experience, or object, such that the surprise can violate some perceived norm or expectation. However, the subject cannot have *too much* information already in hand, or the surprise would not be possible. Furthermore, once curiosity has been satisfied through exploration and knowledge acquisition, more information will not pique the subject's curiosity as it did in the beginning of the exploration—the subject has surpassed the optimal range of novelty for sparking curiosity. Several studies support this novelty bell-curve theory.[257] In the 2009 Kang et al. study that I have previously discussed, study participants were "least curious when they had no clue about the answer and when they were extremely confident. They were most curious when they had some idea about the answer but lacked confidence."[258] These results show curiosity thriving when information conditions are partial—when information is new, but only *in relation* to the old.

Another study demonstrated the same general principle in terms of complexity of information presented to infants.[259] This study supported what the researchers termed the "moderate discrepancy hypothesis," which postulates that there is an optimal level or range of discrepancy from mental pictures or concepts that infants already possess, and that infants will be most interested in stimuli that fall into this moderate, optimal range of difference. More recent studies[260] on infants support the same conclusion: infants' attention (both visual and auditory) wandered most frequently when the information complexity was very basic or very dense. This

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[256] Loewenstein, "Psychology of Curiosity," 76.
[257] Berlyne also supports a similar position: "Our theory of curiosity implies that patterns will be most curiosity-arousing at an intermediate stage f familiarity," ("A theory of human curiosity," 13).
[258] Kidd and Hayden, "Psychology and Neuroscience," 451.
[259] Dennis K Kinney and Jerome Kagan, "Infant Attention to Auditory Discrepancy," *Child Development* 47:1 (1976), 155-164.
[260] Kidd, et. al., "The Goldilocks effect: human infants allocate attention to visual sequences," and Kidd, et. al., "The Goldilocks effect in infant auditory attention."

suggests that there is an optimal level of novelty in relation to the infant's pre-existing background knowledge that an object must possess in order to capture their attention. (The researchers dub this the "Goldilocks effect.") Interestingly, this optimal novelty and complexity level of curiosity's objects is not unrelated to point four above that curiosity is concerned with learning. As Kidd states, "This attentional strategy likely prevents [the infants] from wasting cognitive resources on overly predictable or overly complex events, therefore helping to maximize their learning potential."[261] Exploiting novelty, in this view, is one more tool for curiosity to help us learn more efficiently.

6) Curiosity is morally significant.

As we have seen in each of the above points, there is a general overlap between the trends that came out of our philosophical-historical analysis of curiosity and the psychological and neuroscientific research into the phenomenon. The one area in which this is not the case is in the realm of moral significance. The normative, evaluative perspective present throughout the philosophical texts studied in chapter one tends to be missing (at least overtly) from the psychological accounts. There seems to be a generally positive tone associated with curiosity in many introductory sections of the research studies, in which curiosity is assumed to be developmentally significant and related to knowledge acquisition, learning, and memory. However, no further ethical consideration is given to the phenomenon. There is little discussion or testing[262] related to the connections between curiosity and general human well-being, the ethical consideration of others, or curiosity's pro- or anti-social impact.

[261] Kidd and Hayden, "Psychology and Neuroscience," 455.
[262] At least, that I was able to find in my non-specialist's survey of the relevant research.

I have found two exceptions to this general trend.[263] The first was a 1971 study from Maw and Magoon who sought to examine the "affective, cognitive, personality, and social characteristics of those labeled 'curious'"[264] by peers and teachers, which had been rarely studied in previous case studies of child curiosity behavior. They correlated the curiosity scores with a number of different individual character traits and found that those with high-curiosity scores also measured high in the following traits: effectiveness, loyalty, reliability, accountability, intelligence, and creativity.[265] The other exception is found in Loewenstein's 1994 paper, where he states:

> The relationship between curiosity and information gaps also has implications for social stereotyping. It is well established that people possess well-articulated social schemata and that they use these schemata to infer missing information about individuals whom they meet […]. Thus, for example, one might assume that a Native American on a reservation is unemployed. The failure to perceive a gap in one's information, because one has filled in the gap automatically with a social stereotype, is likely to reduce or negate the amount of curiosity one experiences about the individual's actual occupational status. Lack of curiosity about others as a result of the failure to recognize information gaps may be a contributing factor to the well-documented resistance of stereotypes to change. At the same time, however, the information-gap theory suggests a possible solution to the problem. If people are made aware of their stereotypes and of the predictions they make on the basis of them, they may become curious to know whether their predictions are correct.[266]

What is interesting in Loewenstein's description here is that he recognizes the possibility of a *failure* of curiosity as well as the morally beneficial role curiosity can take in recognizing and combatting stereotypes, furthering the trend of ambivalence in curiosity's moral dimension.

As these exceptions help illustrate, the overall lack of psychological focus on the moral dimensions of curiosity does not indicate that philosophers are on the wrong track regarding

[263] Of course, there may be more exceptions than these two that I did not discover in the course of my research.
[264] Maw and Magoon, "The Curiosity Dimension," 2023.
[265] Ibid., 2027.
[266] Loewenstein, "Psychology of Curiosity," 94.

curiosity—rather, this is where discipline-specific strengths and limitations come into play. One significant limiting factor is the comparatively recent attention paid to curiosity within the fields of psychology and neuroscience—relatively young fields themselves—compared to the centuries of philosophical and historical writing on the topic, with the first significant wave of work happening just under seventy years ago, and with a significant slow-down between the first crucial mid-century theories and recent flurry of academic studies. And even in this new phase of neuroscientific research, the ethical implications of curiosity may not be one of the first areas of research explored due to the strengths, interests, and methods of the discipline. Philosophy, on the other hand, has a long tradition of ethical inquiry, and though other fields share similar concerns—theology, sociology, and perhaps anthropology come to mind—none of these are *as* focused on moral questions as philosophy. It is here that philosophy has its most unique contribution to make to our understanding of curiosity.

III. Colloquial Curiosity

Psychological experiments have borne out some of the threads we saw repeated in philosophical accounts, including the pleasurable aspect of curiosity, its connection to learning, the multiple types of curiosity, and the difficulty in defining and classifying curiosity due to its similarity with other information-seeking phenomena. We have sought to describe this phenomenon historically, philosophically, and now scientifically by locating curiosity in specific regions of the brain. But how do all these findings match up with our intuitive understandings and observations about curiosity? How is it encountered and described in our everyday lives? In this section I will discuss the everyday contexts in which we see curiosity employed, and the ideas we generally associate with it.

III.1 Dictionary Definitions

The Oxford English Dictionary (OED) lists three categories of usage for curiosity: curiosity as a personal attribute, as a quality of things, and in reference directly to the matter or thing having this quality.[267] (To illustrate: "she was curious and tenacious," "he brought back a curious object," "the curiosity was placed on the cabinet's top shelf.") Between these three categories, the OED lists fifteen separate meanings, some of which contain several senses or variants (many of which are obsolete).

The obsolete meanings listed in the OED have an overwhelming theme—care. This reflects the lineage of curiosity from its Latin root "*cura*," a kind of attention and fastidiousness. In the OED, roughly half of the fifteen meanings of curiosity,[268] including some within all three categories of usage, include the word "care" or "careful." (For example: "Carefulness, the application of care or attention."[269]) This care is consistent with the kind of "care" mentioned above—not "care" as in *compassion*, empathy, or goodwill, nor care as in *caution*, but rather care as a matter of *attention*, a level of detail, scrupulousness, exactness, elaborateness, accuracy, or skillfulness—perhaps carried out to an excessive or "undue" degree in proportion to the importance of the object.[270]

Current uses also encompass meanings we have repeatedly come across in the previous sections and chapters. Modern usages of curiosity—either as a quality of an object or in

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[267] "curiosity, n.," *OED Online*, Oxford University Press, last modified June 2017, accessed August 13, 2017, http://www.oed.com.proxy.library.emory.edu/view/Entry/46038?redirectedFrom=curiosity.
[268] Seven, to be exact: numbers 1, 2, 3, and 4 within the "personal attribute" category, numbers 9 and 10 within the "quality of things" category, and number 13 within the category of "matter or thing that has this quality."
[269] Definition I.1.
[270] Two of the seven meanings that mention "care" include this quality: "†4. Care or attention carried to excess or unduly bestowed upon matters of inferior moment"; "†13. A matter upon which undue care is bestowed; a vanity, nicety, refinement. *Obs.*"

reference to the object itself—include the important element of *novelty*, including the overlap between novelty and rarity or oddness:

> **11.** The quality of being curious or interesting from novelty or strangeness; curiousness. […]
>
> 15.
> **a.** An object of interest; any object valued as curious, rare, or strange. […]
> **c.** Applied to a person who is 'queer' in his appearance, habits, etc.; cf. ODDITY *n.*[271]

However, the most prominent usage is curiosity as a personal attribute. The OED's entries in this category include the following:

> 5. Desire to know or learn:
> †**a.** In a blamable sense: The disposition to inquire too minutely into anything; undue or inquisitive desire to know or learn. *Obs.*
> **b.** In a neutral or good sense: 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.
> **c.** Inquisitiveness in reference to trifles or matters which do not concern one.[272]

This definition hits all the six trends found in our philosophical (and psychological) surveys—1) it is personal trait (or "disposition"), 2) often described as a feeling, 3) with multiple senses, though all relate to 4) inquiry and learning. It is 5) directed toward any object, though especially toward novel ones, and depending on the type of object, or the quality or quantity of inquiry, 6) can be morally blame-worthy or praise-worthy.[273] We can expect to see these meanings played out, then, in our ordinary usage of the term.

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[271] "curiosity, n.," *OED Online*.
[272] Ibid.
[273] In regards to this last point, we definitely see the evaluative split between a "good curiosity" and a "bad curiosity" come through in these definitions. The fact that the first variation—curiosity as blame-worthy—is marked as obsolete is a testament to the shift that has occurred in our way of thinking about curiosity. The third variation, however, could easily have a negative, blame-worthy connotation, though the OED does not mark such a valuation.

III.2 Everyday Examples

When Clara Ma was eleven years old, as an elementary school student in Lenexa, Kansas,[274] she wrote: "Curiosity is an everlasting flame that burns in everyone's mind. It makes me get out of bed in the morning and wonder what surprises life will throw at me that day. Curiosity is such a powerful force. Without it, we wouldn't be who we are today. When I was younger, I wondered, 'Why is the sky blue?', 'Why do the stars twinkle?', 'Why am I me?', and I still do."[275] At eleven, Clara talked of "burning curiosity," and curiosity as a "passion," connecting it to the perennial metaphor of fiery feeling. She wrote of its influence in multiple senses—as a source of personal motivation and growth, as well as having profound social effects: "We have become explorers and scientists with our need to ask questions and to wonder. Sure, there are many risks and dangers, but despite that, we still continue to wonder and dream and create and hope."[276] She acknowledges the downside to curiosity, as well as the heights of discovery to which it can lead. She connects it to wonder and to knowledge. With curiosity, she says, "we have learned so much."[277] And thanks to Clara's writing, for the last five years we have learned so much about the surface of Mars from a little rover named *Curiosity*.

Clara's short essay beat out over nine thousand other entrants[278] to name NASA's Mars land rover, which landed on Mars in 2012. The rover is part of NASA's Mars Exploration Program, and is tasked with determining whether Mars has ever been hospitable to life. Mark Dahl, the Mars Exploration Program Executive at NASA Headquarters, had this to say about

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[274] Ed. Rebecca Whatmore, "Mars Science Laboratory: NASA Selects Student's Entry as New Mars Rover Name," *NASA*, last updated February 26, 2010, accessed August 13, 2017, https://www.nasa.gov/mission_pages/msl/msl-20090527.html.
[275] Ed. Rebecca Whatmore, "Mars Science Laboratory: Curiosity," *NASA*, last updated February 26, 2010, accessed August 13, 2017, https://www.nasa.gov/mission_pages/msl/essay-20090527.html
[276] Ibid.
[277] Ibid.
[278] Ibid.

Clara's name, which was selected by a NASA panel: "I am especially pleased with the choice, which recognizes something universally human and essential to science."[279] Dahl and Clara's statements demonstrate a common narrative about curiosity as an important part of human nature—one that bridges feeling and scientific pursuit.

Feeling—and particularly the feeling of pleasure—is also found in a colloquial expression about curiosity previously mentioned in this chapter, one that echoes Clara's warnings about the risks attached to pursuing our curiosity: "Curiosity killed the cat, but satisfaction brought it back." The first—and more common—part of the phrase is often interpreted as a warning against the negative effects of meddlesome prying. It was first circulated as "care killed the cat," with the first usage found in English playwright Ben Jonson's 1598 *Every Man in His Humour*,[280] when "care" still held the more prevalent connotation of fastidious concern or worry, before curiosity and care became more distinct. By 1898, the phrase was documented with the word "curiosity" in place of "care." By 1912, the rejoinder "but satisfaction brought it back" entered popular usage enough to make it into a newspaper grocery advertisement.[281] This addition to the phrase presents the pleasure of curiosity, of quenching the thirst for knowledge, as a potentially worthwhile reason for taking on the risks. Although the second clause never became as popular as the first, the fact that it was coined at all speaks to its relevance—with satisfaction, the popular phrase presents the full spectrum of pains *and* pleasures attached to the experience of curiosity.

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[279] Ibid.
[280] Gary Martin, "The meaning and origin of the expression: Curiosity killed the cat," *The Phrase Finder*, last updated 2017, accessed August 13, 2017, http://www.phrases.org.uk/meanings/curiosity-killed-the-cat.html.
[281] "More Holiday News From Titusville's Greatest Grocery," *The Titusville Herald*, *Newspaper Archive*, accessed June 27, 2017, https://newspaperarchive.com/tags/?ndt=by&py=1607&pey=1912&pep=but-satisfaction-brought-it-back/. Link found here: Wikipedia contributors, "Curiosity killed the cat, but satisfaction brought it back," last updated August 5, 2017, accessed August 13, 2017, https://en.wikipedia.org/wiki/Curiosity_killed_the_cat,_but_satisfaction_brought_it_back.

Besides the cat, another animal well known for its curiosity is Margret and H.A. Rey's *Curious George*. The eponymous monkey was introduced throughout the series of children's books with the following line: "He was a good little monkey and always very curious."[282] Mischievous but well intentioned, Curious George became a beloved childhood character best known for his curiosity, which was presented in the same manner as other traits such as helpfulness and bravery. Curiosity was something George exhibited, through physical experimentation and the many questions he asked himself, but it was also a reliable feature of George's character, recognizable and stable. Curiosity is often described along these lines, as a kind of disposition, when we make the same type of statement about children or students as the Reys made about George—"She's a very curious child," we might say. This casting of curiosity tends to be associated with early developmental stages; when curiosity as a dispositional attribute is associated with adults, we often modify the phrase somewhat to say: "He had a very curious mind." In either case, sentences such as these indicate that we view curiosity not only as something that motivates individual actions (state curiosity), but also as something more stable (trait curiosity), and as something that is part of our normal faculties—particularly for young, developing humans (and monkeys).

In addition to dispositional, trait curiosity, we certainly do indicate curiosity in action in phrases such as this: "Overcome by curiosity, Alex stopped at the door to listen to their conversation." Curiosity is implicitly treated in some of our common curiosity expressions as a kind of dormant trait, which can be aroused in particular situations to an active state: "It really piqued my curiosity," or "Her curiosity got the better of her." The difference in activity is only one difference we tend to mark in regards to the phenomenon; we also frequently add descriptors

[282] Margaret Rey and H.A. Rey, *Curious George: 75th Anniversary Edition*, Houghton Mifflin Harcourt Publishing Company, New York, NY: 1941, 4.

to indicate the *type of objects* the curiosity is attracted to, and thus the quality of the curiosity. "Nosy curiosity" is distinguished from "intellectual curiosity" or "scientific curiosity," as in the Merriam Webster definitions:

> 1: desire to know:
> a: inquisitive interest in others' concerns: *nosiness* […]
> b: interest leading to inquiry: *intellectual curiosity*[283]

We also tend to differentiate another kind of curiosity—"morbid curiosity," which seems slightly different from both nosy or scientific curiosity, though can be attached to either type depending on the situation. We understand rubbernecking at traffic accidents to be a type of nosy morbid curiosity, or wanting to understand the decomposition of bodies to be a kind of scientific morbid curiosity. However, the key factor that seems necessary for morbid curiosity is something relating to death, disease, or disgust.

