

LOCKE'S NATURALIZED EPISTEMOLOGY

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ABSTRACT

MATT PRISELAC: Locke's Naturalized Epistemology
(Under the direction of Alan Nelson)

Few philosophers in the history of philosophy are thought to have offered as *bad* an account of our knowledge of the external world as John Locke. My dissertation redresses this nearly universal opinion. I argue that Locke's *Essay* is best understood as a piece of naturalized epistemology that locates knowledge within a theory of mind modeled on the corpuscularian natural science of his day. The rich structure of Locke's *Essay* that I draw on to support these claims is almost universally neglected in Locke scholarship. In Locke's naturalized epistemology, knowledge of the external world is accounted for by his theory of mind as it applies to our ideas of substance. Locke's theory explains how our sensory experience of objects *as objects* is constructed from simple materials of sensation. Locke emerges from my dissertation as a strict empiricist whose comparatively richer theoretical resources afford him anticipations of Kant's dissatisfaction with Hume's more limited empiricist accounts of our cognition of space, self, causation, and the external world.

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Introduction

0.1: The Aim of Locke's *Essay*

In this dissertation I will develop and defend a radical reorientation towards Locke's *An Essay Concerning Human Understanding* (henceforth, "*Essay*"). Locke's *Essay*, I will argue, must be understood as focused on the distinction between knowledge and probable opinion (henceforth, "opinion"). The whole of the *Essay* is aimed at articulating *what* this distinction is and then drawing out the consequences of this distinction to lay bare the limitations on our knowledge.

Of course, I am not the first to notice Locke's emphasis on the distinction between knowledge and opinion. The *Essay*'s opening pages are laden with declarations about the importance and centrality of this distinction in the *Essay*'s inspiration, the *Essay*'s aims, and the *Essay*'s methodology. Many of Locke's readers have noted the prominence of the distinction in the *Essay*. Jolley (1999), for example, writes that there is hardly a sentence in the *Essay* not aimed at showing the limitations of human knowledge. In his widely read and influential (1971), Aaron too picks up on the emphasis of the distinction between knowledge and opinion early in the *Essay*.

Nevertheless, while readers have noticed this distinction they have been unwilling or unable to take it seriously as a guide to understanding Locke's claims in the *Essay*. Jolley, for example, finds a schism between Locke's official epistemology (articulated in Book IV of the *Essay*) and the rest the *Essay* (the first three Books of the *Essay*) as deep as the schism

between empiricism and rationalism. Indeed, Locke's epistemology, shot through with discussion of intuition and demonstration, *just is* a rationalist epistemology according to Jolley and so is no easy fit with empiricist philosophy of mind and language which precedes it. Similarly, Aaron questions the very coherence of a project that seeks to establish the boundaries of knowledge and opinion and consequently sets aside Locke's own description of his project as central to understanding the claims Locke goes on to make in the *Essay*.

On the one hand, Locke's readers may be forgiven for setting aside the distinction between knowledge and opinion as *the central* distinction in the *Essay*. After the *Essay*'s opening pages Locke rarely explicitly returns to the distinction. If one simply reads the *Essay* from cover to cover, moreover, it does not read as a piece of focused epistemology dedicated to articulating the distinction between knowledge and opinion. Indeed, when read cover to cover the *Essay* doesn't even appear to be a focused piece of philosophy.

The *Essay* begins in Book I in the philosophy of mind with a long argument against nativism. In Book II, Locke supplements his anti-nativist arguments with a positive empiricist view of how the mind comes to be furnished with all of its idea from experience. In the course of this philosophy of mind Locke seems to stray into other metaphysical topics: the primary/secondary quality distinction;¹ causation;² free will;³ personal identity;⁴ an

¹ II.viii. All references to Locke's *Essay* will follow the traditional conventions: *Book.Chapter.Section*. So, II.viii.1 refers to Book II, Chapter viii, section 1. When necessary, a page number will be included after a '/': II.viii.1/132. All references to the *Essay* are to the Nidditch edition, published in 1975 by Clarendon Press.

² II.xxi (of Power), II.xxvi (of Cause and Effect and Other relations)

³ II.xxi (of Power)

⁴ II.xxvii (of Identity and Diversity)

ontology of substance;⁵ relation;⁶ and modes⁷; space;⁸ time;⁹; and finally, an examination of the representational relations between our ideas and the world¹⁰. Book III takes us to the philosophy of language, wherein Locke is taken to articulate a failed theory of linguistic meaning according to which meanings are “in the head”.¹¹ In the course of that discussion we get more metaphysics with what looks to be a more strongly (or at least explicit) nominalist bent as Locke lays out his distinction between real and nominal essences.¹²

Finally, after the long excursion through philosophy mind, metaphysics, and philosophy of language, we arrive at Locke’s epistemology in Book IV. The epistemology we get, however, is loaded with the favored terminology of the rationalists. Locke organizes knowledge around intuition and demonstration,¹³ takes mathematics as a paradigm of

⁵ II.xxiii (of the complex Ideas of Substances)

⁶ II.xxv (of Relation), 2.28 (of other Relations)

⁷ II.xiii (of Space, and its simple Modes), II.xviii (of other Simple Modes), II.xix (of the Modes of Thinking), II.xx (of Modes of Pleasure and Pain), II.xxii (of Mixed Modes)

⁸ II.xiii (of Space, and its simple Modes), II.xv (of Duration and Expansion considered together)

⁹ II.xiv (of Duration), II.xv (of Duration and Expansion considered together)

¹⁰ E 2.30 (of Real and Fantastical Ideas), 2.31 (of Adequate and Inadequate Ideas), 2.32 (of true and false Ideas).

¹¹ See III.ii.2-4. III.ii contains Locke’s official statement of his position about the meanings of words, but the theme is evident from the very beginning of Book III. For example, at III.i.2/402: “Besides articulate sounds therefore, it was farther necessary, that he should be able to use these sounds, as signs of internal conceptions; and to make them stand as marks for the ideas within his own mind, whereby they might be made known to others, and the thoughts of men’s minds be conveyed from one to another.”

¹² This is a prominent theme of III.vi.7-13. Consider simply the section headings: III.vi.7-8, ‘The nominal essence bounds the Species’; III.vi.9, ‘Not the real Essence which we know not.’; III.vi.10, ‘not substantial forms which we know less’; III.vi.11, ‘The nominal essence is that whereby we distinguish Species, farther evident from Spirits’; III.vi.13, ‘the nominal essence that of the Species, proved from Water and Ice’.

¹³ One of the main dimensions along which Locke organizes knowledge is by the ‘clarity of the perception of the agreement’ (IV.ii.1). The clarity of the perception of agreement can come in three degrees, the ‘clearest’ of which is intuition (IV.ii.1). Demonstration is the next best kind of knowledge (IV.ii.2). It is second best because demonstration reduces to intuition in that a demonstration is nothing but a chain of intuitions (IV.ii.7).

knowledge,¹⁴ and even explicitly cites Descartes' *cogito* as a paradigmatic case of knowledge¹⁵. As a result, it has seemed best to look elsewhere in the *Essay* than its official epistemology to pull out Locke's distinctive philosophical contribution.

Another stumbling block to taking seriously the idea that the *Essay* is narrowly focused on the distinction between knowledge and opinion is that Locke's definitions of knowledge and opinion have proved difficult to understand. As we will see in greater detail in chapter 2, Locke defines knowledge as, roughly, the perception of agreement between ideas.¹⁶ Roger Woolhouse, for example, finds this definition of knowledge so unintelligible that he explicitly abandons it as a starting point for understanding Locke's epistemology.¹⁷ If we accept that Locke's definition of knowledge is either unintelligible or unhelpful for understanding an epistemology, then we'll doubtless be unlikely to take seriously that Locke's distinctive project in the *Essay* is to say what knowledge is, how it is different from opinion, and what limitations on our knowledge follow from that distinction.

¹⁴ Many of Locke's examples of knowledge are drawn from mathematics. For example, a paradigm case of demonstrative knowledge is proving that the sum of the internal angles of a triangle are equal to the sum of two right angles (IV.ii.2).

¹⁵ From IV.ix.3: "As for our own existence, we perceive it so plainly, and so certainly, that it neither needs nor is capable of any proof. For nothing can be more evident to us, than our own Existence. I think, I reason, I feel pleasure and pain; can any of these be more evident to me, than my own existence? If I doubt all other things, that very doubt makes me perceive my own existence, and will not suffer me to doubt that. For if I know I feel pain, it is evident, I have as certain a perception of my own Existence, as of the existence of the pain I feel: or if I know I doubt, I have as certain a perception of the existence of the thing doubt, as of that thought, which I call doubt. Experience then convinces us, that we have an intuitive knowledge of our own existence, and an internal infallible perception that we are."

¹⁶ IV.i.2: "Knowledge then seems to me to be nothing but the perception of the connection and agreement, or disagreement and repugnancy of any of our ideas. In this alone it consists. Where this perception is, there is knowledge, and where it is not, there, though we may fancy, guess, or believe, yet we always come short of knowledge." In the secondary literature on Locke it has become a standard shorthand to condense this definition to: knowledge is the perception of agreement between ideas. Indeed, Locke himself uses that shorthand in several places when discussing his definition of knowledge. I will follow Locke and tradition.

¹⁷ See Chapter 1 of Woolhouse (1971)

The difficulty posed by Locke definition of opinion is even more acute. Locke defines opinion as the presumed agreement between ideas.¹⁸ In recent Locke scholarship one is pressed to come up with more than one attempt to understand Locke's definition of opinion as a presumed agreement between ideas: Owen (1999a), (1999b), and (2007). When it comes to Locke's discussion of opinion, scholars are drawn to Locke's discussions of the ethics of belief,¹⁹ the voluntariness of belief,²⁰ and, to a lesser degree, questions of whether for Locke assenting to a proposition and forming a proposition are one in the same act (as, for example, in Spinoza²¹ or Hume²²) or distinct acts (as, for example, Descartes is typically taken to

¹⁸ IV.xiv.3: "The faculty, which God has given man to supply the want of clear and certain knowledge in cases where that cannot be had is *Judgment*: whereby the mind *takes* its ideas to agree, or disagree, or which is the same, any proposition to be true, or false, without perceiving a demonstrative evidence in the proofs." And again, at IV.xiv.4: "Judgment, which is the putting ideas together or separating them from one another in the mind when their certain agreement or disagreement is not perceived but *presumed* to be so; which is, as the word imports, taken to be so before it certainly appears." Locke uses the term judgment, but that term is liable to too much confusion in post-Kantian philosophy, so I will stick to the other term uses for this kind of epistemic state, 'opinion'. To give ourselves a shorthand that highlights the contrast with Locke's definition of knowledge, we can condense this definition to: opinion is the presumption of agreement between ideas.

¹⁹ Wolterstorff (1996) is the most prominent and developed example an extended study of Locke's ethics of belief.

²⁰ See for example, Passmore (1986) and Ayers (1991) for competing views on the voluntariness of belief in Locke.

²¹ From Spinoza's *Ethics*, Part II, Proposition 49, Corollary: "The will and the intellect are one and the same."

²² Hume is explicitly reductive: to have an idea, to form a proposition, and to assent to proposition are all one and the same thing for Locke. In a footnote to his account of belief in 1.3.7 of his *Treatise*, Hume writes: "We may here take occasion to observe a very remarkable error, which, being frequently inculcated in the schools, has become a kind of established maxim, and is universally received by all logicians. This error consists in the vulgar division of the acts of the understanding into *conception*, *judgment*, and *reasoning*, and in the definitions we give of them. Conception is defined to be the simple survey of one or more ideas: judgment to be the separating or uniting of different ideas: reasoning to be the separating or uniting of different ideas by the interposition of others, which shew the relation they bear to each other. But these distinctions and definitions are faulty in very considerable articles." (Hume, 96)

hold²³).²⁴ These interpretations, however, are offered without a prior examination of Locke's definition of opinion and how it is distinct from knowledge as Locke defines knowledge. Indeed, Locke's account of opinion as a presumed agreement between ideas is so little discussed that Owen cites no other interpretations with which his can be compared. Again, the difficulty of understanding Locke's definition of opinion and how opinion is distinct from knowledge as defined by Locke has led to little focus on Locke's account of that distinction and thereby undermined the ability of Locke's readers to take seriously the idea that the central philosophical project of the *Essay* is to explicate that distinction.

On the other hand, we should be extremely reluctant to abandon the idea that Locke truly and sincerely describes his project in the *Essay* as focused on first articulating the distinction between knowledge and opinion and then explaining the limitations on our knowledge and opinion based on his accounts of knowledge and opinion. Moreover, evidence that mainstream Locke scholarship is missing something deep about Locke's project is borne out by the fact that in the pop-history of philosophy, Locke is charged with a litany of gross philosophical mistakes that is at least as great the charges leveled at other canonical early modern figures. Even Locke's most serious readers come to conclusions that

²³ Descartes' claim to this effect is most familiar from the Fourth Meditation theodicy for error. Descartes writes, "when I look more closely at myself and inquire into the nature of my errors...I notice that they depend on two concurrent causes, namely on the faculty of knowledge which is in me, and on the faculty of choice or freedom of the will" (Descartes, 39).

²⁴ Owen (2007) and Ayers (1991) offer one act interpretations; Ott (2003), Bennett (2003), and Wolterstorff (1996), are among the two act interpreters.

Locke merely grappled with tensions rather than cut through them²⁵; or that they have no idea what some of his basic claims could mean²⁶; or that his basic taxonomy of ideas is broken,²⁷ etc.

Among many others of Locke's alleged philosophical blunders in the pop-history of philosophy, we can name the following. The primary/secondary quality distinction may be an interesting philosophical distinction, but as Berkeley so easily showed, it is hopeless as Locke draws it. Locke's memory-based criterion of personal identity may have been an interesting insight and good move away from a Cartesian view on which persons are identified with substances but, as Reid's brave officer showed us so long ago, it is clearly false. Locke has long been the whipping boy for an allegedly failed theory of linguistic meaning according to which the meanings of our words are ideas in our minds.

²⁵ Regarding Locke's seemingly contradictory statements about substance, Bennett (1998) writes: "It is a strange performance, but an understandable one: Locke was caught between the fact that we do and perhaps must have the concept of a 'thing which . . . ' and the inhospitable treatment of this concept by his theory of meaning. Where Ayers cannot believe that Locke would flout 'the familiar party line' (Ayers's phrase), I see him as more thoughtful and more honest than that. He finds the notion of an upholder of qualities *embarrassing*, but he grapples with it, the party line notwithstanding. It's no wonder that the substratum texts are two-faced: in them we see a genius in a bind." (Bennett, 133)

²⁶ About Locke's account of knowledge of the external world, Ayers (1991) writes: "It is less easy to see how such knowledge conforms to the general definition of knowledge, i.e. how it consists in perception that the idea of existence, or 'real existence', 'agrees with' the idea of white. Presumably both ideas must be before the mind if we are to perceive that they are related, and yet there seems to be nothing in sense-experience to count as the idea of existence over and above the idea of white" (Ayers, 159).

²⁷ In her recent study of Locke's taxonomy of ideas, Bolton (2007) alleges that Locke's account of perception compromises the distinction between simple and complex ideas. After looking at Locke's discussion of the Molyneux problem, Bolton writes: "[Locke's account] states that in grown people, ideas passively received from the senses are 'often...alter'd by the judgment, without our taking notice of it' (II.ix.8:145). This is all to the good, the passage suggests, because initially we may not take the ideas we receive by sight to represent the qualities they do...this gets the right result—an idea that marks, corresponds to, and represents the cause of the passively received idea...notice, however, that this success depends on the mind's intervening in the causal link between simple and sensory ideas and qualities. This distorts the division between simple and complex ideas" (Bolton, 80-81).

Within Locke's epistemology there is a particularly ugly alleged failing that surely ranks among the very worst of Locke's alleged philosophical blunders: his discussion of knowledge of the existence of the external world (henceforth, "knowledge of the external world"). Locke is no skeptic. He insists that there are and we know that there finite objects existing around us. That claim, however, has seemed to many of Locke's readers to be obviously incompatible with two other deep commitments of his philosophy.

First, according to Locke, all we perceive are ideas.²⁸ This commitment of Locke's has led to a veil of perception worry: if all we perceive are ideas, how can we *know* (or, according to Berkeley, even conceive) the existence of anything beyond our ideas? Second, Locke's own definition of knowledge has seemed to be incompatible with knowledge of the existence. As we saw above, Locke defines knowledge as the perception of agreement

²⁸ Locke makes this point clear in several places in the *Essay*. In the introduction, Locke famously apologizes for his use of the term 'idea' as overly broad, and then explains what the term means for him. His explanation highlights that all thought consists in the perception of ideas: "[B]efore I proceed on to what I have thought on this subject, I must here in the entrance beg pardon of my reader for the frequent use of the word 'idea,' which he will find in the following treatise. It being that term, which, I think, serves best to stand for whatsoever is the object of the understanding when a man thinks; I have used it to express whatever is meant by phantasm, notion, species, or whatever it is which the mind can be employed about in thinking; and I could not avoid frequently using it. I presume it will be easily granted me, that there are such ideas in men's minds; every one is conscious of them in himself, and men's words and actions will satisfy him that they are in others." (I.i.8). Locke reinforces the point that all we perceive are ideas at the beginning of Book II when he again writes that all thinking is a matter of perceiving ideas: "Every man being conscious to himself that he thinks, and that which his mind is applied about, whilst thinking, being the ideas that are there..." (II.i.1). Book III similarly begins with a reaffirmation that all we perceive are ideas: "Man, though he has great variety of thoughts, and such, from which others, as well as himself, might receive profit and delight; yet they are all within his own breast, invisible and hidden from others, nor can of themselves be made to appear. The comfort and advantage of society not being to be had without communication of thoughts, it was necessary that man should find out some external sensible signs, whereof those invisible ideas, which his thoughts are made up for, might be made known to others..." (III.ii.1). Finally, the point again comes up in Book IV, where Locke frames a potential objection to his view that stems from his claim that all we perceive are ideas: "It is evident the mind knows not things immediately, but only by the intervention of the ideas it has of them..." (IV.iv.3).

between ideas. How, one may wonder, could the perception of agreement *between* ideas tell us about what exists *beyond* our ideas?²⁹

In the end, the picture that emerges of Locke in mainstream history of philosophy is one of a philosopher who had enough philosophical acumen to see grasp interesting questions, and enough creativity to come up with some engaging thought-experiments, but was missing the discipline or ability to offer promising solutions to those problems. In some cases (such the case of Locke's discussion of knowledge of the external world), Locke seems unable to even recognize glaring problems. Indeed, in Jonathan Bennett's well-regarded and widely read two-part volume, *Learning from Six Philosophers*, Locke is alone among the six philosophers in that while Bennett finds interesting and engaging proposals from the other five canonical early modern philosophers to learn from, he seems to only learn from Locke's mistakes. Given the lack of focus and obvious problems with many of well-known theses in the *Essay*, one wonders why Locke's *Essay* is worth studying at all.

In this dissertation I will articulate, motivate, and defend a new framework for understanding the *Essay* that promises to provide an interpretation of Locke on which he has a coherent, consistent, and interesting philosophical project. The interpretation I will offer is premised on taking Locke's own description of his project as narrowly focused on the distinction between knowledge and opinion very seriously as a guide to understanding the entirety of the *Essay*. Locke, when properly understood, emerges as a historical figure that is worth reading because he is engaged in a unique project in the early modern period. The Locke we will develop over the course of this dissertation is as interesting for his

²⁹ For example, Woolhouse (1994) writes, knowledge of the external world "does not fit Locke's official definition. [Such] knowledge is not knowledge of some connection between two ideas, but knowledge of the existence now of something in the world corresponding to our present perceptions or ideas" (154).

anticipations of central themes familiar from Kant as he is for his role in shaping early modern empiricism.

Of course, I will not merely articulate, motivate, and defend the new framework. Most importantly, I will show that it has promise as a framework to not only properly understand Locke's claims in the *Essay* but also to show that Locke is not the philosophical bungler he is so commonly thought to be. To do this I will show how Locke, when properly understood, is no fool when it comes to knowledge of the external world. As an extended case study, I will apply my interpretive framework to argue that contrary to near unanimous opinion in the secondary literature, Locke has a consistent, coherent, interesting account of knowledge of the external world. Let's now turn to briefly introducing that framework.

0.2: Locke's Naturalized Epistemology and Theory of Ideas

I hold that the key to understanding Locke's *Essay* is to recognize it as a piece of (what we can now call) seventeenth century naturalized epistemology. In chapters 3 and 4, I will develop and defend these claims in detail. For now, I only wish to briefly sketch the claims to make sufficiently clear *what* Locke's naturalized epistemology amounts to. My goal in doing so is to lay a methodological foundation to allow us to see the naturalized epistemology at work in the case of knowledge of the external world. After we illustrate its central tenets at work, I will develop and defend those tenets in later chapters.

Bringing these points together we have that Locke's *Essay* is a naturalized epistemology focused on understanding the distinction between knowledge and opinion in order to better understand the limits of our knowledge. Locke himself insists that this is his overarching aim, maintained throughout the *Essay* and structuring it. These claims are first

prominently made in the *Epistle*³⁰ and repeated and developed in the *Essay*'s Introduction (I.i).³¹ Locke refers back to his explicit statement of these aims in explaining the *Essay*'s apparent deviation from its topic into an examination of language at the end of Book II³² and again at the beginning of Book III³³. Finally, the detailed fine structure of Book IV is carefully crafted as an answer to these questions. Broadly, the first half of Book IV contains Locke's account of knowledge and its grounds and limitations, while the second half is Locke's account of opinion and its grounds and limitations.

That Locke pursues this aim with a naturalized epistemology emerges from *how* Locke proposes to account for knowledge and opinion. Indeed, Locke's proposal is, at first

³⁰ Locke writes in the *Epistle*, "Were it fit to trouble thee with the history of this Essay, I should tell thee that five or six friends meeting at my chamber and discoursing on a subject very remote from this found themselves quickly at a stand by the difficulties that arose on every side. After we had a while puzzled our selves, without coming any nearer a resolution of those doubts which perplexed us, it came into my thoughts that we took a wrong course; and that, before we set our selves upon enquiries of that nature, it was necessary to examine our own abilities and wee what objects our understandings were, or were not fitted to deal with" (*Epistle*, 7).

³¹ Locke introduces his goal in the *Essay* as follows: "this therefore being my *purpose* to enquire into the original, certainty, and extent of humane knowledge; together with the grounds and degrees of belief, opinion, and assent" (I.i.2). He then goes on to specify his method: "It is therefore worth while to search out the bounds between opinion and knowledge and examine by what measures in things whereof we have no certain knowledge we ought to regulate our assent and moderate our perswasions. In order whereunto, I shall pursue this following method. First, I shall enquire into the original of those ideas, notions, or whatever else you please to call them, which a man observes, and is conscious to himself he has in his mind; and the ways whereby the understanding comes to be furnished with them" (I.i.3).

³² Explaining his transition to language before preceding to knowledge at the end of his account of the theory of ideas in Book II: "Having thus given an account of the original, sorts, and extent of our ideas, with several other considerations, about these...instruments, or materials, of our knowledge, the method I at first proposed to my self, would now require that I should immediately proceed to show what use the understanding makes of them, and what knowledge we have by them...but upon a nearer approach, I find, that there is so close a connection between ideas and words; and our abstract ideas, and general words, have so constant a relation one to another, that it is impossible to speak clearly and distinctly of our knowledge, which all consists in propositions without considering first, the nature, use, and signification of language; which therefore must be the business of the next book" (II.xxxiii.19).

³³ After a brief introduction to language as a form of communication, Locke writes, "But to understand better the use and force of language, as subservient to instruction and knowledge it will be convenient to consider..." (III.i.6). Locke proceeds to explain the three main ways in which language and knowledge intertwine.

glance quite strange. Locke proposes to analyze knowledge and opinion by explaining each as products of the mind's operations in coming to think its thoughts.³⁴ Locke claims that by examining the *origins* of our thoughts, how thoughts come to be thought on particular occasions, we can gain insight into the nature and limitations of knowledge and opinion.³⁵ One might naturally wonder what the origins of our ideas have to do with what we can know by having those ideas, however they came to be. Locke is nevertheless quite clear that this is, in fact, his aim: to understand knowledge, opinion, and their limitations by examining the origins of our ideas. If we want to understand Locke on his own terms, then, we would do well to understand how the project, as he describes it, is supposed to work. Recognizing Locke's project as a naturalized epistemology in the following two senses is a first step to understanding Locke's project as he himself conceives it. In my view it is important to achieve this understanding *before* proceeding to the task of fault finding.

First, the *Essay* is a naturalized epistemology in taking knowledge and opinion as natural phenomena to be explained by the methods employed in studying the rest of the natural world. That Locke is committed to this tenet is most evident in the way his discussion of knowledge unfolds in Book IV. I will motivate and develop this aspect of his project shortly, but a full defense will have to wait until chapter 4. In chapter 5, moreover, this tenet will be put to heavy work in making sense of Locke's attitude towards, and response to, skepticism.

³⁴ See notes 31-33 above.

³⁵ After proposing his method in I.i.3, Locke writes, "If by this enquiry in to the nature of the understanding I can discover the powers thereof; how far they reach; to what things they are in any degree proportionate; and where they fail us, I suppose it may be of use to prevail with the busy mind of man, to be more cautious in meddling with things exceeding its comprehension; to stop, when it is at the utmost extent of its tether; and to sit down in a quiet ignorance of those things which up on examination are found to be beyond the reach of our capacities" (I.i.4).

Second, the *Essay* is a naturalized epistemology in the sense that it explains the nature, grounds, and limitations of knowledge and opinion by locating them within in a broader framework of non-epistemic operations of the mind. Locke's account of knowledge is *not* in terms of justification, certainty, reasons, evidence, or other familiar epistemological terms. Instead, Locke defines knowledge and opinion within the framework provided by what I will call his "theory of ideas". It is Locke's theory of ideas that provides his theoretical framework for analyzing thoughts in terms of their genesis or origins.

This second pillar of Locke's naturalized epistemology provides the crucial link between what has seemed to Locke's readers to be wholly divorced parts of the *Essay*: Locke's discussion of ideas in Books I-III and his epistemology in Book IV. This dissertation advances our understanding of Locke's *Essay* by showing how Locke's epistemology and theory of ideas are intertwined into a coherent, single epistemological project. Locke connects knowledge and opinion to his discussion of the origins of ideas by defining knowledge and opinion in terms of his framework for describing the origins of ideas. In other words, by articulating a framework that analyzes *how* thoughts comes to be thought, and offering an account of knowledge and opinion within this framework, Locke believes he can clarify the boundaries and limitations of each. A main goal of this dissertation, then, is to establish an understanding of Locke's account of knowledge in terms of Locke's theory of ideas.

Knowledge, as we have seen, is for Locke the perception of agreement between ideas. Opinion, by contrast, is the *presumption* of agreement between ideas. To understand Locke's accounts of knowledge and opinion, then, we must figure out what to make of this contrast between the perception and presumption of agreement between ideas. If knowledge and

opinion are distinguished by Locke in terms of his theory of ideas, we need to have a grasp on what kinds of distinctions can be drawn within the theory. To do this, we must have a firmer grip on Locke's theory of ideas.

As we have seen, the overarching aim of the *Essay* is to understand the nature and limitations of knowledge and opinion. Locke proposes to do this by examining the origins of our thoughts. Locke's framework for understanding the origins of our thoughts is what I have called Locke's theory of ideas. Locke's theory of ideas begins by analyzing all thoughts and experiences as the perception of ideas.³⁶ So, an analysis of how a thought comes to be thought in Locke's theory of ideas—a history of that thought—is therefore an account of how an idea comes to be (and hence be perceived) in the understanding.

At the heart of Locke's theory of ideas is an exclusive and exhaustive distinction between ideas drawn in terms of *how* an idea comes to be in the understanding. This is Locke's distinction between simple and complex ideas. Simple ideas are ideas with respect to which the mind is passive. That is, simple ideas enter the understanding passively.³⁷ Simple ideas enter the understanding 'simple and unmixed' through either sensation as a result of other objects operating on the mind or reflection as a result of the mind operating on ideas

³⁶ See footnote 31 above for relevant text.

³⁷ II.i.25: "In this part [sensation and reflection], the Understanding is merely passive; and whether or no, it will have these beginnings, and as it were materials of knowledge, is not in its own power. For the objects of our senses do, many of them, obtrude their particular ideas upon our minds whether we will or no: and the operations of our minds will not let us be without at least some obscure notions of them...these simple ideas, when offered to the mind, the understanding can no more refuse to have, nor alter, when they are imprinted, nor blot them out, and make new ones in itself, than a mirror can refuse, alter or obliterate the images of ideas which the objects set before it do therein produce." From a contrast with complex ideas during Locke's introduction of complex ideas: "We have hitherto considered those ideas in the reception whereof, the mind is only passive, which are those simple ones receives from sensation and reflection before mentioned" (II.xii.1).

somehow already in the mind.³⁸ Sensation provides our experience of objects distinct from our mind.³⁹ Reflection provides our experience of our mind's own activity.⁴⁰

Complex ideas, by contrast, are produced in the mind by the mind operating on ideas already somehow in the mind.⁴¹ Unlike simple ideas complex ideas are in the mind as a result of the mind's activity; complex ideas are ideas with respect to which the mind is active. All ideas enter the mind either passively (simple ideas) or by the mind's activity operating on ideas that are somehow already in the mind (complex ideas). So, by definition, all complex ideas are nothing but simple ideas put together in some way by operations of the mind. Complex ideas have a resultant structure that reflects how they came to be: the simple ideas which compose the complex idea and the kind and order of mental operations which operated on those simple ideas. So, all ideas are either simple or complex. If simple, they enter the mind passively by sensation or reflection and have no relevant structure. If complex, their structure is the result of some sequence of combinations of simple ideas and operations of the mind.

³⁸ II.ii.1: "Though the qualities that affect our senses are in the things themselves so united and blended that there is no separation, no distance between them; yet 'tis plain the ideas they produce in the mind enter by the senses simple and unmixed."

³⁹ II.i.3: "Our senses, conversant about particular sensible objects, do convey into the mind, several distinct perceptions of things according to those various ways wherein those objects do affect them...this great source of most of the ideas we have depending wholly upon our senses and derived by them into the understanding, I call SENSATION."

⁴⁰ II.i.4: "The other fountain from which experience furnisheth the understanding with ideas, is the perception of the operations of our own minds within us, as it is employ'd about the ideas it has got...This source of ideas, every man has wholly in himself: and though it be not Sense, as having nothing to do with external objects; yet it is very like it, and might properly enough be call'd internal sense. But as I call the other Sensation, so I call this Reflection."

⁴¹ But as the mind is wholly passive in the reception of all its simple ideas, so it exerts several acts of its own whereby out of its simple ideas, as the materials and foundations of the rest, the other are framed." (II.xii.1).

Locke's distinction between simple and complex ideas embodies both the empiricist and constructivist aspects of his philosophy. Locke's empiricism is evident in his claim that all ideas have their foundation, ultimately, in simple ideas. That is, all thought has its ultimate origins in experience, either of outer objects or the mind itself. Within Locke's theory of ideas our thought and experience of objects or things (what Locke calls 'substances'), their properties (roughly, what Locke calls 'modes'), and relations consists in the perception of complex ideas. So, our thoughts and experiences of objects, properties, and relations are analyzed in Locke's theory of ideas as the perception of complex ideas. Since complex ideas are constructed by the mind operating on its ideas all of our thoughts and experiences are constructed by the mind, according to Locke. This is Locke's constructivism

We will return to the nature, significance, and Locke's commitment to the distinction between simple and complex ideas in chapter 3. For now, I want to draw out what I take to be its role in Locke's naturalized epistemology and how it relates to the broader goal of analyzing knowledge and opinion. As noted above, complex ideas have a kind of structure that consists in the simple ideas of which they are composed and operations of the mind by which they are put together.

The contribution of operations of the mind to the structure of complex ideas is analogous to the structure tracked by orders of operations in arithmetic or truth-functional connectives in first-order logic. *Which* operations of the mind put the ideas together and the order in which ideas are put them together makes a difference to the complex idea produced.⁴² A complex produced by comparing ideas A and B is a different kind of idea than one produced by compounding those same ideas just as a sentence formed by putting two

⁴² For example, the mental operation of comparing is essential to ideas of relations: "The last sort of complex idea is that we call relation which consists in the consideration and comparing one idea with another" (II.xii.7).

sentences together by conjoining them differs from a sentence formed by putting those same two sentences together by disjoining them. Similarly, *the order in which* operations of the mind operate determines the nature of the complex idea produced. Compounding ideas A and B and then comparing that compound with idea C produces a different idea than compounding idea A with a comparison of ideas B and C. Again, this form of structure is familiar from the orders of operation in arithmetic. Adding 2 and 4 before dividing by 3 yields one result (2), while adding 2 to the quotient of 4 and 3 yields another (3 1/3). A Lockean history a complex idea comes to be in the mind as a result of operations of the mind on simple ideas received in experience. Complex ideas are distinguished by their component ideas and the order and kinds of operations of the mind involved in their construction.

We can better appreciate the significance of the claim that a Lockean history of thought provides an analysis of a thought in terms of its genesis or natural history by noting the difference between Locke's constructivism and a more familiar kind of constructivism. For post-Kantians such as ourselves, when we hear that the mind plays an active role in experience and thought, this is typically a matter of the mind conceptualizing experience, fitting experience with a conceptual structure. This is *not* the sense of mental activity or structure that a Lockean history of thought invokes or provides. That is, the activity of the mind for Locke is not a matter of bringing concepts to bear on something unconceptualized. As a result, the structure produced by Lockean operations of the mind is not conceptual structure.⁴³

⁴³ This distinction can become blurred in *Essay*, especially when language and abstract ideas enter the picture. Conceptual structure and the genetic structure provided by Lockean operations of the mind will run together in some instances, but need not always, and it is vital to remember that the analyses of concepts (such as they are for Locke), knowledge and opinion are in terms of the structure provided by Lockean operations of the mind. This is one reason Locke takes Book III examination of language and its impact on knowledge.

Lockean operations work on simple ideas to form complex ideas. *Memory*, for example, is a Lockean operation of the mind (II.x, II.xii). It accounts for how some idea came to be in the understanding on a particular occasion: the idea was recalled. Another operation, *compounding*, also tells how a particular complex came to be perceived: it is the product of putting two other ideas, already somehow in the mind, together into a compound (II.xi.6-7, II.xii). *Comparing* is yet another operation of the mind by which a complex idea can come to be in the understanding: by putting two ideas together without compounding them (II.xi.4-5, 2.xii). Since Lockean operations of the mind are operations pertaining to the natural history of an idea, the structure revealed by tracing their role in the history of an idea is not a conceptual structure but a *genetic* structure.

Finally, then, we have the necessary resources to sketch Locke's project in the *Essay* and the connection between his theory of ideas and epistemology. Locke's theory of ideas provides a history of a thought in the following way. The thought is analyzed first as the perception of some complex idea. That complex idea is complex in that it has what we can call a genetic structure. The genetic structure reveals how the idea can be analyzed ultimately into simple ideas received in experience and the kind and order of operations of the mind by which those simple ideas were put together to form the complex idea. Tracing our thoughts to their origins in experience by the tools of his theory of ideas constitutes Locke's famous 'historical, plain method'.⁴⁴ Locke's stated aim in the *Essay* is to provide an account of knowledge and opinion that explains their boundaries and limitations by examining the

⁴⁴ Locke uses this description when introducing his project at I.i.2: "It shall suffice to my present purpose to consider the discerning faculties of a man, as they are employ'd about the objects which they have to do with: and I shall imagine I have not wholly misemploy'd my self in the thoughts I shall have on this occasion if, in this historical, plain method I can give an account of the ways whereby our understandings come to attain those notions of things we have, and can set down any measure of the certainty of our knowledge, or the grounds of those perswasions, which are found amongst men..."

origins of our thought. We can now see that this is a matter of accounting for knowledge and opinion *as distinct genetic structures* in the mind. I can now only *state what* the different genetic structures are; I will *argue that* this is the difference Locke's definitions of knowledge and opinion employ later. As I will argue in greater detail in chapter 2, the genetic structure which defines knowledge is *containment*. One idea contains another when it is composed from and literally has as a part, another idea. Though we will touch on it only briefly since a full defense of this claim will have to wait for a complementary project to this dissertation, the distinct genetic structure of opinion is *conjunction without containment*. Ideas are conjoined without being contained when they are both parts of some third idea but neither contains the other as a part.

To take the *Essay* as a piece of naturalized epistemology is therefore not to turn Locke into something like a contemporary reliabilist about knowledge. Contemporary reliabilism treats knowledge as a species of reliably produced opinion.⁴⁵ But, for Locke, knowledge is not a species of opinion at all. Locke takes knowledge and opinion to differ not simply in the factivity of the former, but, more fundamentally, in their genetic structure within the understanding. For Locke, in contrast to contemporary reliabilists, knowledge cannot be (enhanced) opinion, nor can opinion be (degraded) knowledge.

Two consequences of this sketch of Locke's project deserve elaboration as they help clarify Locke's naturalized epistemology. First, far from being abandoned by Locke over the *Essay's* development, the distinction between simple and complex ideas is at the heart of the Locke's project.⁴⁶ It provides the fundamental framework within which knowledge and

⁴⁵ Cf. Alvin Goldman's *Epistemology and Cognition*, Hilary Kornblith's *Knowledge and its Place in Nature*, etc.

⁴⁶ For a sample of influential contrary interpretations see Aaron (1971) and Bolton (2007).

opinion are analyzed and explained.

Second, contrary to interpreters such as M.R. Ayers,⁴⁷ Locke's taxonomy and theory of ideas are not *merely* descriptions of what is introspectively available in conscious experience. Instead Locke's claims about ideas explain the structure of knowledge and opinion. Locke's 'historical, plain method' is *not* 'historical' in a sense to be *contrasted* with hypothetical or speculative methods. Instead, it is historical in the sense of providing histories of thoughts; it is a method for specifying how any particular thought came to be in the mind. Locke's claims about ideas are thus best understood as hypotheses of his naturalized epistemology.⁴⁸ If this is correct, then it is a mistake to evaluate Locke's claims about our ideas and his epistemology by reflecting on the phenomenology of conscious experience.⁴⁹ The framework of ideas and mental operations and his definitions of knowledge and opinion are intended by Locke to be accepted or not to the degree that they can accommodate the phenomena of knowledge and opinion. Locke's theory of ideas and

⁴⁷ See, especially, Ayers (1986) and (1991).

⁴⁸ As we will see, Locke's attitude towards hypotheses and speculative natural philosophy is a subject of some interpretive debate. A sample of those who have claimed that Locke rejects hypotheses from natural philosophy and limits natural philosophy to natural history: Anstey (2002), (2003), (2011), de Pierris (2006), Domski (forthcoming), Yolton (1970) Yost (1951), Winkler (2008). Though it is widely accepted that Locke rejects hypotheses and their role in natural philosophy, and so could not plausibly be said to himself employ them, this interpretation is misguided. Against these interpretations, Chapter 4 will argue that Locke's epistemology does allow a significant place for hypotheses in our understanding of the world.

⁴⁹ Contrast this with interpretations such as offered by Ayers (1991) according to which ideas are images, and the theory of ideas is a taxonomy of observations had while reflecting on conscious experience. From a historical perspective, taking ideas to be images seems to serve Locke on a platter to the criticisms of Hume and Berkeley. The interpretation being proposed according to which ideas are first and foremost theoretical tools in a naturalized epistemology thus promises to shed new light on the way in which the criticisms of Locke by Hume and Berkeley regarding Locke's claim that we have simple ideas of power, extension, or solidity miss their mark from Locke's perspective. Hume and Berkeley criticize Locke on phenomenological grounds: when we reflect on our conscious experience we nowhere find *power* or *necessity*, we simply find regular succession; or, ideas of extension are just ideas of relations between sensory ideas, not a distinct idea over and above that relation. The basis of Locke's claim that we have such ideas, however, is that they are necessary for an adequate account of knowledge and reasonable opinion and the distinction between the two.

analyses of knowledge and opinion succeed to the degree that, for example, paradigmatic cases of knowledge can be successfully analyzed within his theory. Locke's claims about the boundaries and limitations of knowledge and opinion are then justified by the explanatory adequacy' of the definitions of knowledge and opinion from which they derive.

An analogy with Newton's *Principia* is helpful here. Newton begins by specifying his technical framework for forces. He then goes on to illustrate the adequacy of his theory to particular, familiar phenomena. Finally, on the strength of this success he asserts a system of the world and claims that his theory characterizes not just the operations underlying the phenomena he earlier examined but all motions of bodies in the world. A similar structure is in place for Locke. He explicates his theory of ideas. He then provides a definition of knowledge and opinion within that framework and illustrates the adequacy of those definitions. Finally, on the strength of the adequacy of those definitions, he asserts a system of the mind and draws lessons about what the nature, grounds, and boundaries of knowledge and opinion really are.

0.3: Locke's Naturalized Epistemology: Revising our understanding of the *Essay*

The picture of Locke's epistemology that emerges from this account of the *Essay* is the following. We start with a knowledge claim. The thought expressed by that claim is then analyzed as the perception of some idea(s) with some genetic structure. Based on the containment relations revealed by the genetic structure of that idea, we get Locke's account of the *knowledge* expressed by the claim to make clearer what is and is not *known*. The knowledge expressed according to Locke's theory may or may not line up with our naive, pre-theoretical expectations of what we know. That such knowledge might turn out that less than we may have expected, however, is no cause for concern according to Locke. Instead,

we should accept that the knowledge is we do have is good enough for our purposes. To complain that we do not know more is suffer a “childish peevishness”.⁵⁰

Grasping Locke’s naturalized epistemology in this way lets us replace the mainstream understanding of how the *Essay* unfolds in a meandering exploration through various philosophical topics with a more systematic overview of the *Essay*’s four Books and how they fit together to serve Locke’s aim in the *Essay*. The *Essay* begins in Book I with an attack on a rival view about the origins and foundations of our thought and knowledge: nativism. Book II then develops Locke’s theory of ideas which specifies the genetic structure of thoughts. In finer detail, the book is divided along the distinction between simple and complex ideas. Locke first details the sources and kinds of simple ideas. He then turns to complex ideas to show how the different kinds of complex ideas can be distinguished in terms of their genetic structure and ultimately analyzed into simple ideas and operations of the mind. What may appear to be long metaphysical digressions are in truth attempts to describe familiar aspects of our thought and experience and show how those thoughts can be analyzed in Locke’s theory of ideas as nothing but simple ideas put together by operations of the mind. Book III takes what Locke believes is a necessary detour through language because of the important role Locke believes language has with respect to knowledge. Finally, Book IV defines knowledge and opinion in terms of the genetic structure of ideas, shows how those definitions are explanatorily adequate, and then draws out the limitations on our knowledge that follow from these definitions.

I believe fully appreciating the significance of Locke’s naturalized epistemology and

⁵⁰ 1.1.5: “We shall not have much reason to complain of the narrowness of our minds, if we will but employ them about what may be of use to us; for of that they are very capable: and it will be an unpardonable, as well as childish peevishness, if we undervalue the advantages of our knowledge and neglect to improve it to the ends for which it was given us because there are some things that are set out of the reach of it.”

Locke's focus on the distinction between knowledge and opinion lays the foundation for redressing many, if not all, of the Locke's alleged failures in the *Essay*. Properly appreciating the scope of Locke's project in the *Essay* as aimed at making clearer the commitments of our epistemic discourse is a crucial first step in understanding the *Essay*. Doing so has the power to allow us to better understand his claims throughout the *Essay* ranging from metaphysics to epistemology to philosophy of language. As we will see over the following five chapters, it will be work enough to tackle one, long-standing, significant charge: that Locke's discussion of knowledge of the external world is an obvious failure.⁵¹ My aim in this dissertation is to demonstrate the promise of recognizing Locke's *Essay* as a piece naturalized epistemology which distinguishes knowledge and opinion in terms of their genetic structure by showing how the approach can be applied to the *particularly difficult* case of Locke's discussion of knowledge of the external world.

0.4: Applying Locke's naturalized epistemology: knowledge of the external world

The naturalized epistemology framework laid out above in 0.2 above suggests the following approach to explicating Locke's epistemology. First, develop the relevant parts of Locke's theory of ideas. That is, show how the relevant thoughts can be analyzed in Locke's theory of ideas to reveal their genetic structure. Next, show how Locke might take that part of his theory of ideas to combine with his definition to show that the knowledge in question can be understood in terms of Locke's theory as involving a perceived agreement between ideas. Finally, draw out how analyzing such knowledge within the theory of ideas reveals the limitations of such knowledge. This formula shapes the interpretation I will develop of Locke's account of knowledge of the external world.

⁵¹ Stillingfleet and Locke engage on this very issue. Locke's summary of Stillingfleet's objections and Locke's reply to the objections are in Locke's Third Letter to Stillingfleet.

As we will see in greater detail over the coming chapters, the knowledge Locke thinks we have of the external world is knowledge that *finite things* distinct from our minds exist. This suggests—and we’ll see plenty of confirmation in the coming chapters—that the relevant place to look within Locke’s theory of ideas is Locke’s account of our ideas of substance. So, following the recipe for explicating Locke’s epistemology sketched above, I will begin in chapter 1 with Locke’s account of substance ideas. The aim of the chapter will be to understand Locke’s discussion of substance as an attempt to account for our thoughts and experiences of substances in terms of his theory of ideas rather than, as is more typical in the secondary literature on Locke, as an attempt by Locke to offer a metaphysics of substance. As we will see, rather than constituting a metaphysics of substance, Locke’s discussion of substance provides a guide to Locke’s account of how our ideas of substance are constructed from simple ideas by operations of the mind (and so how they ultimately consist in nothing but simple ideas put together by operations of the mind).

With a clear account of the relevant part of Locke’s theory of ideas under our belt, we will turn in Chapter 2 to understanding how perceiving such ideas provides an account of knowledge of the external world. The main points to be addressed in chapter 2 will be: first, to flesh out and defend the claim stated above that idea-agreement (and so knowledge) is (perceiving) idea-containment; second, to defend the account I develop of *which* ideas agree in knowledge of the external world; and finally, to see how the agreement of *those* ideas is relevant to knowledge of the external world. By the end of chapter 2, then, we will be able to clearly state Locke’s analysis of knowledge of the external world as a perceived agreement between ideas.

However, there is more to the puzzle about Locke on knowledge of the external world than his analysis of knowledge of the external world in terms of his definition of knowledge. In particular, there is some difficulty in making sense of Locke's attitude towards skepticism about such knowledge. Locke is no skeptic. But merely having an analysis of knowledge of the external world, of course, is not good enough to support the claim *that we have such knowledge*. To understand Locke's engagement with the skeptic it will be necessary to look at the surprisingly strong grounds Locke has for his anti-skeptical position. As we will see, paying attention to Locke's naturalized epistemology and its emphasis on a strict distinction between knowledge and opinion is crucial to understanding Locke's anti-skeptical position.

From a historical perspective, Locke's relation to skepticism about the external world is one of the most interesting parts of Locke's discussion of knowledge of the external world because has implications for how we understand Locke's relation to his empiricist successors. By providing a satisfactory account of Locke's anti-skeptical resources, we will see how Locke can resist a dilemma his theory of ideas is traditionally thought to present him with. According to Locke, all we perceive are ideas. If we all perceive are ideas, however, it isn't clear how we could *know* the existence of anything besides our ideas. Having accepted that all we perceive are ideas Berkeley had the good, if not common, sense to deny the existence of anything but ideas, minds, and God. Hume took the other sensible route and embraced the skepticism to which the way of ideas leads. Locke used neither resolution of the tension. He seems to have sat in the mess as if there were no problem. In this pop-history of philosophy, Locke doesn't even have the full command of his own theory enjoyed by his successors. By integrating Locke's analysis of knowledge of the external world within his broader naturalized epistemology we will get a picture of Locke's anti-skeptical resources

that reveals how he can non-dogmatically resist the slide to Berkeleyan idealism or Humean skepticism. Chapter 5 will articulate Locke's anti-skepticism and so complete my account of Locke on knowledge of the external world.

Before we examine the anti-skeptical resources of Locke's naturalized epistemology in chapter 5, however, we will need to do more to clarify and defend the claim that Locke's *Essay* is best understood as a naturalized epistemology as I have described it above. As will become clearer in my application of the naturalized epistemology framework to the case of knowledge of the external world in the coming two chapters, we need to distinguish two important components to Locke's system. The first is the aforementioned distinction between simple and complex ideas at the very core of the *Essay*. Locke's notion of genetic structure is built around this distinction. It is thus central to Locke's accounts of knowledge and opinion. A growing number of Locke scholars, however, argue that Locke in fact *abandoned* the distinction between simple and complex ideas as a significant distinction in his taxonomy of ideas. That is, not only do commentators point out various difficulties they see with the distinction, but they go further and argue that Locke himself recognized at least some of those difficulties and was led to abandon the distinction by the final editions of the *Essay*. In chapter 3, I will take the opportunity presented by these arguments against Locke's commitment to the simple/complex distinction to (a) clarify what the simple/complex distinction is and (b) rebut arguments to the effect that Locke abandoned the simple/complex distinction so understood, thereby securing the core apparatus of Locke's naturalized epistemology. As we will see, far from serving as evidence that Locke abandons the simple/complex distinction, the revisions and additions Locke made to the *Essay* over the course of

its development show a strong affirmation of his commitment to the distinction's central role in the *Essay*.

The second main challenge to understanding the *Essay* as a piece of naturalized epistemology takes us to Locke's philosophy of science. Recent Locke scholarship features arguments to the effect that Locke's epistemology and philosophy of science limit our understanding of the natural world to mere observation. According to these readings of Locke, ambitious explanatory projects that invoke hypotheses about unobservable causes of what is observed may have practical value for leading to new experiments or helping us to remember and organize our observational understanding of the world, but they themselves contribute nothing to our understanding of the world. The only legitimate form of inquiry on this reading of Locke's philosophy of science is to observe the phenomena of the natural world, record them, and try to systematically organize those observations.

If this understanding of Locke's philosophy of science were correct, then it would be highly unlikely that Locke would be engaged in a naturalized epistemology as described above. The reason is simple: Locke's own philosophy of science would in that case rule out such projects as legitimate forms of inquiry. I've suggested that Locke's *Essay* is not a mere natural history of the mind in the sense that it is just a detailed collection of observations about our mental lives. Locke's claims about ideas—his taxonomy of ideas and the relations between ideas in different categories—are *not* mere descriptions to be measured against our reflection on our own mental lives. Instead, Locke's taxonomy of ideas and the relations he posits between the different kinds of ideas is part of a larger project to explain knowledge, opinion, and their limitations. Locke's claims about ideas are to be evaluated as successful characterizations of the mind based on the explanatory adequacy of the accounts of

knowledge and opinion they underwrite. Locke's project is explanatorily ambitious in that he aims to draw on the explanatory adequacy of his accounts of knowledge and opinion to assert his theory of ideas as a system of the mind that tells us the nature and limitations of our knowledge.

In chapter 4, then, we'll delve into some of the recent debates on Locke's philosophy of science. As we will see, current debates fail to recognize the importance of the distinction between knowledge and opinion for Locke. When we properly appreciate the role of this distinction in Locke's thought and the way it shapes the *Essay* it becomes clear that Locke does not banish hypotheses and theoretical explanation from our understanding of the world. Instead, Locke's epistemology merely classifies such projects as *opinion* rather than as *knowledge*. But Locke does not so classify such projects to denigrate them in any way. And he certainly does not mean to banish them from the sphere of rational inquiry. Thus, by the end of chapter 4 we will see that Locke's naturalized epistemology as I characterized it above is in no way in tension with Locke's own philosophy of science.

Before fleshing out and defending the claim *that* Locke is engaged in a naturalized epistemology, we must start by seeing the framework in action. Seeing it at work solving the puzzle of Locke's analysis of knowledge of the external world in terms of ideas will not only provide a better understanding of the project but also illustrate its power and promise as a tool for understanding Locke in a way that makes the *Essay* a worthy and interesting read. Therefore, I turn now to Locke on our ideas of substance.

Chapter 1: Knowledge of the external world: Substance and simple ideas

1.1 Knowledge of the external world in Locke's Essay

In the pop-history of philosophy, Locke is guilty of many philosophical mistakes. Topping the chart of Locke's greatest philosophical blunders is his discussion of knowledge of the existence of the external world, which is widely regarded as obviously problematic.⁵² On the one hand, Locke is no skeptic. He repeatedly insists that there are, and we know that there are, bodies around us (cf. IV.ii, IV.iv, IV.ix, IV.xi). On the other hand, given that all we perceive are ideas, it isn't clear how we could ever know that anything exists besides ideas. Worse, Locke's very definition of knowledge seems plainly inconsistent with knowledge of the existence of anything besides our own mind and ideas. Knowledge, according to Locke, is the perceived agreement of ideas. How, nearly every reader of the *Essay* has wondered, can we know that something exists beyond our ideas by perceiving an agreement between ideas?

⁵² For example, see Ayers, (1991), Woolhouse (1994), Mattern (1998), Jolley (1999), Bennett (2003), Rickless (2006). For slightly more charitable, though ultimately critical, interpretations see Bolton (2004), Owen (MS), and Nagel (forthcoming).

Locke does allow for an idea of existence, but it took Hume all of a footnote to dispatch the viability of an approach to knowledge of existence through an idea of existence.⁵³

In this chapter and the next I will offer a new account of how the second problem above can be solved. By treating Locke as engaged in the naturalized epistemology described in the Introduction, I will show that Locke can and does offer an account of knowledge of the existence of the external world in the terms of his definition of knowledge as the perception of agreement between ideas. Specifically, I will argue that such knowledge consists in the perception of agreement between a simple idea of sensation and a complex idea of substance. Lingering skeptical worries due to Locke's claim that all we perceive are ideas will have to wait until the final chapter of the dissertation.

The problem of reconciling Locke's account of knowledge in general with knowledge of the external world breaks down into the following three parts:

- (a) *Which* ideas agree in knowledge of the external world?
- (b) What is it for ideas to *agree*?
- (c) What does the agreement of *those* ideas have to do with knowledge of the external world?

By answering these questions we will have a new answer to a problem that has long been regarded as unsolvable. Indeed, the secondary literature is nearly unanimous in holding that Locke's definition of knowledge cannot accommodate knowledge of the external world. On

⁵³ In a footnote to his official definition belief at 1.3.7.5 of his *Treatise*, Hume writes: "We may here take occasion to observe a very remarkable error, which being frequently inculcated in the schools, has become a kind of established maxim, and is universally received by all logicians. This error consists in the vulgar division of the acts of the understanding into conception, judgment, and reasoning, and in the definitions we give of them. Conception is defined to be the simple survey of one or more ideas: judgment to be the separating or uniting of different ideas: reasoning to be the separating or uniting of different ideas by the interposition of others, which shew the relation they bear to each other. But these distinctions and definitions are faulty in very considerable articles. For, first, it is far from being true, that, in every judgment which we form, we unite two different ideas; since in that proposition, *God is*, or indeed, any other which regards existence, the idea of existence is no distinct idea, which we unite with that of the object, and which is capable of forming a compound idea by that union..."

one side of this debate are those who claim that Locke's epistemology fails to account for knowledge of the external world because such knowledge doesn't fit with his definition. On the other side are those who attribute a bifurcated account of knowledge to Locke: one half is provided by his definition of knowledge, the other half is a tacit reliabilism that covers knowledge of the external world. Over the course of this chapter and the next I will develop my answers to the three questions and show the falsity of this dilemma in the literature. For now, I briefly state my answers to these questions as a guide to what's to come.

(a) The ideas which agree in knowledge of the external world are a complex idea of a substance and a simple idea of sensation.

(b) Ideas agree when one literally contains the other as a part. In the case of knowledge of the external world, the complex idea of a substance contains the simple idea of sensation.

(c) The agreement of these ideas is relevant to knowledge of the external world because their agreement accounts for two features of knowledge of the external world Locke believes any analysis of such knowledge must account for: first, knowledge of the external world obtains in sensory experience; second, knowledge of the external world is founded on our awareness of our passivity in sensory experience.

How to develop these answers presents a difficult expository challenge. Each answer sheds light on the others and makes their significance and force easier to grasp. The other side of that fact is that the first answer I develop will not be fully defended until all the answers are on the table. Nevertheless, we must start somewhere.

To choose a starting point I will follow the recipe for expositing Locke's epistemology laid out in the Introduction. According to that recipe we want to first exposit the relevant parts of Locke's theory of ideas. To exposit the relevant parts of Locke's theory of ideas is just to exposit the genetic structure of the relevant ideas. The ideas relevant to knowledge of the external world for Locke are a complex idea of a substance and a simple

idea of sensation. A full defense of *that* claim must wait.⁵⁴ The second step is then to examine the containment relations that are revealed by our account of the genetic structure of the relevant ideas to see what knowledge is had by perceiving such ideas. Finally, the last step is to explain how the perception of such ideas accounts for the knowledge in question.