Regardless of the object of inquiry, curiosity and *learning* are connected in all the above examples. Furthermore, language about "inspiring curiosity" is frequently used within the context of youth education. Many schools include curiosity as part of their mission statement: for instance, independent schools such as Blue Oak in Napa, California, which hopes to "foster confidence, creativity, flexibility and curiosity in each child,"[284] and the Dock Street School for STEAM Studies in New York City, which aims "to foster curiosity, independence and problem solving in young people."[285] Waldorf schools often feature curiosity in their core principles—for

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[283] "curiosity," *Merriam-Webster*, accessed August 13, 2017, https://www.merriam-webster.com/dictionary/curiosity.
[284] "Our Progressive Mission," Blue Oak School, accessed August 13, 2017, https://blueoakschool.org/our-progressive-mission/.
[285] "Welcome," *The Dock Street School for STEAM Studies*, accessed May 16, 2017, http://www.dockstreetschool.nyc/. Other examples include: "Purpose-Mission-Values," *The McGillis School*, accessed May 16, 2017, http://mcgillisschool.org/the-school/purpose-mission-values; "Mission Statement and Core Values," *Blake School*, accessed May 16, 2017, http://www.blakeschool.org/page.cfm?p=520.

instance, the Rudolf Steiner School of Ann Arbor, Michigan,[286] and the Live Oak Waldorf School of Meadow Vista, California.[287] Even school *districts* include the development of curiosity within their district-wide goals, such as the Rocky River City School District in Rocky River, Ohio, which states on its website that "A Rocky River education empowers values, inspires curiosity and encourages talents that lead to success,"[288] and the Grenada School District in Grenada, Mississippi, which states that Grenada district schools "furnish materials and guidance that will incite the student's curiosity to launch the student on a lifetime journey of exploring, probing, and learning."[289]

Curiosity also had a strong presence in the explicitly educational context of Atlanta's regional science festival in 2017. The Atlanta Science Festival is an annual multi-day festival that brings together partner schools, universities, museums, and companies that host educational events such as presentations, performances, tours, and hands-on activities relating to STEM topics. According to the festival website, during the festival "Curious people of all ages will explore the science and technology in our region and see how science is connected to all parts of our lives." [290] The festival hopes to "inspire a new generation of curious thinkers"[291] and "build a curious community."[292] One of the ways to inspire curious thinkers and build that community is to "Generate interest in, understanding of, and public discourse on STEM among youth and

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[286] "Mission Statement," *Rudolf Steiner School of Ann Arbor*, last updated 2017, accessed May 16, 2017, https://www.steinerschool.org/inside-steiner/mission-statement/.
[287] "Mission and Vision Statement," *Live Oak Waldorf School*, accessed May 16, 2017, http://www.liveoakwaldorf.org/content/mission-and-vision-statement.
[288] "About the District," *Rocky River City School District*, accessed May 16, 2017, http://www.rrcs.org/AbouttheDistrict.aspx.
[289] "Mission Statement and Educational Philosophy," *Grenada School District*, accessed May 16, 2017, http://www.gsd.k12.ms.us/mission%20statement.html.
[290] "About ASF," *Atlanta Science Festival*, accessed April 20, 2017, http://atlantasciencefestival.org/about-asf.
[291] Ibid.
[292] "Mission & Goals," *Atlanta Science Festival*, accessed April 20, 2017, http://atlantasciencefestival.org/mission-goals.

adults."[293] Here we see a link between interest and understanding, a link that occurs throughout their marketing materials: curiosity will help us learn about science and technology. By fostering curiosity, we foster an attitude of lasting interest in and awareness of science fields that will help support future "pathways for educational advancement in STEM." [294]

As we just saw, curiosity is often associated with scientific topics (including technology and space exploration). Yet, as also previously noted, everyday understandings of curiosity also include "inappropriate" objects as part of curiosity's typical range of interest (these could be morbid, or simply private). This flexibility perhaps accounts for another common narrative about curiosity—that it can be directed towards anything at all. Near the end of his life, Henry Miller wrote: "Perhaps it is curiosity—about anything and everything—that made me the writer I am. It has never left me..."[295] Gabe Vehovsky, founder and CEO of Discovery's online education hub Curiosity.com,[296] had this to say about his site: "We want Curiosity [.com] to introduce people to something new, something they didn't even know interested them, whether that's chess, astronomy, cake decorating, chemistry, economics, genetics, investments, or gardening."[297] The site's organizational principle reflects this eclectic inclusivity: though the site highlights certain topics in its menu bar (such as "Animal IQ," "Future of Driving," "Design," and "Health,"), navigate to a full list of topics on the site and you'll see an alphabetical list encompassing a vast range of topics with no further hierarchical or conceptual linkages between them. (For a taste of this: families, farming, fashion, film, finance, fire, fish, flight...). After selecting a topic, you are

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[293] Ibid.
[294] Ibid.
[295] Maria Popova, "The Measure of a Life Well Lived: Henry Miller on Growing Old, the Perils of Success, and the Secret of Remaining Young at Heart," *Brain Pickings*, last updated June 26, 2014, accessed August 13, 2017, https://www.brainpickings.org/2014/06/26/henry-miller-on-turning-eighty/.
[296] "We are Curiosity," *Curiosity*, accessed August 13, 2017, https://about.curiosity.com/company/.
[297] Rebecca Grant, "Discovery unveils Curiosity.com to inspire everyday learning (exclusive)," *Venture Beat*, last updated January 14, 2014, accessed April 20, 2017, https://venturebeat.com/2014/01/14/discovery-unveils-curiosity-com-to-inspire-everyday-learning-exclusive/.

shown a list of articles about the topic, including videos aggregated from other websites, and at the bottom of the page more topics are suggested. Again, to provide an example of this: after selecting "Authors" and scrolling through articles about Kafka, Ernest Hemingway, Judy Blume, and Dr. Seuss, the suggested topics at the bottom of the page included "Animals," "History of the United States," "Hot Dogs," and "Tickling."[298]

The idea that curiosity can be directed at any object whatsoever seems to be related to the type of language we use to describe curiosity as a motivation for wanting to learn something: when we say "I'm just curious…" or "Just out of curiosity…" as a precursor to a question, we minimize both the significance of the knowledge sought and the significance of the motivation for why we want to know it. Curiosity is at once a "good enough" and "not good enough" reason for pursuing our question. This may be because the information we seek is deemed inconsequential or trivial, or because there is no useful purpose for seeking the information—we act out of "sheer" curiosity.

It is clear that our motivations for being curious matter to us in the following example. In April 2016, Standing Rock Sioux tribe members established the Sacred Stone Camp as a center of resistance in their ongoing protest of the construction of the Dakota Access Pipeline. As media attention grew, so did the camp. An overflow camp called Oceti Sakowin was soon established to accommodate the tribal and non-indigenous allies who came to North Dakota to join the movement on the ground. With the influx of people, the camps experienced growing pains. A

[298] As a member of the website, you can choose to follow or subscribe to certain topics. As you use the site more and curate your content according to topic subscriptions, it is possible that the site would learn which topics and articles to suggest based on your previous choices. However, this is how the site works for a beginning user and demonstrates an underlying principle of randomness that appears to be one of the chief features of curiosity as described by the site.

group of "solidarity trainers"[299] called the Standing Rock Solidarity Network therefore created instructional materials to help inform new attendees of camp operations and cultural expectations. The Network combined four informational sheets into a "Standing Rock Allies Resource Packet." The first pdf in the packet, "If you're thinking about going to Standing Rock," assesses options for assisting the Standing Rock protest movement, including a thorough breakdown of considerations for attending in person. The info sheet first lists good and bad reasons for attending Standing Rock:

> Not good enough reasons:
> - To experience indigenous culture and wisdom
> - Because it seems cool
> - Curiosity
>
> *Do not go to Standing Rock "just to see." Every person in camp needs to pull their weight and contribute in substantial ways.*[300]

In this instance, curiosity is portrayed in a negative light. It repeats the everyday understanding of curiosity as providing insufficient motivational force to justify its search for knowledge. Curiosity is simply not a "good enough" reason to pursue the information. Additionally, and more importantly, the context of the usage indicates the power curiosity has to bring about harm. Curiosity is here linked to appropriation and disrespect for indigenous culture, and to failing to contribute productively to the camp community.

However, curiosity makes another appearance in the Allies Resource packet. The pdf entitled "Joining Standing Rock" provides guidelines for appropriately integrating camp culture,

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[299] Aurora Levins Morales, Susan Raffo, Fen Jeffries, Berkley Carnine, L.J. Amsterdam, Lex Horan, and Becka Tilsen, "About," *Standing Rock Solidarity Network*, accessed May 16, 2017, http://www.standingrocksolidaritynetwork.org/about.html.

[300] Solidariteam, "If You're Thinking About Going to Standing Rock," *Standing Rock Solidarity Network*, accessed May 16, 2017, http://www.standingrocksolidaritynetwork.org/uploads/4/2/9/2/4292077/if_you%E2%80%99re_thinking_about_going_to_standing_rock_final.pdf.

including camp protocol surrounding leadership, work, communication, and resources.[301] It also discusses how the camp community views indigenous perspectives and cultural appropriation within the context of settler colonialism. As part of this discussion, the solidarity team writes: "Indigenous history in the Americas is one of uninterrupted resistance to colonization, from 1492 to today. You may be unaware of this history, or not recognize the forms it takes in indigenous cultures. Be curious."[302] Here, curiosity is not something to be avoided, but something to be embraced—an attitude that will help allies gain historical knowledge and sensitivity. Looking at both usages of curiosity within the resource packet, we see that curiosity can lead to both cultural appropriation *and* cultural appreciation. It can generate resource-draining "looky-loos" as well as serious allies. Viewed together, the two instances demonstrate our understanding of curiosity as having both harmful and beneficial consequences, and links to other "virtuous" or "vicious" behaviors and motivations.

The Standing Rock directive to "be curious" about indigenous history is implicitly hopeful of increased understanding, appreciation, and connection. A similar hopefulness pervades the next appearance of curiosity, as well: After the *Dallas Morning News* endorsed Hillary Clinton in the 2016 presidential election, protestors picketed outside the paper's offices. The editor of the paper, Mike Wilson, responded: "So I went and got on the elevator and walked out there and introduced myself. And I was curious. I wanted to know what would they say about what we'd written, and would they be interested in hearing any of my point of view about it?"[303] Wilson and the protestors talked. As election season wore on, and invectives against the news media became more and more common in conservative political rhetoric, the criticism of the

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[301] Solidariteam, "Joining Standing Rock," *Standing Rock Solidarity Network*, accessed May 16, 2017, http://www.standingrocksolidaritynetwork.org/uploads/4/2/9/2/4292077/joining_camp_culture_final.pdf.
[302] Ibid.
[303] "612: Ask a Grownup, Transcript," *This American Life*, last updated 2017, accessed August 13, 2017, https://www.thisamericanlife.org/radio-archives/episode/612/transcript.

paper continued. Wilson responded by striking up email correspondences with some of his conservative readers, and invited two of them into the office to have a discussion face to face, and to witness the daily operations of the paper. As the journalist reporting this story put it, "[Wilson] wanted these guys to understand more about the newspaper they were so angry with. He wanted them to sit in on an editorial meeting […] But also he wanted to understand more about them. He wanted to know who they were, not just as angry emailers. As people." After sitting in on an editorial meeting, one of the angry emailers had this to say: "You see that they don't have horns and they're not out to be sinister. […] I've had visions of them all sitting around the water cooler and ripping on Republicans […] it's good to talk to people one on one and realize that they don't even realize necessarily what you're thinking." Although no one's political opinions were changed as a result of these discussions, both sides expressed some degree of increased understanding and appreciation for the other, and for the process of talking through their differences.

We can see the links between curiosity and pro-social outcomes implied in some of our previous examples, as well. Four years after naming the Curiosity Rover, as the rover finally reached the surface of Mars, Clara Ma reflected on her winning name:

> I have always been fascinated by the stars, the planets, the sky and the universe. I remember as a little girl, my grandmother and I would sit together in the backyard for hours. She'd tell me stories and point out constellations. […] My grandmother lived in China, thousands of miles away from my home in Kansas. I loved the stars because they kept us together even when we were apart.[304]

Even curiosity linked to "dispassionate," intellectual, scientific inquiry is often supported by rich personal networks of connection and love. Though Curious George's antics often get him into

[304] Clara Ma, "At Age 11, This Girl Named the Curiosity Rover," *Mashable*, last updated November 16, 2012, accessed August 13, 2017, http://mashable.com/2012/11/16/clara-ma-curiosity-rover/#pAIMqIB40gqC.

trouble, they also result in George helping others—in *Curious George Visits a Toy Store,* he helps customers reach hard-to-get toys and helps the business owner have a successful store opening. In *Curious George Takes a Train,* George helps prevent a young boy falling on the tracks by retrieving the boy's run-away toy as it rolls over the platform edge.

Clearly, curiosity is linked in our public discourse to situations of connection and care. Yet there is perhaps no better example than *Curious George* for showing just how complex the associations with curiosity are in our public discourse, a complexity to rival that found in the philosophical passages of our last chapter or the neuroscientific studies of the last section. While curiosity has been mobilized by the *Curious George* franchises in the past decade as a beneficial contributor to STEM education,[305] the series also deals in both overt and implied lineages of colonialism and racism in which the scientific curiosity of white men was exercised at the expense of Africans, as well as literal monkeys. Though George is portrayed as innocent, mischievous, and well intentioned, there is a darker side to his portrayal as well. "George is marked as dark, childish, lacking speech, deficient of intellectual maturity, and in need of the white man."[306] George's curiosity is reminiscent of the diversive, perceptual kind that we have in common with animals—focusing on shiny stimuli, not serious scientific subjects. The racist narrative that associates Africans, monkeys, and children informs George's portrayal, always subject to the paternalizing authority of his captor-parent and the one who "knows better." This colonialist history is explicit in the first *Curious George* book, where George is abducted from his home in Africa, lured by the Man in the Yellow Hat, who wants to take him back to be displayed in captivity in a zoo. (Interestingly, it was George's curiosity about the Man's yellow

[305] Rae Lynn Schwartz-DuPre and Helen Morgan Parmett, "Curious about George: Postcolonial Science and Technology Studies, STEM education policy, and colonial iconicity," *Textual Practice* 32:4 (2018), 707-725.
[306] Ibid., 718.

hat that the Man used to lure him in.) This origin story has since been whitewashed, changed entirely in one film adaptation and left out of the recent PBS television show.[307]

In June Cummins' groundbreaking 1997 analysis, she describes the series as "sanitizing and romancing" the history of the slave trade and colonial oppression.[308] It serves as "a miniature version of the colonialist project. In each book, George gets into trouble because he is as yet uncontrolled, undisciplined, uncivilized."[309] In fact, there are multiple ways of reading George's curiosity throughout the series. Certainly one way is that his curiosity is portrayed as a positive personality trait, and one that frequently opens up opportunities to help others. But there are other, more sinister readings. One reading is that the anger and discipline George faces as a result of his troublemaking "suggests to children that they must not be curious"[310] and must obey their paternal authority figure. Curiosity is linked to deviance, recalling its long associations with illicit knowledge or Foucault's framing of curiosity as irreverent to what is "proper" and the status quo. Though George typically redeems his deviance through some good act, provoking praise from the Man in the Yellow Hat, the rightness of the Man's judgments remains unquestioned. Another way of reading these interactions comes from Schwartz-DuPre and Parmett, who suggests that George's curiosity is genuinely meddling and dangerous with potentially serious negative consequences for others.

> Yet, by the end of each story, George is celebrated, his curiosity, though dangerous, is habitually interpreted as heroic. Curious George narratives suggest that misbehaving and breaking the rules in the name of curiosity is, in the end, justified. … So too, contemporary discourses regarding scientific colonialism, in the end, suggest that such practices, though perhaps outdated and problematic in

[307] Maya Terhune, "A Good Little Monkey: *Curious George*'s Undercurrent of White Dominance and the Series' Continued Popularity," BU Arts & Sciences Writing Program, accessed January 26, 2019, http://www.bu.edu/writingprogram/journal/past-issues/issue-7/terhune/.
[308] June Cummins, "The Resisting Monkey: Curious George, Slave Captivity Narratives, and the Postcolonial Condition," *ARIEL: A Review of International English Literature* 28:1 (January, 1997), 69-83.
[309] Ibid., 70.
[310] Ibid., 80.

> hindsight, were nevertheless helpful in bringing about new scientific knowledge and discovery.[311]

Finally, one further reading could be argued, out of these previous interpretations, that the curiosity interaction modeled in the series promotes the enacting of only certain kinds of curiosities—ones that result in social approval by the powers that be (and that wear yellow hats), or that are motivated towards appropriate topics (such as STEM). Schwartz-DuPre and Parmett claim that *Curious George* aims to cultivate an audience "who is encouraged to ask questions, but, apparently, those questions do not extend beyond those tied firmly to the discourse of scientific rationality that presumes it is oriented towards a value neutral and objective discovery of natural phenomenon."[312] In other words, curiosity about the role of scientific discovery in enabling and furthering systems of oppression, colonialism, and geopolitical dominance is not the kind of curiosity promoted by the series. In light of such readings, we should interrogate that innocuous description of George as a "good little monkey." Does "good" here mean compassionate and helpful, or does "good" here mean obedient? Is "Curious George" named so because he possesses curiosity as a character trait, or because he himself—a dark monkey stolen from Africa—is a curiosity?

IV. Conclusion

Let's take stock of our understanding of curiosity as it has been continually re-defined in the last three chapters. Despite the difficulty in definition—acknowledged by historians and psychologists alike—there is remarkable similarity between the descriptions of curiosity given by intellectual historians, philosophers, psychologists, and implicit in our everyday uses of the

[311] Schwartz-DuPre and Parmett, "Curious about George," 716.
[312] Ibid., 716-717.

term. Curiosity is a part of our human nature, an evolutionary benefit that helps lead to knowledge—of the world around us, of the surface of other planets, of anything at all. We are rewarded with satisfaction when our curiosity is followed through. But pleasure and learning aren't the only consequences of curiosity; it can have deleterious or beneficial effects on society, as well. We tend to distinguish between types of curiosity based on these effects, and the types of knowledge sought. Whereas some senses are considered blamable, others are praiseworthy. For instance, curiosity that benefits from, results in, or ignores the suffering of others is suspect from an ethical perspective, while still, perhaps, appearing intellectually praiseworthy (as in the critique of *Curious George* above).

How might we emphasize curiosity's strengths while also remaining cognizant of—and perhaps even mitigating—its weaknesses? Given curiosity's slippery definition, how might we use terminology to help clarify both its problematic and pro-social potential? An understanding of curiosity within a virtue framework can help solve these problems. While not quite fitting with the classical model of "excesses" and "deficiencies," the idea that virtues can appear in different modes and forms along a spectrum of virtue and vice fits with curiosity as *both* beneficial and harmful, virtuous and vicious. Understanding that curiosity can go wrong doesn't disqualify it from going right—rather, the instances where curiosity fails to hit the mark of virtue inform the field of possibility, guiding us to what a "better" curiosity would look like. In the following chapters I will describe how we can think of this spectrum of moral impact in a way that has both philosophical precedence and practical significance by turning first to epistemic and then to ethical virtue.

4

Curiosity as an Epistemic Virtue

I. Introduction: Curiosity Within a Virtue Framework

Our initial survey of historical and philosophical accounts indicated that curiosity is an ability or characteristic that is both passionate and cognitive, involved in inquiry, and that has the potential to bring about good or cause harm. Our foray into psychological research found curiosity described as a trait (or as a state) pertaining to knowledge acquisition and memory that operates within pleasure-based reward systems. Although the ethical emphasis common in the philosophical accounts was for the most part lacking in the psychological literature, it reappeared when we turned to everyday uses of the term "curiosity," which implicitly acknowledge its potential for both beneficial and harmful influence on individuals and communities.

Explicit discussion of curiosity's ethicality is frequently neglected in psychological, popular, or even philosophical discourse on the subject—despite the value-loaded terminology used to describe curiosity throughout its long history. While there may be ethical associations and implications, discussion typically fails to address it overtly. It is also unique in that no other characteristic of curiosity inspires so much disagreement around a single point. We have seen that while some philosophers sing its praises for helping us realize our human nature—as the foundation of philosophy or human civilization itself—others decry it as sinful, or as a superficial temptation that lures us away from our highest selves. Such consistent and radical difference of opinion is not found in regards to its connection to knowledge, say, or its status as a passion. On the whole, curiosity is typically positioned as epistemically valuable; putting aside, for the moment, the kind of knowledge that curiosity seeks, most agree that curiosity motivates

us to seek new knowledge, and that that is a good thing. But when it comes to curiosity's moral status, its effects on our character or on the wellbeing of others, it is much more ambiguous. It can help us grow as people, as Plutarch and Foucault pointed out, but it can also lead us to treat our fellow humans like objects of spectacle—a concern indicated by the Standing Rock activists. What are we to make of these disparate possibilities for curiosity?

It is clear that curiosity has value, as well as risk. How can we clarify this ambivalence without eliding curiosity's complexity? Given the many historical and cross-disciplinary accounts of curiosity's ability to both help and harm, it would be insufficient to settle on a polarized view of curiosity's moral import. It would also be insufficient to avoid the topic, treating curiosity as value-neutral. Even psychological research references curiosity's value to human well-being (including our relationships to others and to our own intellectual and developmental potential), implicitly relying upon common understandings and impressions of curiosity as beneficial or harmful. Curiosity cannot be cleanly separated from the question of value, though its value is complex, indefinite, and often at cross-purposes.

Can we capture both the beneficial value and harmful risk of curiosity within a unified philosophical framework? In the next two chapters, I will show how the concept of *virtue* can clarify curiosity's value, capturing within one well-established tradition contrasting definitions that have been frequently in conflict. Virtue may not be the only way to help clarify the question of curiosity's value; there may be other ethical approaches that prove equally able to unify the many strands of curiosity under one helpful framework. For instance, I will also draw heavily upon care ethics in chapter five to help make sense of how curiosity as a moral good would operate. However, I have chosen to use virtue as the primary lens through which we can understand curiosity's value in *both* epistemic and ethical modalities due in part to its strengths

in dealing with such shifting, complex phenomena. Virtue allows degrees of value; value that isn't black and white, that depends on context and situation. This flexibility will be helpful in trying to establish exactly how curiosity can act in both helpful and harmful ways.

All of the recurring characterizations that we have identified in our previous chapters—as a natural capacity, passionate and pleasurable, multiple and/or mutable, involved in learning, oriented toward diverse, novel objects, and morally significant—as well as the broad normative trends that treat curiosity as good or bad, fit within a virtue framework. Virtues are usually defined as natural capacities and/or characteristics that are mutable through cultivation, habituation, and upbringing. These characteristics typically have a proper domain of objects or situations toward which they are directed, but those domains are fuzzy and frequently diverse. For instance, courage has to do with regulating fear, but whether that be fear of a lion or fear of death or fear of filing your tax forms, the same virtue/vice phenomenon still applies. Intellectual virtues are cognitive and bound up with operations of learning, and ethical virtues are passionate and bound up with moral actions that improve or worsen our lives and the lives of those around us.

Not only does curiosity-as-a-virtue fit with the "definition" of curiosity developed in the first few chapters—a definition that squares not only with philosophical accounts, but also with history, science, and everyday understanding—it also has precedent. Conceptualizing curiosity according to a model of virtue isn't new: we have already seen curiosity positioned within the virtue-vice spectrum within Aquinas' theory. Yet, as we know, his reading of curiosity came out of the Augustinian tradition and so took on a particular moral register that does not reflect the full range of what we have seen in our historical, philosophical, psychological, and colloquial surveys. Furthermore, he did not expand upon what it would specifically mean for *curiosity* to be

situated within the virtues, beyond the separation of "curiosity" (a vice) from its similar form of "studiousness" (a virtue). In other words, though Aquinas gives us precedent for thinking about curiosity within a virtue framework, he does not exhaust the topic.

Does curiosity have a place within the sphere of virtue and vice? What would curiosity look like in its most ideal, virtuous form? What does it look like when it falls short? In turning to these questions, I will first turn to curiosity within the *epistemic* realm. With learning as this virtue's proper domain—and one significantly less contested and varied than its moral significance—it makes sense to first tackle the question of whether curiosity can be regarded as solely an epistemic or intellectual virtue before turning to the ethical domain.

Recently, philosophers have explicitly discussed curiosity within the context of virtue epistemology. Virtue epistemology concerns itself with traits that aim at or result in knowledge, or that orient us to learn in an appropriate way. What criteria indicate that a characteristic is an epistemic virtue? I will argue that epistemic virtues must aim at knowledge and/or other epistemic goods considered more broadly, and must reliable result in active epistemic goods beyond knowledge (such as learning or understanding). I claim that curiosity meets these criteria since it aims at knowledge and reliably results in learning. I close the chapter by discussing the implications for our understanding of curiosity that come from classifying it as an epistemic virtue in this way, including reevaluating past philosophical criticisms of curiosity's "superficiality" and its primary association with narrow epistemic aims and impacts.

II. Epistemic Virtue Criteria

Virtue epistemology has grown substantially since its beginnings in Ernest Sosa's 1980 paper "The Raft and the Pyramid."[313] Most notably, the field has split into two large camps that differ significantly in their approach to epistemic virtues. "Reliabilists"[314] like Ernest Sosa, John Greco, Alvin Goldman and others see epistemic virtues as cognitive and perceptual faculties that allow us to reliably grasp knowledge, where knowledge is defined as justified true belief or similarly. Examples of these types of virtues include excellent hearing, vision, memory, and reason.[315] "Responsibilists" like Linda Zagzebski, James Montmarquet, Jonathan Kvanvig[316] and others see epistemic virtues as character traits (akin to traditional moral virtues) that allow us gain knowledge or pursue it in an ethical way. Examples of character-based epistemic virtues include open-mindedness, inquisitiveness, attentiveness, carefulness, thoroughness, intellectual courage, intellectual honesty, intellectual humility, and originality. Epistemic vices include characteristics like inattentiveness, carelessness in inquiry, hastiness in forming judgments, and close-mindedness.

Clearly, these two positions impact the kind of faculties or traits that qualify as "epistemic virtue," and even the qualifying criteria themselves. What makes a character trait an epistemic virtue? I will present some possible criteria and then examine each individually for its plausibility as a requirement for epistemic virtue, arguing for a responsibilist interpretation over

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[313] Ernest Sosa, "The Raft and the Pyramid: Coherence versus Foundations in the Theory of Knowledge," *Midwest Studies In Philosophy,* 5:1 (1980), 3-26.

[314] Though not universally adopted, the "reliabilist" and "responsibilist" terminology has been recognized by many in the field. "Virtue reliabilist" comes from Guy Axtell, "Recent Work on Virtue Epistemology," *American Philosophical Quarterly* 34 (1997), 1-26. "Virtue responsibilist" comes from Lorraine Code, *Epistemic Responsibility* (Andover, NH: University Press of New England), 1987.

[315] Introspection is sometimes added to this list (see Baehr, "Four Varieties," 483), and Hookway also adds "identifying complex argumentative structures" and "subject-specific recognition/identification" (e.g., of birds or planes) ("How to be a Virtue Epistemologist," in *Intellectual Virtue*, ed. Zagzebski and DePaul, 187).

[316] See Jonathan Kvanvig, *The Intellectual Virtues and the Life of the Mind*, (Savage, MD: Rowman and Littlefield), 1992.

a traditionally reliabilist one for reasons that I will discuss as I proceed. Two main variables are important for determining epistemic virtue criteria—the epistemic end or good that the virtue aims at or brings about, and its reliable success in doing so.[317] Given these two variables, there are four distinct possibilities for virtue criteria. The faculty or trait:

1) is *reliable* at arriving at *truth* or *knowledge* (where knowledge is defined as justified true belief or similarly),[318]

2) *desires* or *aims at* truth or knowledge,[319]

3) *desires* or *aims at* achieving *some other epistemic end* or good (such as wisdom, understanding, inquiry, or some notion of "intellectual flourishing" that may include but surpass mere wisdom or understanding), and/or

4) is *reliable* at achieving *some other epistemic end*, whatever it may be.[320]

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[317] There are many questions that come with the word "reliable," of course: What *counts* as reliable? Must an epistemic virtue *always* reach its goal, or would *mostly* do? Can it be partly successful? How are those things quantified? Are virtues all equally reliable? Must they be reliable "on their own," or would they qualify if they were only reliable in conjunction with other virtues? Examining reliability thoroughly and defending a particular definition would take many, many pages in its own right, and I am setting it outside of the scope of this current work. For my purposes here, I take reliability to mean almost all of the time, which accords with colloquial usage. (For instance, when we say a co-worker is reliable, we tend to mean that almost all of the time they get their work done on time, show up on time, and/or follow through on what they say they will do. If some unusual circumstance prevented our co-worker from delivering their work on schedule one time out of many, we would still tend to call them reliable. In other words, failing to hit the absolute mark of "always" or "without fail" would not be enough to withdraw the designation of "reliability.") Regarding whether or not a virtue is reliable if it needs the collaboration of other virtues to achieve its goal, my stance is relaxed—virtues always work in concert with one another, and yet can still be theoretically isolated from one another. Furthermore, we tend to discuss specific virtues in the abstract as if they were "perfect." But if we really imagine the perfect functioning of generosity, for instance, it would also mean perfect practical wisdom, perfect justice, perfect friendship, and so on. One virtue needing the aid of another in order to be called reliable doesn't to my mind count as a strike against its reliability.

[318] Many virtue epistemologists hold this to be a necessary condition of epistemic virtue, most centrally those in the reliabilist camp. James Montmarquet is one of the few who doesn't think this is necessary (Montmarquet, *Epistemic Virtue and Doxastic Responsibility*).

[319] Many virtue epistemologists also believe this structural requirement to be a necessary condition of epistemic virtue. See, for instance, Linda Zagzebski, who states that: "the fundamental psychological requirement of any intellectual virtue is a motivation for truth and related cognitive goods" (Zagzebski, *Virtues of the Mind,* Cambridge: Cambridge University Press, 1996, 166-168).

[320] For instance, Riggs, "Understanding 'Virtue.'"

It seems likely that at least one of these options is a necessary (but perhaps not sufficient) condition for calling a faculty or trait an epistemic virtue, and it is entirely possible that some combination of these criteria is required.[321]

Let's begin with the first qualifying condition for epistemic virtue: *1) Reliable at arriving at truth or knowledge (where knowledge is defined as justified true belief or similar).* Many reliabilists would back this condition, and even stop here.[322] It seems reasonable to say that faculties like hearing and vision are virtuous when they perform their function well, and insofar as that leads to perceptual *knowledge*, they qualify as epistemic. My sight reliably leads to many accurate judgments about the world: it is day, it is night, it is raining, there is an espresso in front of me, and so on. However, I believe this view tends towards a trivial understanding of virtue that does not account in any robust way for training and habituation over time. Insofar as virtue is active, practiced, motivational—these faculty functions just don't fit the bill. In contrast, responsibilists typically do not think faculty-virtues on their own are sufficient to account for the wide range of cognitive processes and motivations involved in epistemic evaluation. Jason Baehr, for example,[323] argues that many of the cases of complex knowledge we find so important in human life require significantly more than perfect vision or memory, and include some application of will—intellectual doggedness, courage, creativity, and so forth. These traits, therefore, should be counted as relevant contributors to knowledge acquisition and transmission, and any account that does not include them falls short.

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[321] Zagzebski blends 1) and 2) (*Virtues of the Mind*, 168-83) and Reza Lahroodi also proposes a mix in "Evaluational Internalism, Epistemic Virtues and the Significance of Trying," *Journal of Philosophical Research* 31 (2006), 1-20.

[322] To be fair, some responsibilists also consider reliability and a positive relationship between epistemic virtue and knowledge acquisition important conditions for qualifying traits as epistemic virtues, and may even include reliabilist faculty-virtues in their list of epistemic virtues.

[323] Jason Baehr, "Character, Reliability, and Virtue Epistemology," *The Philosophical Quarterly* 56:223 (2006), 193-212.

To further explore the condition that an epistemic virtue must hit upon the truth to be virtuous, let's look at a common example: a researcher approaching a topic of study. This researcher has some background knowledge, and wants to learn more about a specific question in the field. For the sake of engaging in a concrete thought experiment, lets say the researcher is interested in the physiological effects of a specific chemical substance on the human body. She has a hunch or hypothesis already in mind due to her background knowledge and experience, but before pursuing and testing her hypothesis concretely she first decides to do her due diligence in reading all of the relevant material on this substance. Let us suppose that this researcher is appropriately *thorough* (by almost universal agreement, if such a thing could be measured) in her research methods. She searches the relevant places where this information could be found, follows leads to supporting material cited in other studies, and so forth. As a result of this research, she is led to think that her hypothesis about the danger of the chemical is incorrect, and declines to pursue the project further. However, despite the apparent thoroughness of her research, two pieces of information were unknown to her: 1) one of the key studies claiming the chemical was safe was funded by the chemical manufacturers, who biased the design of the study and the reported results, and managed to keep their link to the study obscure, and 2) another team of researchers had just finished new work that supported her hypothesis, but had not yet published their results. In the course of her thorough inquiry, she failed to hit upon true knowledge. Yet we tend to think of thoroughness in inquiry as a virtue. Would this failure to hit upon the truth be enough to say that her thoroughness was not a virtuous practice of inquiry? This seems implausible to me.

An argument commonly appealed to in the virtue epistemology literature regarding historical intellectual heroes is also persuasive in discounting this condition. Riggs states the case clearly:

> [A]ny theory of intellectual virtue that does not *clearly and definitively* count the likes of Aristotle, Newton, Galileo, etc. as being intellectually virtuous does not capture what we mean by 'intellectual virtue'. […] It is hard to imagine a theory of intellectual virtue that could otherwise be so plausible that we would be willing to give up counting these individuals among the cognitive elite of our shared intellectual history.
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> And yet, as we now know, a great deal of Aristotle's science and philosophy was mistaken. It may even be that he was wrong about more of these things than he was right. […] For suppose we were somehow to discover that, overall, despite Aristotle's careful observation, his meticulous study, his insightful explanatory hypotheses, the rigorous examination of his arguments, and so on, he nonetheless believed more falsehoods about the nature of reality (both physical and metaphysical) than truths. Would this unfortunate finding cause us to remove the mantle of intellectual virtue from Aristotle's shoulders? I think the correct answer is 'clearly not'.
>
> […] This point can be generalized to all major figures in our intellectual history. The greatest and most virtuous intellects in our shared human history all laboured under what we now know to be mistaken assumptions, inaccurate or imprecise measurements, faulty methods, and a whole host of other disadvantages. These factors limited what these figures were able to accomplish in terms of their immediate targets—understanding the nature of reality—but not the degree to which they could develop the intellectual character traits for which we rightly admire them. The very fact that we unhesitatingly ascribe intellectual virtue to these intellectual giants, despite their often spectacularly mistaken views, is eloquent testimony to the fact that success at accomplishing the immediate targets of cognition or inquiry, true belief, is not necessary for intellectual virtue.[324]

This argument aligns with our guiding model of moral virtue, given that one of the primary classical methods for determining virtue was to look to the virtuous as exemplars. Who are our wise men and women, our *phronimoi*—or our "cognitive elite"? If we look to our intellectual heroes and find that we do not value them primarily for "getting it right"—after all, there are

[324] Riggs, "Understanding 'Virtue,'" 211-212. See also: Montmarquet, *Epistemic Virtue and Doxastic Responsibility,* 21.

many, many people who have made accurate discoveries who we may admire, but not at the end of the day hold in such high esteem—but for *other* reasons, such as their imagination, drive, scope, vision, proliferation, creativity, unconventionalism, etc., then we have a good indication of what intellectual traits we find virtuous.

For certain conceptions of epistemic virtue (namely, reliabilist ones), this first condition is undoubtedly necessary and is perhaps the *only* condition that needs meeting. However, there seems to be a clear set of related traits that do not fully fit within either faculty-based epistemic virtue or classical moral virtue: epistemically-relevant virtues of character that function similarly to the classical moral virtues and less like automatic mental or physiological processes—the right desire that moderates inquiry, akin to the right desire that moderates hunger. For these traits, it does not seem that reliability in achieving accurate propositional knowledge is the determining factor for qualifying them as epistemic virtues.[325]

I am not, however, saying that epistemic virtue has *no* relationship to truth; that would be overly extreme. In practice, epistemic virtues ought to result in one's gaining true propositional knowledge more often than not, especially if bolstered by complementary epistemic virtues. As Terrence Irwin states:

> It is easy to see why, in favorable external conditions, virtuous people will have more objective success than other people will have. For they will have done all that can reasonably be expected of them; and if they do that, they will have tried to find all the relevant information that they could reasonably be expected to find, taken proper care, and so on. It is not surprising that action on these principles will often result in objective success.[326]

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[325] Is it, though, one of several requirements? I really can't say—again, it goes back to that tricky word, "reliable." Perhaps these virtues *do* need to reliably reach truth, but only in the long view—over the course not just of one person's life, but of many, many peoples lives unfolding throughout time.

[326] Terrence Irwin, "Virtue, Praise and Success," *The Monist* 73 (1990), 71. This quotation was found in Annas, "The Structure of Virtue," 28.

Epistemic virtues may result in determining truth very often, but it should not be considered a strict requirement for designating something an epistemic virtue.

Now to the second potential condition for qualification: *2) Desires or aims at truth or knowledge.* It is true that epistemic virtues often aim at truth, regardless of whether they actually acquire it. It seems important that an epistemic virtue fulfill this requirement, if it is to have the proper motivational component of a virtue. The epistemically virtuous person must act out of right motivation—motivation to act (or know, or learn) in an epistemically virtuous way, a way that aims at epistemic good. Surely this must involve truth, whether truth be the ultimate end or merely a part of a larger conception of epistemic *eudaimonia*.

Recall our thorough researcher. Let's amend the example, such that this researcher was thorough not out of a desire to learn as much as she could about the question, to get it right, and to further our collective knowledge about the issue through her own experimentation, but her thoroughness instead was due to a desire to only pursue projects that would bring her acclaim, status as a "cutting-edge" researcher, or financial success. Her thoroughness included judging the caliber of other researchers exploring the question, and the pathways of further opportunity if she were to pursue it. We may not judge these motivations as particularly pernicious—they are, on the whole, understandable for a career scientist. Yet it casts her thoroughness in a new light—instead of enacting thoroughness out of a desire for truth, her thoroughness was a tactical strategy enacted for practical purposes. While it may result in the same end state (she may discover—or not discover—the same truths in the course of her thorough research regardless of motivation), the fact that I intuitively consider the researcher's motivations for success and acclaim as less epistemically virtuous is enough for me to believe that a motivation for truth is an

important part of whether or not a trait is considered epistemically virtuous. This second condition, then, is promising as a requirement for epistemic virtue.