In accord with the recipe, I will now explicate the parts of Locke's theory of ideas relevant to knowledge of the external world: complex ideas of substances and simple ideas of sensation. The aim of this chapter is to give an account of Locke's categories of complex ideas of substances and simple ideas of sensation that will prepare us to understand their role in Locke's account of knowledge of the external world. I will argue for the following understanding of each category of ideas. Complex ideas of substances are ideas of things which exist and affect our mind by the production of simple ideas in our understanding. Simple ideas of sensation are the appearances by things to the mind and constitute the interface between mind and world. I will argue *for* these understandings by examining the genetic structure of these ideas and their place within Locke's naturalized epistemology — how Locke uses these categories of ideas to analyze our experiences and thoughts.

1.2 Locke on complex ideas of substance

To properly understand Locke's discussion of our complex ideas of substance it is important to keep two kinds of distinctions in mind. First, we must be careful to distinguish the programmatic and polemical dimensions of Locke's discussion of our ideas of substances. The programmatic dimensions of Locke's discussion of our ideas of substances

⁵⁴ Here we come to an unsatisfying aspect of beginning with question (a): I must simply state what I take the ideas to be. Only once we have a grasp of answer to question (c) will we have a satisfactory defense of my answer to question (a). However, the answer to (c) depends on the answer to (b) and I believe it will be easier to understand the answer to (b) and (c) after gaining some familiarity with Locke's genetic theory of ideas since his account of knowledge is in the terms of his genetic theory of ideas.

are Locke's efforts to accommodate our ideas of substances within his program of illustrating their genetic structure. Locke's programmatic discussion of our ideas of substances therefore has two components. First, Locke articulates some characteristic features of thoughts of substances that distinguish them from thoughts of modes or relations. Second, Locke illustrates the genetic structure of thoughts of substances. Having given the characteristic or distinguishing features of thoughts of substances, Locke then illustrates how such thought can be understood as perceiving a complex idea with a genetic structure that differentiates it from other kinds of complex ideas. In displaying the genetic structure of complex ideas of substances, Locke reveals how complex ideas of substances can be understood as consisting in nothing but simple ideas received in sensation and reflection put together by operations of the mind.

The polemical dimension of Locke's discussion of ideas of substances has to do with the controversial conclusions he draws from his account of the genetic structure of ideas of substances. One conclusion, for example, is that our ideas of mind and matter are on equal footing. Neither offers us anymore insight into the essences of minds or bodies, or is any less mysterious, than the other. A second and related conclusion is that previous accounts of our epistemology of substance are mistaken in a way that we will detail shortly. To preview: our epistemic discourse regarding the classification of substances into kinds is guided by our nominal essences of kinds, ideas of their qualities, rather than ideas of their real essence.

A second kind of distinction that is important to track in Locke's discussion of complex ideas of substances has to do with the different ways in which Locke uses the phrase, 'idea of substance'. We can distinguish at least five different uses. To tease them apart, we can begin with Locke's introduction of ideas of substances:

(Sub_A): The ideas of substances are such combinations of simple ideas, as are taken to represent distinct particular things subsisting by themselves, in which the supposed, or confused idea of substance, such as it is, is always the first and chief. (II.xii.6/165)

Consider the first part of Locke's description. Ideas of substances are ideas of *things*, or objects. Things, or objects, are special in that they exist on their own. Substances only depend on themselves for existence. Ideas of modes and relations, by contrast, are ideas of things with dependent existence. Locke's account of modes contains a complementary definition in terms of dependence: "[M]odes I call such complex ideas, which however compounded, contain not in them the supposition of subsisting by themselves, but are considered as dependences on, or affections of substances" (II.xii.4/165). Locke's examples of modes and substances confirm that the distinction is supposed to track *things* or *objects*, on the one hand, and that which depends on substances for their existence. Among Locke's list of modes are: triangle, gratitude, beauty, a dozen, theft, and murder (II.xii.4). Among Locke's examples of substances are a man, a sheep, and lead (II.xii.6).

The second half of **(Sub_A)** is potentially confusing and so must be addressed. Locke seems to be saying that the idea of substance is the 'chief' component of ideas of substances. To clarify, Locke follows **(Sub_A)** with:

(Sub_B): Thus if to substance be joined the simple idea of a certain dull whitish color, with certain degrees of weight, hardness, ductility, and fusibility, we have the idea of lead; and a combination of the ideas of a certain sort of figure, with the powers of motion, thought, and reasoning, joined to substance, make the ordinary idea of a man. (II.xii.6/165)

Locke's point is as follows. Our complex ideas of substances have several components. Some of those components are ideas of properties, or qualities, like color, ductility, thinking, etc. Of course, ideas of modes can include such ideas as well. What distinguishes our ideas of substances is that they include some further idea, what Locke here calls the idea of substance.

Thus, the complexity of ideas of substances is evident in their introduction in the *Essay*. They are combinations of ideas of qualities with the idea of substance.

The role of the idea of substance in complex ideas of substances emerges by bringing the two halves of (**Sub_A**) together. Ideas of substances differ from ideas of modes or relations in that they are ideas of things which do not depend on anything else for their existence. This feature of our ideas of substance is accounted for within Locke's theory of ideas by the fact that ideas of substances are alone in having as a part the idea of substance. So, whatever the idea of substance is, its role in our ideas of substances seems to be to mark the unique feature of ideas of substances: that they are ideas of independently existing things on which modes and relations depend for their existence.

Locke's introductory remarks concerning ideas of substances has an additional source of potential confusion over and above the double use of 'substance'. The second potential confusion has to do with Locke's examples of substances. In (**Sub_A**) Locke calls ideas of substances ideas of "distinct particular things". In (**Sub_B**), however, Locke's first example doesn't appear to be an example of a distinct particular thing, but instead of a kind of thing: lead. Locke writes that combining the idea of substance with certain ideas of qualities gives us our substance idea of *lead* and not simply our idea of *a particular hunk* of lead. Some commentators make heavy weather of this text. Bolton (1998), for example, takes this as part of an argument *against* the claim that, for Locke, ideas of substances are ideas of particular individuals. Bolton (1998) argues that our complex ideas of substances are ideas of natural kinds.⁵⁵ As I will argue in section 1.2.3 below, Bolton's reading, like many other

⁵⁵ "Although the expression 'distinct particular things' might naturally be taken to mean Aristotelian individuals, or countable things, that interpretation is ruled out at once by the appearance of lead, a sort of matter, as an example of substance" (Bolton (1998), 107-8)

interpretations of Locke on substance, understands Locke's discussion of ideas of substance to articulate a metaphysics of substance. This is, I will argue, a mistake.

It seems best to interpret the fact that Locke's examples of substances in II.xii.6 range over an idea of lead (a kind of thing) as well as an idea of a man (a particular thing) to be evidence that there is another important ambiguity in Locke's uses of the phrase 'idea of substance'. Locke's category of complex ideas of substances provides the category under which Locke's theory of ideas analyzes of all thoughts and experiences of things, or objects. Our thought and experience of things or objects are varied, of course. We can have a thought or experience of a particular thing, such as the particular daffodil outside my now. Or, we can think of kinds of things, such as daffodils. Within Locke's theory of ideas, both of these kind of 'thing'-thoughts are analyzed as the perception of complex ideas of a substances. The distinguishing feature of all of these ideas is that they include in them the idea of substance; it is by virtue of having the idea of substance as a part that they are all ideas of substances.

In addition to these four uses of the phrase 'idea of substance' there is one more, though it is almost exclusively found in philosophy. This use of the phrase 'idea of substance' is an idea of a metaphysical kind which is distinct from modes or relations. It is an abstract idea of substance in general. Presumably, it is abstracted from the idea of substance which is a characteristic component of ideas of substances. Locke often uses the phrase this when criticizing the explanatory weight other philosophers put on such an idea or metaphysical kind. For example, in the context of considering whether space is a mode or a substance, Locke writes, "If it be demanded (as usually it is) whether this space void of body, be substance or accident, I shall readily answer, I know not: nor shall be ashamed to own my ignorance, till they that ask, shew me a clear distinct idea of substance" (II.xiii.17/174).

Locke's complaint here is about the metaphysical kinds substance and accident. Locke professes to not feel the need to come up with an answer to the metaphysical nature of space because the ideas metaphysical kinds, at least that of substance, are confused.⁵⁶

So far, then, we have five closely related uses of the phrase 'idea of substance'. By 'idea of substance', Locke may mean:

Idea of substance ₁ :	The component idea which distinguishes complex ideas of substances from other complex ideas.
Idea of substance ₂ :	Complex ideas of substances, both particular individuals and kinds of substances
Idea of substance ₃ :	An idea of a particular, individual thing.
Idea of substance ₄ :	An idea of a kind of thing.
Idea of substances ₅ :	An abstract idea of a metaphysical kind, distinct from other metaphysical kinds such as mode or relation.

Ideas of substances₂ contain, as a part, an idea of substance₁. This is what makes them ideas of substances₂. Ideas of substances₃ or substances₄ are sub-cases of ideas of substances₂. So, ideas of substances₂ can be divided into ideas of a particular individuals (ideas of substances₃) or general ideas of a kinds of individuals (ideas of substances₄). It is by virtue of containing the idea of substance₁ as a part that ideas of substances₃ or substances₄ are ideas of substances₂, as opposed to complex ideas of modes or relations. What differentiates ideas of substances₃ from ideas of substances₄ has to do with another part of their genetic structure. Presumably, the operation of the mind Locke calls 'abstraction' is an important distinguishing

⁵⁶ Other uses of this phrase can be found in II.xiii.18-20, and in II.xxiii, entitled 'Of our complex ideas of substance'. For example, from Locke's discussion in II.xxiii: "the idea then we have, to which we give the general name substance, being nothing but the supposed but unknown support of those qualities we find existing, which we imagine cannot subsist, *sine re substante*, without something to support them, we call that support *substantia*; which according to the true import of the word, is in plain english, *standing under*, or *upholding*" (II.xxiii.2/296; underlined emphasis added).

genetic feature between ideas of substances₄ and ideas of substances₃.⁵⁷ Finally, the idea of substance₅ is presumably formed by abstracting the idea of substance₁ from ideas of substances₂.

Though these are all uses of the phrase ‘idea of substance’ for Locke, it is important to note that most of Locke’s attention to ideas of substances is directed at ideas of substances₄. This is understandable within the context of Locke’s naturalized epistemology. Locke’s ultimate concern in the *Essay* is to explain the boundaries and limitations of knowledge and reasonable opinion. Much of our epistemic discourse concerning substances has to do with *kinds* of substances: their classification into kinds and the relations between those kinds. Very little of our epistemic discourse concerns particular, individual substances as such. In fact, our main concern regarding particular, individual substances as such probably does not extend much beyond their existence.⁵⁸ It is understandable, then, that much of Locke’s extended discussion of our ideas of substances, from his exposition of their genetic structure in II.xxiii, to his discussion of their representational aspects in II.xxx-xxxii, to his discussion of how language works with ideas of substances (III.iii, III.vi), is consumed with ideas of substances₄—ideas of kinds of substances.

⁵⁷ We will consider Locke on abstraction in a little more detail in Chapter 4. For now, however, we can note that Locke introduces abstraction as an operation of the mind in II.xi.9 as follows: “the mind makes the particular ideas received from particular objects to become general; which is done by considering them as they are in the mind such appearances, separate from all other existences, and the circumstances of real existence, as time, place, or any other concomitant ideas.”. Locke reaffirms that abstraction is an operation of the mind that produces complex ideas in II.xii. Finally, in the III.iii, Locke reiterates the II.xi account of abstraction: “Ideas become general, by separating from them the circumstances of time, and place, and any other ideas, that may determine them to this or that particular existence. By this way of abstraction they are made capable of representing more individuals than one; each of which, having in it a conformity of that abstract idea, is (as we call it) of that sort” (III.iii.6/411).

⁵⁸ Indeed, this confirms, to some degree, that we’re on the right track in looking for Locke’s account of knowledge of the external world in his account of ideas of substance.

The two distinctions in Locke's discussion of complex ideas of substances will structure my presentation of Locke on complex ideas of substances. First, I will explicate Locke's programmatic efforts with respect to ideas of substances₂, his account of how complex ideas of substances₂ are constructed from simple ideas of sensation and reflection by operations of the mind. As we will see, ideas of substances₂ are formed by the mind putting together ideas of qualities with the idea of substance₁.

Second, with Locke's account of how ideas of substances₂ are formed in hand, I will explicate what Locke takes to be the important consequences of his account of the genetic structure of ideas of substances₂. One result is that our ideas of our own mind and particular bodies (ideas of substances₃) are importantly parallel in a way that Locke thinks many fail to recognize. Consequently our ideas of mind and matter (ideas of substances₄) are on a par, epistemologically speaking. Neither is clearer, less mysterious, or gives us any more insight into the nature of minds or bodies than the other. Another, related result is that our ideas of substances₄ are distinguished not by differences with respect to their ideas of substance₁, but instead by their component ideas of qualities. Locke thinks that the account of our epistemic discourse regarding the classification of substances provided by his account of our ideas of substances₂ shows that the idea of substance₁ (or, relatedly, the idea of substance₅) has no significant work to do in making sense of our epistemic discourse regarding kinds of substances.

1.2.1 Locke's Programmatic analysis of ideas of substance₂ in terms of their genetic structure

Locke's programmatic analysis of ideas of substances in terms of their genetic structure has two main parts. First, Locke sketches the distinguishing aspects of our thought of substances compared to our thoughts of modes or relations. Second, Locke articulates the

genetic structure of our ideas of substances to capture within his theory of ideas these ways in which thoughts of substances differ from thoughts of modes or relations.

1.2.1.1 Locke on the distinct features of our thought of substances

Having a thought or experience that is as if of a thing has two main distinguishing features according to Locke. Having a thought of a substance is having a thought of an independently existing⁵⁹ thing which affects our mind in various ways. In the first place, then, thoughts of substances are thoughts of things with an independent existence, thoughts of things by which other things exist. In the second place, thoughts of substances have a distinct kind of unity. Each requires further elaboration.

From the very beginning of his discussion of substance, Locke makes clear that what is distinctive about thought of substances is that they are thoughts of things which have an independent existence. As cited above in (Sub_A), Locke defines ideas of substances as ideas of independently existing things and explicitly contrasts substances with modes and relations in that regard (II.xii.6). This theme reemerges in the first paragraph of Locke's chapter on our ideas of substances, II.xxiii, 'Of our complex ideas of substances'. Locke there introduces our ideas of substances as complex. The complexity, he explains, is due (in part) to the fact that there is more to thought of substances than just a thought of a collection of what Locke calls qualities. Thoughts of substances involve the thought of an independently existing thing: "not imagining who these simple ideas [the ideas produced by the qualities] can subsist by themselves we accustom our selves to suppose some *substratum* wherein they do subsist and from which they do result, which therefore we call *substance*" (II.xxiii.1/295). It is not

⁵⁹ Of course, nothing is independent of God's existence. Substances have independent existence in the sense that other members in the realm of the finite depend on them for their existence but substances do not depend on modes or relations or other substances for their existence.

important for immediate purposes to sort out Locke's use of the phrase 'simple ideas' in this passage. The important point is that that a thought of a substance is a thought of an independently existing thing that has various qualities (what Locke here calls 'simple ideas'). Locke's point is that ideas of substances₂ will have to include more than 'simple ideas' or ideas of qualities. They are, then, quite clearly complex ideas. As we will see in the next subsection, and as is hinted in the passage above from II.xxiii.1, that extra idea is the idea of substance₁.

The second distinctive feature of our thought of substances has to do with what we can call the unity of substances. Language emphasizing the unity of substance is present throughout Locke's discussion of the role of the idea of substance₁ in our ideas of substances₂:

[Simple ideas of sensation and reflection] being presumed to belong to one thing, and words being suited to common apprehensions, and made use of for quick dispatch, are called so united in one subject, by one name. (II.xxiii.1/295, emphasis added)

[T]he idea we have of either of them [horse, or stone] be but a complication or collection of those several simple ideas of sensible qualities, which we use to find united in the thing called horse or stone, yet because we cannot conceive how they should subsist alone, nor one in another we suppose them existing in and supported by some common subject. (II.xxiii.4/297, emphasis added)

Whatever therefore be the secret and abstract nature of substance in general, all the ideas we have of particular distinct sorts of substances, are nothing but several combinations of simple ideas coexisting in such, though unknown, cause of their union, as makes the whole subsist of itself. (II.xxiii.6/298)

[A]ll the simple ideas, that thus united in one common substratum make up our complex ideas of several sorts of substances, are no other but such as we have received from sensation or reflection. (II.xxiii.37/316, emphasis added)

Our thoughts of substances are of things with a multitude of qualities. But it is nevertheless a *single thing* with those many qualities. A red clay pot, for example, has several qualities: its

shape, color, tactile fired-clay texture, weight, solidity, etc. A thought of the red clay pot is nevertheless a thought of a single thing that affects our mind in all of those ways.

It is important to note that, according to Locke, *this is all there is* to our cognition of substances. Our thoughts and experiences of substances are thoughts and experiences of things with independent existence which affect our minds in various ways. Locke makes this point by insisting that our thought of substances over and above the ways in which they affect our minds is extremely impoverished. Locke's claims to this effect come in some of his most famous passages on substance. Locke illustrates the poverty of our thought of substances by placing the thought of the most enlightened European philosophers on a par with that of the most ignorant 'Indian':

If anyone should be asked that is the subject wherein colour or weight inheres, he would have nothing to say, but the solid extended parts: and if he were demanded, what is it, that the solidity and extension inhere in, he would not be in a much better case, than the Indian before mentioned; who, saying that the world was supported by a great elephant, was asked what the elephant rested on; to which his answer was, a great tortoise: but being again pressed to know what gave support to the broad-back'd tortoise, replied, something, he knew not what. (II.xxiii.2/296; emphases added)

A mechanist might have a reductive story to tell about the existence of the qualities of color or weight. They are nothing over and above the existence of the qualities of solidity and extension. Locke insists, however, that *those* qualities have a dependent existence and cannot exist without the things which are solid or extended. As far as our thought of substance is concerned, there is nothing more to it than that there is something with independent existence. The existence of everything else, whether modes or relations, depends on substances. So, for example, the ways in which our mind is affected in sensation or reflection depend on a substance, they are qualities or powers of a substance with respect to the mind.

The mechanist philosopher, like Indian philosopher, like the any of us, can say nothing more about that existential support.⁶⁰

Similarly, Locke emphasizes the thinness of our thought of substances over and above the ways in which they affect our minds by calling the existential support for such qualities ‘unknown’. For example, the distinguishing aspect of our thought of substances₂ is, “the supposed but unknown support of those qualities we find existing” (II.xxiii.2/296, emphasis added). In saying that the support is ‘unknown’ Locke highlights the impoverished nature of our thought of a substance over and above its qualities. It is just that the qualities are the qualities of some thing by which they exist and are unified.

Finally, Locke insists that his claim about the impoverished nature of our thought of substances over and above ideas of qualities should not be taken as in any way controversial. In his correspondence with Stillingfleet, Locke responds to an objection from Stillingfleet that Locke’s account of substance “discards substance from the intelligible part of the world” by pleading that he has done nothing more or less than anyone else with respect to articulating what our thought of substance consists in over and the substance’s qualities:

But this is the best I can hitherto find, either in my own thoughts, or in the books of logicians: for their account or idea of it is, that it is ‘*Ens*,’ or ‘*res per se subsistens et substans accidentibus*,’ which in effect is no more, but that substance is a being or thing; or, in short, something they know not what, or of which they have no clearer idea, than that it is something which supports accidents, or other simple ideas or modes, and is not supported itself as a mode or an accident. So that I do not see but Burgersdicius, Sanderson, and the whole tribe of logicians, must be reckoned with "the gentlemen of this new way of reasoning, who have almost discarded substance out of the reasonable part of the world. (*Works*, v.4, p.7).

⁶⁰ Bennett cites similar passages as an example of Locke purely ridiculing the idea of substance (Bennett 1994, 136-7). This is not quite right. At best Locke is mocking the idea of substances₅ as having explanatory significance (we will return to this topic in 1.2.2.2 below. The main aim, however, is merely to illustrating that our thought of substances is not exhausted by ideas of qualities, but that what more there is to our thought of substances is very limited.

Locke here pleads innocence in response to Stillingfleet's charge. Reflecting on his own thought and experience of substances, the reports of others on their thoughts of substances, and even the systematic accounts of thought of substances offered by logicians, Locke never finds anything more besides thought of unified, independently existing things with various qualities. Locke's description of our thoughts of substances is not yet intended to engage in what Locke takes to be the controversial aspects of his account of our ideas of substances.

So, our thoughts of substances are thoughts of independently existing things which affect our minds in various ways. This description captures what Locke takes to be distinct about our thought of substances. Our thoughts of modes or relations, by contrast, are thoughts of things with dependent existence. In articulating the genetic structure of ideas of substances, then, Locke illustrates how his theory of ideas can analyze all of our thoughts and experiences of substances as nothing but combinations of simple ideas received from sensation and reflection and operations of the mind on those ideas. Locke's account of our ideas of substances₂ proceeds by developing in greater detail the basic picture from (**Sub_A**): ideas of substances₂ have two main components, ideas of qualities and the idea of substance₁. These two components have two important roles in our ideas of substances₂. The component idea of substance₁ is what accounts for the fact that ideas of substances₂ are ideas of *things*, ideas of independently existing entities. The ideas of qualities, by contrast, are ideas of different ways in which our mind can be affected by substances. Locke writes:

[W]hen we talk or think of any particular sort of corporeal substances, as horse, stone, etc., though the idea we have of either of them be but the complication or collection of those several simple ideas of sensible qualities, which we use to find united in the thing called horse or stone, yet because we cannot conceive, how they should subsist alone, nor one in another, we suppose them existing in, and supported by some common subject; which support we denote by the name substance, thought it be certain, we have no clear, or distinct idea of that *thing* we suppose a support. (II.xxiii. 4/297)

This passage is explicitly concerned with ideas of kinds of corporeal substances₂ but the point applies to all complex ideas of substances₂. As we will see in greater detail below, ideas of corporeal substances₂ include ideas of “sensible qualities”. But our thought or experience of substances is not just of qualities. Instead it is thought or experience of an existing thing which has those several qualities. To account for that facet of our thought and experience, Locke invokes the idea of substance₁. The component ideas of qualities are the ways in which the ideas of horse and stone differ; the idea of substance₁ is the same in the ideas of horse and stone.

Locke makes clear in the very next paragraph that this account of complex ideas of substances applies to all of our complex ideas of substances₂—even our ideas of our own mind. Our thought of our own mind is structurally similar to our thought of corporeal objects. Referring to the previous paragraph, Locke writes, “the same thing happens concerning the operations of the mind, viz. thinking, reasoning, fearing, etc. which we concluding not to subsist of themselves, nor apprehending how they can belong to body, or be produced by it, we are apt to think these actions of some other substance, which we call spirit” (II.xxiii. 5/297). Our ideas of our own mind as a thing, as a thinking thing, are structurally parallel to our ideas of corporeal substances₂: they are composed of ideas of qualities and an idea of substance₁. Indeed, the idea of substance₁ within our ideas of our own mind is the same as the idea of substance₁ in our ideas of corporeal substances₂. The only difference has to do with the ideas of qualities.⁶¹

We have our first step towards understanding the genetic structure of ideas of substances₂. Ideas of substances₂ are composed of an idea of substance₁ and ideas of

⁶¹ We will return to this point in detail in 1.2.2 below. It is of central importance for understanding what Locke takes to be the important consequences of his account of our ideas of substances.

qualities. To further explicate the genetic structure of ideas of substances₂ we will examine each of these components.

1.2.1.2 Locke on ideas of qualities

In this subsection we will examine Locke's account of the role of ideas of qualities in ideas of substances₂. I will argue that Locke's account of ideas of qualities reveals that ideas of qualities are ideas of powers and so are themselves complex ideas. Ideas of qualities are ideas of powers with respect to simple ideas. In section 1.3 below, this account of ideas of qualities will allow us to contrast the account of simple ideas I develop with existing accounts of simple ideas. As we will see, many commentators fail to distinguish the role of ideas qualities in our ideas of substances₂ from the role of simple ideas in our ideas of substances₂.

1.2.1.2.1: Qualities are powers

To begin, Locke distinguishes qualities into two broad categories. First, there are what we can call "sensible qualities" (or, to anticipate, in the case of the mind, "reflective qualities"). Sensible qualities are powers of substances distinct from our mind to produce (simple) ideas in the minds of perceivers like us. Locke introduces qualities by emphasizing the distinction between ideas and qualities: "Whatsoever the mind perceives in it self, or is the immediate object of perception, thought, or understanding, that I call idea; and the power to produce any idea in our mind, I call quality of the subject wherein that power is" (II.viii. 8/134). Locke then divides sensible qualities into two, infamous, kinds: primary qualities and secondary qualities (II.viii.9-14). How Locke draws that distinction and the epistemic status of that distinction are, of course, matters of much debate. The important point for understanding the genetic structure of ideas of qualities is that both primary qualities and

secondary qualities are, in the first place, sensible qualities and so powers to produce ideas.

Locke makes clear that both primary and secondary qualities are powers to produce ideas in an example he uses to illustrate the distinction between qualities and ideas:

Thus a snow-ball having the power to produce in us the ideas of white, cold, and round, the powers to produce those ideas in us, as they are in the snowball, I call qualities; and as they are sensations, or perceptions, in our understanding, I call them ideas: which ideas, if I speak of sometimes, as in the things themselves, I would be understood to mean those qualities in the objects which produce them in us. (II.viii. 8/135)

The ideas of white and cold are ideas of secondary qualities. The idea of the snowball's shape, its roundness, is an idea of a primary quality. The first clause of the passage emphasizes that all three qualities are on a par as far as they are powers to produce ideas in us. They are all on a par as qualities.

Sensible qualities are not the *only* kind of qualities. In addition to sensible qualities there are what we can call "interactive qualities". Locke introduces this kind of quality immediately on the heels of drawing the distinction between primary and secondary qualities. In addition to sensible qualities, of both the primary and secondary variety, there:

Might be added a third sort which are allowed to be barely powers though they are as much real qualities in the subject, as those which I comply with the common way of speaking all qualities, but for distinction secondary qualities. For the power in fire to produce a new color, or consistency in wax or clay by its primary qualities, is as much a quality in the fire, as the power it has to produce in me a new idea or sensation of warmth or burning, which I felt not before, by the same primary qualities. (II.viii.10/136)

Interactive qualities are powers just like sensible qualities. They are powers to produce a change in other substances or undergo some change rather than powers to produce simple ideas in perceivers like us. Moreover, Locke's fire and wax example of an interactive quality makes clear that interactive qualities are a particular kind of inter-substance power. They are powers to produce or undergo changes in sensible qualities.