The only stipulation I would offer is that it is equally valid for an epistemic virtue to fulfill condition three: *3) Desires or aims at achieving some other epistemic end.* What other epistemic ends are possible besides knowledge or truth? Instead of limiting epistemic analysis to cognitive *states*—beliefs and their properties, and whether or not particular beliefs can be classified as knowledge—responsibilists also look at epistemic *processes* as the proper domain of virtue epistemology. An exercise of epistemic virtue may not necessarily confer knowledge status on a given proposition, but it may guide the epistemic agent through a process of inquiry in an excellent way (thus leading more likely to knowledge). This position is taken up by a number of virtue epistemologists, including Christopher Hookway and Wayne Riggs, who locate inquiry and understanding as the primary concern of epistemic virtue, respectively.[327]

In his 2003 paper "How to be a Virtue Epistemologist," Hookway states: "I shall assume that inquiries (and deliberations) are goal-directed activities, attempts to find things out. These activities can be carried out well or poorly; and many important epistemic norms are concerned with how we should carry out activities of this kind."[328] For example, there are norms involved in the proper amount and kind of reflection that should be involved when drawing conclusions from evidence—one should take into consideration complicating factors, margins of error, biases or assumptions that might have influenced the collection of evidence, and so forth, but only in proportion to the type of conclusions one draws and what end those conclusions serve (for instance, if the data overwhelmingly supports a clear conclusion, and the conclusions are

[327] Hookway, "How to be," 198-202, and Wayne Riggs, "Understanding 'Virtue' and the Virtue of Understanding," in *Intellectual Virtue*, ed. Zagzebski and DePaul, 203-226. Also, James Montmarquet identifies "epistemic conscientiousness" as primary in *Epistemic Virtue and Doxastic Responsibility* (Lanham, MD: Rowman and Littlefield), 1993.
[328] Hookway, "How to be," 194.

relatively trivial, this amount of reflection is typically taken to be unnecessary). When we think about the complexity of deliberative processes in this way, we can easily see how, as Hookway puts it, "The notions of a 'well-conducted inquiry' or of a 'well-managed system of opinions' emerge."[329] If we take virtue theory seriously as a model for how to think about epistemic virtues, this perspective aligns with our understanding of the role of traditional virtues in regulating behavior.[330] Epistemic virtues, then, have to do with our regulation of broad epistemic activities (such as inquiry, deliberation, learning, theorizing, understanding) and our regulation of the more discrete actions involved in such activity (such as questioning, hypothesis testing, evidence gathering, noticing or forming patterns and connections, and so forth).

Wayne Riggs also approaches the question of epistemic virtue by taking a wider view on what constitutes our epistemic ends than the standard "goals of having true beliefs and avoiding false beliefs."[331] Although Riggs does not take a stance on what, precisely, the "highest epistemic end" is, using the (undefined) term "wisdom" as a placeholder, he views *understanding* as central to it.[332] Riggs defines understanding as: "the appreciation or grasp of order, pattern, and how things 'hang together'."[333] When one understands something, one understands "how its parts fit together, what role each one plays in the context of the whole, and of the role it plays in the larger scheme of things."[334] Though Riggs still places importance on truth, epistemic virtues fundamentally derive their value from being teleologically oriented toward wisdom and understanding, rather than being reliable.

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[329] Ibid.
[330] Ibid.
[331] Riggs, "Understanding 'Virtue,'" 213.
[332] Ibid., 219.
[333] Ibid., 217.
[334] Ibid.

Let's return again to our thorough researcher. Let us suppose that instead of desiring acclaim, instead of desiring to amass propositional truths about her research question, her thorough inquiry was instead motivated by a desire to "understand" the object of her inquiry, according to Riggs' definition. Of course, this understanding would indeed involve coming to know certain truths about the object, but her goal was not primarily amassing such truths (which she could have done more quickly and simply through professional, academic strategies and resources, including access to surveys and professional networks of in-the-know colleagues, high-level skimming, and deprioritizing redundant research as a time management technique) but coming to a full understanding of the possibilities inherent in her research question, the weaknesses of the work thus far undertaken, the implications of their findings, and so forth, all with an eye to her own intellectual gaps and shortcomings. (She knows that, for example, research within molecular biology may not be her strong suit, though it pertains to her research question, so she takes care to re-read and to do background reading to account for that shortcoming.) Alternatively, let us imagine that our researcher was thorough out of a desire to discover unexplored areas of study or hidden, implicit assumptions in the research, to move beyond accepted frameworks. Of course, were she to make such a discovery and realize where and how one might surpass an axiom or bias, she would in fact have a kind of propositional knowledge at her disposal. But it seems inaccurate and limited to say that her epistemic aims begin and end with a search for truth or propositional knowledge instead of, say, aiming at a practice of questioning accepted methodology, or probing and surpassing prior intellectual limitations. Her goals in each of these cases—understanding and discovery—of course involve knowledge, as all epistemic aims must, but they surpass that aim in some crucial, definable way that seems at least equally valid for characterizing as an epistemic virtue as desiring knowledge.

Whether you subscribe to the idea of a kind of "intellectual *eudaimonia*," or if you see *eudaimonia* as the over-arching telos of both moral and intellectual virtue, both are potentially welcoming of multiple epistemic ends. To truly "flourish" means using our reason to regulate desire, behavior, and action, as well as to *inquire*, *discover*, *learn*, *understand*, *explain*, and *know* (both know *how* and know *that*). All of these epistemic processes are equally worthy of inclusion as epistemic aims.[335] Although I am arguing for a more expansive repertoire of epistemic ends than has been traditionally emphasized in virtue epistemology, especially in reliabilist virtue epistemology, I don't think we need to *exclude* propositional knowledge or justified true belief from the list of legitimate epistemic ends. While inquiry and understanding of course involve knowledge, it is still possible to desire propositional knowledge apart from these ends. Such a desire is unquestionably epistemic and belongs in the domain of epistemic virtue. As long as we don't *limit* epistemic virtue to only this narrow aim, I don't see a good reason for it not to be included as a worthy aim for epistemic virtue.

Regardless of the epistemic aim—whether it be knowledge, truth, understanding, learning, discovery, wisdom, or so on—is there any success condition that must be met, in order for something to be considered an epistemic virtue? I've already discounted the success condition attached to achieving the narrower aim of truth or knowledge, but I do think our last condition is necessary: *4) Reliable at achieving some other epistemic end.* Why should this count as a qualifying condition when the similar reliability condition in relation to truth doesn't meet the cut? As Julia Annas points out,[336] there is not one but *two* aims to consider when discussing the success of a virtue: the *telos* and the *skopos*. The *telos*, of course, is a virtuous life, or

[335] Equally valid, I suppose, would be *both* 1) and 4), if there was an epistemic trait that aimed at both equally and simultaneously.
[336] Julia Annas, "The Structure of Virtue," in *Intellectual Virtue*, ed. Zagzebski and DePaul, 24.

eudaimonia—the indirect, overarching goal of virtuous action.[337] The *skopos* is the direct, immediate goal of any particular action. Annas follows the Stoics in claiming that success in achieving the broader goal is more important to virtue ethics than success in achieving the immediate one, since whether or not the action actually achieves its intended outcome is in part dependent on moral (or epistemic) luck.[338]

> From a virtue ethics point of view, which is the success that matters? Virtue ethics is concerned with the person's life as a whole, with character and the kind of person you are. […] when the virtuous person fails to get her target through no lack or fault of her own, a history of usual success here is not to the point. We have to choose which kind of success matters, and any virtue ethics in which the issue is clearly faced comes down on the side of success in achieving the overall aim, which is compatible with failure to achieve the immediate target.[339]

Almost all actions which would use epistemic virtues in their execution do involve some kind of knowledge gain as their immediate target: when being open-minded, one must be open to *new knowledge* (to some particular thing being true), when being inquisitive, one actively pursues *new knowledge* (or the truth about something), and so forth. Regardless of whether one actually gains the knowledge sought, the overall aim of using our reason excellently that is entailed in being open-minded or inquisitive is more important than the immediate target, because it contributes to or constitutes intellectual well-being, or a life *well-reasoned*. Just as a firefighter doesn't fail to act virtuously (i.e., courageously) if he fails to save the life of a person trapped in a burning building,[340] neither does failure to hit upon the truth in some path of research prevent the researcher from carrying out her inquiry in a way that is virtuous (e.g., honest, thorough,

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[337] At least, this is true for the moral virtues. Whether we still consider the telos of intellectual virtue to be *eudaimonia* or some notion of intellectual flourishing is a matter of debate.
[338] Annas, "The Structure of Virtue," 25-27. Annas goes on to say that epistemic virtues look as if they might have the opposite structure. If truth is the goal of an epistemic virtue, it seems more important than with ethical virtue that you hit the "immediate target" (29). However, this conclusion is only relevant if you take truth as the main goal of epistemic virtue. Annas alludes to other possibilities, as well (32).
[339] Annas, "The Structure of Virtue," 25, 28.
[340] To borrow Annas' example, "The Structure of Virtue," 24.

careful, etc.). In the short-term view, a courageous person may not be successful in saving someone from a fire, a just person may not actually carry out a fair distribution, but their courageous and just dispositions reliably contribute to their achieving (or comer closer to) *eudaimonia* nonetheless. If we return once more to our thorough researcher, it is intuitively plausible that the more she engages in her thorough research to engage meaningfully in projects rather than "just to know,"[341] or the more she engages in her thorough research to discover and surpass the limitations of prevailing views rather than to merely absorb what is "proper" for her to know,[342] the more virtuous her habits of inquiry seem to be.

A question remains: If success at achieving broader epistemic goods such as understanding, wisdom, inquiry, or learning is a requirement of epistemic virtue, while success at achieving truth or knowledge is not, does that indicate that those other epistemic goods are more central to virtue than truth or knowledge? I would argue yes, for several reasons. First, epistemic goods like inquiry or understanding involve a greater degree of activity than propositional or theoretical knowing. They require us to *use* our reason to pursue more complex truths. If living virtuously can be described as using our reason (or, more expansively, our bodies, capabilities, gifts, presence, time, and skills) excellently, it seems a relatively straightforward jump to say that *excellent* use involves *active* use. Second, knowledge, while clearly an epistemic good, seems more on par with other self-sufficient and incidental goods such as health, wealth, good looks, and—to some degree—prestige and friendship, which are subject to a high degree of moral luck. Knowledge and truth, likewise, seem more subject to epistemic luck than goods that depend on the active regulation of our reasoning capacities, tendencies, and behaviors. Third, while having

[341] This, of course, reflects Heidegger's main concern about curiosity.
[342] "Discovering and surpassing the limitations of prevailing views" being Foucault's description of a worthwhile curiosity, and "merely absorbing what is proper for one to know" being his description of a kind of curiosity that isn't worthwhile.

too little knowledge probably isn't something one would imagine in a virtuous life, having an *abundance* of knowledge without other intellectual goods probably wouldn't make the cut either.

Do epistemic goods such as understanding, learning, or wisdom stand as self-sufficient ends between the immediate goal of many epistemic virtues (knowledge) and the telos of all virtue (*eudaimonia*)? Or do they stand as intermediate ends between knowledge and a single overarching epistemic telos (intellectual *eudaimonia*)? Or, do they themselves make up that intellectual *eudaimonia*? Resolving these questions need not be crucial to our purposes here. We can agree that they are, in some fashion, a telos, and if we also agree that reliably arriving at truth need not be a qualifying condition of epistemic virtue, that right aim is more important than hitting the mark,[343] and epistemic *processes* matter more than a particular state of "*knowing that p*," then this is enough to make epistemic goods such as learning more central to virtue than arriving at true knowledge in one particular instance or another.

III. Curiosity Against the Criteria

So, I have proposed a picture where epistemic virtue is something that aims at knowledge and/or other epistemic goods, and reliably results in "active" epistemic goods beyond knowledge/knowing (which constitute or contribute to intellectual eudaimonia and/or eudaimonia in general). Given this picture, how does curiosity fare? How do we know if curiosity is part of an intellectually well-lived life? It would need to fulfill the qualifications of epistemic virtue, first of all. Beyond that, we rely on fuzzier indicators: Does it support or complement the development of other likely intellectual virtues? Is it regarded as such across multiple modalities of understanding—historically, culturally, scientifically? Can we measure or

[343] Allowing that right aim will, undoubtedly, result in hitting the mark more often than wrong aim, but that a gust of sudden wind could blow the arrow off course without implicating the markswoman's ability.

witness its effects, and if so, does it improve the quality of our lives and the lives of those around us? Can you imagine a robust, healthy, empowered, active, responsive intellectual life without that trait?

To tackle this, let's look at how curiosity stacks up against the definition of epistemic virtue I've put forth by looking at curiosity's aim. Curiosity universally aims at acquiring new knowledge. Its *skopos* is to achieve immediate satisfaction by way of the piece of information it wants to know. I think it is fairly safe to say that, usually, it doesn't aim at anything beyond that. Of course, sometimes one may be curious about how something works—and if the curiosity is carried through, it can result in increased understanding at a deep level involving cause, effect, connection, implications, and so forth. However, it would be a mistake to say that curiosity in any consistent way aims at anything beyond wanting an answer to a concrete question, or a bit of knowledge, usually piecemeal. Wanting to know *some thing*, on the other hand, is never absent from curiosity. Many accounts of curiosity affirm this, describing it as wanting to know something for its own sake, without necessarily thinking about the utility of that knowledge or any grander purpose or connection. (Augustine and Heidegger in part fault it for this reason.)

Now let's examine what curiosity reliably brings about. Does it achieve its *skopos*? Perhaps often, but it would be hard to argue always, or even most of the time. Not every instance of curiosity is followed through to its satisfaction. In its best virtue form, it may be consistently followed through but nevertheless fail to hit the mark. Hobbes' take on curiosity, for instance, supports this conclusion—curiosity results in knowledge, but not the same knowledge for all. We can arrive at inaccurate causal knowledge, or merely come to different conclusions about a causal chain. When we think back to the argument regarding intellectual heroes, we see clear

cases of intellectually curious individuals who got it wrong, repeatedly, and thereby never truly arrived at the knowledge they sought.

But what about other epistemic goods? Whether one actually succeeds in acquiring the knowledge about which one is curious, curiosity still involves a bevy of epistemic operations—first of all, an awareness, attention, or *noticing*, for the curiosity to even spark or take hold; question formation, to motivate the inquiry; and investigative skills, if the curiosity is followed through—all components, in short, of *learning.* The immediate goal of any instance of curiosity is not *to become a good learner*. Rather, it's to find out an immediate, particular piece of information; to *come to know*, not necessarily to *learn*. There are many ways to come to know something that may not quite qualify under a richer understanding of the term "learning," which in my view involves at least some of the following: motivated inquiry, memory, skill, reflection, revision, awareness, and so forth. But curiosity, with all it involves, may result in an end that is broader than its immediate target.

The philosophical treatments of curiosity examined in chapter two bear out the connection between curiosity and learning. Though Augustine called curiosity "perverted learning," he nevertheless acknowledged that he was better able to learn the foreign language he was curious about than the foreign language he was not curious about. As a source of intrinsic motivation, it can provide an incredibly rich stimulus for learning that doesn't depend on external rewards or punishments. Plutarch holds a similar position to Augustine, acknowledging that curiosity is useful for learning, while also cautioning that natural, base curiosity can lead you to learn things that are detrimental to your overall (or spiritual) well-being. Though Aquinas asserted that studiousness regulates our desire for *knowledge*,[344] it also, in its secondary

[344] "[T]his virtue derives its praise from a certain keenness of interest in seeking knowledge of things," (Aquinas, *Summa Theologica*, 2-2.166.2 ad. 3).

operation as a virtue stemming from courage, involves overcoming our avoidance of "the trouble of *learning*."[345] Studiousness is a virtue in part because it leads to learning (when learning is proper and dictated by reason). For Hume, a love of truth and success in reaching it are not the primary features of curiosity. Instead, he claimed that it was the *mental strain* of learning, the perseverance and passion with which we *pursue* knowledge and new discovery, that epitomized curiosity. Heidegger also indicates that merely getting at knowledge would not be enough to redeem curiosity; a deeper understanding, a more active orientation is required. For Foucault, likewise, curiosity's value is not merely to gain "a certain amount of knowledgeableness."[346] Though this will undoubtedly happen, value does not lie merely in reaching knowledge, but in *overcoming obstacles* to discover *new* things about what is already "known."

That curiosity leads to learning is also indicated by findings in chapter three. In the psychological literature, the Kang et al., Gruber et al., and Jepma et al. studies all showed that curiosity activated learning centers in the brain.[347] Curiosity can even result in "auxiliary" learning of things we're not even intending to learn, as we saw in the Gruber et. al. experiment, which found that "the curiosity state led to better learning, even for the things people were not curious about."[348] And studies on infants' attention[349] points to curiosity's use of novelty as a method for maximizing learning. [350] We also saw a connection between learning and curiosity in its repeated inclusion in school and district mission statements, which see the development of

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[345] Ibid., my emphasis.
[346] Michel Foucault, *The Use of Pleasure*, 8.
[347] Kang, et. al., "Wick in the Candle of Learning;" Gruber, et. al., "States of Curiosity;" and Jepma, et. al., "Neural Mechanisms."
[348] Kidd and Hayden, "Psychology and Neuroscience," 454.
[349] Dennis Kinney and Jerome Kagan, "Infant Attention to Auditory Discrepancy,"; Kidd, et. al., "The Goldilocks effect: human infants allocate attention to visual sequences;" Kidd, et. al., "The Goldilocks effect in infant auditory attention."
[350] Recall this quote from chapter three: "This attentional strategy likely prevents [the infants] from wasting cognitive resources on overly predictable or overly complex events, therefore helping to maximize their learning potential." Kidd and Hayden, "Psychology and Neuroscience," 455.

curiosity as part of their educational goals, as well as related educational events such as the Atlanta Science Festival, which sees cultivating curiosity about science as crucial to developing lifelong learners in STEM fields.

If we accept this proposal—that learning is curiosity's overarching telos despite its more immediate target of reaching specific facts, *and* that curiosity reliably achieves this outcome—one might still question whether learning even counts as an epistemic end that helps constitute or contributes to "the good life." Is learning a part of what it means to live well, to flourish, or to achieve our proper function as human beings? While that is too large a question to adequately respond to here, there is certainly philosophical precedent for answering yes—Aristotle and Hobbes, for instance, both identify our capacity for reason as well as our desire for knowledge as what makes us distinctly human. Of course, we can come to know things without involving skilled learning processes or deep understanding, but this kind of knowing is bound to be shallow in comparison to the type of knowing that stems from involved processes of learning that we need in order to engage in meaningful shared projects. Given our incredible capacity for reason, if we are to achieve our proper function then using our reason to learn is a large part of what that might mean.

IV. The Implications of Classifying Curiosity as an Epistemic Virtue

There are a number of implications that follow from classifying curiosity as an epistemic virtue, and doing so according to *my* understanding of epistemic virtue—which is responsibilist, modeled on classical eudaemonist virtue theory, and privileges broad epistemic ends. These implications are important for re-evaluating past debates about curiosity—for defending curiosity from one of its most stubborn criticisms, for broadening curiosity outside of a narrow epistemic

association to knowledge acquisition, and for identifying one potential avenue for how curiosity can help us overcome epistemic challenges.

Firstly, if the epistemic value of curiosity lies less in hitting upon true propositional knowledge and more in achieving learning, the *type* of knowledge sought is less central to curiosity's status as a virtue. Of course, it is still important to question the objects of our curiosity—we don't want to our curiosity to harm others, for example, through exoticization or prying into private matters. But the insubstantial, fleeting, or superficial object of curiosity can nevertheless have epistemic value: it can inspire question-formation, motivated inquiry, causal reasoning, memory, and awareness of gaps in your understanding, all of which are involved in curiosity's ability to help us learn. Because virtue works over the long term, pursuing an "unimportant" or "superficial" question isn't *necessarily* vicious. As you continually practice a virtue in its imperfect form, you become a better shot; as curiosity settles into a disposition through its exercise, the more likely you are to keep asking questions, keep learning, and hit upon weightier questions as you become a better learner. Many conceptions of curiosity—from the ancient Greek etymology surveyed in chapter one, to Heidegger's characterization of curiosity as "idle" and "fallen" described in chapter two, to the casual use of the phrase "just curious…" explored in chapter three—associate curiosity with trivialities, often cast in a disapproving light. However, if we see curiosity as valuable for learning, as having an *overall* value that is greater than hitting upon any one particular fact, curiosity becomes worthwhile even when it appears oriented towards seemingly superficial objects. This is evocative of Foucault's attitude toward curiosity: that it is precisely curiosity's non-prejudicial interest in almost everything, *including trivialities*, that makes it such a powerful force for discovery.

Second, identifying curiosity as an epistemic virtue in this way recognizes the importance of curiosity to our *overall* well-being. While curiosity certainly can lead us to acquire new knowledge, it also helps us achieve something greater than mere propositional knowledge. Coming to that simple conclusion can help us recognize curiosity as something integral to our lives as a whole, rather than important just in narrow contexts related to, say, STEM education, where it is currently frequently mobilized. In my next chapter, I will explore the idea of curiosity having a wider import beyond the epistemic realm, and in my conclusion I will present several diverse, practical avenues where curiosity is impacting our personal and collective well-being.

Third, as an epistemic virtue that supports learning, curiosity may be particularly valuable in overcoming epistemic "bad luck," including ignorance and prejudice. For instance, for someone who had the bad luck to receive little schooling, curiosity may help that person gain both the knowledge and the learning—the skills, experience, and abilities associated with it—that may have come with a more robust formal education. This example holds true in the opposite direction as well, from the proponents of unschooling and those who believe that formal education may prevent the learning and knowledge-gain that would have otherwise occurred without it. For those who had the bad luck of receiving formal schooling, curiosity may be a means to overcome the false knowledge and stifled skills that result. Similarly, those who have had the bad luck to inherit prejudiced beliefs from their early teachers may use curiosity as the means to "get outside themselves" and examine what they think they know, and if what they think they know is in error.

Lets turn for a minute to the concept of ignorance, which has gained critical theoretical attention recently by critical race theorists, among others. In general, epistemologies of ignorance focus on the ways in which ignorance is formed or impacted by our cultural identities

and situatedness in social systems. In this view, ignorance is not merely or not always a simple *lack* of knowledge, but a "substantive epistemic practice in itself,"[351] and one that is socially and politically motivated. As Shannon Sullivan says in her essay "White Ignorance and Colonial Oppression: Or, Why I know So Little about Puerto Rico," "[R]ather than oppose knowledge, ignorance often is formed by it, and vice versa."[352] In this essay, Sullivan purposefully calls attention to this co-constitutive nature of ignorance and knowledge by referring to ignorance as "ignorance/knowledge." This definition is important when we consider how curiosity operates.

Recall the psychological finding from chapter three that curiosity always operates against a backdrop of what is previously known: there is an ideal range of novelty, complexity, or confounded expectations *in relation* to background knowledge that spurs curiosity. (The labels "information gap theory," "novelty bell-curve" theory, and "moderate discrepancy hypothesis" all named this basic operation.) Curiosity doesn't help us merely fill *voids* in our knowledge and understanding, but *gaps*—from one substantive belief to another. In other words, "ignorance" is in part made up of norms, beliefs, and understandings that we already possess. Curiosity feeds off that background knowledge in order to recognize experiences, objects, and ideas that seemingly violate that background knowledge—similarities that aren't the same, exceptions and "impossibilities," new ways of seeing and being.

Recall also from our psychological research that there is an immediate biological advantage to pursuing the "safe option" and selecting the *exploitative* route over the *exploratory* one when it comes to making choices. However, in the long run, the exploratory option is also crucial to our well-being. If ignorance is a substantive set of beliefs positioned in order to ignore inconvenient, potentially "unsafe" or damaging truths (to our egos, our moral self-worth, our

[351] Linda Martín Alcoff, "Epistemologies of Ignorance: Three Types," in *Race and Epistemologies of Ignorance*, Ed. Sullivan and Tuana, 39.
[352] Sullivan, "White Ignorance," 154.

power, our pocketbooks…), then a behavioral mechanism like curiosity that helps push us to select the "exploratory" option—noticing those information gaps and overcoming obstacles in order to bridge them—is one potential antidote to ignorance. Ultimately, it is in that "long run," in the *telos* not the *skopos*, that curiosity proves most promising as a resource for ameliorating ignorance and prejudice: for as an epistemic virtue, curiosity involves *repeated*, dispositional operations (such as recognizing gaps in understanding and pushing us to bridge those gaps) that run counter to the continuation of ignorance.

V. Conclusion

Turning to virtue epistemology is the most direct route for thinking about curiosity within a virtue framework, since curiosity so clearly has to do with knowledge and learning. It is also the most immediately relevant to current philosophical discussion of curiosity, which regards it as a potential epistemic virtue. However, establishing curiosity as an *epistemic* virtue does not fully address curiosity's most intriguing and vexing quality—its ambivalent ethical quality. Even expansive theories of epistemic virtue, which see epistemic virtues as having significant bearing on non-cognitive domains, still focus primarily on curiosity as first and foremost an epistemic operation. This at first may seem reasonable—curiosity is, after all, something that aims at knowledge. However, our survey indicated other reoccurring characteristics that give curiosity meaningful shape—such as its passionate nature and moral significance—and it is unclear that a single one of them should be placed unquestionably at curiosity's conceptual center.

Therefore, in my next chapter I will give an account of curiosity as a virtue beyond the confines of epistemology. How do we see curiosity operating as a virtue when we no longer consider curiosity as primarily (or solely) epistemic? What, in other words, is its *ethical*, as

opposed to primarily epistemic, value? How do we see curiosity operating as a vice? Does positioning multiple kinds of curiosity on a virtue-vice spectrum help clarify the starkly different evaluative positions of past philosophical accounts of curiosity? Finally, in my concluding chapter, I will address how we can leverage these new understandings of curiosity as an epistemic and ethical virtue within educational contexts.

5

Curiosity as an Ethical Virtue

I. Introduction

In my last chapter, I argued that curiosity should be counted among the epistemic virtues, when such virtues are seen as characteristics that aim at true knowledge or other epistemic goods, and that reliably assist in the acquisition of such complex epistemic goods as wisdom, understanding, or learning. These type of responsibilist epistemic virtues are clearly different than Aristotle's own epistemic virtues, which tended to name the kinds of complex epistemic "goods" or operations I just listed: practical wisdom (*phronesis*), and different kinds of learning and understanding (*sophia*, *nous*, *technê*). Epistemic virtues considered as discrete skills, capacities, or traits[353] with a more narrowly defined range of applicability are more akin to traditional *moral* virtues (generosity, courage, temperance, etc.), and like traditional virtues, they are deeply relevant to ethical considerations.[354]

According to a virtue model, one does not simply spring into being a fully-formed ethical agent. Our "moral muscles," if you will, grow and strengthen over time, informed by our interactions with the world and with our teachers. When determining the right course of action, we must be able to remember past experiences, recognize similarities and identify differences in situations, weigh and judge competing considerations, project future ramifications, and undoubtedly many other operations. In other words, in order to act virtuously we must *learn*.

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[353] Whether virtues should be conceived of according to a skill model or along other lines is of course a topic of much debate, but which is not central to my purposes here.

[354] Although the question of how distinct the epistemic virtues are from moral virtues is relevant here, it is a complex issue with a large body of scholarship behind it, and to delve too far into that topic would certainly detour us from our focus on curiosity. I think it is enough simply to state that for my purposes here, epistemic virtues are distinct enough to give them conceptual clarity, while at the same time epistemic and moral realms are necessarily entangled and cannot be fully divorced.

And that learning is necessarily socially-embedded, constructivist, and bound up with the project of human flourishing.

Most of the philosophical and psychological literature from the modern era onwards, as well as our contemporary, everyday language, has framed the benefits of curiosity as primarily epistemic. Though we do see some acknowledgment of curiosity as a vehicle for interpersonal care, on the whole, curiosity's beneficial impact is considered within the realm of theoretical knowledge as distinct and separate from the ethical realm. But this underemphasizes an important and longstanding dimension of curiosity. As I stated in the introduction, my goal here is to broaden our perspective of how curiosity operates as a virtue. Of course, it remains important to explicitly recognize the beneficial import of curiosity's epistemic dimensions, which is why I have, in the previous chapter, taken pains to recognize that dimension formally by classifying curiosity as an "epistemic virtue." But even in the recognition of curiosity's beneficial epistemic impact, I believe it is important to broaden our definition of epistemic virtues: as things that help us reach beyond the pursuit of mere truth to other epistemic goods such as understanding, wisdom, and learning.

But we shouldn't stop there, or we would be missing out on a further opportunity to broaden our understanding of curiosity as a virtue and to clarify curiosity's value given its ambivalent ethical history. We should continue to broaden our perspective of curiosity as a virtue *beyond* the epistemic realm. While curiosity has an essential relationship to seeking truth and knowledge, it also has an intimate connection to the ethical sphere. By helping us learn, curiosity can aid us in *all* endeavors which require learning, including ethical development. Curiosity can certainly help us achieve theoretical learning, but it can also help lead to *moral learning*. By this phrase, I mean several different things: first, learning about things that have moral relevance,

second, learning about the moral saliency itself which adheres to those things (e.g., self-reflexively understanding ourselves as subjects who have choice, action, and agency, understanding that our choices have normative significance, understanding our choices as having impact on others with whom we are in relation, and so on), third, learning in a moral (i.e. praiseworthy) way as opposed to learning in a way that is immoral, and fourth, learning that is itself moral (i.e., praiseworthy) in relation to an immoral refusal or denial of learning (i.e., ignorance). Articulating curiosity's affect on moral learning can, I hope, unlock some of its power and possibility as a moral aid, power that is especially potent if we understand curiosity as a virtue—a universal natural capacity open to cultivation, social reinforcement, and transfer.

A virtue model is well-suited to all of the curiosity trends already outlined—as a trait that stems from human nature, and as an activity that involves both affect and cognition, curiosity is at home amongst popular definitions of virtue. It also seems plausible that curiosity accords with this additional, important aspect of virtue: the ability for a single action to turn toward either virtue or vice due to differences in feeling, application, or purpose. For example, rushing to put out a fire in my kitchen would count as a small act of courage, whereas rushing to put out a fire on the side of the road would probably count as foolhardiness, since I likely would not have the knowledge or equipment to succeed and might needlessly endanger myself or others. This malleability potentially accounts for the multiplicity of curiosity, allowing the "same" phenomenon to lead toward both virtuous and vicious ends.

Other aspects of virtue fit comfortably with our running conception of curiosity as well, particularly the idea that individual virtues affect other aspects of our character, and vice versa—that other aspects of our character affect our virtues. For example, to be appropriately generous, I must have a good sense of justice to determine when, where, why, to whom, and how much I

should give. Friendship can help strengthen my virtues, and my virtues help strengthen my friendships. It seems plausible that in its best form, curiosity would follow this same structure, and would receive support from a spate of other virtues, both epistemic and moral (for instance, follow-through, tenacity, or grit—in order to move through the process of inquiry; testimonial justice,[355] self-awareness, critical analysis, and thoroughness—to be able to evaluate fairly the information one finds; and so on). These virtues would work in tandem with curiosity to inspire the type of learning that a virtuous person would undertake.

What does curiosity need in order to be considered a moral virtue? 1) Curiosity needs to contribute to and be necessary for achieving the "good life." It needs to belong on the list of traits or faculties that make us who we are and toward which we strive. We would need to recognize it as part of what it means to be a good *person*, not just a good knower or even a good learner. 2) Curiosity needs to "hit the mark" in terms of its motivations, objects, degree, and so on, to operate in its most virtuous form. Of course, if we accept the fact that "curiosity" as a general trait or phenomenon could be referring to many different locations on the spectrum between vice and virtue, then not all instances of what is called "curiosity" will be virtuous. But curiosity needs an apex, an ideal form against which other instances are measured and may fall short. 3) Curiosity probably needs the support of other virtues alongside it for it to function in its ideal sense. This was true for the classical virtues, as I have mentioned above: virtues were mutually reinforcing, and some so intertwined as to be nearly impossible to separate in the actual application—none more so than practical wisdom. 4) Curiosity would, in turn, need to be supportive of other virtues as well. In the rest of this chapter, I will describe how curiosity can meet these qualifications. I will explore how curiosity helps us in being good people by enabling

[355] Miranda Fricker, *Epistemic Injustice*, "a virtue such that the influence of identity prejudice on the hearer's credibility judgment is detected and corrected for," 5-6.

moral learning, how it can fail to "hit the mark," and how virtuous curiosity both depends on and supports care—in my mind, one of the most important virtues of our time and one that has substantial historical and etymological overlap with curiosity.

II. Moral Learning

In order for curiosity to be an ethical virtue, we need to recognize it as part of what it means to be a good person (1, above). A good person, I assume, must have an interest in the good, and in being good, and must be responsive to signals her culture and environment sends about what is good and what is not good. Curiosity is part of what is needed to fulfill this requirement, as curiosity aids learning about things that have moral relevance and does so in a way that attends to external stimuli. Regardless of how broadly you define "things that have moral relevance"—as almost every situation we find ourselves in, or a narrower set of moral problems—curiosity's function to help us learn can assist us in discovering knowledge about moral matters and recognizing the morality that is involved in them, whether they have to do with other cultures, other people, other places, or ourselves.

Let's look at a few more examples from daily life to see how curiosity can help us learn about things that have moral relevance, and see if imagining a non-curious response squares with our conception of the good life. Not long after I moved to Oakland, I was walking around my neighborhood, and I saw a flyer advertising a Juneteenth celebration. I had never heard of Juneteenth before, but it seemed like some sort of holiday, and since I love holidays and celebrations of all kinds, I became curious. What is it? Why hadn't I heard of it before? I looked it up on my phone and read about it. I found out that it is a holiday commemorating the end of slavery in the United States, marking the day (June 19th, 1865) when emancipation was

announced in Texas, the last stronghold of confederate power. My second question then took on new, troubling meaning for me—*why hadn't I heard about it before?* I felt as though a gulf of regional and cultural difference has been revealed. Just a few weeks later, the 4th of July holiday was upon us, and I was conscious for the first time that this was not the only U.S. holiday celebrating liberty and freedom. The following year, when my work hosted its first ever company-wide celebration of Juneteenth, the gulf of cultural difference did not seem as wide. Armed with some background knowledge, my cognitive capacity was not quite so taxed, and I could listen to the stories my coworkers' shared about their experience with more attentiveness and participate in conversation and celebration.

Last month, I was at a party. Over the course of the evening, I remember talking to three people for extended periods of time. When I met the first person, I remember asking them standard questions about where they lived and what they did for work. They answered appropriately, but not enthusiastically. Like my mother taught me, I asked follow-up questions to be polite, but it was admittedly a struggle to think of what to ask them. They, in turn, asked me what I do, and I responded, but did not elaborate about my work, since they didn't really seem that interested. The second person I met, when we launched into this same pattern, quickly moved on to tell me about their passion project, instead. I became curious how they started this project, since it seemed so different from their day job. I started asking questions about how they balanced their work, how their past experience led to this point, what their future aspirations were for the project, and so on. Of course, we also talked in more depth about the project itself, and we ended up exchanging our contact information. When I met the third person, I was tired, and could not muster the energy to ask them any questions. They talked for most of the time, and eventually our conversation stalled and we turned our attention back to others in the group. A

day or two after the party, I cannot remember the names of the first or third person I met, or any other details about them. I still can't, after writing this description. But the second person and I messaged each other, and have plans to meet again to continue our conversation.

Last year, my partner and I went to Kauai for our honeymoon. But, at the first beach we visited, the shoreline that I was so looking forward to enjoying was strewn with plastic bottles, styrofoam, fishing nets, straws, and lids from disposable cups. I felt a deep sense of disgust and sadness. The next beach we went to looked much the same. The third beach, inexplicably to me at the time, was quite clean. I became curious. Why were some beaches more littered than others? (In this case, it was due to ocean currents.) How much of the global coastline is as trash-strewn as those first beaches we saw? How much of my own garbage is ending up in the ocean, or on beaches? Is some of this *my* mess? What would it take to clean this up? How can I contribute?

I hope these simple examples taken from my own experience begin to illustrate how curiosity can help our ethical growth. Since curiosity emerges out of our interactions with the world around us, with and from others, it can help push us into self-reflexive examination, as well as enable continued interaction with the world and others in it. Curiosity can help us notice those places, those moments, in which we lack self-transparency, when we are obscure to ourselves. I become aware of a gap in my self-knowledge, I recognize a dissonance between what I took for granted about myself and what I now realize I do not know. I become curious about a black holiday, and I come face to face with my own whiteness. I become curious about trash on a beach, and see the harm caused by my inaction. Foucault theorized that curiosity could help us reach beyond ourselves, and Plutarch believed that we could improve our own moral faults by turning that curiosity inwards. *Why do I believe this? Why haven't I ever noticed that?*

What can I do here? How do I fit into this picture? In both of these examples, it should be uncontroversial to claim that it was better to respond with curiosity than without. Of course, curiosity doesn't do the ethical lifting all by itself. Further questioning, and action, is needed—*How do I comport myself in black spaces, when I walk through the celebration, or respond when Juneteenth is mentioned in another context? What further self-education do I take on about plastics in the ocean? How do I shrink my waste footprint?* But curiosity allows these kinds of insights and experiences to emerge, and growth would not be possible at all without some kind of learning taking place.