Consider the color of some piece of clay. Suppose that before the clay is dried by the fire it is a particular light shade of red. The clay's color is what Locke calls a sensible quality. It is a power to produce a certain visual simple idea in the mind of a perceiver. After the clay is heated it has a different color, a deep red color, suppose. The deep red of the clay is a different sensible quality, it is a power to produce a different simple visual idea in the mind of a perceiver. So, by interacting with the fire, the clay underwent a change in sensible qualities. The clay therefore has what Locke calls an interactive quality: a passive power to undergo some change in sensible qualities. The fire also has a corresponding interactive quality—an active power to produce a change in the sensible qualities of another substance.⁶²

1.2.1.2.2 Ideas of qualities are ideas of powers

Locke's discussion of the role of our ideas of qualities in our ideas of substances₂ reveals that, according to Locke, not only are the qualities of substances powers to produce ideas, but our ideas of qualities are ideas of powers. This point is primarily a textual one: not only does Locke think of qualities as powers, as is evident in the II.viii discussion of qualities, but he is clear that our *ideas of qualities* are *ideas of powers*. Evidence for this claim comes from Locke's discussion of the importance of ideas of powers in our ideas of substances₂. Section 7 of II.xxiii has the heading: 'powers a great part of our complex ideas of substances'. In II.xxiii.7 Locke bring out the central role ideas of powers play in our ideas of substances by noting how our familiarity and understanding of substances is enriched by

⁶² Here I almost can't help but throw my hat into the ring on the primary/secondary quality debate and follow Lennon (1993). Lennon there argues that the sense of resemblance between primary qualities and ideas of primary qualities is that they are both real, positive beings. This fails in the case of secondary qualities and ideas of secondary qualities. Secondary qualities are merely relational and have no real positive being but the ideas do. This is not an easy line to accept, for its consequences are startling. It leads Lennon to the conclusion that the only primary quality/idea of a primary quality is solidity for Locke. Extension/space (and so motion, shape, etc.), are all derivative of solidity as relations between solidity and so all secondary qualities.

an increased understanding of their powers. Locke insists, “he has the perfectest idea of any of the particular sorts of substance who has gathered and put together most of those simple ideas which do exist in it, among which are to be reckoned its active powers and passive capacities” (II.xiii.7/299). Locke goes on to give several examples of the importance of knowing secondary and interactive qualities of substances in support of this point.⁶³ Locke points to ideas of secondary and interactive qualities to emphasize that ideas of powers play a central role in our ideas of substances because ideas of secondary and interactive qualities are ideas of *mere* powers. Unlike ideas of primary qualities, ideas secondary qualities do not resemble secondary qualities in the sense that ideas of secondary qualities have ‘real, positive’ being but secondary qualities themselves do not.⁶⁴ That is, secondary qualities are powers of substances *merely in relation* to perceivers.⁶⁵ Substances have such powers in virtue of their primary qualities, their “real, positive being”. Similarly, interactive qualities are merely relational qualities as well. They are powers substances have with respect to each other (rather than perceivers) in virtue of their primary qualities (their real, positive being). Thus, to bring out the importance of ideas of powers in our ideas of substances², Locke

⁶³ “He that has the perfectest idea of any of the particular sorts of substances, who has gathered, and put together, most of those simple ideas, which do exist in it, among which are to be reckoned its active powers, and passive capacities...the power of drawing iron, is one of the ideas of the complex one of that substance we call a load-stone, and a power to be drawn is a part of the complex one we call iron...wee immediately by our senses perceive in fire its heat and color; which are, if rightly considered, nothing but powers in it, to produce those ideas in us: we also by our senses perceive the color and brittleness of charcoal, whereby we come by the knowledge of another power in fire, which it has to change the color and consistency of wood. By the former fire immediately, by the latter it mediately discovers to us these several powers...” (II.xxiii.7/299). Or, “Powers therefore justly make a great part of our complex ideas of substances. he that will examine his complex idea of gold will find several of its ideas that make it up to be only powers as the power of being melted, but of not spending it self in the fire, of being dissolved in *aqua regia*, are ideas, as necessary to make up our complex idea of gold, as its color and eight: which if duly considered are also nothing but power” (II.xxiii.10/301).

⁶⁴ II.viii.9, 11-12, 15-17.

⁶⁵ II.viii.10, 13-17.

emphasizes the importance of ideas of *mere* powers in our ideas of substances₂. That is not to imply that ideas of primary qualities are not also ideas of powers. As we saw in the previous subsection, primary qualities are on a par with secondary qualities as powers to produce ideas in us.

Locke concludes his discussion of the importance of ideas of powers by listing the three kinds of ideas of powers that go into our ideas of material substances₂. Locke's list here matches the threefold distinction in qualities given in II.viii, further confirming that qualities are powers and that the ideas of these qualities which go into our ideas of substances₂ are ideas of powers. Indeed, Locke moves from language of powers to language of qualities, treating them as equivalent. He begins with ideas of primary qualities: "The ideas that make our complex ones of corporeal substances, are of the these three sorts. First, the ideas of primary qualities of things, which are discovered by our senses...which are in them whether we take notice of them or no" (II.xxiii.9/300). Primary qualities are discovered by the senses. That is, primary qualities are powers to produce simple ideas in perceivers, discovered by their producing such ideas in perceivers. They are not merely powers to produce such ideas, however. They are what ground the merely relational qualities of substances. Next, Locke turns to ideas of secondary qualities: "the sensible secondary qualities, which depending on these, are nothing but the powers those substances have to produce several ideas in us by our senses..." (II.xxiii.9/300). Ideas of secondary qualities are ideas of powers to produce ideas in us. They are ideas of powers that substances have merely in relation to perceivers. Finally, the third kind of idea of power in our ideas of material substances are, "the aptness we consider in any substance, to give or receive such alterations of primary qualities as that the substance so altered, should produce in us different ideas from what it did before, these are

called active and passive powers: all which powers as far as we have any notice or notion of them terminate only in sensible simple ideas.” (II.xxiii.9/300). The third kind of idea of qualities that goes into our ideas of substances₂ are ideas of interactive powers. These are merely ideas of powers substances have in relation to one another, and are ultimately nothing but powers to produce or undergo change with respect to sensible qualities; that is, change with respect to what simple ideas such substances have the power to produce in our minds.

Locke’s discussion of the importance of the ideas of powers in ideas of substances₂ thus makes clear that ideas of qualities are ideas of powers. They are either ideas of powers to produce ideas in us (sensible qualities) or powers to produce or undergo change in sensible qualities (interactive qualities). But in either case our ideas of substances₂ are filled with ideas of powers.

1.2.1.2.3 Ideas of the mind’s qualities are ideas of powers

A final piece of evidence that ideas of qualities are ideas of powers can be found in Locke’s application of his account of our ideas of substances₂ to our ideas of our own mind. Following a brief digression in which Locke speculates that our senses are designed by our creator to be fit to give our finite minds the information appropriate for navigating our environment, Locke reiterates his central claim about the genetic structure of ideas of substances₂ and extends it to our ideas of our own minds:

Besides the complex ideas we have of material sensible substances, of which I have last spoken, by the simple ideas we have taken from those operations of our own minds, which we experiment daily in ourselves, as thinking, understanding, willing, knowing, and power of beginning motion, etc., co-existing in some substance, we are able to frame the complex idea of an immaterial spirit. (II.xxiii.15/305)

Our mind is active. It operates on its ideas in thinking, understanding, willing, and knowing. Its operations do not escape its own awareness, according to Locke, and in the process of

operating on its ideas it produces simple ideas of reflection in the understanding. In acting on itself, on its own ideas, the mind leaves its mark of its own powers with respect to its ideas in the form of simple ideas of reflection. As in the case of our ideas of corporeal substances, these simple ideas are constructed into ideas of powers—ideas of the mind’s own powers with respect to its ideas. These powers are then joined with an idea of substance₁ to form a complex idea of an immaterial, spiritual, or mental substance. Our ideas of the qualities of the mind, then, are ideas of powers with respect to our ideas and we have such ideas of the mind’s powers by virtue of the simple ideas produced in the understanding in the exercise of those powers.

The parallel between our substance ideas of mind and matter is a recurring theme in Locke’s discussion of substance. In the very first sentence of II.xxiii, sensation and reflection are put on a par in providing the materials for our complex ideas of material substances and immaterial substances, respectively. II.xxiii opens: “the mind being, as I have declared furnished with a great number of the simple ideas, conveyed in by the senses, as they are found in exterior things, or by reflection on its own operations...” (II.xxiii.1/295). We have cited above the passage from II.xxiii.5 in which Locke insists on the parity of ideas of material and immaterial substance that results from this parity of the origins of our ideas of bodies and mind. The theme picks up again at II.xxiii.15: “Every act of sensation, when duly considered, gives us an equal view of both parts of nature, the corporeal and spiritual. For whilst I know, by seeing or hearing, etc. that there is some corporeal being without me, the object of that sensation, I do more certainly know, that there is some spiritual being within me, that sees and hears” (II.xxiii.15/306). Sensation and reflection are simultaneously active in us and provide, in parallel, the material for our ideas of material and immaterial substance.

Our ideas of each substance are structurally the same, differing in the source of simple ideas from which they are built.

Later in Locke's discussion of substance he explicitly points to reflection as a foundation of our ideas and knowledge of immaterial substances that is exactly parallel to the foundation of our ideas and knowledge of material substances in sensation. Locke summarizes a long digression comparing our substance ideas of mind and matter as follows: "Sensation convinces us that there are solid extended substances; and reflection that there are thinking ones: experience assures us of the existence of such beings...but beyond these ideas, as received from their proper sources, our faculties will not reach" (II.xxiii.29/312).

Reflection provides the simple ideas that ultimately compose and characterize our ideas of immaterial substance. It is by the reception of simple ideas of reflection that we know the existence of our own mind. Sensation provides the simple ideas which ultimately compose and characterize our ideas of material substances and it is by the reception of simple ideas of sensation that we know the existence of material substances. The important point, for now, is that our ideas of material substances and our own mind are structurally parallel but built from different simple ideas.

To make the parallel between substance ideas of mind and matter even clearer at the level of ideas of qualities we can supplement Locke's taxonomy of the qualities of material substances in II.viii with a fourth category. Call them *reflective qualities*. Reflective qualities are powers of a substance to produce simple ideas of reflection in minds. In particular, they are powers of a mind to produce simple ideas of reflection as a mark of the operations of the mind on its ideas.

To summarize our discussion of qualities: our ideas of substances are composed, in part, of ideas of qualities. Ideas of qualities are ideas of powers. Ideas of qualities come in four kinds. Sensible qualities (both primary and secondary) are powers to produce simple sensory ideas. *Ideas* of sensible qualities are *ideas* of powers to produce simple sensory ideas. Interactive qualities are powers to produce or undergo change in sensible qualities. *Ideas* of interactive qualities are therefore *ideas* of powers to produce or undergo change in powers to produce simple sensory ideas. Finally, reflective qualities are powers of the mind with respect to its ideas by virtue of which simple ideas of reflection are produced. *Ideas* of reflective qualities are therefore *ideas* of powers to produce simple ideas of reflection. Our ideas of material substances are complex substance ideas composed in part of sensible (primary and secondary) and interactive qualities. Our ideas of immaterial substances are complex substance ideas composed in part of reflective qualities.

Ultimately, then, insofar as ideas of substances₂ are composed of ideas of qualities, we can see how, at least in part, they can be analyzed as composed of simple ideas received by sensation and reflection. Ideas of qualities are ideas of powers with respect to simple ideas. They are ideas of powers to produce simple ideas of sensation (sensible qualities), ideas of powers to produce simple ideas of reflection (reflective qualities), or they are ideas of powers to produce or undergo a change in sensible qualities and so at bottom do not go beyond simple ideas of sensation (interactive qualities). Characterizing ideas of qualities as ideas of powers with respect to simple ideas suggests that there is more to ideas of qualities than just the simple ideas so far mentioned. There is the additional qualification that these are ideas of *powers* with respect to those simple ideas of sensation and reflection. To complete our account of ideas of qualities as complex ideas of powers with respect to simple ideas,

then, we must examine the aspect of our ideas of qualities by which such qualities are described by Locke as ideas of *powers*.

1.2.1.2.4 Our ideas of qualities and the simple idea of power

From the perspective of understanding the genetic structure of ideas of qualities and so, ultimately, of ideas of substances₂, an important upshot of our discussion so far is that *ideas of qualities are ideas of powers and so are themselves complex ideas*. Specifically, ideas of qualities include in them the simple idea of power. Locke insists that we do have a simple idea of power.^{66,67} It is a member of the special category of ideas that enters the understanding by both sensation and reflection.⁶⁸ The longest chapter of the *Essay* (II.xxi) is an exposition of the role the simple idea plays in our thought. For example, its presence distinguishes between our thought or experience of two objects or events being causally related or not.⁶⁹

More importantly for our purposes, the simple idea of power plays a central role, according to Locke, in our ideas of qualities. Indeed, Locke uses many of the same examples in discussing the role of ideas of qualities in ideas of substances₂ as he uses in his introduction to the simple idea of power and its role in our thought: fire's power of melting

⁶⁶ Locke introduces the simple idea of power in II.vii: "Power is also another of those simple ideas, which we receive from sensation and reflection. For observing in ourselves that we can at pleasure move several parts of our bodies, which were at rest; the effects also, that natural bodies are able to produce in one another, occurring every moment to our senses, we both these paws get the idea of power." (II.vii.8/131)

⁶⁷ For a thorough textual documentation and discrimination of Locke's different uses of the phrase 'idea' of power, see Connolly (MS). Locke's use of the phrase ranges over: the simple idea of power, ideas of particular powers such as the power of *that* daffodil to produce a particular visual yellow simple idea, ideas of kinds of powers such as the power of daffodils to produce visual ideas of yellow, and a most abstract idea of power.

⁶⁸ Locke's list of simple ideas received by both sensation and reflection is given in II.vii: Pleasure, pain, power, existence, unity.

⁶⁹ See II.xxi.1 for some examples of this as well as the passage in note 12 above. These suggest that Locke sides with Kant over Hume on the nature of causal cognition.

gold and wax, gold has a power to melt, wax has a power to blanch, etc (II.xxi.1). The simple idea of power, then, has a place in ideas of active powers (powers to bring about some change, whether by producing an idea or change in sensible qualities) and passive powers (whether to receive an idea or undergo a change in sensible qualities). So, the simple idea of power is a part of all of our ideas of qualities.

Perhaps the strongest reason to take it that Locke posits the simple idea of power as an ingredient in our ideas of qualities comes from his claim that the simple idea of power plays a prominent role in our ideas of substances². We have seen in detail above that Locke believes ideas of qualities play a prominent role in our ideas of substances². Given that prominence, it is not surprising to see Locke conclude that the simple idea of power is a chief ingredient in our ideas of substances²: “Our idea of power, I think, may well have a place amongst other simple ideas, and be considered as one of them, being one of those, that make a principal ingredient in our complex ideas of substances, as we shall hereafter have occasion to observe” (II.xxi.3/234).^{70,71} Locke here affirms his commitment to a simple idea of power and insists that it is a “principal ingredient in our complex ideas of substances”. Locke’s advertisement that we will see the explanation for this latter claim later in the *Essay* is a reference to the chapter on ideas of substances. As we have seen, Locke there argues that

⁷⁰ Locke allows for ideas of active and passive powers. There are some textual difficulties in sorting out which of the following possibilities Locke accepts. On the first possibility, there is no simple idea of power, rather there is a simple idea of passive power and a simple idea of active power. Our idea of power is abstracted from those ideas. On the second possibility, there is a simple idea of power and the difference between ideas of active and passive powers is drawn at the level of ideas of qualities rather than at the level of simple ideas. I am tempted, but cannot here argue, that the latter is the better argument. At the very least it fits better with Locke’s introduction of the simple idea of power in II.vii.

⁷¹ In II.xxi, Locke has been frequently read as conceding that his distinction between simple and complex ideas fails. Indeed, he is commonly read as therein admitting that the simple idea of power, and in fact *all simple ideas*, contain in them a kind of secret relation and so are not really simple after all. We will consider this line of argument in detail and reject in Chapter 3.

ideas of qualities, that is, ideas of powers, play a prominent role in our ideas of substances₂. Indeed, besides the idea of substance₁ which is the characteristic component of ideas of substances₂, there is nothing to ideas of substances₂ besides ideas of qualities, ideas of powers.

We can summarize the results of this exposition of ideas of qualities as follows. Ideas of qualities are complex ideas. They are ideas of powers with respect to simple ideas of either sensation or reflection. We have just now seen Locke's account of how ideas of qualities are ideas of *powers* with respect to simple ideas: by virtue of containing a simple idea of power. Thus, ideas of qualities have at least two simple components and so are complex ideas: a simple idea produced by sensation or reflection and a simple idea of power.

We can illustrate the genetic structure of ideas of qualities with the following example. Suppose you see a red clay pot. Having an experience of a red clay pot is, according to Locke, perceiving an idea of a substance₃. That substance idea is a complex idea, composed of ideas of qualities and an idea of substance₁. Having an experience of the pot as being predominantly a certain shade of red is a matter of your substance idea containing, among many, many other ideas, an idea of a certain quality. That is, your idea of the pot's predominant color is an idea of a quality, a power to produce a certain visual idea. Your idea of the pot's color is *not* just the simple idea produced in you when you look at the pot—what we might call a visual sensation. Your experience of the pot's color as the color of an object, as something distinct from your mind, is a matter of perceiving a complex idea according to Locke: it is an idea of a power to produce a certain simple visual idea in you when you look at the pot. This complex idea has at least two simple components: the simple idea of power and the simple visual idea produced in you when you look at the pot. These

components are brought together by the mind in the construction of sensory experience from the simple materials provided by sensation.

By providing an analysis of ideas of qualities to simple ideas, we have a partial account of the genetic structure of ideas of substances₂. The other main component of ideas of substances₂, according to Locke, is an idea of substance₁ to which we now turn.

1.2.1.3 The idea of substance₁ in our ideas of substances₂

In 1.2.1.1 above, I argued that Locke characterizes our thought of substances as having two important dimensions in addition to consisting in ideas of qualities: thought of substances involves thinking of independently existing things which affect our mind in various ways. In this subsection, I will argue that the idea Locke posits to account for these two additional dimensions of our thought of substances—the idea of substance₁—is itself a complex idea. It has seemed to others that Locke has no account (and even admits he has no account) of how we have the idea of substance₁. As a result, according to such readers, his use of the idea of substance₁ in his analysis of our ideas of substances₂ is, at best, in tension with both his empiricist hypothesis that all of our ideas originate in sense and experience as well as his theory of meaning according to which all of our words, in order to be significant, must be signs of ideas received through experience.⁷²

⁷² Upon finding Locke claim that we do not receive the idea of substance₁ from sensation or reflection, Bolton (1998) claims that this amounts to Locke admitting he has no account of the origins of the idea of substance₁ (Bolton p. 118, fn. 18). In her later Bolton (2007), Bolton somewhat takes her initial claim back, but continues to insist that the idea of substance₁ is troubling for Locke's empiricism: "Locke is committed to saying that we form the idea of substratum—such as it is—from ideas acquired in experience; he undertook to explain this when Stillingfleet challenged it. Still, the schematic supposition that unifies the several components of the idea—many qualities inhere in and result from a common substratum—would seem to be innate, yet arguably consistent with Locke's empiricism about ideas." (Bolton 2007, 89). Bennett (1998) claims that Locke's use of the idea of substance₁ is in tension with his theory of meaning (Bennett 1998, 132-133).

The first piece of evidence to show that the idea of substance₁ is a complex idea comes from Locke's insistence that the idea of substance₁ is a *supposition* the mind makes in coming to form its ideas of substances₂. From the very beginning, Locke introduces the complexity of our ideas of substances₂ as involving ideas of qualities and, in addition, an extra *supposition* of the mind. Ideas of substance are, Locke writes, "a complication of many ideas together; because, as I have said, not imagining how these simple ideas can subsist by themselves, we accustom our selves to suppose some substratum, wherein they do subsist and from which they do result, which we therefore call substance" (II.xxiii.1/295; emphasis added). Locke repeats the point that the idea of substance₁ is a *supposition*, something the mind brings to its ideas of substances₂, several more times in the first two sections of II.xxiii:

If any one will examine himself concerning his notion of pure substance in general, he will find he has no other idea of it all, but a supposition of he knows not what support of such qualities, which are capable of producing simple ideas in us. (II.xxiii.2/295; emphasis added)

The idea we then have, to which we give the general name substance, being nothing but the supposed but unknown support of those qualities we find existing. (II.xxiii.2/295; emphasis added)

The consistent theme is that the idea of substance₁ is a supposition that the minds bring to the table in its construction of ideas of substances₂. The mind is therefore *active* with respect to the idea of substance₁. As I noted in the Introduction, and as we will see in greater detail later in 1.3 and then again in Chapter 3, simple ideas are ideas with respect to which the mind is wholly passive, according to Locke. It cannot create, alter, or destroy its simple ideas (II.ii.2). The fact that Locke repeatedly insists that the idea of substance₁ is a supposition of the—an idea with respect to which the mind is active—provides good evidence that such an idea must be a complex idea.

Indeed, Locke confirms that the idea of substance₁ is a complex idea clearly and unambiguously in his correspondence with Stillingfleet:

I never said that the general idea of substance comes in by sensation and reflection; or, that it is a simple idea of sensation or reflection, though it be ultimately founded in them: for it is a complex idea, made up of the general idea of something, or being, with the relation of a support to accidents. (*Works*, v.4, p.19)

This passage from Locke's correspondence with Stillingfleet also further clarifies Locke's statement in the *Essay* that the idea of substance₁ is not received by sensation and reflection and so is not a simple idea. In the *Essay*, Locke laments, "there is another idea which would be of general use for mankind to have as it is of general talk as if they had it; and that is the idea of substance, which we neither have, nor can have by sensation or reflection" (I.iv. 18/95). Locke's might be taken to claim here that we have no idea of substance₁ at all.⁷³

Locke continues on, however, to emphasize that while we do not *receive* the idea of substance₁ by sensation or reflection (i.e., it is not a simple idea), we do indeed have an impoverished idea of substance₁, the idea of providing existential support for qualities. As he would later explain to Stillingfleet, Locke writes in the *Essay*:

"[W]e see on the contrary, that since by those ways, whereby other ideas are brought into our minds, this is not, we have no such clear idea at all, and therefore signify nothing by the word substance, but only an uncertain supposition of we know not what; (i.e. of something whereof we have no particular distinct positive) idea, which we take to be the substratum, or support, of those ideas we do know." (I.iv.18/95)

Locke's point in these passages is *not* that the idea of substance₁ does not in any sense come from sensation or reflection. His point is that the idea of substance₁ does not enter the mind by sensation or reflection as do simple ideas. The upshot, which Locke emphasizes to Stillingfleet, is that the idea of substance₁ is a complex idea. It is clear, then, *that* the idea of substance₁ is a complex idea. We can now examine the genetic structure of that idea.

⁷³ As noted above, that is how Bolton (1998) misreads this passage.

The passage cited above from Locke's correspondence with Stillingfleet contains an explicit account of the components in the idea of substance₁. The idea of substance₁, "is a complex idea, made up of the general idea of some thing, or being, with the relation of a support to accidents" (*Works*, v.4, p.19). The idea of substance₁ includes a general idea of being, or existence, or something and an idea of a relation of support to all of the ideas of qualities. That is, there are two components in the idea of substance₁.

The first is the idea of being, existence, or something in general. Locke repeatedly insists that this idea is obscure and confused. An idea is obscure or confused, for Locke, when we are unable discern its genetic structure.⁷⁴ As a result, it is difficult to tell what, exactly, the component ideas and their structure are. We can speculate about some of the simple ideas that go into the idea. The simple idea of existence is presumably a component. Locke posits a simple idea of existence as an idea that enters the mind through both sensation and reflection (II.vii.7). Indeed, Locke thinks that the idea of existence is ubiquitous in our experience.⁷⁵ Given that so much of our thought and experience is concerned with substances₂, Locke's claim that the simple idea of existence is ubiquitous in our thought fits well with the suggestion that the simple idea of existence plays a prominent role in our ideas of substances₂ vis-a-vis the idea of substance₁.

The second component of the idea of substance₁ is an idea of a relation of support between the obscure idea of existence, being, or something in general, on the one hand, and the ideas of the substance's qualities, on the other. The idea of the relation of support is an

⁷⁴ Locke's concepts of clarity, obscurity, distinctness, and confusion will be considered in more detail in Chapter 3.

⁷⁵ "Existence and unity are two other ideas that are suggested to the understanding by every object without and every idea within." (II.vii.7/131)

idea which relates the obscure idea of being, or existence, with the ideas of the substances qualities. The relation of support is part of Locke's analysis of that by which substances have independent existence in the sense that substances *provide* existential support.

Finally, then, we have Locke's analysis of our thought and experience of substances₂ in terms of the perception of complex ideas of substances₂. Let's start from the beginning. As Locke characterizes the target of his analysis, a thought or experience of a substance₂ consists in thought or experience of an independently thing which affects our mind in various ways. Locke's analysis of such cognition treats it first as the perception of a complex idea. Such complex ideas are composed of the idea of substance₁ and ideas of qualities. In the previous subsection, we saw that ideas of qualities are ideas of powers to produce simple ideas (sensible or reflective qualities) or powers to produce or undergo change in sensible qualities. Our ideas of qualities, on Locke's analysis, account for the fact that our ideas of substances are ideas of things which *affect us in various ways*. Ideas of qualities are ideas of ways in which we are affected by substances.

There is more, however, to our cognition of substances₂ than ideas of qualities. It also involves (a) that the qualities are qualities of a thing by which they exist and (b) that the qualities have a *unified* being or existence. To account for those aspects of our cognition of substances₂, Locke posits that in addition to our ideas of qualities, our complex ideas of substances₂ include the idea of substance₁. That idea of substance₁ is itself a complex idea. One component is an obscure idea of existence, or being. This obscure idea is combined with an idea of a relation of support to yield an idea of having being, or giving existential support. Thus, Locke's theory of ideas accounts for aspect (a) of our cognition of substances, that substances give qualities being, or existence, by positing that the idea of substance is an idea

of an existential support, a combination of an obscure idea of existence with an idea of a relation of support for the substance's qualities. Locke's theory of ideas accounts for aspect (b) of our cognition of substances, the unity of substance, by virtue of the fact that all the ideas of the substance's qualities are bound *to the same* idea of substance₁, to the same idea of existential support. To continue our running example in this chapter, your idea of a clay pot can be divided into two significant portions: ideas of its qualities (its color, shape, size, weight, etc.); the idea of substance₁. Your idea of the pot is an idea of an existing thing insofar as the idea of substance₁ in your idea of the clay pot contains an idea of existential support by which the qualities exist. Your idea of the pot is an idea of a thing with various qualities insofar as all of your ideas of the pot's qualities are bound to the same idea of substance₁, whereas your ideas of, say, the qualities of the table on which the pot rests are another bound to another idea of substance₁.⁷⁶

To close, we can compare ideas of substances₂ with ideas of modes. The main difference between ideas of substances₂ and ideas of modes is that only the former include an idea of substance₁ to which the ideas of qualities are bound. The question to ask, then, to have grasp the role of the idea of substance₁ in ideas of substances₂ is: what is the difference between a collection of ideas of qualities and a collection of ideas of qualities bound to the idea of substance₁? A collection of ideas of qualities is merely a collective way a thing may affect our mind. A collection of ideas of qualities bound to the idea of substance₁, by contrast, is an idea of a thing with powers to affect our mind in various ways; it gives the qualities a

⁷⁶ The adequacy of Locke's account of our ideas of substance, recall, is tied to the adequacy of his epistemology of substance: does his account of our ideas of substances allow him to account for all of our epistemic discourse regarding substance. Locke's account of our ideas of substances, especially their construction from simple ideas of sensation and reflection, is *not* supposed to be adequate with respect to how such thoughts seem to us to be when we introspect them. I will draw out this point in more detail in section 1.2.2.3 below. We will take up the broader issue of Locke's naturalized epistemology and its relation to his theory of ideas in Chapter 4.

unified existence. The idea of substance₁ and the relation between the ideas of qualities and the idea of substance₁ is intended by Locke to capture this aspect of our ideas of substances.

1.2.1.4 Locke's analysis of our thought of substances into ideas of substances₂

Locke spends the majority of his chapter dedicated to our ideas of substances, II.xxiii, to show how his analysis of our ideas of substances₂ as composed of the idea of substance₁ and ideas of qualities can account for all of our ideas of substances₂. A brief review of the chapter will further confirm this interpretation of Locke's account of our ideas of substances₂.

The chapter begins with what Locke takes to be distinct about our cognition of substances (that our ideas of substance, unlike our idea of modes or relations, are of unified, independently existing things) and how Locke proposes to analyze that aspect of our cognition of substance (our complex ideas of substance include an idea of substance₁ and ideas of qualities) (sections 1-2).⁷⁷ The idea of substance₁ is an idea that has, as parts, an obscure idea of existence, being, *something*, and an idea of a support relation. Locke then applies the model to show how it can account not only for our cognition of particular substances (ideas of particular individual substances₃) but also for our cognition of kinds of substances (ideas of kinds of substances₄) (sections 3-6).⁷⁸

After developing the role of the idea of substance₁ in our ideas of substances₂, Locke highlights the important role of ideas of qualities in our ideas of substances₂ (sections 7-10).⁷⁹ Differences in ideas of qualities, rather than the idea of substance₁, distinguish

⁷⁷ II.xxiii.1: ideas of substances how made; 2: Our idea of substance in general

⁷⁸ II.xxiii.3-6: of sorts of substances; 4: no clear idea of substance in general; 5 as clear an idea of spirit as body

⁷⁹ II.xxiii.7 Powers a great part of our complex ideas of substances; 8: and why; 9 three sorts of ideas make our complex ones of substances; 10, 11: The now secondary qualities of bodies would disappear, if we could discover the primary ones of their minute parts

different ideas of substances₂. Locke then goes on a somewhat extended digression in which he emphasizes this point by suggesting that even if we had “microscopical eyes” and so could see the micro-texture of physical objects our ideas of material substances would be no different, in terms of their genetic structure, than they are now (sections 11-14).⁸⁰ Our ideas of secondary qualities would simply be replaced by more and different ideas of primary qualities.