Let's look at one more example, from Shannon Sullivan:

> I am not much of a basketball fan, but news of the first round defeat of the United States men's basketball team in the 2004 Summer Olympic Games caught my attention. The United States was trounced (92-73) by the Puerto Ricans—a stunning loss for a heavily favored team that was composed of some of the top professional basketball players in the National Basketball Association (NBA). But what struck me was the particular team that defeated the United States. I was not surprised that an underdog could be victorious but rather that, given my vague knowledge that Puerto Rico is somehow part of the United States, a country effectively could be beaten by itself in the Olympics. How could Puerto Rico field its own team, separate from the United States? Perhaps I was wrong that Puerto Rico was still part of the United States; perhaps an independence movement had taken place of which I was unaware. This seemed doubtful, but I could not otherwise explain the existence of a separate Puerto Rican team. And so I found myself stymied by the question, what exactly is the relationship of Puerto Rico to the United States?
>
> The short answer, I now know, is that Puerto Rico is an "insular area" or unincorporated territory of the United States that was granted a limited form of self-government in 1948, the same year that the International Olympic Committee recognized Puerto Rico as sufficiently independent to participate separately in the Olympic Games (Dryer 2004). But there also is a longer, more complicated answer that involves the United States' past and present status as a (neo) colonial power. That answer is related to at least three other questions: why do I and many other white people in the United States tend to know so little about the United

> States' relationship with Puerto Rico, how does that ignorance operate, and what are some of its consequences?[356]

Sullivan describes here a moment of curiosity: sparked by an incongruence in her everyday experience, an incongruence, moreover, stemming from an arguably "insignificant" particular, she becomes aware of her own lack of knowledge on the subject of Puerto Rico. But more specifically, she becomes curious about her own ignorance of her ignorance. She proceeds to inquire about that ignorance, and is able to place it within the context white colonialism and the structures of knowledge production and knowledge erasure that white colonialism produces to legitimize and reinforce its power. She states: "White people do need to educate themselves about the lives and worlds of people of color, but to effectively tackle racism, they also need to turn their gaze upon themselves and simultaneously examine the active operation of their ignorance."[357] In this instance, curiosity opened the door to an awareness of privilege and complicity in systems of racial oppression, which transformed into the ethical action of self-criticism and education—both self-education, and educating others through writing about and sharing her experience.

From this example we see that curiosity can empower self-transformation, but I want to return again to what allows curiosity to help us "get outside" ourselves. We do not just project curiosity spontaneously out of nothing; curiosity is responsive to the conditions, environments, stimuli, and people around us—to basketball games on television. Without the Juneteenth poster, without the trash on the beach piquing my curiosity, I would have not asked those questions. Even in asking questions, we can't always muster the feeling of curiosity from questioning alone.

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[356] Shannon Sullivan, "White Ignorance and Colonial Oppression: Or, Why I know So Little about Puerto Rico," in *Race and Epistemologies of Ignorance*, ed. Shannon Sullivan and Nancy Tuana (New York: State University of New York Press, 2007, 153-154.
[357] Ibid., 169.

Conditions, environments, stimuli, and people continue to engage, draw in, or surprise. Each encounter between myself and the three party-goers had the same structure, but genuine curiosity changed the nature and force of the interaction and the impact it would have on future action. The psychological studies seen in chapter three confirmed the idea that curiosity strengthens memory. And in strengthening memory, curiosity helped the interaction stick, ready to blossom into the beginnings of friendship.

Curiosity allows us to "get outside ourselves" by helping us recognize and examine our limits, but it also allows us to get outside ourselves by bringing us in relation with others.[358] Curiosity is not an isolated pursuit, but a responsive one—we are not just learning about ourselves through the process of curiosity, we are also learning about others. Though curiosity may begin with a self-centered concern (for example, wanting a clean beach for myself, and wondering about how *I* have been contributing to pollution), a healthy curiosity that follows through on inquiry and responds to further stimuli would naturally extend this concern to others (I no longer just want a clean beach for myself, but for my children, grandchildren, strangers, and even for other species). Learning opens a space for growth and change in how I see myself relating to the world, but its value doesn't consist solely in its capacity to inspire recognition of my own fallibility, lack of self-transparency, and agency. At the end of the day, curiosity opens up new dimensions of the world to us: I learn about ocean ecosystems as they exist in relation to me, but also as they exist *apart* from me, interesting and valuable in their own right. And then again, in turn, I can learn how to relate to those ecosystems anew, with greater understanding and a kind of dialogue.

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[358] And/or bringing us into *conscious* relation with others, or into *new* kinds of relation with others. In one sense, curiosity often only makes us *aware* of a relation we were already in without realizing it—but then again, by becoming aware, we change the nature of that relation and transform it into something new (or at least, something different).

Owen Flanagan, in his book *The Geography of Morals*, discusses such opening of new dimensions in terms of "possibility space."[359] He champions cross-disciplinary and cross-cultural perspectives in ethical inquiry, urging researchers to approach ethical questions with "historical and anthropological *curiosity* and critical political sensibility."[360] In order to know "where to go from here, how to go on, what to do next,"[361] or to see new "possibilities for becoming better than we are or the possibilities for better ways of achieving our ends,"[362] we need to ask: what resources do specific cultures have to overcome their ethical dilemmas? And if they don't have the resources required to change, how do they gain them? Do they discover novel solutions through innovation, or do external sources provide them?[363] It is only by paying *attention* to what other scientific disciplines, histories, cultures, traditions, and people have to say—by being *curious*—that we can access multiple "varieties of moral possibility" and avoid being "imprisoned by one's upbringing."[364]

To sum up, curiosity clearly helps us learn much that is ethically salient. It can:

- Help us learn about other cultures—including their histories, important moments, and celebrations.
- Help us learn about other people—including helping new friendships form.
- Help us learn about the world—including where geographical, ecological, and human interests meet and conflict.
- Help us learn about ourselves—including our own ignorance.

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[359] Owen Flanagan, *The Geography of Morals: Varieties of Moral Possibility*, (New York: Oxford University Press, 2017), 21. Thanks to John Lysaker for providing the recommendation to turn to Flanagan's work.
[360] Flanagan, *The Geography of Morals*, 12, my emphasis.
[361] Ibid., 15.
[362] Ibid., 11.
[363] Ibid., 6.
[364] Ibid., 11. Flanagan is quoting Alastair MacIntyre here: "On Having Survived the Academic Moral Philosophy of the Twentieth Century," in *What Happened in and to Moral Philosophy in the Twentieth Century?: Philosophical Essays in Honor of Alasdair MacIntyre*, edited by Fran O'Rourke, (Notre Dame, IN: University of Notre Dame Press, 2013), 17-34.

And, importantly, curiosity helps us learn about these dimensions of life in ways that are not fully determined by our own internal motivations. It is a dialogue with our surroundings, one that can launch us on a course of ethical action and *helps make us into the kind of people we strive to be*—attentive and thoughtful, compassionate and engaged.

III. Vicious Curiosity

Now that we have examined how curiosity contributes to the good life through helping us learn about morally relevant matters and recognize their moral relevance, we must turn to the second criterion for curiosity to be considered a moral virtue: it needs to "hit the mark" or the "golden mean." In other words, in order to be a virtue it needs to not be vicious. Of course, as with any virtue, there will be a spectrum of vicious forms of curiosity that suffer from being either improperly motivated or from existing in a state of excess or deficiency.

Virtuous curiosity, first of all, needs to be properly motivated. In the same way that giving money to charity with the intention of improving your social status does not exemplify the virtue of generosity, curiosity that aims at titillation or schadenfreude, spectacle or entertainment, self-aggrandizement, fulfillment of stereotypes and previously held beliefs, etc., does not fulfill the terms of curiosity as a virtue, which aims at learning the truth about some novel phenomena.[365] Since curiosity has an epistemic aim, it can fall short of virtue when it fails too

[365] One example of an historical phenomenon that could be examined to see how curiosity operated viciously or virtuously is in world fairs and exhibitions by colonialist powers from the 1870s to 1930s, which included displays of exoticized subjects from colonial territories. It is likely that elements appealing to curiosity such as novelty and a cognitive gap between known and unknown were involved in such displays, and a number of questions follow: Did the "human zoos" at these exhibitions capitalize on curiosity? What kind of curiosity was encouraged, and what kind activated? What were the responses by visitors, and did they demonstrate a range of virtuous to vicious curiosity? This is one potential area for future work and research. See: Sullivan, "White Ignorance"; Anne Dreesbach, "Colonial Exhibitions, 'Völkerschauen' and the Display of the 'Other,'" in *European History Online*, published by the Leibniz Institute of European History, published 2012-05-03, http://www.ieg-ego.eu /dreesbacha-2012-en, accessed 2019-02-02; Kurt Jonassohn, "On a Neglected Aspect of Western Racism," Montreal Institute for

support its telos: learning. But as it fits within the broader sphere of ethical virtue, it can also fall short if it fails to support its overall aim of well-being. In the first case, some, like Heidegger, have identified as vicious any curiosity that distracts you from more "important" kinds of learning. In the second case, when curiosity ends up working *against* rather than *for* your greater well-being or the well-being of others, it is also no longer operating virtuously. Augustine, for instance, allowed that curiosity was effective for learning, but that it often drew you toward topics that would distract you from spiritual pursuits, thus damaging your soul in the long run. Plutarch also acknowledged that if you were too keen on learning the secrets of others it would be harmful both to your community and to your own moral development.

Curiosity can also fall short of virtue when it exists in a state of excess or deficiency from the mean. The best way to imagine this is not that someone possesses too much or too little of *virtuous* curiosity as a *trait*, but that a particular *state* of curiosity in response to some situation is inappropriate in its degree. Someone is too curious at the wrong time, or about the wrong thing, or not curious enough when they should be. In the philosophical accounts of curiosity surveyed in chapter two, we saw several cases where philosophers were concerned about an excess or deficiency of curiosity in conjunction with the *objects* that curiosity was directed toward. Remember the early Greek and OED definitions of curiosity that characterized it as an *excessive* or *undue* amount of interest in ornamental or inconsequential details. This "undue" interest in "things that don't matter" aligns with the objections named in the previous paragraph—the vulgar spectacle of the carnival or of the They caught up in everyday affairs distracts from more important subjects (such as God, for Augustine, or Being, for Heidegger). Or, we can get so

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caught up in our own curiosity about others that we don't pay attention to how it may be harming them, or ourselves by extension.

It is of course a matter of opinion and debate what situations call for curiosity, and to what degree—Foucault, for instance, would argue against the inherent viciousness of curiosity responses to "insignificant" details, and I have argued in the last chapter that our understanding of curiosity's epistemic benefits support Foucault's line of argument. However, the point stands that anytime curiosity works against our greater well-being, even if it helped us learn, it would not qualify as virtuous.

IV. Curiosity and Care

IV.1 Why Care?

Turning now to the third and fourth conditions of ethical virtue proposed in section I of this chapter, we need to ask: When curiosity functions as a virtue, what other virtues or character traits are supporting it in doing so, and what is it supporting in turn? There are many virtues we could potentially call out, but there is none so important or so entwined, in my view, as *care*. Theorists disagree on the relationship between care and virtue. While some see care as a part of virtue ethics,[366] others such as Eva Kittay and Sarah Held are opposed to categorizing care within the same umbrella as virtue, focusing on care ethics' emphasis on social relations, interdependence, and labor.[367] What most tend to agree on is that care does require appropriate motivation in the same way that virtue does. I will operate here under the assumption that care is

[366] For instance: Michael Slote, "The Justice of Caring," in *Virtues and Vices*, edited by Paul, Miller, and Paul (New York: Cambridge University Press, 1998); Margaret McLaren, "Feminist Ethics: Care as a Virtue"; Raja Halwani, *Virtuous Liaisons: Care, Love, Sex, and Virtue Ethics* (Peru, IL: Open Court, 2003).
[367] Virginia Held, *The Ethics of Care: Personal, Political and Global,* (New York, NY: Oxford University Press, 2006), 35; Eva Feder Kittay, *Love's Labor: Essays on Women, Equality, and Dependency*, (New York, NY: Routledge, 1999). A robust discussion of the merits and drawbacks of merging the two theories versus keeping them separate can be found in Maureen Sander-Staudt, "The Unhappy Marriage of Care Ethics and Virtue Ethics."

enough like a virtue (albeit a *very important and central* one, such as justice or practical wisdom) to operate in similar ways, though care may also in fact exceed the concept of virtue. In lieu of a more detailed answer to this debate, I will first provide a rough description of care and then identify the ways that care is compatible with curiosity such that they could plausibly serve as mutually reinforcing "virtues."

The first step in discussing how curiosity and care are related is to set out a rough definition of care. Just like wonder and curiosity, care has many evolving and contested definitions. However, descriptions by care ethicists do tend to overlap along a few prominent lines relevant to our discussion of curiosity. First, care is typically described as both a practice and a value.[368] As a practice, care involves *action*, and is seen as a form of labor or work.[369] As a value, it guides our action as well as our judgments. Second, care is fundamentally relational, and many see the maintenance of connection or relation as an integral part of caring activity—care describes the activities we pursue in order to maintain relationships. For instance, in Joan Tronto and Berenice Fisher's classic definition, care is "a species of activity that includes everything we do to maintain, contain, and repair our 'world' so that we can live in it as well as possible. That world includes our bodies, ourselves, and our environment."[370] Third, care is rooted in *specific*, *particular* situations, places, people, and relationships. As Held states, "[T]he central focus of the ethics of care is on the compelling moral salience of attending to and meeting the needs of the particular others for whom we take responsibility."[371] Care is dependent upon *context*, and emerges from the ethical considerations of the context at hand. Rather than starting

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[368] Held, *The Ethics of Care*, 42.
[369] Ibid., 36, 40.
[370] Berenice Fisher and Joan C. Tronto, "Toward a Feminist Theory of Care," in *Circles of Care: Work and Identity in Women's Lives*, edited by Emily Abel and Margaret Nelson (Albany, NY: State University of New York Press, 1991), 40.
[371] Held, *The Ethics of Care*, 10.

with a rule or principle that can be applied across contexts, care begins with the particular context, the particular individuals that we care for, and is guided by the particular situation. Fourth, care is both emotional and embodied. Some care ethicists focus on basic bodily needs, particularly of those who are unable to meet their own needs, and de-emphasize the emotional component.[372] Others, such as Noddings and Held,[373] emphasize the affective attitude of care and appreciate how emotional understanding can help us better determine what care is needed. These differences aside, what is central is that care cannot be practiced apart from our emotive, embodied selves—care involves both feeling and bodily action. We must be *moved* to care.

Curiosity is compatible with many of these elements of care. Though sometimes described as a characteristic or trait, it is a trait that requires *activity* in order to "form." Curiosity is fundamentally active, practical—it is part of a process of inquiry, bringing about a change from ignorance to learning. It is also relational, in that when we are curious, we are responsive to the environment and stimuli around us. Curiosity responds to some *thing*, and makes us aware of a lack of knowledge we have about that thing. Our ties to it, and perhaps our lack of ties to it, are laid bare. In responding with curiosity, we seek to strengthen our ties by knowing more. Curiosity is contextual in this way, as well, and has been repeatedly looked down upon throughout history for its tendency to focus on *particular* questions, facts, and lines of inquiry rather than more universal knowledge. Finally, curiosity is an emotional, passionate response to our environment. Recall that it is often described as a desire or hunger. It can be channeled into activity, but requires that emotional spark to operate and have impact.

Though care and curiosity have many commonalities, they are, of course, not the *same*. To have curiosity is not the same thing as to be caring, and care encompasses a much wider

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[372] Diemut Bubeck, *Care, Gender and Justice*, (Oxford: Clarendon Press, 1995), 129, and Daniel Engster, *The Heart of Justice*, (Oxford: Oxford University Press, 2007).
[373] Noddings, *Caring*, and Held, *The Ethics of Care*, 10-11.

range of response than curiosity alone. But the compatibility between care and curiosity does mean that the two can interact in *complementary* ways. In other words, they are well-suited to mutually support and reinforce each other. Care helps curiosity be virtuous by strengthening its ability to hit upon truth through an attentive-receptive mode of engrossment, and virtuous curiosity aids caring by supporting the "attentive" and "responsive" phases of care. I will take the rest of this chapter to elaborate on this claim. I will then propose that we recognize virtuous curiosity—curiosity that is aided by care and aids care in turn—by giving it the name "careful curiosity," so that we can distinguish it terminologically from vicious forms of curiosity.

IV.2 How Care Aids Curiosity

Curiosity does not aim at caring, per se. But curiosity's aim—knowledge—does factor in to the equation in an important way. When it comes to basic propositional knowledge, of course, aiming for true knowledge can be a relatively simple matter. Being receptive to the truth regarding this question: *How many countries have female heads of state?* is straightforward. But this one: *Why do so few countries have female heads of state?* may be more difficult. How does one determine the relevant truths involved? Will sociocultural beliefs on the part of the inquirer, or on the part of those producing the texts available for consultation, obscure the truths involved? How do I notice if truths are obscured? When curious about a person, a people, a culture, a place, when curious about something or someone that feels, thinks, has a complex history, even when curious about a simple matter that opens up onto something more complex, such as a basketball game opening onto operations of colonialist ignorance—curiosity's desire for knowledge is aided by a foundational principle of care: receptive attention.

Simone Weil described attention as a kind of suspension or receptivity, a readiness to accept the object of attention "just as he is, in all his truth."[374] She states: "Attention consists of suspending our thought, leaving it detached, empty, and ready to be penetrated by the object… Above all our thought should be empty, waiting, not seeking anything, but ready to receive in its naked truth the object that is to penetrate it."[375] But being open to accepting truth requires more than openness, it requires actively preventing yourself from projecting onto the object, what Noddings calls "engrossment" and what Selma Sevenhuijsen calls "commitment"—a commitment to listen, and to see issues from varying perspectives.[376] For Noddings, being "engrossed" in the other in need of care is essential to caring. Engrossment involves being receptive to the feelings, perceptions, background, desires, and needs of the other, with as little projection of oneself (one's own assumptions, presuppositions, background and feelings) as possible.[377] It is possible to be engrossed not only in individual people, but in objects and ideas as well. In fact, Noddings held that this "affective-receptive mode" of engrossment was "an essential component of intellectual work."[378]

How, indeed, does curiosity allow us to glimpse "possibility spaces," to put it in Flanagan's words, or "chains of possibility," to put it in Hobbes'? While curiosity does operate always in relation to preconceptions—the background knowledge that forms one ledge of the newly perceived "gap" in "information gap theory"—it is precisely curiosity's ability to see things as strange (in Foucault's words now) that is supported by care's engrossed, receptive attention. For something to initially register as curious, we must be able to see it as new or odd, refusing to fit with our assumptions or stereotypes, rather than neatly categorize it according to

[374] Simone Weil, *Waiting for God*, translated by Emma Craufurd, (New York: Harper Collins, 2009), 65.
[375] Ibid., 62.
[376] Selma Sevenhuijsen, *Citizenship and the Ethics of Care*, (New York, NY: Routledge, 1998), 87.
[377] Noddings, *Caring*, 30.
[378] Ibid., 34. And essential to our "quest for understanding" (ibid., 164).

what we think we already know. While our background knowledge does form the backdrop for curiosity to take hold, it does not completely determine what we find: otherwise, curiosity would be impossible. The more we are able to suspend judgment through a caring receptive attention, the more curious we can be—the more likely we are able to register things as novel, perceive and acknowledge gaps in our own knowledge, or see where substantive ignorance has clouded our understanding of a situation.

Even in care's engrossment, it is impossible to start from an absolutely "clean slate," so to speak. Noddings claims that there is an "initial motivational factor"[379] present when we are faced with something unfamiliar to us. The question "*What does this mean?*" is really preceded by the question "*What shall I do to find out what it means?*"[380] Thus, we are in a subjective position at the very start,[381] a position of action and choice. One possible answer to this question is to manipulate, assimilate, or analyze the unfamiliar. Another "possible answer, critical to many stages of intellectual activity, is not to act upon the object […] I let the object act upon me, seize me, direct my fleeting thoughts as I scan the structures with which I may, in turn, act upon the object. My decision to do this is mine, it requires an effort in preparation, but it also requires a letting go of my attempts to control."[382] Noddings is not denying that we do, or even that we should, "act upon the object" through an analytical mode of thought. However, our first engagement should be one of letting the object "speak" for itself, and when subsequently assimilating, judging, analyzing, or imposing various conceptual-theoretical structures on the

[379] Ibid., 164.
[380] Ibid.
[381] Although Noddings explicitly states (ibid., 170) that intellectual caring is not "ethical," I disagree with her definition, which places specifically *inter-personal* relations as the defining and limiting feature of ethicality.
[382] Ibid., 165.

object, to tread carefully and return to the receptive state to attempt to notice when or where we may have gone wrong.[383]

Care's complement to curiosity—in helping us limit preconceptions when encountering something in our environment, allowing curiosity to notice novelty and reach a truth guided by the object rather than ourselves—is even more resonant when one takes into account some further compatibilities between care and curiosity. Recall that the Latin root of curiosity, *cura*, means care, and care in this past context meant *attention*. Roughly half of the definitions under "curiosity" in the OED mentioned care, including this one: "Curiosity: Carefulness, the application of care or attention."[384] Attention here indicated a level of detail, scrupulousness, exactness, elaborateness, accuracy, or skillfulness—perhaps carried out to an excessive or "undue" degree in proportion to the importance of the object. Attention encompasses an extreme noticing of detail or deference to the object's precise dimensions, features, or history—an attention to its particularity, unconcerned with how that particularity fits in with preconceived categories.

Recall, too, the way both Heidegger and Foucault discussed care in conjunction with curiosity. For Heidegger, it was the perceived *lack* of authentic care in curiosity that was a problem. Curiosity, for him, was a restless refusal to concern oneself with the most serious project available to us—understanding our own being.[385] For Foucault, curiosity "evokes the *care* one takes of what exists and what might exist."[386] It is precisely curiosity's ability to

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[383] "When I think that I have discerned a structure, I pass into an analytic mode and impose that structure. If the object does not behave as I would have predicted, I withdraw my imposition and confront the situation again from another perspective. Again, I submit myself to the influence of the object"—Noddings, *Caring*, 16.
[384] Definition I.1.
[385] See: Shiu-Ching Wu, "On the priority of relational ontology: The complementarity of Heidegger's being-with and ethics of care," *KEMANUSIAAN the Asian Journal of Humanities* 23(2): 71–87, 2016.
[386] Foucault, *The Use of Pleasure*, 325, my emphasis.

"enable one to get free of oneself"[387] that is the source of its connection to care *and* to understanding. This sentiment is also echoed in Nel Noddings' description of care as a "move away from self"[388] via the engrossed attention we pay to the object of our care.

Despite the language of moving away from the self, one's own subject can still be the object of care and receptive attention. Although some care ethicists de-emphasize self-care, I follow Noddings in her position that the caring subject can and should care for themselves as well. Certainly Foucault supports the idea that curiosity is important for care of the self, and it fits with his idea of ethical self-fashioning. Although I am focusing on caring for others here, it is important to recall that the separation is somewhat artificially imposed, given our always-situated social position. In maintaining openness to another, one must sense the boundaries of oneself. In finding something strange, one is alerted to the implicit frameworks one holds which make that judgment possible.

For instance, one kind of "care for the self," or "ethical self-fashioning" possible via a curiosity that is strengthened by the receptive, attentive mode that is part of caring is gaining an awareness of our own ignorance, and interrogating the assumptions and stereotypes at the root of that ignorance. Remember Sullivan's formulation that ignorance is always actually a kind of "ignorance/knowledge," i.e., it is not merely or not always a simple *lack* of knowledge, but a "substantive epistemic practice in itself."[389] It can be a passive acceptance of norms, or an active refusal to consider certain kinds of evidence that would implicate yourself in moral

[387] Foucault, *The Use of Pleasure*, 8.
[388] Noddings, *Caring*, 16.
[389] Linda Martín Alcoff, "Epistemologies of Ignorance: Three Types," in *Race and Epistemologies of Ignorance*, Ed. Sullivan and Tuana, 39.

wrongdoing—either way, it is a position of action and choice, a response to the question "*What shall I do to find out what it means?*"[390] Let us turn to another relevant passage from Noddings:

> A receptive mode may be both reflexive and reflective; that is, instead of receiving the world or the other, I may receive myself, and I may direct my attention to that which I have already received. It is in this subjective-receptive mode that I see clearly what I have received from the other, and then I must decide whether to proceed in a state of truth or to deny what I have received and talk myself into feeling comfortable with the denial.[391]

Here, then, is another clear possibility for a curious response that is aided by care: when I have failed to receive the other, do I direct my attention to receiving myself? Do I turn my receptive attention to my own fear, revulsion, attraction, pity, scorn, condescension, etc., and embrace the opportunity for self-examination and moral growth? Joan Tronto, for her part, is quite clear: "the ethic of care would treat ignoring others—ignorance—as a form of moral evil."[392]

Near the end of chapter four (section IV), I explored how some of the psychological research on curiosity surveyed in chapter three supported the case that curiosity can be valuable in opposing substantive ignorance. Now I wish to also return our attention to philosophical accounts from chapter two that focused on curiosity's ability to *overcome resistance to learning* as another recurring thread that supports the view that curiosity can be a resource for opposing ignorance. Aquinas, of course, was the figure who most clearly identified this aspect of curiosity in his explicit recognition of its "secondary" virtuosity, which operates not according to a model of temperance, but one of *fortitude* or courage. In his view, studiousness involves *application* and *effort* to overcome a resistance to learning. Hume also saw this facet of curiosity as its most essential characteristic. These points of view support the idea that curiosity can be helpful in

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[390] Noddings, *Caring*, 164.
[391] Noddings, *Caring*, 35.
[392] Tronto, *Moral Boundaries*, 127.

noticing and overcoming "ignorance/knowledge" if one of its most central operations is not just filling in a "lack" of knowledge, not just finding out a particular piece of propositional knowledge, but pushing us to learn in spite of difficulties and competing desires for "comfortable denial."

In sum, curiosity's aim of acquiring new knowledge aligns with care's requirement that we remain open and sensitive to difference, and when care supports curiosity in its operations it allows us to better notice and learn about objects, others, and ourselves *in their context and particularity* and thus hit upon "the truth." Care complements curiosity by enabling it to do what it aims to do, better. And because this kind of curiosity helps us better notice and learn about others and ourselves, we are also better able to *care* for the objects of our curiosity according to their context and particularity, which is what I will turn to next.

IV.3 How Curiosity Aids Care

We have seen how curiosity's own resonances with "attention" and its goal of acquiring truth are compatible with care's engrossed, receptive mode of discovery, and how care is able to complement curiosity through this receptive-attentive mode, enabling it to operate with minimal prejudice. How curiosity supports care, in turn, is closely related. To see how curiosity aids the practice of care, let's start by looking a little more closely at the structure of care proposed by Joan Tronto, who divides care into four "phases."[393] 1) Attentiveness, or "caring about," consists of becoming aware there is a need for care. 2) Responsibility, or "taking care of," requires a willingness to meet the needs you identified in phase one. 3) Competence, or "caregiving," consists of actually meeting those needs. Caring is not only a matter of becoming aware of need

[393] Joan Tronto, *Moral Boundaries: A Political Argument for an Ethic of Care*, (New York, Routledge, 1993), 127-137. Tronto also refers to these phases as "dimensions," "elements," and "moments."

and taking on the responsibility to meet it, but also requires skill in practically fulfilling needs. 4) Responsiveness, or "care receiving," acknowledges that care is not a one-way street. The cared-for must receive the care *as* care.

When it comes to the four "phases" of care, curiosity most clearly enters in to the first phase (attentiveness), and, to a smaller extent, the fourth (responsiveness). As Tronto states:

> Genuinely to care about someone, some people, or something requires listening to articulated needs, recognizing unspoken needs, distinguishing among and deciding which needs to care about. It requires attentiveness, that is, of being able to perceive needs in self and others and to perceive them with as little distortion as possible.[394]

As an activity and trait that engages us in our environment and kicks off the process of inquiry, curiosity helps us become aware of a great many things, including various needs for care. If I am not curious about why my co-worker does not seem like her normal, cheerful self, I cannot discover that she feels ill today and will need help managing the meeting she was supposed to lead today. Being curious about the changes to U.S. border policy brings an awareness of the need for funds to reunite separated families. And if that curiosity is itself informed by care, then I am more likely to perceive needs accurately—by attending to the truth that I am aiming for, with limited preconceptions clouding my discovery.

Similarly, curiosity about how my care-giving is received will help me to adjust my care, and respond to new or ongoing needs.

> Responsiveness suggests a different way to understand the needs of others rather than to put our selves into their position. Instead, it suggests that we consider the other's position as that other expresses it. Thus, one is engaged from the standpoint of the other, but not simply by presuming that the other is exactly like the self. […] Adequate responsiveness requires attentiveness.[395]

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[394] Ibid., 16.
[395] Ibid., 136.

Again, it is a "caring" curiosity that *attends* to what it finds with as little prejudice as possible (rather than one that imposes upon what it finds) that is truly in a position to further the caring cycle, aiding a responsiveness that is able to truly hear the expression of *more*, *new*, or *different* needs.

IV.4 Careful Curiosity

Curiosity and care are not only compatible, they are complementary. Curiosity is supported by care, namely, by the ability of engrossed attention to keep prejudice and judgment at bay as you pursue the "truth" of a person, place, culture, object, or idea. Care is also supported by a virtuous curiosity and is made richer by it. Another way of saying this is that curiosity helps us to engage in caring practices.[396] Part of showing care to an elderly relative is taking an interest in their life, their stories, their photographs. Understanding the interactions of medicines in cancer treatment is aided by a curiosity in how they work. As we know, virtues cannot be grasped in isolation from one another. When one is "appropriately," virtuously curious—that is to say, when one is responsive to what is "curious" in their environment, when one attends to the particular object of curiosity in its truth without self-projection clouding what is found, and when one learns as a result—one could say that curiosity has been guided by care. One might also say that curiosity in this instance "exhibits" care or is "caring." For these reasons, I am dubbing curiosity in its most virtuous form *careful curiosity*.

[396] Though I limit my claims here to saying that curiosity "aids" or "supports" care, it is an open question whether or not curiosity—considered as a virtue—is actually a *part* of care or *necessary* for care. My argument here leans in this direction, but without a more fully fleshed-out definition of care (which is itself quite a large undertaking), I don't feel that I can accurately and confidently assert more than this supportive relationship between the two.

When it comes to naming virtues and vices, the lack of clear terminological distinctions between the different forms results in not only a lack of clarity, but also impacts our ability to actually see, remember, enact and communicate about the virtue in question. Curiosity doesn't have as many or as clear terminological distinctions as, say, courage (with its spectrum of cowardice, courage, and foolhardiness) or justice (with its opposite, injustice). As we know, curiosity does have some overlap with wonder, and historically with "studiousness" (though "studiousness" is not a widely used or recognized synonym), and has related vices like apathy and inattention (though neither of those are clearly and definitively opposed to curiosity). Positing "incuriousness" as an opposing vice doesn't adequately address our problem, either, because it fails to account for forms of curiosity that are vicious not due to a *deficiency in the amount* of curiosity exhibited, but for some other reason. Attention and inattention, justice and injustice are helped along here by the fact that the connotations associated with those virtues are fully beneficial, so can be easily and simply negated. But curiosity has more mixed connotations, like "pride" does, so naming its lack as a way to introduce a terminological distinction between vicious and virtuous forms of curiosity doesn't seem like the most promising route.

Instead, to help us focus on the aspects of curiosity's virtuousness that I think are most overlooked—the *morally* beneficial import of curiosity—as well as its connections to one of the most important virtues of our time, care, I propose the term "careful curiosity" to name *virtuous* curiosity. It is unnecessary and perhaps impossible to conceptually separate into an ethical taxonomy *all* of the different "kinds" of curiosity—classifying the ways it can go wrong into thematic groupings. Aristotle himself did not do these with each virtue. But I do think it is important to at least separate out and give a descriptive qualifier to curiosity at its moral apex, a qualifier that will serve as a kind of shorthand for helping us remember the kinds of qualities and

impact that characterizes curiosity at its best: as a virtue that helps us in the realm of moral learning, that seeks knowledge without overly determining what it finds, that is responsive to others and its environment, that helps us overcome ignorance, and so on.

Careful curiosity is careful in the sense of *caution*—what you mean when you say "*be careful!*" When approaching something novel, it is cautious not to impose, which would get in the way of its purpose: to discover truth. Careful curiosity is also *care-full*—it is full of care. Aided by care in its mission, it is itself caring, and by caring it allows for even more care to be perceived and met.

V. Conclusion

Careful curiosity is virtuous not just because it aids moral learning by helping us learn certain morally relevant truths and recognize their moral relevancy, but the process of learning them is itself something we can view from an ethical lens. Careful curiosity helps us learn *in a moral way*, and if that learning is directed at ignorance that is not (only or primarily) a *lack* of knowledge but actually a form of harmful knowledge, the process of learning (i.e., dismantling the ignorance/knowledge at work in ones' views) is *itself* moral. So our list of how careful curiosity can be morally beneficial includes the following:

- Careful curiosity helps us learn about many ethically relevant things, as well as learn about their ethical relevance (section II)
- Careful curiosity helps us learn in an ethical way, through receptive attention (section IV.2)
- Careful curiosity helps us be ethical by learning, combatting substantive ignorance (section II and IV.2)

- Careful curiosity helps us care, through attentiveness and responsiveness (section IV.3)

It is important to explicate the varied ways in which curiosity can and does help us in becoming better and more caring people, given how universal a resource curiosity is and its widespread, mainstream acceptance as a positive tool for learning theoretical knowledge. Such assets of curiosity make it primed to be a powerful tool for moral development, one which I will explore in a practical, action-oriented perspective in my concluding chapter.

Conclusion

I have established that curiosity is best understood within a virtue framework, as a character trait that is universal, passionate, intellectual, and that often takes both virtuous and vicious forms. It is positioned squarely as an epistemic virtue that aims at the discovery of truth and reliably leads to learning. Not only does curiosity have profound epistemic import, it is also ethically relevant. By assisting us in moral learning and helping us care, careful curiosity is positioned as a powerful tool for ethical development and action.

Now that I have put forth this understanding of curiosity, what comes next? What purpose does this new understanding serve? I assume understanding to be a foundational step toward further action; my hope is that a better understanding of curiosity can lead to more intentional cultivation of careful curiosity. Furthermore, it is not only a matter of improved understanding enabling further action, but also a matter of playing "philosophical catch-up" with action we already undertake. Careful curiosity is at work in the world every day, without significant philosophical recognition.

I said that one of my aims with this project was to widen our understanding of how curiosity could act as a virtue, so that we could see the "power and possibility" of a certain kind of curiosity. It is one thing to lay out philosophically how care and curiosity are (or could be) connected, it's another to hear concrete examples of careful curiosity operating in the world. In this chapter, I will not only address what I see as the impact of understanding curiosity in this way, but will also continue to shape our understanding of it by providing examples of concrete practices that are enabling careful curiosity to make an impact on the world.

There are both practical and philosophical impacts of coming to this new understanding of curiosity. Philosophically: First, it helps us distinguish between a number of fuzzy curiosities,

and particularly to make sense of the long-lasting ambivalence when it comes to curiosity's ethical value. Second, it brings curiosity in close connection to another important virtue—care. Though care and curiosity have long been linked, we have lacked a clear conceptual connection between the two in their contemporary incarnations. Third, it focuses philosophical attention on a somewhat neglected aspect of curiosity—its moral benefits. While curiosity is frequently lauded for its ability to lead to gains in theoretical knowledge, its ability to lead to beneficial outcomes in other domains has not been as explicitly recognized.