Sections 15-32 show how even our most general ideas of kinds of substances₃, our ideas of mind and body, differ only with respect to their ideas of qualities rather than the idea of substance₁ in each.⁸¹ As we will see in the next section, the discussion takes on a polemical tone as Locke illustrates his point by arguing that our ideas of mind and matter are equally clear and equally obscure. As a result, anyone who thinks that, say, they have a much better understanding of matter than mind (or vice versa) is mistaken. Neither, according to Locke, is more mysterious than the other and neither is more clear than the other. What is obscure in our ideas of these kinds of substances is likewise the same: the idea of substance₁.

Finally, in sections 33-35, Locke wraps up the programmatic aspect of the chapter by illustrating how our cognition of God, of an infinite substance, can be analyzed as a complex idea of substance₂ built from nothing but simple ideas of sensation and reflection.⁸²

Essentially, our idea of God is formed by adding the idea of infinity (which Locke has

⁸⁰ II.xxiii.12: Our faculties of discovery suited to our state; 13: conjecture about spirits; complex ideas of substances

⁸¹ II.xxiii.15: Ideas of spiritual substances as clear as of bodily substances; 16: no idea of abstract substance; 17: the cohesion of solid parts, and impulse the primary idea of body; 18: thinking and motivity the primary ideas of spirit; 19-21: spirit capable of motion; 22: idea of soul and body compared; 23-27: cohesion of solid parts in body, as hard to be conceived as thinking in a soul; 28, 29: communication of motion by impulse or by thought equally intelligible; 30: ideas of body and spirit compared; 31 the notion of spirit involves no more difficulty in it than that of body; 32: we know nothing beyond our simple ideas.

⁸² II.xxiii.33-35: Idea of God.

already analyzed in his theory of ideas as a complex idea of a mode in II.xvii) to our idea of immaterial substance. Locke then closes the chapter by summarizing his analysis of ideas of substances and the polemical uses to which he has put them, to which we can now turn.

1.2.2 The polemical aims of Locke's account of our ideas of substances

Locke puts his account of our ideas of substances₂ to philosophical work in two ways. First, Locke argues that his account of our ideas of substances₂ reveals that our ideas of our own mind and our ideas of material bodies (all ideas of substances₃) are structurally the same. As a result, our ideas of mental and material substances (ideas of substances₄) are on equal epistemological footing. Second, Locke argues that his account of our ideas of substances₂ shows that philosophers are mistaken in thinking that the idea substance₅ has any explanatory significance in our understanding of the world.

1.2.2.1 Our ideas of Body and Soul

Almost from the very beginning of the discussion of our ideas of substances₂, Locke draws on the parallel between sensation and reflection to fund structurally parallel accounts of our ideas of minds and bodies. Locke begins with his account of how our idea of our own mind as a thinking thing is structurally parallel to our ideas of individual material substances. After spelling out the way in which our ideas of particular material substances₃, such as ideas of particular horses or stones, are constructed by the mind Locke writes: “The same thing happens concerning the operations of the mind, *viz.* Thinking, Reasoning, Fearing, *etc.* which we concluding not to subsist of themselves, nor apprehending how they can belong to body, or e produced by it, we are apt to think these actions of some other *substance*, which we call *spirit*” (II.xxiii.5/297). The mind takes simple ideas produced by other things operating on it through sensation, constructs ideas of qualities, and then supposes some existential support

for those qualities by joining them to the idea of substance₁. Similarly, Locke claims here, the mind takes simple ideas produced by its own operations on its ideas, forms ideas of qualities, and supposes some existential support for those qualities.

Moreover, according to Locke, the very same idea of substance₁ that is used in the construction of ideas of material substances₃ is also used in the construction of our idea of our own mind as a substance, as a particular thinking thing. Locke insists:

[B]y supposing a substance, wherein thinking, knowing, doubting, and a power of moving, etc. do subsist, we have as clear a notion of the substance of spirit, as we have of body; the one being supposed to be (without knowing what it is) the substratum to those simple ideas we have from without; and the other supposed (with a like ignorance of what it is) to be the substratum to those operations, which we experiment in ourselves within. (II.xxiii.5/297-8)

According to Locke our ideas of our own mind and our ideas of material substances₃ do not differ with respect to the idea of existential, unifying support, the idea of substance₁. Instead, the ideas only differ with respect to the ideas of qualities.

Locke returns to this theme in the context of elaborating the importance of ideas of powers in our ideas of substances. In addition to ideas of material substances, “by the simple ideas we have take from those operations of our own minds, which we experiment daily in our selves, as Thinking, Understanding, Willing, Knowing, and Power of beginning motion, etc. co-existing in some substance, we are able to frame the complex idea of an immaterial spirit” (II.xxiii.15/305). Again, our idea of our own mind is constructed in exactly the same way as our ideas of material substances₃. Simple ideas are constructed into ideas of qualities and supposed to have some support.

Locke then goes on to extend this parallel with respect to ideas of material and immaterial substances₃ to the claim that our ideas of material and immaterial substance₄ are

structurally parallel. Consequently our ideas of mind and matter are on an epistemological par. Locke brings the ideas of Body and Soul, ideas of substances₄, into direct comparison:

[P]utting together the ideas of thinking and willing, or the power of moving or quieting corporeal motion, joined to substance, of which we have no distinct idea, we have the idea of an immaterial spirit; and by putting together the ideas of coherent solid parts, and a power of being moved, joined with substance, of which likewise we have no positive idea, we have the idea of matter. (II.xxiii.15/305)

From our idea of our own mind and our ideas of particular material substances, we abstract to general ideas. Indeed, these are probably the *most* general ideas of substances₄. According to Locke, “Our idea of body, as I think, is an extended solid substances capable of communicating motion by impulse: and our idea of our soul as immaterial spirit, is of a substance that thinks, and has a power of exciting motion in body, by will, or thought. These I think, are our complex ideas of Soul and Body, as contradistinguished.” (II.xxiii.22/308). We move from our particular idea of our own mind and ideas of particular bodies to these two general ideas by abstracting from the former two kinds of ideas. In each case, Locke is at pains to emphasize, our idea of our own mind and our ideas of particular bodies are only ideas of things with various powers to affect our mind by producing ideas in the understanding, whether through reflection or sensation. These ideas of substances₃ are only distinguished by their different ideas of qualities (our ideas of material bodies are composed of ideas of sensible and interactive qualities, our idea of our own mind is composed of ideas of reflective qualities), and not by a difference in the idea of substance₁. In each case, the idea of substance₁ is the same and consists only in an obscure idea of existence and an idea of a relation of support for the qualities. Our ideas of Soul and Body, in being abstracted from such ideas, are therefore similarly limited. They are composed only of ideas of qualities and an idea of substance₁.

Having established the parallel structure of our general ideas of Body and Soul, Locke compares their epistemological status.⁸³ Locke believes that they are on equal footing: “I know that people, whose thoughts are immersed in matter, and have so subjected their minds to their senses, that they seldom reflect on any thing beyond them are apt to say they cannot comprehend a thinking thing, which perhaps is true: but I affirm, when they consider it well, they can no more comprehend an extended thing” (II.xxiii.22/308). Locke then examines our ideas of Body and Soul to show that they are equally beset by mystery. His driving theme is that in each case our ideas of each kind of substance are limited to ideas of the *powers* of those substances. How those powers are realized is something that lies beyond our grasp in each case. Locke compares the cohesion and communication of motion by impulse of bodies with the thinking and volitional abilities of minds.⁸⁴ In each case we have mystery. How ideas are produced in the mind by bodies operating on the senses is as mysterious as how material bodies cohere with one another. Similarly, how the mind is able to affect the motion of bodies is as mysterious as how it is that bodies communicate motion by impulse. In each case we have ideas of some power and nothing more.⁸⁵

Locke concludes his discussion of our ideas of Body and Soul by emphasizing that in both cases the idea of substance₁ is the same. Locke concludes, “so that, in short, the idea we

⁸³ “Let us *compare* then our complex idea of an immaterial spirit, with our complex idea of body, and see whether there be any more obscurity in one, then in the other, and in which most...” (II.xxiii.22/307); “...and now let us examine which has most obscurity in it, and difficulty to be apprehended” (II.xxiii.22/307)

⁸⁴ Locke compares cohesion with thinking from II.xxiii.23-27 and communication of impulse by motion with altering motion by volition from II.xxiii.28-29.

⁸⁵ Locke’s discussion from II.xxiii.23-33 is loaded with direct statements in which Locke equates ideas of mind and matter. I’ll include one more for further emphasis, but I cannot stress enough the importance of these paragraphs in understanding Locke’s account of our ideas of substances. “We have as much reason to be satisfied with our notion of immaterial spirit, as with our notion of body; and the existence of the one, as well as the other.” (II.xxiii.32/314)

have of spirit, compared with the idea we have of body, stands thus: the substance of spirit is unknown; and so is the substance of body, equally unknown to us” (II.xxiii.30/312-3).

Instead of a difference in the ideas of substance₁, Locke’s account of our ideas of these substances₄ reveals a difference in ideas of qualities: “two primary qualities, or properties of bodies...we have distinct clear ideas of: so likewise we know, and have distinct clear ideas of two primary qualities, or properties of spirit” (II.xxiii.30/313). Our ideas of our own mind and particular bodies are, of course, richer: “we have also the ideas of several qualities inherent in bodies, and have the clear distinct ideas of them...we have likewise the ideas of several modes of thinking” (II.xxiii.30/313). In the end, then, there is no more difficulty of mystery attached to one kind of substance than another. We are ultimately limited with respect to our access to all substances, whether external objects or our own mind. We know them only in relation to us and never anything more. In light of Locke’s account of ideas of substances₂ in terms of ideas of qualities and the idea of substance₁, “we are not at all to wonder at, since we having but some few superficial ideas of things, discovered to us only by the senses from without, or by the mind, reflecting on what it experiments in itself within, have no knowledge beyond that, much less of the internal constitution and true nature of things” (II.xxiii.32/313). Finally, Locke warns that, “whensoever we would proceed beyond these simple ideas, we have from sensation and reflection, and dive farther into the nature of things, we fall presently into darkness and obscurity, perplexedness and difficulties; and can discover nothing farther, but our own blindness and ignorance” (II.xxiii.32/314). Thus, Locke draws on his account of our ideas of substances₂ in terms of ideas of qualities and the idea of substance₁ to argue that even our most general ideas of substances₄ do not give us any insight into the nature of things as they are in themselves. We know them only in relation to us

through sensation and reflection; by their powers to produce ideas in the understanding. Our ideas of our mind and material bodies are no different from one another in this regard.

Indeed, looking forward to our discussion of Locke's account of knowledge of the external world in the next chapter, we are as secure in our knowledge of our own mind's existence as we are in knowledge of the existence of external objects. We know the former through simple ideas received in reflection and the latter through simple ideas received in sensation.⁸⁶

1.2.2.2 Locke's naturalized epistemology and the idea of substances

The second main polemical aim of Locke's discussion of substance can be brought out by considering the place of Locke's account of substance within his naturalized epistemology. Recall the basic shape of Locke's naturalized epistemology. First, Locke articulates his technical theory of ideas. Second, Locke defines knowledge and opinion in the terms of his theory of ideas. Third, Locke illustrates the adequacy of his theory of ideas and definition of knowledge and opinion by showing how he can account for canonical or paradigmatic cases of knowledge and opinion in terms of them. Locke intends his claims about our ideas to be warranted, then, to the degree that they are explanatorily adequate with respect to our epistemic discourse, to our claims of knowledge and reasonable opinion.

Applying this general shape of Locke's naturalized epistemology yields Locke's naturalized epistemology of substances:

Locke's account of our ideas of substances is successful as an analysis of our thought and experience of substances to the degree that, when combined with his accounts of knowledge and opinion, Locke can account for our epistemic discourse with respect to substances.

⁸⁶ "For whilst I know, by seeing or hearing, etc. that there is some corporeal being without me, the object of that sensation, I do more certainly know that there is some spiritual being within me" (II.xxiii.15/306); "To Conclude, sensation convinces us that there are solid extended substances; and reflection that there are thinking ones..." (II.xxiii.29/312); "We have as much reason to be satisfied with our notion of immaterial spirit, as with our notion of body; and the existence of the one, as well as the other." (II.xxiii.32/314).

What does our ordinary and scientific discourse about substances involve? In general, it seems that there are two strands in our epistemic discourse about substances. First, we are concerned to classify substances, to understand substances in terms of kinds, and the relations and interactions between kinds of substances. We are interested in distinguishing what kinds of things there are, such as gold, lead, sheep, human beings, etc. Second, we are concerned with the existence of particular, individual substances.⁸⁷ Locke's goal, then, is to show that his account of our ideas of substances₂ is adequate in this respect: when Locke's account of our ideas of substances₂ is combined with his accounts of knowledge and opinion, Locke can fully account for our claims about the existence of substances and the classification of substances into different kinds.

The controversial dimension of Locke's account of ideas of substances₂ comes out in the minimal role that he attributes to the idea of substance₁. Namely, that the idea of substance₁ in our ideas of substances₂ plays *no role whatsoever* in the classification of substances into kinds. Locke first makes this point during the most explicitly polemical portion of II.xxiii, II.xxiii.15-32, which we considered in 1.2.2.1 above. During that stretch Locke forcefully insists that our ideas of Body and Soul are on a par when it comes to their relative clarity and obscurity. The parity between our two general ideas of Body and Soul is due to the fact that our access to each kind of substance is the same: it is facilitated by simple ideas produced in the understanding through sensation or reflection. Each idea is clear in its ideas of powers to produce simple ideas of sensation or reflection, respectively. Each is obscure with respect to the idea of substance₁ because both have *the same* obscure idea of

⁸⁷ In IV.ii.14 and IV.ix.1 Locke draws a broad distinction between knowledge of kinds or essences and knowledge of individuals. The latter consists only in knowledge of existence: that I exist, that God exists, or that some finite particular distinct from my mind exists. All other knowledge, Locke thinks, pertains to kinds or essences.

substance₁ as a component. Indeed, *all ideas of substances₂ whatsoever* have this same obscure component. As a result, the point Locke develops with respect to our ideas of Body and Soul applies to all of our ideas of different kinds of substances. First, all of our ideas of particular individual substances such as that particular horse over there—i.e., our ideas of substances₃—differ only with respect to their component ideas of qualities. They do not differ with respect to their component idea of substance₁. Next, since our ideas of kinds of substances, such as our idea of horses—i.e., our ideas of substances₄—are abstractions from our ideas of substances₃, our ideas of substances₄ differ only with respect to their component ideas of qualities. They do not differ with respect to their component idea of substance₁.

The extremely limited role of the idea of substance₁ in our ideas of substances₂ is the most powerful and controversial part of Locke's account of our thought and experience of substances. The main burden facing Locke's naturalized epistemology of substances₂ is to show that his account of our ideas of substances and its impoverished account of the idea of substance₁ is sufficient to account for our epistemic discourse regarding substances. Indeed, in 1.2.1.3 above, I argued that *the only* role for the idea of substance₁ within our ideas of the complex substances₂ is to account for the fact that our thoughts and experiences of substances are thoughts and experiences of independently existing things which affect us in several ways. Thus, if Locke is correct about the role of the idea of substance₁ in our understanding of the world, it is an idea that bears almost no explanatory weight in our understanding of substances. In particular it gives us no explanation of the existence of substances. It merely reflects that our ideas of substances₂ are ideas of things that provide existential support.

Interestingly, Locke does not believe that his account of our *ideas* of substances₂ on its own provides a sufficient foundation for showing how his naturalized epistemology can account for our epistemic discourse about substances. In Book III, Locke's longest chapter, almost twice as long as the next longest chapter in Book III, is III.vi, on the "Names of Substances". The central aim of the chapter is to flesh out Locke's famous distinction between nominal and real essences, and argue that it is nominal essences by which we classify substances. Nominal essences of substances are ideas of kinds of substances. They are created by abstracting from ideas of particular substances by, in some way, stripping away some of the qualities of particular substances. Thus, nominal essences of substances are, at bottom still nothing but ideas of qualities combined with the idea of substance₁. They are ideas of substances₄; ideas of kinds of substances. So, a nominal essence for "gold", for example, is an abstract idea formed by stripping (in some way) the ideas of qualities which distinguish ideas of particular pieces of gold from ideas of qualities which ideas of particular pieces of gold have in common.

Locke's arguments regarding real and nominal essences and the details of this distinction and his account of abstraction are not of central importance here.⁸⁸ Within the context of Locke's naturalized epistemology, Locke's chapter on the "Names of Substance" reveals itself as Locke's attempt to lay the foundation for showing how he can account for our epistemic discourse about kinds of substances, their classification, and the relations between classification. The main thesis of the chapter is that the names of substances are tied to nominal essences rather than real essences or substantial forms, and so our epistemic

⁸⁸ The main aim here is to lay a foundation for an account of Locke's epistemology of substance as regards their existence since our knowledge of the external world consists in the knowledge of the existence of finite substances distinct from our mind according to Locke. Thus, we can set aside the details of his account of kinds of substances vis-a-vis nominal essences.

discourse about kinds of substances is underwritten by abstract ideas of substances, or nominal essences.⁸⁹ As ideas of substances₂, abstract ideas of substances₄ differ only in the ideas of qualities and not in their component idea of substance₁.

Locke's ire regarding substance is directed at those who believe the idea of substance₅ plays an important role in our understanding of the world. In particular, Locke's ire is directed at those who think the idea of substance₅ can play a part of a philosophical explanation of the existence of things. Locke twice refers to the "Indian Philosopher" to make the point that appeals to substance₅ are as explanatorily empty. Such appeals are as empty as the "Indian Philosopher's" appeal to an Elephant to explain how the Earth is held up. Locke sarcastically remarks, "Had the poor *Indian* philosopher (who imagined that the Earth also wanted something to bear it up) but thought of this word *Substance*, he needed not to have been at the trouble to find an Elephant to support it, and a Tortoise to support his Elephant: the word *Substance* would have done it effectually" (II.xiii.19/175). Locke continues on to draw out the emptiness of appeals to substance₅: "and he that enquired, might have taken it for as good an answer from an Indian philosopher, that substance, without knowing what it is, is that which supports the earth, as we take it for a sufficient answer, and good doctrine, from our European philosophers, that substance without knowing what it is, is that which supports accidents" (II.xiii.19/175). Locke's point is clear: appealing to substance₅ to explain the existence of an accident has the same significance as the Indian philosopher's appeal to an elephant (or tortoise) to explain what holds up the Earth (or elephant). To say that something exists through its substance₅ is to say nothing more than to repeat the claim

⁸⁹ It is interesting to note that historically, what is taken to be the most devastating problem in Locke's epistemology of substance is its failure with respect to knowledge of the existence of substance. By contrast, as Locke himself presents his project, the most controversial aspect should've been his epistemology of kinds of substances.

that the thing exists. Locke returns to the Indian philosopher in II.xxiii to repeat that the appeal to substances₅ to explain the existence of things does nothing more than reiterate that the thing exists.⁹⁰ Finally, Locke concludes this most scathing discussion of the idea of substances₅ in the *Essay* with the following similarly sarcastic remark: “But were the Latin words *Inhærentia* and *Substantia* put into the plain English ones that answer them, and were called *Sticking on*, and *Under-propping*, they would better discover to us the very great clearness there is in the doctrine of substance and accidents, and shew of what use they are in deciding questions of philosophy” (II.xiii.20/175). Locke’s point is that the notions of substances₅ and accident are of no use in “deciding questions of philosophy”. In fact, Locke’s section headings for II.xiii.19 and II.xiii.20 are: “Substance and Accident of little use in philosophy”. These section headings in particular emphasize that Locke is talking about the idea of substances₅ employed by philosophers.

Locke’s polemical aims regarding our ideas substances₂ are therefore almost *exclusively* negative. Locke’s claims about the importance of substances₅ can be contrasted with Cartesian and Scholastic claims about the importance of substances₅ in the following way. For each, substance is that which provides the existence or being of everything else. Substances are fundamental in that they account for their own existence and explain the existence of everything else. The idea of substances₅, then, is an important idea in philosophy on these views. *Whether* something is a substance, claiming that something is a substance, is supposed to provide us some insight into the fundamental structure of the world. Cartesian

⁹⁰ We saw this passage cited above: “If any one should be asked, what is the subject wherein colour or weight inheres, he would have nothing to say, but the solid extended parts: and if he were demanded, what is it, that that solidity and extension inhere in, he would not be in a much better case, than the Indian before mentioned; who saying that the world was supported by a great elephant, was asked what the elephant rested on; to which his answer was, a great tortoise: but being again pressed to know what gave support to the broad-back’d Tortoise, replied, something, he knew not what” (II.xxiii.2/295-6).

dualism, for example, is framed in terms of really distinct substances. There is extended substance and thinking substance and the existence of all else is explained as having its existence as modifications of one of those substances. Similarly, in the epistemological realm, all of our knowledge is founded on clear and distinct ideas of substances; clear and distinct perceptions of extension, thought, or God (infinite substance). In all of these cases calling something a substance, applying the idea of substance₅ is supposed to provide some insight into the metaphysical structure of the world and the idea of substance₅ is of great use in our understanding of the world.

According to Locke, however, the idea of substance₅ is formed by abstracting the idea of substance₁ from ideas of substances₂, either ideas of particular substances (ideas of substances₃) or ideas of kinds of substances (ideas of substances₄). The idea of substance₅ therefore inherits the impoverished nature of the idea of substance₁. Most importantly the idea of substance₁ is a *supposition* the mind makes in coming to construct ideas of substances₂. As we have seen, Locke denies that there is a simple idea of substance₁ and claims that the idea is a complex idea constructed by the mind. The idea of substance₅ is therefore an abstraction of a supposition the mind makes in coming to its substance-thoughts rather than an abstraction of a contribution the world makes to our thoughts via sensation or reflection. As a result, the idea of substance₅ tells us nothing about the world as it is in itself. This is a controversial claim in Locke's time because it rejects the fundamental explanatory role that both Scholastics and Cartesians give to the idea of substance₅. Locke rests his case for this account of the idea of substance₅ on the explanatory adequacy of his account of our ideas of substances₂ with respect to our epistemic discourse regarding substances. If Locke's account of our ideas of substances₂ is adequate to account for our epistemic discourse

regarding substances, then Locke's account of the impoverished nature of the idea of substance₁ and the idea of substance₅ abstracted from it can stand in contrast to the importance given to the idea of substance₅ by Cartesians and Scholastics. To say, for example, that a red clay pot exists through its substance is to say nothing more than that there is a thing which affects our mind by the production of certain visual and tactual ideas in our mind. The idea of substance₅ is just an abstraction of the idea of substance₁ out of our ideas of substances₂. Our idea of the red clay pot, however, is an idea of a substance₂ and so is likewise composed, in part, of the idea of substance₁. As a result, there is nothing more in the idea of substance₅ than is in our substance idea of the red clay pot. There is nothing added to our understanding of the existence of the red clay pot by invoking substance₅ as part of an explanation of the existence of the red clay pot.

It is important to note, however, that Locke's negative attitude toward the idea of substance₅ is not in tension with his claim that the idea of substance₁ has an important role to play *in our thought*. Indeed, the idea of substance₁ is that which distinguishes our ideas of modes from our ideas of substances₂ within Locke's theory of ideas. It does so by accounting for the independent existence and unity aspects of our thought of substances within Locke's account of our cognition of substances. Locke's main point in his account of our ideas of substances is that the idea of substance₁ is a supposition the mind makes using other simple ideas it receives in sensation and reflection. Locke's negative point is that philosophers who make heavy use of the idea of substance₅ fail to recognize that their idea is merely an abstraction of a contribution the mind makes to its substance-thoughts rather than a contribution from the world.

1.2.3 *Excessively metaphysical interpretations of Locke on substance*⁹¹

Current debates in the secondary literature on Locke's account of substance revolve around the question of how Locke understands the relation of support between a substance and its qualities. There are two sides to the contemporary debate. On the one side are what we can call the traditional interpreters. Prominent traditionalists include Bennett and McCann. On the other side are what we can call the essence interpreters. Prominent essence interpreters include Ayers (at least in the past) and Bolton (1998). Traditionalist interpreters argue that the support provided by a substance for its qualities is inherence. Essence interpreters hold that the support substances provides for their qualities is causal dependence.

Both sides hold that in giving an account of our ideas of substance, Locke engages in a debate about the metaphysics of substance. By contrast, I have argued in the preceding sections that Locke's central polemical points regarding our ideas of substances₂ are limited to our *ideas* of substances₂. In particular, Locke argues that our ideas of substances₂ differ from one another *not* with respect to their component idea of substance₁ but only by their component ideas of qualities. The idea of substance₁ contributes almost nothing to our epistemic discourse regarding substances. As a result, Locke thinks, the abstract idea of substance₅ used by philosophers, and formed by abstracting the idea of substance₁ from ideas of substances₂, is likewise devoid of any significance in understanding the world.

The common assumption shared by both traditional and essence interpreters is that Locke's account of how our ideas of substances₂ differ from our ideas of modes is tied to a metaphysics of how substances differ from modes. That is, the distinction between ideas of

⁹¹ The preceding sections provide an adequate foundation in Locke's account of our ideas of substances for the next chapter's ambitions of developing Locke's interpretation of knowledge of the external world. The following section is only intended to locate the interpretation of Locke on substance developed above within the current secondary literature.

substances and modes is drawn in light of what they are ideas *of*. Since Locke distinguishes ideas of substances₂ from ideas of modes by the inclusion of the idea of substance₁, Locke must distinguish substances from modes in a similar way. In other words, the current debate over Locke on substance is committed to the premise that Locke's account of our ideas of substances provide a guide to Locke's account of the metaphysical or ontological makeup of substances. The two sides disagree on exactly how to understand what those relations are (traditionalists: inherence; essence interpreters: causal dependence) but both move from Locke's claims about the composition of our ideas of substances to claims about Locke's commitments regarding the metaphysics or ontology of substances. Traditionalist interpreters claim that the idea of substance₁ is an idea of substratum. Essence interpreters claim that the idea of substance₁ is an idea of a thing's essence.

To have a determinate engagement with competitor views, I will pick one articulation of a traditionalist view and contrast it with my own. For current purposes of illustrating the overly metaphysical nature of the debate, I will use the traditionalist interpretation developed in McCann (2007). McCann's interpretation has several virtues as a foil. First, it is one of the most recent and is built upon a thorough criticism of its rivals (including other traditionalists, such as Bennett). Second, of all the extant interpretations, McCann is the most ambitious in minimizing Locke's metaphysical commitments regarding substance. As a result, by arguing that McCann's interpretation fails to capture Locke's view because it is excessively metaphysical, all more ambitious metaphysical readings will be undermined as well.

McCann lays out six theses that constitute the traditionalist interpretation (McCann, 161-162). They are as follows (the list below is a verbatim reproduction of McCann's list of

theses that he takes to characterize the traditionalist view, although I have presented the list hierarchically rather than in a single paragraph as McCann does; all emphases original):

- (i) Each individual object (substance) has a *substratum*
- (ii) This substratum is conceived of, in the first instance, as the *support* to the qualities and powers of that individual substance
- (iii) The substratum's being the support to qualities and powers is glossed in turn by the claims that:
 - (a) the qualities and powers of the individual *inhere in* the substratum and cannot otherwise exist, whereas
 - (b) the substratum subsists of itself (which means that it does not exist or *inhere in* anything else
- (iv) The inherence relation is in some sense a *logical, non-causal* relation in that it holds in exactly the same way for each of the powers and qualities, and it is not supposed that the substratum itself undergoes any change if and when the object undergoes a change with respect to any of its powers or qualities
- (v) In line with this the substratum is not supposed to have any nature or internal differentiation of its own, and is thus *distinct from the real essence* of the object
- (vi) Because the substratum is not directly available to sensory observation the qualities and powers being the only things that are thus available, and because it has no intrinsic nature of its own, it is in principle *unknowable*.

Let's begin with thesis (i). Thesis (i) straightforwardly translates Locke's claim about the structure of our ideas of substances into a claim about the structure of substances. Substances are distinguished into their substrata and their qualities. McCann makes his commitment to this distinction clear in his criticism of essence interpreters. McCann summarizes that criticism as follows. The essence interpretation "neatly avoids saddling Locke with a commitment to substrata as real, distinct entities. The problem with it is, as we have seen, that it has nothing going for it in the way of textual evidence" (McCann, 190). By contrast, according to McCann's view, "Locke thinks we have an idea of substance in general whose content is just as logical tradition has it to be: it is the idea of a support or substratum to qualities, that is, something in which qualities *inhere* but that does not in turn *inhere in* any else" (190-1). McCann's view does not treat substrata a distinct from substances though:

Against the tradition, however, Locke insists that the idea is confused and obscure, affording us no clues about the nature of this [substratum]; the only knowledge we can base on this idea is the certain knowledge that [substratum] exists. This does not, however, commit us to the existence of any entity over and above, or below and beneath, the body itself with all of its quality and powers. (McCann, 191)

On McCann's view, then, substrata (what the idea of substance₁ is an idea of) are distinct entities from qualities but not distinct entities from substances (what the complex idea which includes the idea of substance is an idea of). As McCann sees it, his view has the virtue of essence interpretations in not saddling Locke with the view that substrata are distinct from substances (unlike other traditionalist views which treat the idea of substance₁ as an idea of a bare particular), but also fit Locke's texts better than essence views by recognizing a distinction within substances between substrata and qualities. The real essence views unwarrantedly reduce substratum to real essence, and so, to the subgroup of a substance's qualities on which its observable qualities causally depend.