Practically, understanding curiosity's beneficial epistemic impact and its moral import using both virtue and care may help us cultivate and increase careful curiosity. Within education as the primary site of institutional learning, there are numerous places in which understanding curiosity as a virtue could have an impact. Much philosophical and educational research has been done into how to facilitate the process of virtue habituation. By regarding curiosity as an epistemic and moral virtue, strategies employed for the teaching of character traits can be intentionally employed in regards curiosity as well. Some of these practices include: explicitly prioritizing virtue within the broader school culture and community, providing direct instruction in epistemic and moral virtue, integrating virtue into the curriculum by connecting curriculum to relevant virtues, providing chances for students to practice acting with and exhibiting virtues, involving students in leadership roles and school governance, and instructor modeling of the virtues.[397]

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[397] Jason Baehr, "Educating for Intellectual Virtues: From Theory to Practice," *Journal of Philosophy of Education* 47.2 (2013): 256-259; Marvin Berkowitz, Melinda Bier, and Brian McCauley, "Toward a Science of Character Education: Frameworks for Identifying and Implementing Effective Practices," *Journal of Character Education* 13:1 (2017), 33-51; Heather Battaly, "Teaching Intellectual Virtues: Applying Virtue Epistemology in the Classroom," *Teaching Philosophy*, 29:3 (2006), 191–222 (see especially 211 and 214, where Battaly discusses direct instruction, curricular integration, modeling, and practice); Marvin Berkowitz and Melinda Bier, "What Works in Character Education," *Journal of Research in Character Education*, 5:1 (2007), 29–48. Noddings also discusses the importance of teachers modeling care, which could apply equally well to modeling curiosity (*Caring*, 178-179). Also see the work of Thomas Lickona, such as *Educating for Character* (New York: Bantam, 1992).

Additionally, understanding curiosity as a virtue can mean leveraging the development of other, supporting virtues as well. Whether encouraging curiosity to also strengthen students' questioning abilities, or strengthening students' observational ability to result in more curiosity, an awareness of the interconnectedness of these virtues can be an instructional asset. Creativity,[398] inquiry, and of course, care, are other mutually reinforcing virtues that can developed in concert with curiosity. See, for example, the work of the Right Question Institute, which trains teachers and students in its "Question Formulation Technique." On its website, the institute states: "By deliberately teaching questioning skills, we will be facilitating a process that will help students develop a mental muscle necessary for deeper learning, creativity and innovation, analysis, and problem solving."[399] Furthermore, the institute sees the skills of question-asking, question-refining, and question-prioritizing as crucial to developing parent-school partnerships and to active participation in other non-educational systems such as healthcare, democracy, and what they call "microdemocracy."[400] In their view, curiosity is a critical tool for self-advocacy and working to improve the structures, organizations, and decisions that affect us on a daily basis but which often remain invisible or appear intransigent without questioning.[401] Curiosity framed as both an epistemic and ethical virtue supports the importance of such teacher training and explicit instruction in practices (such as questioning) that help careful curiosity habituate.

We can see also how careful curiosity can come into play within project-based learning. As project-based learning has gained more and more traction, there are increasing opportunities

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[398] Raymond Nickerson, ''Enhancing Creativity,'' in *Handbook of Creativity*, ed. Robert J. Sternberg, Cambridge: Cambridge University Press (1999), 410–411.
[399] "Facilitate Student Curiosity and Engagement," *The Right Question Institute*, last updated 2019, accessed December 2018, http://rightquestion.org/education/.
[400] "Microdemocracy," *The Right Question Institute*, last updated 2019, accessed December 2018, http://rightquestion.org/microdemocracy/.
[401] See this page for some of the impacts of the technique outside the classroom: "Strategy," *The Right Question Institute*, last updated 2019, accessed December 2018, http://rightquestion.org/about/strategy/.

for students to engage their curiosity in a way that makes a positive impact on the world beyond the classroom walls. Project-based learning undoubtedly produces gains in theoretical knowledge for students engaging with this model of education, but best practices also indicate that projects are most successful when they have an authentic audience and purpose—that is, when projects serve as an opportunity for connecting curriculum, learning goals, and standards to issues that students care about and affect them, and when projects result in real-world, pro-social outcomes.[402] Programs such as National Geographic's Geo Inquiry Process,[403] curricular units like KQED's Engineering for Good,[404] and projects like school gardens[405] all implement project-based learning to address real-world problems, create real-world impact, and, in the process, "students expand their ways of thinking or habits of mind to include curiosity, flexibility, open-mindedness, informed skepticism, creativity, and critical thinking."[406] Project-based learning is an important avenue for providing students with opportunities they need to practice the intellectual and ethical virtue of careful curiosity.

Understanding curiosity as a virtue could also help motivate its more prominent inclusion in gifted and talented programs. Researchers out of the California State University discovered in a 30-year longitudinal study[407] that curiosity is an even higher marker of academic success than

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[402] John Larmer and John Mergendoller, "Gold Standard PBL: Essential Project Design Elements," *Buck Institute for Education*, published April 21 2015, accessed December 2018, http://www.bie.org/blog/gold_standard_pbl_essential_project_design_elements.

[403] "The Geo-Inquiry Process," *National Geographic*, accessed December 2018, https://www.nationalgeographic.org/education/programs/geo-inquiry/.

[404] See a description of the unit and further resources here, with a link to the full unit: Andrea Aust, "Engineering for Good," *KQED*, published April 13, 2017, accessed February 2, 2019, https://ww2.kqed.org/quest/2017/04/13/engineering-for-good/. Disclosure: I have worked at KQED since July, 2017.

[405] There are many, many garden projects, but for a representative example see: Denelle DiClaudio, Luanne J. Hughes, and LeeAnne Savoca, "Learning Through the Garden," updated August 2013, accessed December, 2019, https://njaes.rutgers.edu/fs1211/.

[406] "Learning Through the Garden," https://njaes.rutgers.edu/fs1211/.

[407] Allen W. Gottfried, Adele Eskeles Gottfried, and Diana Wright Guerin, "The Fullerton Longitudinal Study: A Long-Term Investigation of Intellectual and Motivational Giftedness," *Journal for the Education of the Gifted* 29:4 (2006), 430–450. See also Scott Barry Kaufman, "Schools Are Missing What Matters About Learning," The

IQ, yet was not tested for or included in criteria for selecting students for inclusion in gifted and talented programs. Widening the criteria to include motivational giftedness would help validate curiosity as an important intellectual asset, and could also help increase its presence, if gifted and talented programs incorporated these findings not only into their selection criteria but into their curriculum as well, by prioritizing, encouraging, and making space for curiosity. Furthermore, the researchers of the Fullerton Longitudinal Study also found that "intellectual giftedness" and what they call "motivational giftedness" did not necessarily (and in fact, did not usually) overlap in the same children. Given the significant racial and economic disparities present in gifted and talented education,[408] including motivationally gifted students could also widen the pool of minority students placed in these programs. Further research needs to be done, of course, to see if this would indeed help lesson the opportunity gap for these groups.[409]

In addition to helping us better cultivate careful curiosity and increase its occurrence, delineating it from other forms of curiosity may also help us simply recognize and identify when it is already occurring. One instance of careful curiosity already making a difference is at Hearken, a company that supports media organizations with consulting services and a digital platform that promote what they call "public-powered journalism." Instead of the traditional model where journalists decide for the public what stories are news-worthy, Hearken supports a

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Atlantic, published July 24, 2017, accessed February 2, 2019, https://www.theatlantic.com/education/archive/2017/07/the-underrated-gift-of-curiosity/534573/.

[408] See Susan Dynarski, "Why Talented Black and Hispanic Students Can Go Undiscovered," *The New York Times*, published April 8, 2016, accessed February 2, 2019, https://www.nytimes.com/2016/04/10/upshot/why-talented-black-and-hispanic-students-can-go-undiscovered.html; Jason A. Grissom and Christopher Redding, "Discretion and Disproportionality: Explaining the Underrepresentation of High-Achieving Students of Color in Gifted Programs," *AERA Open* 2:1 (January-March 2016), 1–25; Kathleen Barlow and Elaine Dunbar, "Race, Class, and Whiteness in Gifted and Talented Identification: A Case Study," *Berkeley Review of Education* 1:1 (2010), 63-85.

[409] For instance, how motivationally gifted students are identified would probably be crucial, given the research done on implicit bias in teacher selection of "intellectually gifted" students and the differing results of various kinds of culturally-sensitive standardized testing. See Dynarski, "Why Talented Black and Hispanic Students Can Go Undiscovered," and David Card and Laura Giuliano, "Can Universal Screening Increase the Representation of Low Income and Minority Students in Gifted Education?," *National Bureau of Economic Research Working Paper,* September 2015, accessed February 2019, http://davidcard.berkeley.edu/papers/universal-screening-NBER21519.pdf

model which re-frames journalism as a service, asking the public "what do you not know that we could find out for you?"[410] Public-powered journalism "starts with discovery and dialogue," is "bottom up, bi-directional," "treats the public as individuals" rather than a mass, is "collaborative and inclusive," and "includes diverse perspectives at [the] decision-making table." Hearken's digital tool and processes for soliciting and reporting on public-submitted questions has been integrated into over one hundred newsrooms, as well as some libraries and schools.[411] Many of the projects that use it are explicitly curiosity-focused, including KQED's *Bay Curious* (San Francisco), WBEZ's *Curious City* (Chicago), KCRW's *Curious Coast* (Los Angeles), The Dallas Morning News' *Curious Texas*, WGCU's *Curious Gulf Coast* (Southwest Florida), WFDD's *Carolina Curious* (North Carolina), WDET's *CuriosiD* (Detroit), WYSO's *WYSO Curious* (Ohio), WPLN's *Curious Nashville*, and ABC's *Curious Canberra* (Australia).

The kinds of questions submitted to these blogs, podcasts, and television shows run the gamut, as you might expect of an open submission form, but often include questions about important and ethically relevant topics such as gentrification, gerrymandering, homelessness, segregation, environmental contamination, immigration, and healthcare.[412] Sometimes, the questions asked and the reporting undertaken in order to answer them result in real-world change: cases include restoring recognition to Frederick Douglass by helping to get the name of Nashville's "Fred Douglas Park" changed to its rightful spelling,[413] calling attention to

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[410] Slide show given at the KQED lunch and learn series "Brain Food," on October 24, 2018. Disclosure: KQED is one of Hearken's clients, and I have worked for KQED since July, 2017.
[411] Ethan Magoc, "Harnessing Audience Curiosity to Power a Public Media Student Newsroom," *Medium*, published July 14, 2017, accessed December, 2018, https://medium.com/we-are-hearken/harnessing-audience-curiosity-to-power-a-public-media-student-newsroom-494060e9d4c1.
[412] Hearken, "Your audience is wicked smart and will ask serious questions. Here are 50 examples as proof." *Medium*, published May 5, 2017, accessed December 2018, https://medium.com/we-are-hearken/your-audience-is-wicked-smart-and-will-ask-serious-questions-here-are-50-examples-as-proof-a616621ec422.
[413] Blake Farmer, "Curious Nashville: Is Fred Douglas Park Named For A Famed Abolitionist?," *Nashville Public Radio*, published October 7, 2016, accessed December 2018, http://www.nashvillepublicradio.org/post/curious-nashville-fred-douglas-park-named-famed-abolitionist#stream/0 and "Fred Douglas Park is now officially Frederick

dangerously high lead levels (and water waste) in continuously-running outdoor drinking fountains in Chicago and helping to get them shut off,[414] nudging the San Francisco school board closer to changing their school lottery system,[415] and bringing the Arab and African-American Muslim communities in Chicago together.[416] One series, WBEZ Chicago's *Curious City*, even undertook a self-reflective project examining their audience and engaging in outreach efforts to solicit community-powered questions from underrepresented demographics and areas of the city that were not usual public radio listeners.[417] These stories of impact and the care with which the curiosity-focused publications treat the question-asking public—positioning them as partners rather than mere consumers, often interviewing them and involving them in the reporting process—show how careful curiosity can empower civic engagement, local connection, and positive change when given a place and priority within reporting frameworks.

Turning now to the business world, the Harvard Business Review's September-October 2018 issue included a series of articles about the importance of curiosity for companies.

Douglass Park," *Nashville.gov*, published March 10, 2017, accessed December 2018 https://www.nashville.gov/News-Media/News-Article/ID/6208/Fred-Douglas-Park-is-now-officially-Frederick-Douglass-Park.aspx.

[414] Monica Eng, "Chicago Park Drinking Fountains Have Been Running For Weeks To Flush Pipes," *Curious City*, WBEZ Chicago, published June 2, 2017, accessed Feb. 2, 2019, https://www.wbez.org/shows/curious-city/chicago-park-drinking-fountains-have-been-running-for-weeks-to-flush-pipes/b52efa95-3fc4-4f39-b274-bb3d3b91d3f1; Monica Eng, "Many Chicago Park District Fountains Are So Contaminated With Lead That They Can't Be Turned Off," *Curious City*, WBEZ Chicago, published July 26, 2017, accessed Feb. 2, 2019, https://www.wbez.org/shows/curious-city/many-chicago-park-district-fountains-are-so-contaminated-with-lead-that-they-cant-be-turned-off/3ef1299f-d5f2-46b3-9314-5a96879f7971; Monica Eng, "Chicago Park District Shutting Off Almost Half Of Its Outdoor Drinking Fountains Due To Lead," *Curious City*, WBEZ Chicago, published May 11, 2018, accessed Feb. 2, 2019, https://www.wbez.org/shows/curious-city/chicago-park-district-shutting-off-almost-half-of-its-outdoor-drinking-fountains-due-to-lead/7a5c6e16-d9f3-4cc7-b9ca-365c67f44d92.

[415] Katrina Schwartz, "How the San Francisco School Lottery Works, And How It Doesn't," *Bay Curious*, KQED, published Jan. 11, 2018, accessed Feb. 2, 2019, https://www.kqed.org/news/11641238/how-the-san-francisco-school-lottery-works-and-how-it-doesnt-2; Olivia Allen-Price, Twitter, posted September 20, 2018, accessed February 2, 2019, https://twitter.com/oallenprice/status/1042951633653485568.

[416] Sarah Geis, "Do Chicago's Arab And African-American Muslims Share Mosques? If Not, Why Not?," *Curious City*, WBEZ Chicago, published October 8, 2017, accessed Feb. 2, 2019, https://www.wbez.org/shows/curious-city/do-chicagos-arab-and-africanamerican-muslims-share-mosques-if-not-why-not/35a117d6-3bf4-4737-bc3a-cbe2214812ff.

[417] Andrea Wenzel, "Curious Communities: Online Engagement Meets Old-School, Face-to-Face Outreach," *Tow Center Reports*, Tow Center for Digital Journalism, Columbia Journalism Review, published May 25, 2017, accessed Feb. 2, 2019, https://www.cjr.org/tow_center_reports/curious-communities-online-engagement-meets-old-school-face-to-face-outreach.php/.

Encouraging curiosity in the workplace, claims one of the authors, results in "reduced group conflict" and "more open communication and better team performance," as well as impacts on innovation.[418] They describe multiple business efforts that prioritize curiosity, from Google and IDEO's hiring practices, to protocols and structure that facilitate Pixar's collaboration process, to senior leadership of the BBC intentionally modeling curiosity, as well as the "44% of organizations [that] provide or support cross-training to develop skills not directly related to workers' jobs."[419] While these efforts are ultimately intended to improve the company's bottom line, they also respect workers' autonomy, creativity, competence, and initiative, and often involve a higher degree of trust and responsiveness than is demonstrated by organizations who fail to support curiosity-driven business practices due to a fear of decreased efficiency.[420] While it may be impossible to say whether the individual instances of curiosity made possible by these practices are themselves examples of careful curiosity, on the whole the curiosity enabled by these business decisions seems to promote better interpersonal relationships. Additionally, the prioritization of curiosity through discrete practices (one could even say the *curiosity* these business leaders have about their employees' curiosity) seems to be itself carried out with care, setting the stage (or perhaps, the boardroom) for a virtuous circle.

Finally, the vision of curiosity put forth in this project can help us appreciate just how powerful curiosity can be across both epistemic and ethical realms. The biggest impact I want to focus on is not the impact of our *understanding* it better, but the impact of careful curiosity itself. As I discussed in sections of my last two chapters, one of the most important potential impacts of

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[418] Francesca Gino, "The Business Case for Curiosity," *Harvard Business Review*, published September, 2018, accessed February 2, 2019, https://hbr.org/2018/09/curiosity.
[419] Ibid.
[420] This, the article claims, is the number one reason why companies that claim to support employee curiosity, creativity, and innovation fail to truly do so in practice.

careful curiosity is its ability to serve as an antidote to ignorance, helping to surface issues of equity, justice, and need for care. As Linda Martin Alcoff poses the problem:

> Ignorance is of increasing concern. The public discourse of anti-intellectualism poses ignorance as a positive alternative and antidote to elitism, and polls of the U.S. population, one of the most elite populations in the world, reveal alarming ignorance about world geography and history as well as current events. The problem is not explainable by a lack of access to resources for knowledge and information, nor is it a problem that decreases with the advantages of class. It is, or appears to be, a willful ignorance. […] Is the normative project of epistemology sufficiently well formulated to take up the challenge that a widespread and growing ignorance poses? Perhaps the pursuit of ever more fine-tuned reliable belief-forming practices should give way for work that explores the range of epistemically unreliable but socially functional belief-forming practices.[421]

As Alcoff suggests, perhaps social conditions call for further study and support of epistemic virtues that are no longer strictly epistemic, that no longer prioritize the pursuit of certain classes of truth. If we recall back to my fourth chapter, curiosity's virtue criteria of reliably leading to learning doesn't entail that *what* someone learns through the process of curiosity is necessarily correct or encompasses all the relevant facts. Mutually supportive virtues such as testimonial justice, critical questioning, and care can all work together to help resist hermeneutical prejudices inherited through social position.

Curiosity has had throughout its history a repeating undercurrent of diligence—in the obsessive, meticulous "care" for ornamental detail or repetitive cataloguing, in the connection to the operations of inquiry rather than the awe-struck stillness of wonder, in Aquinas' "studiousness" and its "secondary" virtue of helping us overcome bodily sloth in favor of intellectual growth, in Hume's application of the mind and mental strain, and in its alignment with Foucault's "technologies of the self" and its ability to help us move past our limitations and

[421] Alcoff, "Epistemologies of Ignorance," 39.

prejudices. In the face of "knowledge" that is suspect, ignorance that is willful, and intellectual apathy that seems only to increase as our access to information grows, what we need is to empower each other and young people under our charge to be *courageous* learners, *attentive and responsive* learners, and above all *caring* learners.

Though I have mostly framed my discussion in this project in regards to manifestations of curiosity at the individual level, the threat posed by ignorance and the increasing acceptance (and even championing) of ignorance is so broad and so critical that it will likely only be adequately addressed by *collective* solutions in addition to individual responses. But there is nothing to preclude individual curiosity from being part of this collective strategy. Cultivating careful curiosity should be a priority for any group that supports socially responsible education, and it should be incorporated into instructional strategies, curricular design, and teacher education. Our institutions—schools, businesses, non-profits, press, and government—should incorporate practices that enact, encourage, strengthen, recognize, incentivize, and reward careful curiosity as a matter of course.

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