Let's now turn to thesis (vi). McCann's explanation of our epistemic limitations regarding substances in this thesis reflects the distinction theses (i)-(v) draw within a substance between its qualities and its substratum. The best way to appreciate the significance of thesis (vi) is by contrasting the picture it paints of our epistemic relation to substances with a Cartesian picture of the metaphysics of substances and our epistemic relation to substances.

On a Cartesian picture the substance of a material thing is its extension (in this context we can call 'the substance of a material thing' the 'substratum' since it is that by which material bodies exist, just as according to McCann's Locke's substratum is that by which the qualities of a substance exist). All qualities of bodies depend on extension for their being because all the qualities of bodies are modifications of extension. Moreover, for

Descartes, we *know* the substratum of bodies. We know that by which modifications have their existence as modifications through our innate, God given, clear and distinct idea of extension. Put in more general terms, all individuals have a substratum on which they depend for their existence, that is, through which they have their being as modifications of that substance. Moreover, we can *know* the substratum of bodies and minds through our innate ideas.

McCann's Locke agrees with the basic Cartesian metaphysics in one way, disagrees with it in another, and rejects the Cartesian epistemology. McCann's Locke agrees that individual substances have a substratum and that this substratum is that on which the qualities of a thing depend for their existence as modifications of that substratum. This reflects thesis (iv) that the relation of support between substratum and qualities is a *logical* relation for McCann's Locke. McCann presents the following passage from Locke's correspondence with Stillingfleet as evidence against essence interpretations which identify the substratum of a substance with its real essence, that on which a thing's qualities *causally* depend. Locke notes:

Here I must acknowledge to your lordship, that my notion of these essences differs a little from your Lordship's; for I do not take them to *flow* from the Substance [substratum] in any created being, but to be in every thing that *internal constitution*, or frame, or modification of the substance, which God in his wisdom and good pleasure thinks fit to give to every particular creature, when he gives it a being; and such essence I grant there are in all things that exist. (*Works* IV, 82)

The significance of this passage as evidence against identifying substance with real essence, according to McCann, is that in this passage Locke seems to state that the real essence is a modification of the substratum. The real essence too bears a logical relation to the substratum as a modification of the substratum of the body and so it too has a dependent existence. It cannot be that in which a thing's qualities exist. As McCann reads this passage:

Locke is saying that a body's matter being arranged in this or that particular way (i.e., its having constituent atoms each with its particular bulk, figure, motion, and relative situation) *is* its having a particular real essence or internal constitution; the atomic structure, or particular arrangement of the matter of a thing, is a modification (or mode) of the substance...real essences would then be modifications of substances, not substances themselves (McCann, 190).

McCann's Locke agrees with the Cartesian picture, then, that all the qualities of a thing, including what Locke calls their real essence depend for their existence on something further. Moreover, what supplies their existence is that of which they are all modifications. McCann's Locke rejects, however, the Cartesian claim that extension is the kind of thing that could be a substratum of individual substances. The problem, according to McCann's Locke, is that extension is but another quality and so itself requires some substratum in which to exist. Extension or solidity themselves have their being as modifications of whatever it is through which they exist.⁹²

Most importantly, McCann's Locke rejects the Cartesian epistemology according to which we know the substratum, the nature of substances through which their qualities have their existence as modifications. As we have seen, according to McCann, "Locke insists that the idea is confused and obscure, affording us no clues about the nature of this substance; the only knowledge we can base on this idea is the certain knowledge that substance [substratum] exists" (McCann, 191). For example, this epistemological barrier removes the possibility of grounding the basis of mind-body dualism in claims that the substrata of mind and body, that by which minds and bodies have their being, are distinct natures. As far as our ideas of Body and Soul are concerned, these kinds of substances are distinct only by virtue of their qualities. As regards their substrata, that in which their qualities exist, our ideas of these

⁹² This is how McCann reads the significance of sections II.xxiii.15-32. See Ayers (1991), especially volume II, chapters 3-4 (pp.31-50) for a *very* similar view to the one articulated by McCann.

are the same and equally obscure.⁹³ So, contrary to claims of Cartesian epistemology we can never know what that further substratum *is* by which qualities have their beings as modifications.⁹⁴ Whatever lies behind the essential qualities of mind and matter by which they have their being as modifications remains forever in the dark to us because we can have no ideas *of* it in the way we can have ideas *of* a substance's qualities.

McCann's interpretation of Locke on substance can now be helpfully summarized by comparison with the Cartesian approach to substance. On the Cartesian approach, the qualities of a thing have their existence through a substratum as modifications of that substratum. McCann's Locke agrees. On a Cartesian approach, the substrata of bodies and minds are distinct: the substrata of bodies is extension and the substrata of minds is thought. Moreover, we know this through our clear and distinct ideas of bodies and minds; our clear and distinct ideas are ideas of that by which qualities have their existence as modifications. McCann's Locke disagrees on both of these counts. McCann's Locke rejects the epistemological claim. Our ideas of different kinds of substances are distinguished not by different ideas of their substance, not by different ideas of that by which their qualities have being as modifications, but by different ideas of qualities. Consequently, McCann's Locke rejects the metaphysical claims of the Cartesian picture that the substance of bodies is extension and that the substance of minds is thought. Moreover, McCann's Locke even rejects the claim that we can say anything as to whether bodies and minds have different

⁹³ McCann is careful to note that his use of 'substratum' is not meant to invoke bare particular, as does early versions of Bennett's interpretation of Locke (McCann, 162). This is one way in which Bennett criticizes other traditionalist interpreters. Locke, he thinks, is committed to an inherence relation between substratum and qualities but not that we know the 'nature' of the substratum to be a bare particular.

⁹⁴ Notice that there looms a conflict with what looks to be Locke's nominalism if we take the nature of a substance to be something like an abstract but unknown nature or essence. Presumably the only way this picture could work is if we can make sense of something like individual natures or essences.

substrata at all. As far as our ideas are concerned, our ideas of their substrata are the same: they are the idea of substance₁, supposed ideas of unifying, existential support.

McCann attributes to Locke significant common ground with Descartes. In particular, McCann's Locke broadly agrees with the Cartesian metaphysical picture. Qualities have their existence by virtue of being modifications of the substratum which gives them being.

McCann's Locke departs from the Cartesian picture only as regards our epistemic access to such substrata. Our confused idea of substratum prevents us from having any access to the *nature* of that substratum but it does not prevent us from knowing *that there is* a substratum through which qualities exist as modifications of that substratum. Consequently, on McCann's interpretation, Locke is committed to a metaphysics of substances in which substances are distinguished into two components, substrata and qualities. Put in terms of ideas, McCann's Locke and a Cartesian share the common ground that the idea of substances picks out an important metaphysical joint. Substances are distinguished into their hidden, individual substratum and their qualities which have their being as modifications of that substratum.

In light of the interpretation I have developed above, even this is too rich a metaphysics to attribute to Locke. Locke's concern is *only* with our ideas of substances₂. If we want to extract metaphysical conclusions from his discussion of our ideas of substances₂, the best we can do is to say that substances exist. There are things which affect our minds in various ways. There is no further commitment by Locke to the claim that such substances have a structure in which substrata and qualities are distinguished and qualities are said to depend on substrata as modifications of those substrata.

To begin to see that even McCann's interpretation goes beyond what is warranted by Locke's system, we can look at a contrast case within Locke's own theory of ideas. Recall from the discussion of ideas of qualities above that Locke posits a simple idea of power. The presence of the simple idea of power in our causal cognition is the crucial ingredient that provides Locke's account of how our causal cognition goes beyond cognition of a mere spatio-temporal succession.⁹⁵ By contrast, as we saw above in examining Locke's claim that the idea of substance₁ is a *supposition*, the idea of substance₁ is a complex idea. Locke explicitly and repeatedly disavows that we have a simple idea of substance₁. When Locke touches on this point in Book I (I.iv.18), he laments that we do not have such an idea because it is so easy and common to talk as though we do. That is, it is so easy and we so commonly talk as if there were the metaphysical structure McCann's Locke posits.

The contrast between Locke's claim that we *have* a simple idea of power but *do not have* a simple idea of substance₁ provides some evidence that Locke is *not* committed to the view McCann attributes to him. If we had a simple idea of substance₁, Locke seems to suggest at I.iv.18, then McCann's interpretation—which reflects a comfortable and familiar way of talking, according to Locke—would be correct. Our thought would contain as a fundamental element an idea of some substratum by which the qualities we know through sensation and reflection exist. We can draw a contrast between the view I have laid out above and McCann's view by translating McCann's claim into the framework of Locke's naturalized epistemology. Once we have rendered McCann's interpretation in that framework it will be easier to appreciate how the contrast between Locke positing a simple idea of power and denying a simple idea of substance₁ cuts against McCann's interpretation.

⁹⁵ See II.vii and II.xxi for examples, or several of the footnotes above in section 1.2.1.4.

In the framework of Locke's naturalized epistemology, McCann's claim is that according to Locke, our epistemic discourse about substances presupposes a distinction in substances between their qualities and the substrata that existentially support those qualities. We are committed, in other words, to the claim that the qualities of a substance depend on a substratum as modifications of that substratum. I have argued above, that Locke does not think that the idea of substance₁ within our ideas of substances₂ reveals that our epistemic discourse concerning substances is committed to any such metaphysical structure.

Instead, Locke's "metaphysics" of substance is as follows. Substances exist and affect our minds in various ways. Substances are classified and distinguished into kinds by virtue of the similarity and differences between the ways in which they affect our mind. That is all, on Locke's view, we need in order to make sense of our epistemic discourse about substances. It is all our epistemic discourse about substances is committed to. The upshot of Locke's account of the classification of substances is that such discourse does not presuppose a distinction within substances between substrata and qualities. Indeed, for Locke our epistemic discourse does not even presuppose a commitment to a distinction between the qualities of a substance *within the substance itself*. Locke emphasizes that the distinction between ideas of qualities need not track any distinctions within the substance itself: "though the qualities that affect our senses are in the things themselves so united and blended that there is no separation no distance between them; yet 'tis plain, the ideas they produce in the mind enter by the senses simple and unmixed" (II.ii.119). Our classification of substances by the ways in which they affect our mind merely presupposes that substances exist and affect our minds in different ways. It does not go beyond that to ascribe distinctions within substances corresponding to the distinct ideas of qualities within our ideas of substances.

Furthermore, the idea of substance₁ and consequently the philosopher's idea of substance₅ from which it derives are idle when it comes to *explaining* the existence of things. As we saw above, when Locke compares the Indian philosopher's elephant and tortoise to the European philosopher's substance and accident his point is that positing substance₅ to explain the existence of things is explanatorily empty. Positing a substratum in which qualities inhere does not explain the existence of a substance or qualities. To do so is just to repeat *that* some substance which affects our mind in some way exists. Thus, positing an *idea of* substratum as a component of ideas of substances₂ cannot explain how and *idea of* a substance₂ is an existing thing. Instead, Locke's claim that ideas of substances₂ contain the idea of substance₁ is just Locke's way of *marking within his theory of ideas* the difference between our thought of substances and our thought of modes.⁹⁶ Thoughts of substances consist in the perception of ideas of things which exist and affect our mind in various ways. Thoughts of modes consist in the perception of ideas of ways in which our minds may be affected. Our epistemic discourse about substances is committed to the existence of things (our ideas of substances₂ contain the idea of substance₁) that affect us in various ways (our ideas of substances₂ contain ideas of qualities, powers to produce simple ideas), but nothing further about metaphysical makeup of substances.

The fundamental mistake in current Locke scholarship, including McCann's view, is that it reads too much metaphysics out of Locke's discussion of our ideas of substances₂. The idea of substance₅ is formed by abstracting the idea of substance₁ from ideas of substances₂. The idea of substance₁, however, is, in the first place, a supposition the mind makes. It is a

⁹⁶ As we will see in Chapters 3 and 4, ideas of relations have a genetic structure distinct from ideas of modes and substances by virtue of the characteristic operation of the mind involved in their production rather than the component ideas. Ideas of modes and substance share a characteristic operation of the mind but differ with respect to the idea of substance₁.

contribution our mind makes to our cognition of substances by which we come to think of things with independent existence. The distinction between the idea of substance₁ and our ideas of qualities in our ideas of substances₂ is in no way intended to mark a distinction within substances themselves. Instead, it accounts for the fact that substances are supposed within our thought to have an independent existence. Locke criticizes others for taking the idea of substance₅ to be an idea of a significant metaphysical category; that dividing the world into substance and accident has explanatory value or enhances our understanding of the world. They make the mistake of thinking there is more to the idea of substance₅ than there is. Locke's opponents fail to recognize that the idea of substance₅, as it is derivative of the idea of substance₁, is an abstraction from a supposition of the mind rather than an abstraction from an idea received in sensation or reflection that is capable of telling us about the world around us. Locke's opponents fall victim to a classic case of what Locke describes in the opening paragraph of the *Essay*: the understanding failing to take notice of itself.⁹⁷

By contrast, if the simple idea of substance₁ were a simple idea, it would not merely be a contribution the mind makes to its ideas of substances₂. When it comes to our causal cognition, for example, Locke, unlike Hume, thinks that our cognition of causal relations goes beyond cognition of spatio-temporal relations *not merely* by virtue of a contribution of the mind (for Hume, the habit of inferring effect from cause). Instead, causal cognition is constituted in part by the simple idea of power for Locke. The simple idea of power is part of the fundamental elements of our thought, the elements of our thought contributed by the world to our mind through sensation and reflection. For Locke, our thought of substances is

⁹⁷ We will return to this detail in Chapter 4. For now, a quote will have to do: "The understanding, like the eye, whilst it makes us see, and perceive all other things, takes no notice of it self: and it requires arts and pains to set it at a distance and make it its own object." (I.i.1/43).

crucially dependent on a supposition of the mind, the idea of substance₁. The mind moves from merely being affected by the world in the production of simple ideas of sensation and reflection to coming to have thoughts of things which affect the mind by supposing that the ideas produced in it are produced by independently existing things, that they are the result of the qualities of things. If, by contrast, Locke were to claim we had a simple idea of substance₁, the characteristic component our thought of substances₂, the idea of substance₁, would not be wholly a supposition of the mind. The mind would be furnished with an idea from which it could abstract to an idea the metaphysical structure of the world. As an abstraction from a supposition the mind makes, however, the idea of substances₅ tells us nothing about how the world is in itself. Not even as little as McCann claims.

1.3 Simple ideas

The goal of this chapter is to explicate the parts of Locke's theory of ideas that are relevant to his account of knowledge of the external world. Two ideas are perceived to agree in knowledge of the external world. One is a complex idea of a substance. As we saw above, such ideas are ideas of existing things with various qualities. In section 1.2 above I have offered an interpretation of Locke's account the genetic structure of our complex ideas of substance to set the stage for understanding how such ideas fit into Locke's account of knowledge of the external world. The other ideas relevant to knowledge of the external world are simple ideas of sensation. I turn now to articulating the features of simple ideas that make them relevant to knowledge of the external world.

Fortunately we have already laid much of the foundation for our explication of the role of substance ideas in Locke's theory of ideas. Simple ideas are the products of operations of substances on the understanding. We can find ample confirmation for this interpretation of

Lockean simple ideas at the beginning of Book II where he introduces the notion of simple ideas and then again in Locke's discussion of what he calls the representational qualities of ideas at the end of Book II. We can begin with Locke's official introduction of simple ideas in II.i and II.ii.

Locke introduces simple ideas as ideas that are passively received in the understanding by the operation of substances on the mind. At the end of II.i, Locke writes, "In this part, the understanding is merely passive; and whether or no it will have the beginnings, and as it were materials of knowledge, is not in its own power" (II.i.25/118). In other words, the mind cannot come up with, or produce, its own simple ideas. Similarly, the passivity runs the other direction, with respect to 'refusing' simple ideas: "these simple ideas, when offered to the mind, the understanding can no more refuse to have, nor alter, when they are imprinted, nor blot them out and make new ones in it self, than a mirror can refuse, alter, or obliterate the images or ideas which the objects set before it do therein produce" (II.i.25/118). So, the mind can neither create, refuse, nor alter simple ideas. It simply receives them.

The second main feature of simple ideas is that they enter the mind as discrete units. In II.ii, 'of simple ideas', Locke writes that, "though the qualities that affect our senses are in the things themselves so united and blended that there is no separation, no distance between them; yet 'tis plain the ideas they produce in the mind enter by the senses simple and unmixed" (II.i.1/119). Different ideas from the same sense, or ideas from different senses are on a par in terms of being distinct ideas from one another: "though the sight and touch often take in from the same object, at the same time, different ideas; as a man sees at once motion and colour; the hand feels softness and warmth in the same piece of wax: yet the simple ideas

thus united in the same subject are as perfectly distinct as those that come in by different senses” (II.i.1). All simple ideas are equally discrete. None come in together in any way. Consequently, any combinations of simple ideas, whether of visual ideas of motion and color, or combinations of tactile with visual ideas, must be performed by the mind.

Locke highlights the basic passivity of the mind with respect to simple ideas by explicitly drawing a comparison between simple ideas and atomist theories of matter. Locke writes,

The dominion of man in this little world of his own understanding being much what the same as it is in the great world of visible things; wherein his power, however managed by art and skill reaches no farther than to compound and divide the materials that are made to his hand; but can do nothing towards making the least particle of new matter, or destroying one atom of what is already in being. (II.ii. 2/120)

Simple ideas are the materials of thought and the mind is fully passive with respect to them. It can neither create, nor destroy, nor alter them. It can merely operate on them to form concoctions of them in various ways. These simple enter simple and unmixed. Our ideas of colored shapes, or stinky blobs, or tasty treats are all the product of the mind operating on simple ideas. What is distinctive about simple ideas, then, is the mind’s passivity with respect to them. They are produced in the understanding by the operation of substances on the mind. It thus is fair to call them appearances by and of substances to the mind.

At the end of Book II, Locke turns to what he calls some ‘other considerations’ which belong to the ideas, “in reference to things from whence they are taken, or which they may be supposed to represent” (II.xxx.1/372). That is, Locke turns at the end of Book II to some of the aspects of ideas that deal with their representational relations, their nature as intermediaries between subject and world. Locke claims that there are three dimensions along which we can evaluate ideas with respect to representation: ideas can be real or

fantastic, adequate or inadequate, and true or false (II.xxx.1/372). In each case, we will see that Locke explains the reality, adequacy, and truth of simple ideas as a consequence of the mind's passivity with respect to them. By examining Locke's explanation of the reality, adequacy and truth of simple ideas, then, we will confirm that simple ideas are appearances by substances to the mind.

All simple ideas are, by their nature, real, according to Locke. Ideas are real or not depending on whether they have, "a foundation in Nature" (II.xxx.1/372). Having a foundation in nature is to have, "a conformity with the real being, and existence of things, or with their archetypes" (II.xxx.1)/372. Simple ideas are all real and none fantastical (II.xxx.2). Their foundation in nature is a matter of their being *nothing but* the effect of a power to produce that idea. Locke explains the reality of simple ideas as follows:

[Our] simple ideas are all real and true, because they answer and agree to those powers of things, which produce them in our minds, that being all that is requisite to make them real, no not fictions at pleasure. For in simple ideas, as has been shown, the mind is wholly confined to the operation of things upon it; and can make to it self no simple idea, more than what it has received. (II.xxx.2/373)

The passivity of the mind with respect to simple ideas is central to their reality. Simple ideas are nothing but signs of powers to produce those ideas, by some means, in the mind. Simple ideas of sensation are, then, nothing but signs of powers distinct from the mind to produce ideas in the mind. Wherever there is a simple idea, then, there is a power to produce that idea, regardless of what other relations (say, of resemblance) might hold between the idea and the power to produce it on that particular occasion. A red wall under white light or a white wall under red light both equally have the power to produce a certain idea in the mind. Since the idea is nothing but the sign of a power to produce it, it cannot fail to correspond to and

conform in this sign-signaled way to the power to produce it. Thus, simple ideas, as such, can't fail to be real.

All simple ideas are adequate by their nature as well. Ideas are adequate insofar as they “perfectly represent those Archetypes, which the Mind supposes them take from; which it intends them to stand for, and to which it refers them. Inadequate ideas are such which are but a partial, or incomplete representation of those Archetypes to which they are referred” (II.xxxi.1/374). The adequacy of ideas is scalar. Adequate ideas are those at the very top of this scale, the pinnacle, the perfectly adequate. All other ideas are to some degree inadequate depending on the degree to which they are ‘complete representations’ of their archetypes. The (perfect) adequacy of simple ideas is again a function of their archetype being *nothing but the power to produce that idea*. Locke writes, “all our simple ideas are adequate. Because being nothing but the effects of certain powers in things, fitted and ordained by God, to produce such sensations in us, they cannot but be correspondent, and adequate to those Powers” (II.xxxi.2/375). Again, the important feature about simple ideas with respect to representation is that in and of themselves they are nothing but the sign of a power to produce that idea. The mind is completely passive with respect to them and so their perception must be the result of the operation of something on the mind, whether something else (as in the case of simple ideas of sensation) or the mind itself operating on its ideas (as in the case of simple ideas of reflection). It follows, then, that the inadequacy of any of ideas must be the result of operations of the mind. This is a theme that appears in other early modern thinkers as well.

Finally, all simple ideas are true by their nature. Locke notes that truth and falsity are, strictly speaking, only applicable to propositions (II.xxxii.1). However, there is a sense in

which ideas can be true or false: “whenever the mind refers any of its ideas to any thing extraneous to them, they are then capable to be called true or false. Because the mind in such a reference, makes a tacit supposition of their conformity to that thing: which supposition, as it happens to be true or false; so the ideas themselves come to be denominated” (II.xxxii.4/385). There are respects, Locke thinks, in which ideas can be true or false depending on which ‘extraneous’ things the ideas are referred to. When referred to other people’s ideas, all ideas, including simple ideas, can be false (II.xxxii.5). When referred to the world rather than others’ ideas, by contrast, simple ideas are by their nature true (II.xxxii.14-16). That is, simple ideas cannot be false when referred to their causes cannot be false because simple ideas cannot but conform to the power which produces them. Again, then, it seems clear that the truth of simple ideas with respect to what produces them is because the simple idea indicates *nothing but the power to produce that idea*. In particular, it does not indicate that there is anything similar between the powers to produce that idea *beyond their affect on the mind in that way*; that is, by producing that idea.

So, Locke explains the reality, adequacy and truth of simple ideas by virtue of the fact that the mind is completely passive with respect to them as they are the result of things operating on the mind. Simple ideas of sensation, then, just are the interface between a subject and the world around her; they are the ways in which the world affects the subject. It is important to note that as indicators of mere powers to produce ideas, the different kinds of simple ideas produced in a subject need not track any objective structure in the powers that produce them. That is, the powers indicated by some simple idea need have nothing in common as they are in themselves except that they produce on some occasion a certain idea in a subject.

Many of Locke's readers have noted the special role that simple ideas play in connecting our thought to the world around us. Indeed, most defenses of the claim that Locke has an intelligible account of knowledge of the external world start by emphasizing the special connection that simple ideas provide to the world on Locke's view. Bolton (2004), most strongly, and perhaps, though it is not clear, Ayers (1991) claim that there is a relationship of natural signification, rather than the tighter, more minimal relationship I have claimed, between simple ideas and the powers to produce them. That is, others have held that there is a causal regularity between simple ideas of type *a* and the natural cause of ideas of type *a* in nature (the natural structure that produce simple idea *a*). It is by virtue of that causal regularity that the idea represents that kind of structure in nature. Bolton in particular is very explicit that simple ideas represent such structural joints in nature (Bolton 2004). Similarly, Ott (2003) has argued that Locke has a teleological account of the representational relation between simple ideas. Simple ideas, according to Locke, represent a certain natural structure by virtue of the fact that God has designed such ideas to indicate the presence of that structure.⁹⁸

These accounts of the relation between simple ideas and their causes underwrite ultimately reliabilist interpretations of Locke's account of knowledge of the external world. For Bolton, we take distinct simple ideas to mark distinct features in the world, our simple ideas of are reliably produced in, and only in, the presence of such distinct features, and so our taking the simple ideas to mark distinct features of the world amounts to knowledge. For

⁹⁸ Ott (forthcoming) has recanted this view in favor of something he calls an 'internalism'. On Ott's new view, it seems, simple ideas in some way wear their signification on their face such that in perceiving them we perceive what they represent.

Ott as well, when our simple ideas are functioning according to design, our taking them to represent their designated cause amounts to knowledge.

Though these accounts give Locke *an* account of knowledge of the external world, they do so at the expense of failing account for such knowledge in the terms of Locke's own explicit account of knowledge. It would be better not to have to attribute a tacitly bifurcated epistemology to Locke. In the next chapter I will argue that Locke can and does give an account of knowledge of the external world in terms of his definition of knowledge.

However, I believe that these accounts not only fail with respect to providing an adequate interpretation of Locke on knowledge of the external world, but they also fail to properly account for the relation between simple ideas and qualities. The problem, in short, is that each of these accounts gives simple ideas a richer connection to joints of nature than Locke seems to allow.

As explained above, simple ideas merely indicate a power to produce that certain idea in us. Now, there are passages in which Locke seems to suggest a strong view that is closer to those articulated by Bolton and Ott. For example, in discussing the reality of simple ideas, Locke writes:

“[T]he reality [of simple ideas] lying in the steady correspondence, they have with the distinct constitutions of real beings. But whether they answer to those constitutions, as to causes, or patterns, it matters not; it suffices that they are constantly produced by them. And thus our simple ideas are all real and true, because they answer and agree to those powers of things, which produce them in our minds, that being all that is requisite to make them real, no not fictions at pleasure.” (II.xxx.2/373; emphases added)

Locke again describes the relation between simple ideas and the powers to produce those simple ideas in terms of a ‘constant’ production when discussing the truth of simple ideas.

The truth of simple ideas would not be compromised, “if by the different structure of our organs

it were so ordered that the same object should produce in several men's minds different ideas at the same time; v.g. if the idea that a violet produced in one man's mind by his eyes were the same that a marigold produced in another man's, and vice versa" (II.xxxii.15/389). This situation would not compromise the truth of simple ideas because:

"[A]ll things that had the texture of a violet, producing constantly the idea which he called blue; and those which had the texture of a marigold producing constantly the idea, which he as constantly called yellow; whatever those appearances were in his mind; he would be able as regularly to distinguish Things for his use by those appearances, and understand and signify those distinctions marked by the names blue and yellow as if the appearances or ideas in his mind received from those two flowers were exactly the same with the ideas in other men's minds." (II.xxxii.15/389, emphasis added)

As Ott and Bolton read these passages, they suggest that the relation between simple ideas and the powers that produce simple ideas is one of a natural regularity. There are certain objectively similar structures in objects and these structures regularly produce (or are designed by God to produce) corresponding simple ideas in perceivers. The simple ideas thereby indicate such structures to perceivers of such structures. On the reading I have suggested, by contrast, the simple ideas do not indicate an objectively defined kind of natural structure. The only similarity indicated by the same simple idea being produced on different occasions is a similarity in relation to the perceiver: namely, there is some power to produce that same simple idea. I therefore owe some explanation of how to understand the passages cited above that might seem to support the readings of Ott and Bolton over mine.

The first step in accommodating these passages under my reading is to separate two claims. First, we need to be clear about what simple ideas are and indicate in themselves. We must keep such claims separate from claims about what relations God, or nature, may have established between simple ideas and the world. Simple ideas in themselves indicate a mere power. Now, by the goodness of God in endowing us with a sensory faculty that guides our

successful navigation of the world, or the design of nature to the same end, it may have come to be that the, by and large, powers themselves have something in common. Perhaps our simple ideas do track some ‘joints in nature’. It seems impossible to insist that this is the case for all simple ideas, however, especially simple ideas of secondary qualities. Assume, for the sake of illustration (as Locke himself does for these purposes), that colors are secondary qualities whose existence in objects is nothing but a certain surface texture. Now, it may be the case that, for the most part, across most of the situations we encounter them, red things have a surface texture that is similar over and above their common production of certain ideas in perceivers like us. However, there are obviously circumstances in which what we would otherwise call a white thing produces the same simple idea in us as red things (under red lighting, for example). The white thing and the red things may have nothing in common in terms of their surface texture outside of this ability to produce a certain simple idea.

Clearly, then, *if* simple ideas are real, adequate, and true by their nature as passively produced ideas in the mind, *then* it cannot be the case that what they in themselves indicate is anything but the power to produce such ideas. As we have seen, Locke insists on the antecedent of that conditional. Moreover, we can explain Locke’s point in these passages without attributing to him the views of Ott and Bolton.

In the first passage cited above from Locke’s discussion of reality, the chief point Locke is trying to make concerns what is required for a simple idea to conform to reality. Whether a simple idea conforms to the power which produces it does not depend on whether it resembles that cause: “these several appearances [simple ideas], being designed to be the marks whereby we are to know and distinguish things which we have to do with; our ideas do as well serve us to that purpose and are as real distinguishing characters whether they be

only constant effects or else exact resemblances of something in the things themselves” (II.xxx.2/372-3). In this passage Locke seems to be concerned to combat the worries of an interlocutor who imagines that the only way a simple idea could conform to the power which produces it is if it *resembled* that power. Locke rebuffs to this worry by emphasizing that a simple idea can be real by letting us “know and distinguish things”. To achieve that goal, it is sufficient that the simple idea it have *some* basis in those things, namely, for them to be produced by powers of the things. Indicating powers of things to produce ideas is sufficient for us to “know and distinguish things”. Locke then explains that simple ideas meet this criteria because, “in simple ideas, (as has been shewn) the mind is wholly confined to the operation of things upon it; and can make to it self no simple idea more than what it has received” (II.xxx.2). Because simple ideas are passively received in the understanding, they indicate to us powers of things to produce ideas. Thus, Locke’s use of the phrase ‘steady correspondence they have with the distinct constitutions of real beings’ ought to be understood merely to emphasize this point in contrast to the worry that resemblance is required for simple ideas to guide us in “knowing and distinguishing things”. Different powers to produce ideas can guide our knowing and distinguishing things. We need not know how things are in themselves by virtue of having ideas which resemble the things which produce those ideas.

A similar interpretive point holds for the passage cited from II.xxxii.12 above which seemed to support the Bolton/Ott reading. The context of the II.xxxii.12 passage is that Locke is concerned to combat the worry that we might have different simple ideas produced in us by the same things and so such ideas may be false. Locke’s point in this passage is just that, to the degree that a thing consistently produces an idea of blue in one perceiver and an

idea of yellow in another perceiver, there is no liability of confusion between the perceivers in terms of distinguishing objects. Both perceivers distinguish objects equally well in terms of the powers of such objects to affect them and group objects as similar based being similarly affected by them. The role of simple ideas in distinguishing things, then, is just in terms of distinguishing them in relation to us, that is, in terms of their powers to produce ideas. Again, the important aspect of simple ideas that guarantees their truth is their origins external to the mind and nothing more: “for the truth of these appearances [simple ideas], or perceptions in our minds, consisting, as has been said, only in their being answerable to the powers in external objects to produce by our senses such appearances in us” (II.xxxii.16). Thus, when Locke talks of simple ideas answering ‘patterns’ in the world his point is just that they have a foundation outside the understanding. Whether the idea resembles that foundation as ideas of primary qualities resemble primary qualities in having “real, positive” being or not (as in the case of ideas of secondary qualities), the important point is that simple ideas have a foundation external to the understanding in the powers of things to produce ideas in our mind.

In light of Locke’s discussion of simple ideas, we can conclude that simple ideas are nothing but the products of substances operating on the understanding. They are, we might say (indeed, as Locke says in several places cited above), the appearances of substances to the mind. Indeed, they are *nothing* but appearances to the mind, in and of themselves indicating nothing about the powers to produce them except that there is some power to so-appear to the mind. Substances appear to the mind by producing simple ideas in the understanding. Simple ideas of sensation are the result of substances distinct from the mind operating on the mind through sensation. Simple ideas of sensation, then, are the appearances

to the mind of substances distinct from the mind. Simple ideas of reflection are the result of the mind operating on itself in operating on ideas somehow already in the mind. Simple ideas of reflection, then, are the appearances to the mind of itself.

We can bring together the accounts of simple and substance ideas developed in this chapter to give the following explanation of the relation between simple and substance ideas. Simple ideas enter into thought and experience of substances by virtue of being used in the construction of substance ideas in two stages. First, they are used in the construction of ideas of powers to produce those simple ideas. Second, ideas of those qualities are combined with an idea of support to form a substance idea. This process of construction is, for Locke, the process of moving beyond merely being affected by one's environment and coming to have thoughts as if of objects and their qualities.⁹⁹ We now have a foundation in Locke's theory of ideas that is adequate for understanding his account of knowledge of the external world. We need only now add a proper understanding of his account of knowledge, which will be our first topic in the next chapter.

⁹⁹ Not all minds are equally capable of all forms of thought. Throughout Locke's discussion of the powers of the mind he speculates about the relative capacities of different creatures and hence what kinds of thoughts the beasts are capable of thinking. Sensory experience will therefore differ between creatures depending not only on which sensory modalities they possess but also on which mental operations they are capable of. See II.ix-x.

Chapter 2: Locke's Naturalized Sensitive Knowledge

In this chapter I will argue that Locke's account of knowledge of the external world can be fully understood in the terms of his definition of knowledge. It is difficult to overstate how radical this claim is. There are currently two ways of understanding how Locke's definition of knowledge relates to his account of knowledge of the external world. On the one side are those who claim that his definition of knowledge is straightforwardly incompatible with knowledge of the external world and so Locke does not *have* an account of knowledge of the external world.¹⁰⁰ In a charitable twist on this theme, this line of interpretation has developed into the claim that Locke *himself* does not think that knowledge of the external world is *really* knowledge.¹⁰¹ Opposed to this line of interpretation, others have argued that Locke is a tacit reliabilist when it comes to knowledge of the external world. Locke indeed does not hold that knowledge of the external world can be analyzed under his definition of knowledge. Instead, Locke's discussion of simple ideas and their representational properties reveals that he is a kind of tacit reliabilist about the knowledge of the external world they provide.¹⁰² We take simple ideas to represent objects in the world, they in fact reliably *do* so represent the world, so our taking them to so represent the world amounts to knowledge.

¹⁰⁰ Woolhouse (1994) has perhaps the clearest statement of this line of interpretation.

¹⁰¹ Rickless (2006). Ott (forthcoming) endorses this claim. See Owen (MS) and Allen (forthcoming) for a thorough cataloging of the textual difficulties facing this interpretation.

¹⁰² Ayers (1991), Bolton (2004), Chappell (1994), Owen (MS), Nagel (forthcoming), Allen (forthcoming), and, in a sense, Newman (2004) and (2007) offer such interpretations.

Both of these positions are unsatisfactory on several counts. First, as we will see in detail in this chapter, Locke himself insists that we do have knowledge of the external world. Second, he also insists that such knowledge can be understood in the terms of his definition of knowledge as the perception of agreement between ideas. In fact, he even *names* the ideas that agree in knowledge of the external world. Textually, then, it seems undeniable that Locke himself thinks knowledge of the external world can be analyzed in the terms of his definition. Moreover, from the perspective of Locke's naturalized epistemology, a failure of his definition with respect to knowledge of the external world would present a serious setback. Locke's ultimate aim in the *Essay* is to give an account of the boundaries of human knowledge. He rests those claims on the explanatory adequacy of his definitions of knowledge and opinion. If Locke's definition cannot accommodate some aspect of knowledge, then his entire project is compromised. Thus, there is strong motivation from within Locke's own text and from the shape of his project for the claim that properly understanding Locke's account of knowledge of the external world requires understanding how such knowledge is analyzed in the terms of his definition of knowledge.

To properly understand Locke's account of knowledge of the external world we must start from the foundation of his epistemology: his definition of knowledge. Both those who think Locke is a tacit reliabilist and those who think Locke does not have an account of knowledge of the external world agree that Locke's official definition of knowledge cannot accommodate knowledge of the external world. This common claim rests on a misunderstanding of Locke's definition of knowledge.

In this chapter I will argue that within Locke's naturalized epistemology, knowledge is the perception of idea-containment. That is, idea-agreement is idea-containment.

Developing and defending this claim about Locke's definition of knowledge will be the main task of the first section of this chapter. Second, once we have a firm grasp on Locke's definition of knowledge, we will examine what it is Locke thinks we know in knowledge of the external world. Doing so will give us a clear understanding of the target of Locke's analysis of knowledge of the external world by establishing four desiderata that Locke puts forth as constraints on analyses of knowledge of the external world. With an account of Locke's definition of knowledge and a clear understanding of Locke's characterization of knowledge of the external world in hand, in the third section I will explicate Locke's analysis of knowledge of the external world. To do so I will argue for a new understanding of which ideas agree in Locke's analysis knowledge of the external world: a simple idea of sensation and a complex idea of a substance (an idea of a substance₃). I will then show how Locke's analysis of knowledge of the external world in terms of a perception of an idea-containment between these ideas allows his analysis to meet the four desiderata from the previous section. Finally, the chapter will close with what Locke sees as the final step of his epistemology of knowledge of the external world: articulating the limitations on our knowledge that follow from his analysis.

Thus, by the end of this chapter we will have answered the three main questions facing Locke's account of knowledge of the external world:

- (a) What is it for ideas to agree?
- (b) Which ideas agree in knowledge of the external world?
- (c) Finally, what does the agreement of *those* ideas have to do with knowledge of the external world.

My answers will be as follows:

- (a) Ideas agree when one idea literally contains the other as a part.
- (b) The ideas that agree in knowledge of the external world are a simple idea of sensation and a substance idea in sensory experience.

- (c) The agreement of those ideas is relevant to knowledge of the external world because the perception of agreement between those ideas is a perception of agreement which meets the four desiderata Locke believes constrain accounts of knowledge of the external world.

2.1 Locke's definition of knowledge

Locke opens Book IV with his definition of knowledge: "Knowledge then seems to me to be nothing but the perception of the connection and agreement, or disagreement and repugnancy of any of our ideas. In this alone it consists. Where this perception is, there is knowledge, and where it is not, there, though we may fancy, guess, or believe, yet we always come short of knowledge" (IV.i.2/524). Locke's definition is glossed by himself and in the secondary literature as: knowledge is the perception of agreement between ideas. I will follow (Locke's own) convention in this regard.

Exactly what to make of this definition of knowledge has long puzzled Locke's readers. Indeed, some have even abandoned it as a starting point for understanding Locke's epistemology.¹⁰³ More recent work has suggested that the agreement of ideas ought to be understood as a matter of idea-containment.¹⁰⁴ Though it has a handful of defenders in the literature, the interpretation of idea-agreement as idea-containment is hardly even on the radar of mainstream Locke scholarship. In this section I will develop the claim that idea-agreement is idea-containment. Ideas agree when one idea is literally a part of another idea. In defending this claim, I will develop it beyond what is offered by any existing interpretations and locate it within Locke's naturalized epistemology.

The claim that idea-agreement is idea-containment has two main sources of support within the *Essay*. First, understanding idea-agreement as idea-containment reveals how

¹⁰³ See Woolhouse (1971) Chapter 1.

¹⁰⁴ See Lex Newman (2007), and Thomas Lennon (1994).

Locke sees his theory of ideas as a foundation for his epistemology. Locke claims *that* his theory of ideas is a foundation for his epistemology, but it has not been clear to readers *how* this connection works. Second, Locke's own applications of his definition of knowledge to account for certain, canonical cases of knowledge manifest an understanding of his definition of knowledge as consisting in idea-containment.

2.1.1 Locke's naturalized epistemology and idea-agreement

In the Introduction I suggested that Locke connects the *Essay*'s aims with its method as follows. The aim of the *Essay* is to explain the boundaries and limitations of knowledge and opinion: "this, therefore, being my purpose to enquire into the original, certainty, and extent of humane knowledge; together, with the grounds and degrees of belief, opinion, and assent" (I.i.2/43); "it is therefore worthwhile to search out the bounds between opinion and knowledge; and examine by what measures, in things, whereof we have no certain knowledge, we ought to regulate our assent, and moderate our perswasions" (I.i.3/44). Locke proposes to pursue this aim by examining the natural history of thought. Following on the passage from I.i.3 cited immediately above, Locke writes, "In oder whereunto, I shall pursue this following method. First, I shall enquire into the original of those ideas, notions, or whatever else you please call them which a man observes, and is conscious to himself he has in his mind; and the ways whereby the understanding comes to be furnished with them" (I.i. 3/44). The remainder of the method is to give accounts of knowledge and opinion with respect to ideas. Thus, Locke is clear that he aims to explain the nature, grounds, and limitations of knowledge and opinion by examining the origin of our ideas, what we can call their natural history in the understanding.

The natural history of an idea is an account of how an idea is constructed by operations of the mind on simple ideas received through sensation or reflection. By and large our thought consists in the perception of complex ideas, which are produced by operations of the mind. Complex ideas therefore have what I have called a ‘genetic structure’. The genetic structure of an idea is a function of the component ideas, the kinds of operations involved, and the order in which operations of the mind are involved in an idea’s production. The genetic structure of ideas therefore reveals containment relations and conjunction relations between ideas; it reveals which ideas are components of other ideas, and which ideas are common parts of some third idea.

In chapter 1, for example, we examined the genetic structure of substance ideas. This structure revealed the following containment and conjunction-without-containment relations among the component ideas of a complex substance idea of a particular red clay pot. The complex substance idea of the clay pot contained a first division between the idea of substance₁, on the one hand, and the ideas of the pot’s qualities, such as the ideas of the pot’s color or tactile texture, on the other. Thus, the substance idea of the clay pot *contains* the idea of substance₁, the idea of the clay’s red color, and the idea of the its tactile texture (among many other ideas). The idea of substance₁ in the idea of the pot and the idea of the pot’s color, by contrast, are *merely conjoined* and neither contains the other. Similarly for the two ideas of the pot’s qualities thus far mentioned. The idea of the pot’s color and the idea of the pot’s tactile texture are both component ideas in the idea of the clay pot but neither contains the other as a part.

One very strong reason to take it that idea-agreement is idea-containment, then, is because doing so makes sense of Locke’s claim to understand knowledge and opinion by

examining the origins of our ideas: he analyzes each in terms of the genetic structure of ideas. Containment relations and conjunction-without-containment relations are exactly the kind of relations that are revealed by Locke's genetic theory. Thus, if knowledge and opinion are defined in terms of those relations between ideas, Locke's own description of his aims and method in the *Essay* fits with the actual project executed in the *Essay*.

We can gain further confirmation of the interpretive hypothesis that idea-agreement is idea-containment by noting that it allows for the exclusive contrast Locke is interested in between knowledge and mere probable opinion. The fact that Locke defines knowledge in terms of ideas does not rest on his drawing a distinction akin to Hume's distinction between relations among ideas and matters of fact. Locke restricts the definition of mere probable opinion to ideas in just the way he restricts knowledge to ideas. According to Locke, "the faculty, which God has given man to supply the want of clear and certain knowledge in cases where that cannot be had is judgment: whereby the mind takes its idea to agree, or disagree, or which is the same, any proposition to be true, or false, without perceiving a demonstrative evidence in the proofs" (IV.xiv.3/653). Even when directly comparing opinion and knowledge, Locke does not restrict knowledge to ideas while freeing opinion beyond our ideas to something like Hume's matters of fact: "Thus the mind has two faculties conversant about truth and falshood. First, knowledge, whereby it certainly perceives and is undoubtedly satisfied of the agreement or disagreement of any ideas. Secondly, judgment, which is the putting ideas together, or separating them from one another in the mind, when their certain agreement or disagreement is not perceived but presumed to be so" (IV.xiv.4/653). Opinion, like knowledge, is defined in terms of ideas. Knowledge is the *perception* of agreement between ideas. Opinion is the *presumption* of such an agreement between ideas. Exactly what

to make of presumption is a task for a complementary project to the project of this dissertation. Nevertheless, Locke is clear that knowledge is not a species of probable opinion, nor opinion a species of knowledge. They are exclusive categories. Knowledge is the perception of agreement between ideas. Opinion fills in the gap where knowledge is absent: it is the presumption of agreement that we settle for when a perception of agreement is not to be had. On the interpretation I have suggested, Locke makes good on his description of his project at the beginning of the *Essay* to explain the distinction between knowledge and opinion in terms of his genetic theory of ideas by explaining that exclusivity in terms of exclusive genetic structures. Knowledge is idea-containment. Opinion is mere idea-conjunction.

2.1.2 Idea-containment and Locke's application of his definition of knowledge

The broad shape of Locke's naturalized epistemology sketched in the Introduction above is as follows. First, Locke lays out his technical theory of ideas. Second, Locke defines knowledge and opinion within his theory of ideas. Third, Locke shows how this account of knowledge is adequate to account for canonical cases of knowledge. In this subsection, I will argue that when Locke gets to the third step of illustrating the adequacy of his definition of knowledge the text provides strong evidence that agreement is containment.

Among the familiar cases of knowledge Locke discusses in illustrating the adequacy of his definition of knowledge is what Locke calls knowledge of "Trifling Propositions". Knowledge of trifling propositions (hence forth trifling knowledge) is what might be now called knowledge by definition, or analytic knowledge. Trifling knowledge is knowledge of, "universal propositions; that though they be certainly true, yet they add no light to our understanding, bring no increase to our knowledge." (IV.viii.1/609). Locke's first examples

of such unenlightening knowledge are “all purely identical propositions” which are formed “when we affirm the same term of it self, whether it be barely verbal, or whether it contains any clear and real idea, it shows us nothing, but what we must certainly know before, whether such a proposition be either made by, or proposed to us” (IV.viii.2/609). For example, that a dog is a dog, that a tree is a tree, etc., are all *purely* identical propositions. They wear their identity on their face.¹⁰⁵

Trifling knowledge extends beyond purely identical propositions. In addition, “another sort of trifling proposition is, when a part of the complex idea is predicated of the name of the whole; a part of the definition [predicated] of the word defined” (IV.viii.4/612). Locke’s example of such a proposition is: ‘Lead is a metal’. After all, “what information, what knowledge carries this proposition in it...to a man who knows the complex idea the name ‘lead’ stand for. All the simple ideas that go to the complex one signified by the term ‘metal’, being nothing but what he before comprehended, and signified by the name ‘lead’” (IV.vii.4/612). More generally, it is trifling, “to predicate any other part of the definition of the term defined, or to affirm any one of the simple ideas of a complex one, of the name of the complex idea” (IV.viii.5/612). Locke again turns to chemistry for an example: “if I know that the name ‘gold’ stands for this complex idea of body, yellow, heavy, fusible, malleable, ‘twill not much instruct me to put it solemnly afterwards in a proposition,

¹⁰⁵ Though it is not necessary to put this in the main body of the text, I cannot help but include Locke’s scathing take on those who think such trifling propositions are important for knowledge: In all such cases, such knowledge is trifling with words, “it is but like a monkey shifting his oyster from one hand to the other; and had he but words, might, no doubt, have said, Oyster in right hand is subject, and oyster in left hand is predicate: and so might have made a self-evident proposition of oyster, i.e. *oyster is oyster*; and yet, with all this, not have been on whit the wiser, or more knowing; and that way of handling the matter, would much at one have satisfied the monkey’s hunger, or a man’s understanding: and they would have improved in knowledge and bulk together.” (IV.viii.3/610).

and gravely say, ‘all gold is yellow’” (IV.viii.5/613). To say that gold is yellow is just to say that a yellow, heavy, fusible, malleable body is yellow.

In Locke’s explanations of this kind of knowledge the word ‘containment’ is sometimes explicitly used and is never far behind the surface of the text. For example, Locke illustrates the contrast of a trifling proposition with a non-trifling proposition in the case of human beings:

[H]e that shall tell me, that in whatever thing sense, motion, reason, and laughter were united, that thing had actually a notion of God, or would be cast into a sleep by opium, made indeed an instructive proposition: because neither having the notion of God, nor being cast into sleep by opium, being contained in the idea signified by the word ‘man’, we are by such propositions taught something more than barely what the world ‘man’ stands for. (IV.viii.6/614)

The idea of man contains the idea of rationality but not the idea of being cast into sleep by opium. A difference in idea-containment is what makes the proposition ‘man is rational’ trifling but the proposition ‘man is cast into sleep by opium’ instructive.

Even when Locke doesn’t use ‘contain’ language in his explanation of trifling knowledge, he usually turns to equivalent language of parts and wholes, and reference to the composition of complex ideas by simple ideas. For example:

All the simple ideas that go to the complex one signified by the term metal being nothing but what he before comprehended and signified by the name ‘lead’.” (IV.viii.4/612, emphasis added)

For fusibility being one of the simple ideas that goes to the making up the complex one of the sound ‘gold’ stands for... (IV.viii.5/612; emphasis added)

‘Tis just the same, and tot he same purpose, when any term standing for any one or more of the simple ideas, that altogether make up that complex idea which is called a man, is affirmed of the term man: v.g. suppose a roman signified by the word ‘*homo*’: all these distinct ideas united in one subject, *corporeitas*, *sensibilitas*, *potentia se movendi*, *rationalitas*, *risibilitas*, he might, no doubt, with great certainty, universally affirm one, more or all of these together of the word ‘*homo*’, but did no more than say, that the word ‘*homo*’, in his country, comprehended in its signification all these ideas. (IV.viii.9/615; emphases added)

In all of these passages Locke explains trifling propositions by reference to the genetic structure of ideas. The complex ideas, signified by the subject terms, contain simpler ideas, signified by the predicate terms, as parts.

So, knowledge of trifling propositions is trifling for the following reason. First, to understand a word, one must have a grasp of the idea that it signifies. When a word stands for a complex idea, to grasp the complex idea one must grasp, at least to some degree, the genetic structure of that idea. Namely, one must grasp at least some of the ideas of which the complex idea is composed and hence contains as parts. To continue with Locke's own example, assuming that 'gold' is defined as a yellow, heavy, fusible, and malleable body, then in understanding the very term, then, one knows that gold is yellow, that gold is heavy, that gold is fusible, that gold is malleable, and that gold is a body, because in the very understanding of the term 'gold' one perceives a complex idea that contains (among other ideas) an idea of yellow, an idea of malleability, etc. The knowledge is trifling because it is merely playing with words. The proposition, 'All gold is yellow', simply hides the genetic structure of the idea of gold behind a single word. The definition displays some of the genetic structure within the complex idea of gold—some of its ideas. We remove any pretense to instruction and lay bare the trifling nature of the proposition by displaying this definition before the predicate.

Locke's account of knowledge as idea-containment, then, is very clearly and obviously well placed to analyze what Locke calls trifling knowledge and what we might call analytic knowledge or knowledge by definition. In particular, Locke straightforwardly and successfully analyzes such knowledge in terms of idea-containment. The idea signified by the subject term contains the idea signified by predicate term and this is what explains trifling

knowledge. The ease with which Locke's account of knowledge in terms of idea-containment analyzes trifling knowledge has led to confusion in the secondary literature. In particular, Locke's readers have confused what we might call concept-containment with idea-containment, and hence confused recognizing conceptual-containment relations with perceiving idea-containment relations. That is, having seen how Locke applies his definition of knowledge to account for trifling knowledge, Locke's readers have taken that as evidence for one of two conclusions. One way of reading IV.viii leads to the conclusion that Locke's definition of knowledge just limits knowledge to analytic knowledge, and so the perception of agreement between ideas just *is* the recognition of conceptual containment. A second way of reading the chapter emphasizes that Locke distinguishes trifling from instructive propositions but allows knowledge of each. This second reading of IV.viii nevertheless agrees with the first reading of IV.viii in treating Locke's analysis of trifling knowledge as a matter of recognizing conceptual containment, and they identify conceptual containment with idea-containment. Consequently, on this reading, Locke's definition of knowledge goes beyond the perception of idea-containment because he allows for more knowledge than just the analytic knowledge had in knowledge by definition. We can sum up this line of argument as follows.

1. Locke distinguishes trifling, or analytic knowledge from instructive, or synthetic knowledge.
2. Locke accounts for analytic knowledge as the recognition of conceptual-containment, that is, in Locke's preferred terminology, the perception of idea-containment.
3. Since Locke allows for more than trifling knowledge, knowledge is not just the perception of idea-containment.

A common assumption between both readings is that idea-containment and conceptual containment are to be *identified*. This is a mistake. Idea-containment provides Locke's *analysis* of conceptual containment. The argument for this claim is short.

1. Locke analyzes concepts as nominal essences within his theory of ideas.¹⁰⁶
2. Nominal essences are ideas.
3. Locke analyzes trifling knowledge, which we can gloss as the recognition of conceptual containment, in terms of nominal essences as a matter of idea-containment.
4. So, concept containment is just a special case of idea-containment for Locke; namely, idea containment that involves nominal essences.
5. So, recognition of concept containment is just one kind of knowledge for Locke.

Locke does not *identify* idea-containment or knowledge with concept-containment. Instead, Locke *uses* idea-containment to analyze the knowledge we have by recognizing conceptual containments. Nominal essences are just one kind of idea. We are capable of knowledge of conceptual containment because nominal essences are complex ideas with a genetic structure. Locke defines knowledge in the broader terms of idea-containment, however, and so the agreement between nominal essences is just a sub-case of knowledge. Other agreements besides those between nominal essences are possible. As I'll argue, knowledge of the external world is one such case.

A worry about the claim that knowledge is idea-containment may linger, however. As noted above, many take the fact that Locke allows for instructive knowledge along with trifling knowledge to be evidence against the claim that knowledge is defined in terms of idea-containment for Locke. Even if that conclusion cannot be delivered by conflating idea-

¹⁰⁶ As we saw in the Chapter 1, nominal essences are that by which we classify, according to Locke. If we understand concepts as our cognitive tools of classification, then it is fair to claim that Locke analyzes concepts as nominal essences. Locke's main polemical aim in his discussion of substances is to show that we only need nominal essences to explain our epistemic discourse regarding kinds of substances because we only classify substances by their nominal essences (he expands this claim to modes and relations as well in Book III). See III.iii and III.vi of the *Essay*, 'of general terms' and 'of the names of substances'.

containment with concept-containment, one may still worry that in allowing for instructive knowledge Locke expands knowledge beyond idea-containment.

This worry is relieved by more closely examining Locke's distinction between trifling and instructive knowledge. The most important thing to note about Locke's distinction between trifling and instructive propositions is that it is a distinction concerning the relation between language and knowledge. We must begin with a distinction Locke draws three chapters earlier in, 'Of Truth in general'. Locke defines truth as, "nothing but the joining or separating of signs, as the things signified by them, do agree or disagree one with another" (IV.v.2/574). There are two kinds of signs, according to Locke, and so two ways in which the joining of signs can correspond to the joining of what is signified. Words are signs of ideas. Ideas are signs either of themselves or else of other things. To join or separate a sign is to form a proposition: "the joining or separating of signs here meant is what by another name, we call proposition" (IV.v.2/574). Consequently, "truth properly belongs only to propositions: whereof there are two sorts, viz. Mental and Verbal; as there are two sorts of signs commonly made use of, viz. ideas and words." (IV.v.2/574). So, propositions are formed by joining or separating signs. Signs come in two kinds, words or ideas. When ideas are joined, a mental proposition is formed. When words are joined, a verbal proposition is formed.

Locke then defines truth for each kind of proposition: "when ideas are so put together, or separated in the mind, as they, or the things they stand for do agree, or not, that is, as I may call it, mental truth. but the truth of words is something more, and that is the affirming or denying of words one of another, as the ideas they stand for agree or disagree" (IV.v.6/576). Most importantly for our current purposes, however, Locke distinguishes two kinds of verbal

truth: “And this [verbal truth] again is twofold. Either *purely* verbal, and trifling, which I shall speak of, chap. [8], or real and instructive; which is the object of that real knowledge, which we have spoken of already [in IV.iii]” (IV.v.6/576). That is, the distinction between trifling and instructive propositions is a distinction that is explicitly tied to *verbal propositions* and their truth. Knowledge, of course, can go beyond verbal propositions and includes mental propositions and their truth.

Indeed, Locke repeatedly emphasizes throughout chapter IV.8 that trifling knowledge at best restates the idea signified by a word (in some cases of purely identical propositions, it is merely a word repeated, as in “whatever is, is”¹⁰⁷):

When a part of the complex idea is predicated of the name of the whole; a part of the definition of the word defined... (IV.viii.4/612; emphases added)

Alike trifling it is to predicate any other part of the definition of the term defined, or to affirm any one of the simple ideas of a complex one, of the name of the whole complex idea... (IV.viii.5/612; emphases added)

Such propositions can only serve to shew the disingenuity of one who will go from the definition of his own terms, by reminding him sometimes of it; but carry no knowledge with them, but of the signification of words, however certain they be. (IV.viii.5/613; emphases added)

...he might, no doubt, with great certainty, universally affirm one, more, or all of these together of the word ‘homo’, but did no more than say, that the word ‘homo’ in his country comprehended in its signification all these ideas. (IV.viii.6/613; emphases added)

Neither having the notion of god, nor being cast into sleep by opium being contained in the idea signified by the word ‘man’, we are by such propositions taught something more than barely what the word ‘man’ stands for: and therefore the knowledge contained in it is more than verbal. (IV.viii.6/614; emphases added)

And this is no farther tolerable, than where a man goes to explain his terms, to one who is supposed or declares himself to understand him: and then it teaches only the signification of that word, and the use of that sign. (IV.viii 7/61; emphases added).

¹⁰⁷ This and many more examples of purely identical propositions are taken from 4.8.2.

All propositions, wherein a part of the complex idea, which any term stands for, is predicated of that term, are only verbal...and thus all propositions wherein more comprehensive words, called general, are affirmed of subordinate, or less comprehensive, called species, or individuals, are barely verbal. (IV.viii.13/617; emphases added)

Locke could not be more clear, then, that the distinction between trifling and instructive knowledge is a distinction between verbal propositions in which we ultimately say nothing more than what we mean by our terms and verbal propositions in which we say more.

Thus, simply by distinguished trifling and instructive propositions and claiming that we can have knowledge of either proposition, Locke does not rule out that knowledge is a matter of idea-containment. Trifling knowledge is explicitly tied to words. In particular, it is tied to the definition of terms. Instructive knowledge, however, is also only relevant when explicitly connected to language—that is, only in the case of verbal propositions. In other words, *knowledge of mental truths is neither trifling nor instructive*. The distinction between trifling and instructive knowledge only applies to verbal propositions. Thus, an idea containment that is not tied to the definition of a term is not, in and of itself, a piece of trifling knowledge.

Nevertheless, one may still worry that if you combine two claims above we may be able to again make trouble for the claim that knowledge is defined in terms of idea-containment. First, I explained that Locke's success in analyzing trifling knowledge as idea-containment has led Locke's readers to *confuse* idea-containment, which Locke uses to define knowledge, with concept-containment, which Locke analyzes as a special case of idea agreement. To counter that confusion, I noted that concepts are just a kind of idea, namely, *nominal* essences. But if nominal essences provide Locke's account of what we might call concepts, then won't all of our knowledge be subject to the distinction between trifling and

instructive knowledge because all of our knowledge trades in concepts in some way or other? Indeed, after distinguishing verbal and mental propositions Locke himself goes on to warn that basically all of our knowledge concerns verbal propositions and, moreover, that it is virtually impossible for us to escape language. Though Locke insists that we must be careful to distinguish verbal from mental truths, as he has, he worries:

[B]ut yet it is very difficult to treat of them asunder. Because it is unavoidable, in treating of mental propositions, to make use of words: and then the instances given of mental propositions cease immediately to be barely mental and become verbal. For a mental proposition being nothing but a bare consideration of the ideas, as they are in our minds stripp'd of names, they lose the nature of purely mental propositions as soon as they are put into words. (IV.v.3/574)

Mental propositions are an extremely fragile thing. So fragile, in fact, that they cannot even be talked about. One might then worry that basically all truths we concern ourselves with are going to be verbal truths of one kind or another. The fact that the trifling/instructive distinction applies to only verbal propositions therefore cannot be used to so easily slough off the threat posed to the idea-containment interpretation by the possibility of instructive knowledge.

Even worse, Locke himself appears to eschew the notion of containment when contrasting trifling and instructive knowledge. When it comes to verbal propositions:

We can know the truth of two sorts of propositions, with perfect certainty; the one is, of those trifling propositions, which have a certainty in them but 'tis but a verbal certainty, but not instructive. And secondly, we can know the truth, and so may be certain in propositions, which affirm something of another, which is a necessary consequence of its precise complex idea, but not contained in it. (IV.viii.5/614; emphasis added)

Locke seems to explicitly contrast trifling, merely verbal knowledge with knowledge that *does not* involve containment. Though apparently devastating, this text does not represent an abandonment by Locke of the idea-containment account of knowledge. To begin to see how

this text is fully compatible with the idea-containment account of knowledge when properly understood we can turn to Locke's example of the second kind of case. I will argue that Locke employs the notion of idea-containment in making sense of 'consequence' in this passage.

Locke turns to mathematics for an example of a non-trifling knowledge. Following immediately on the passage cited above, Locke writes, "as that the external angle of all triangles is bigger than either of the opposite internal angles; which relation of the outward angle, to either of the opposite internal angles, making no part of the complex idea, signified by the name triangle, this is a real truth, and conveys with it instructive real knowledge" (IV.v.8/614). The proposition known is that the external angle of all triangles is bigger than either of the opposite internal angles. This is proposition 1.16 in *Euclid's Geometry* and it is given a proof. In fact, we can give at least two proofs, depending on the nominal essence of 'triangle' we start with. It will help to see both proofs so that we can see how idea-containment drives Locke's account of instructive knowledge even though it isn't the same idea-containment which explains trifling knowledge. That is, the idea-containment which drives our instructive knowledge of Euclid's proposition 1.16 is *not* going to be that our nominal essence for 'triangle' somehow contains the idea associated with the verbal proposition expressed in Euclid's proposition 1.16.¹⁰⁸ Nevertheless, I will now argue that idea-containment still drives Locke's account of instructive knowledge.

¹⁰⁸ Newman (2007) seems to hold this view. Newman argues for an idea-containment understanding of Locke's definition of knowledge. He explains Locke's allowance of instructive knowledge by distinguishing idea-containment from epistemic containment. All knowledge is a matter of idea-containment, according to Newman. However, sometimes our ideas are not sufficiently clear for us to see all that is within them. Teasing out what is in them, according to Newman, gives us instructive knowledge: "A proposition may be analytic in the sense of idea-containment without being trifling in Locke's sense" (Newman 2007, 338). All knowledge, according to Newman, is a matter of idea-containment. Our ideas just happen to be occluded with respect to their genetic structure. This is *not*, I will show, the way in which idea-containment functions for Locke.

Let's start with Euclid's own proof. Figure 1 below will help illustrate the proposition.

Figure 1

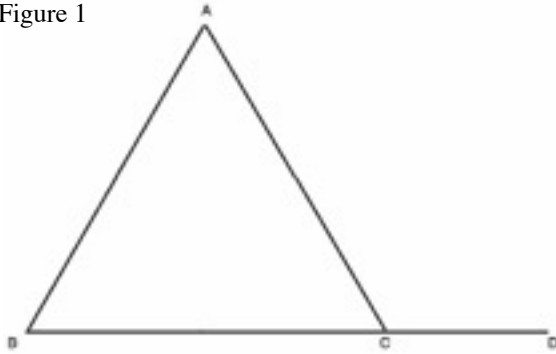
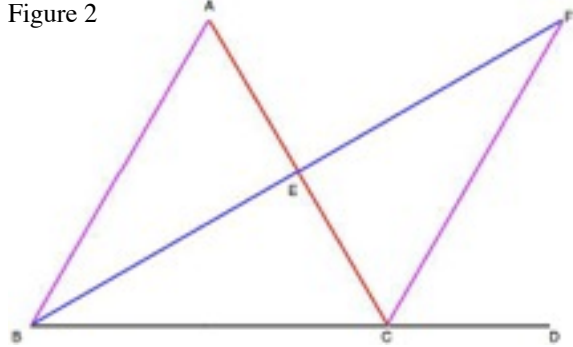


Figure 2



Proposition 1.16 states that angle ACD in figure 1, the exterior angle, is greater than either angle ABC or angle BAC, the two opposite interior angles. To prove this claim, Euclid constructs Figure 2. Figure 2 is constructed from Figure 1 in the following way. Starting with any triangle, draw line BE, which bisects line AC (proposition 1.10 shows how to bisect any given finite line). Then draw a line EF which is the same length as line BE (proposition 1.3 shows how to draw a line of the same length as another), to form line BF. To make the proof easier to follow I have color-coded the lines to show that each line of the same color is the same length. AE and EC are the same length because E, by construction, is the midpoint of line AC. BE and EF are also the same length by construction. Angle FEC and angle AEB are equal angles because they are opposite angles (demonstrated in proposition 1.15). Since we have constructed AE and EC to be equal in length, and constructed BE and EF to be equal, and the angles of AEB and FEC are equal, we know that the lines AB and FC are equal as well. Consequently, triangle ABE and FEC are equivalent and the angles which subtend each of the corresponding sides also correspond and are equal. We are here concerned with angle BAE, which subtends side BE. Angle ECF subtends the corresponding side, EF, and so angles BAE and ECF are equal. Angle ECF, however, is less than angle ACD. So, angle BAC

is smaller than angle ACD. We can repeat this proof for angle ABC by extending AC to another point, call it G on a straight line that continues AC, and then follow the same construction procedure by bisecting line BC with a line from point A. So, angles ABC and BAC are smaller than the exterior angle.

The proof is what Locke calls a demonstration. Demonstration, according to Locke, involves the mediated perception of agreement between ideas (IV.ii.2-14/531-6). The mediated perception of agreement is mediated by immediate perceptions of agreement. In this case, the intermediate steps allow us to compare angle BAC with angle ACD because we cannot do so directly.¹⁰⁹ First, (a) we see that angles AEB and FEC are equal, then (b) that the two triangles in question are equal, and finally (c) that angles BAE and ECF are equal. This gives us a way to compare BAC with ACD by (d) having an angle equal to BAC directly comparable with—it is, in fact, inside of—angle ACD. At each stages there is an idea containment, but we must be careful in stating carefully what that containment is.¹¹⁰

¹⁰⁹ My aim in running through this proof is merely to illustrate the way idea-containment functions in Locke's account. I will therefore gloss over previous proofs that underwrite certain steps in Euclid's proof of 1.16. For purposes of illustration, we could always make such proofs trifling by assuming them in the nominal essence of 'equal line' or 'opposite angle', etc.

¹¹⁰ Interestingly, Locke refers to a similar method of proof for an earlier proposition in Euclid's geometry in which it is proved that the sum of the internal angles of a triangle are equal to the sum of two right angles. He refers to this proof in explaining what demonstration is and how it goes beyond intuition. Locke is drawn to the way in which the proof makes angles that are otherwise not directly comparable by finding appropriate intermediaries: The reason why the mind perceive presently the agreement or disagreement of two ideas is, because those ideas, concerning whose agreement or disagreement the enquiry is made, cannot by the mind be so put together, as to shew it. In this case then, when the mind cannot so bring its ideas together, as by their immediate comparison, and as it were juxtaposition, or application one to another to perceive their agreement or disagreement, it is fain by the intervention of other ideas (one or more, as it happens) to discover the agreement or disagreement which it searches; and this is that which we call reasoning. Thus the mind being willing to know the agreement or disagreement in bigness between the three angles of a triangle and two right ones cannot by an immediate view and comparing of them do it: because the three angles of a triangle cannot be brought at once, and be compared with any other one, or two angles; and so of this the mind has no immediate, no intuitive knowledge. In this case the mind is fain to find out some other angles to which the three angles of a triangle have an equality; and finding those equal to two right ones, comes to know their equality to two right ones." (IV.ii.2/531-2)

To properly understand Locke's account of demonstrations, is important to remember that Locke's account of the knowledge here is just supposed to be an analysis. Locke's theory takes it as a given *that* one grasps the equality or difference at each step of the proof. Locke's theory then analyzes what that grasping, or, as Locke himself calls it, intuiting, consists in. It consists in the perception of an idea-containment. Locke's theory does *not* tell us anything about the *insight* that led Euclid, or whoever, to discover this proof or how they came to figure out how to neatly organize their definitions and axioms to cleanly lay out the proof in an easy to follow way. Locke calls these abilities 'sagacity' and 'illation': "by the one [sagacity] it finds out, and by the other [illation] it so orders the intermediate ideas, as to discover what connection there is in each link of the chain whereby the extremes are held together" (IV.xvii.2/668). By sagacity, some creative ancient geometer figured out all the intermediate equalities by which we could ultimately compare an interior angle of a triangle with an exterior angle. By illation, some rigorous, clear thinking ancient figured out how to clearly display and order the intermediary steps so that each equality could be clearly grasped. Locke gives no account of these abilities. Instead, Locke's theory of knowledge analyzes the intuitive grasp of each equality in the proof laid out:

So that we may in reason consider these four degrees; the first and highest, is the discovering, and finding out of proofs [sagacity]; the second, the regular and methodical disposition of them, and laying them in a clear and fit order, to make their connection and force be plainly and easily perceived [illation]; the third, is the perceiving their connection [intuition]; and the fourth, the making a right conclusion. (IV.xvii.3/669; emphasis added)

The fourth step is connecting the end points of the demonstration. So, if we prove that A is D by seeing that A is B, B is C, and C is D, the fourth step is connecting A with D; considering the chain as a whole that links its endpoints rather than attending to each link in the chain.

Our current concern is just to see that Locke's definition of knowledge as the perception of

agreement or connection between ideas applies (as this passage makes clear) to the *third* 'degree' of reason. Locke's epistemology has nothing to say about the first and second epistemic virtues. It offers only an analysis of the third (and a reductive account of the fourth in terms of the third; demonstration is nothing but a chain of intuition).

In the proof of Euclid's proposition 1.16, the relevant intermediate stages are instances of grasping the equality between two lines, two angles, or two triangles. At stage (a), one grasps that two angles are equal. According to Locke, this is a matter of immediately perceiving an agreement between two ideas. It is a matter of perceiving an idea-containment. The idea containment is the following. In comparing the two angles, one perceives an idea of the relation between angles AEB and FEC. *That* one grasps the equality between the two angles is explained by Locke as a matter of perceiving an idea of the relation between the two angles which has, as a component, the ideas which make up one's general idea of the relation of equality. Or, in better Lockean terms, in grasping the equality of the angles, one's idea of their relation includes the nominal essence of 'equal'. At stage (b), in grasping the equality of triangles AEB and FEC, one's idea of the relation between the two triangles likewise contains the nominal essence of 'equal'. At stage (c), in grasping the equality of angles BAE and FEC, one's idea of the relation between the two triangles also contains the nominal essence of 'equal'. Finally, at stage (d), one's idea of the relation between angles ECF and ACD contains the nominal essence of 'larger'. Through this chain of perceptions of idea-containments we grasp that each of the interior angles of a triangle is less than the opposing external angle.

Locke's account of abstraction neatly supports this account of knowledge in terms of idea-containment. Locke (in)famously claims that abstraction involves stripping away pieces

of an idea to produce a new abstract idea.¹¹¹ The abstract idea contains whatever genetic structure is common to all the ideas it represents. Any idea of a particular always contains in it the same parts as those abstract ideas which represent it since the abstract idea is formed merely by stripping uncommon parts of ideas to yield a common remainder.

Thus, the relevant agreement in each case is just like trifling knowledge in the following respect. At each step we have some comparison between angles, or triangles, to form an idea of a relation. The idea of the relation has a particular genetic structure. Our idea of the relation of equality is an abstract idea of a relation formed by stripping various ideas down to a common genetic structure. Locke's analysis of our grasping the equality of angles and triangles in steps (a) through (c) in the proof of Euclid's proposition 1.16 is that our comparison of the angles or triangles consists in perceiving an idea of a relation that has a genetic structure which contains, as a part, the nominal essence of 'equal'. Or, in other words, the ideas of the relations between the angles or triangles are ideas which share the common genetic structure which we have abstracted out from similar ideas of relations and attached to the word 'equal'. In step (d), the idea of the relation between the angles is an idea

¹¹¹ Locke introduces abstraction as an operation of the mind at II.xi.9/159: "the mind makes the particular ideas, received from particular objects, to become general; which is done by considering them as they are in the mind such appearances, separate from all other existence, and the circumstances of real existence, as time, place, or any other concomitant ideas. This is called ABSTRACTION, whereby ideas taken from particular beings, become general representatives of all the same kind...thus the color being observed today in chalk or snow, which the mind yesterday received from milk, it considers that appearance alone, makes it a representative of all that kind; and having given it the name 'whiteness', it by that sound signifies the same quality wheresoever to be imagin'd or met with; and thus universals, whether ideas or terms, are made." Locke then returns to the topic in the context of language at III.iii.6/410-11: "Words become general, by being made the signs of general ideas: and ideas become general, by separating from them the circumstances of time, and place, and any other ideas, that may determine them to this or that particular existence. By this way of abstraction they are made capable of representing more individuals than one; each of which, having in it a conformity to that abstract idea, is (as we call it) of that sort." III.iii.7-9 contain Locke's several well known examples of abstraction from particular ideas to abstract ideas. For example, general ideas are made, "wherein [people] make nothing new, but only leave out of the complex idea they had of Peter and James, Mar and Jane, that which is peculiar to each, and retain only what is common to them all" (III.iii.7/411).

which shares the common genetic structure which we have abstracted from similar ideas of relations and attached to the word ‘greater’.

Similarly, the nominal essence for ‘gold’ includes the ideas which compose the nominal essence for ‘metal’ as parts. The nominal essence for gold is therefore possible for fodder for abstracting to a nominal essence of ‘metal’. It has a part which is common to other ideas of metals from which we abstract to form an idea of metal. Thus, idea-containment is at the bottom of Locke’s analysis of both trifling knowledge and intuition at each stage in a demonstration. Unlike trifling knowledge, however, our knowledge of Euclid’s proposition 1.16 is not merely definitional. Our idea of ‘triangle’ does not contain in it 1.16. The proof above follows from a nominal essence of ‘triangle’ which includes in it the ideas of a closed, three sided figure. From that notion, Euclid’s proof gives a general construction procedure to show how, for any triangle, the exterior angle is larger than either of the opposing interior angles. It is therefore instructive *with respect to that nominal essence*. Other proofs of the same claim are possible from different nominal essences for ‘triangle’. This point highlights the important sense in which trifling knowledge is a distinction that is very closely tied to language and not one that has to do directly with idea-containment. We can further illustrate this point by briefly considering another proof of Euclid’s proposition 1.16 that starts from a different nominal essence of ‘triangle’.

Suppose, for example, that one’s nominal essence includes that the sum of the interior angles is 180° . We can then get the following proof of Euclid’s 1.16. Consider again figure 1.

1. By the nominal essence of triangle, the sum of angles ABC, BCA, and CAB is 180° .
2. The sum of angles BCA and ACD is 180° .¹¹²

¹¹² Assume that the linear pair axiom is part of one’s nominal essence for ‘line’.

3. So, the sum of angles ABC, BCA, and CAB is equal to the sum of angles BCA and ACD.
4. We can subtract angle BCA from both sums to get that the sum of angles ABC and CAB is equal to angle ACD.
5. Since both angles ABC and CAB are greater than zero, ACD is greater than either of them.

Again, though the proof is different, at each stage of the proof there is an idea-containment according to Locke. At step 3, the idea of the relation between the sum of angles ABC, BCA, and CAB, and the sum of angles BCA and ACD, contains in it the nominal essence of 'equal'. Similarly for the idea of the relation between the sum of angles ABC and CAB and angle ACD. Finally, the idea of the relation between angle ACD and angle ABC contains the nominal essence of 'greater', as does the idea of the relation between angle ACD and angle CAB.

Finally, then, let's return to the apparent challenge to the idea-containment picture. Locke claimed that in instructive knowledge, unlike in trifling knowledge, there is not idea-containment. In a sense, as I have shown above, this is true. The nominal essence of 'triangle' does not contain in it, as a part, that any of its exterior angles is greater than either of their opposing interior angles. Instead, Locke claims, in instructive knowledge, it is a *consequence* of the idea of the triangle that its exterior angles are larger than either opposing internal angles. In each of the proofs we have seen how this instructive bit of knowledge follows from the nominal essence for 'triangle'. Each proof begins from the nominal essence of triangle and ends with a comparison of two angles, one of which corresponds to an interior angle of the triangle and is smaller than the exterior angle. Each step in each proof nevertheless involves nothing but an idea-containment. Thus, Locke's account of the way in which knowledge goes beyond trifling knowledge in fact depends on idea-containment no less than his account of trifling knowledge. Locke's point in the apparently threatening

passage is just that *there no idea-containment with respect to the nominal essence for 'triangle'*. It is not that there is no idea-containment at all in the knowledge. Of course, one could make Euclid's proposition 1.16 a bit of trifling knowledge by building it in to one's nominal essence of 'triangle'. Perhaps professional geometers do. Certainly most people's nominal essence for 'triangle' does not.

Summarizing the results of this section, knowledge is the perception of agreement between ideas. Idea-agreement is idea-containment. This interpretive thesis rests on two pillars in Locke's *Essay*. First, the interpretive thesis is alone in making sense of Locke's own description of his project in which he aims to explain knowledge and opinion in terms of the origins of ideas. Locke explains knowledge and opinion as distinct genetic structures. Second, Locke's own applications of his definition make manifest that Locke himself takes idea-agreement to be idea-containment. Finally, the worry that Locke's distinction between trifling and instructive knowledge entails that idea-agreement is more than idea-containment is baseless. Locke's only point is that instructive knowledge does not involve predicating a part of a nominal essence to the whole. The instructive consequences of that idea are nevertheless fully analyzed in terms of idea-containment.

Having seen that knowledge is the perception of idea-containment we are now prepared to move on to apply this account of knowledge to knowledge of the external world. To prepare for that we must have a closer look at how Locke understands the phenomena to be analyzed.

2.2 Knowledge of the existence of the external world: Sensitive knowledge of real existence

To properly set the stage for Locke's analysis of knowledge of the existence of the external world it is important to first understand what Locke takes himself to be analyzing.

We need a clear view of the standards or desiderata Locke takes his analysis to be responsible to. In this section I will lay out the four main desiderata that Locke puts forth as constraints on his account of knowledge of the existence of the external world:

1. Knowledge of the existence of the external world is knowledge of the existence of finite substances distinct from our minds.
2. Knowledge of the existence of the external world is limited to current sensory experience.
3. Knowledge of the existence of the external world is achieved in sensory experience and *not* through reason.
4. Knowledge of the existence of the external world tied to our awareness of passivity in sensory experience.

2.2.1 Knowledge of the existence of finite substances distinct from our minds

Locke is unwaveringly clear that knowledge of the existence of the external world just is knowledge of the existence of finite substances distinct from our minds. Consider the following passages:

- (a) There is, indeed, another perception of the mind, employ'd about the particular existence of finite beings without us... (IV.ii.14/537)
- (b) In the context of discussing the limits of our knowledge: “[knowledge of the external world] reaching no farther than the existence of things actually present to our senses... (IV.iii.5/539)
- (c) Hitherto we have only considered the essences of things, which being only abstract ideas, and thereby removed in our thoughts from particular existence...gives us no knowledge of real existence at all...let us proceed now to enquire concerning our knowledge of the existence of things, and how we come by it. I say then, that we have knowledge of our own existence by intuition; of the existence of God by demonstration; and of other Things by sensation. (IV.ix. 1-2/618)
- (d) The title of chapter IV.xi, in which Locke gives his analysis of knowledge of the existence of the external world: “Of our Knowledge of the existence of other Things”
- (e) The knowledge of our own being, we have by intuition. The existence of a God, reason clearly makes known to us, as has been shown. The knowledge of the existence of any other thing we can have only by sensation. (IV.xi.1/630)

- (f) No particular man can know the existence of any other Being, but only when by actual operating him it makes it self perceived by him. For the having the idea of any thing in our mind, no more proves the existence of that thing, than the picture of a man evidences his being in the world, or the visions of a dream make thereby a true history (IV.xi.1/630)
- (g) 'Tis therefore the actual receiving of ideas from without, that gives us notice of the existence of other things, and makes us know that something doth exist at that time without us, which causes that idea in us...(IV.xi.2/630)
- (h) The notice we have by our senses of the existing of things without us, thought it be not altogether so certain as our intuitive knowledge or the deductions of our reason employ'd about the clear abstract ideas of our own minds; yet it is an assurance that deserves the name of knowledge. (IV.xi.3/631)

This is a long list of passages with clear theme. Locke only intends to analyze knowledge of the existence of other finite substances that are distinct from our own mind. Passages (c) and (e) emphasize that when it comes to knowledge of what exists there are only three kinds of existential knowledge claims he is concerned with: knowledge that our own mind exists, knowledge that God exists, and knowledge that finite individuals distinct from our minds exist. Sometimes Locke calls this last category 'knowledge of the existence of other things', and by 'other' Locke means, 'other than our own mind and God'. As we saw in Chapter 1 above, things are what Locke calls substances. Thus, knowledge of the existence of the external world, for Locke, is knowledge of the existence of substances that are neither our mind nor God. Such knowledge is merely knowledge of the existence of finite substances distinct from our mind. It is *not* knowledge that penetrates to the essence of any substance. It is not knowledge of the natural kinds that populate the world. It is merely knowledge that something exists.

2.2.2 Knowledge of the external world is limited to current experience

In addition to restricting knowledge of the external world to knowledge of existence, Locke limits knowledge of the external world to the objects of current sensory experience.

This theme is evident in passages above, such as, for example, passage (g), in which Locke insists that knowledge of the external world depends on the *actual* receiving of ideas. Locke makes this point explicit in other passages:

For if I saw such a collection of simple ideas as is wont to be called man, existing together one minute since, and am now alone, I cannot be certain, that the same man exists now, since there is no necessary connection of his existence a minute since, with his existence now: by a thousand ways he may cease to be since I had the testimony of my senses for his existence. And if I cannot be certain that the man I saw last today is now in being, I can less be certain that he is so, who hat been longer removed from my senses, and I have not seen since yesterday, or since last year...
IV.xi.9/635

According to Locke, then, the knowledge of the external world he is concerned to analyze is knowledge of the current existence of current objects of sensory experience. It may be very probable that former objects of sensory experience continue to exist even though we do not now see, hear, feel, or smell them. Nevertheless, Locke insists, we do not *know* that such objects continue to exist. His analysis only applies to knowledge that current objects of sensory experience now exist.

2.2.3 Knowledge of the external world is sensitive, rather than rational, knowledge

The next desiderata for accounts of knowledge of the external world, according to Locke, is that such knowledge is obtained by sensory experience rather than by reason. This point is evident in several of the passages cited above in 2.2.1. Locke's clearest statement of this fact comes in the sentence preceding passage (a) above. Summarizing the discussion of intuition and demonstration in IV.ii, Locke writes:

These two, (viz.) intuition and demonstration, are the degrees of our knowledge; whatever comes short of one of these, with what assurance soever embraced, is but faith or opinion but not knowledge, at least in all general truths. There is, indeed, another perception of the mind, employ'd about the particular existence of finite beings without us...(IV.ii.14/536-7)

The main interest of this passage here is that intuition and demonstration are *not* the means by which we know the existence of other things distinct from the mind. Such knowledge is “another perception of the mind”. Locke explicitly states in passage (e) above that this “other perception” is sensation. In chapter IV.xvii, “Of Reason”, Locke again explicitly restricts the application of the term “reason” to demonstration (which is built out of intuition) and probable reasoning, excluding sensation. Locke poses a potential worry in which he explicitly contrasts sense with reason:

If general knowledge, as has been shown, consists in a perception of the agreement or disagreement of our own ideas; and the knowledge of the existence of all things without us...be had only by our senses, what room then is there for the exercise of any other faculty, but outward sense or inner perception? What need is there for reason? (IV.xi7.2/668).

Locke goes on to note that there is in fact a large role for reason to play with respect to knowledge and probable opinion (it is, for example, the basis of instructive knowledge, as we have seen above). The important point to note for now is that Locke contrasts knowledge of the existence of other things with reason. Such knowledge is not *inferred* through reason. Thus, Locke will offer no *proof* of the existence of the external world. There are no premises concerning, say, our ideas, which entail the existence of the external world. Rather, such knowledge is achieved in sensory experience.

Passages (f), (g), and (h) similarly emphasize that knowledge of the external world is achieved *only* in sensory experience. Each of these passages state that it is only by sensation that we know the existence of things distinct from our mind. In order to mark the distinct role of sensory experience in such knowledge, Locke calls knowledge of the external world

‘sensitive knowledge of real existence’, or ‘sensitive knowledge’.¹¹³ I will follow his terminology.

2.2.4 Sensitive knowledge and passivity

Finally, Locke ties knowledge of the existence of the external world to our awareness of our passivity in sensory experience. That is, according to Locke: we are in some respect passive in sensory experience; we are aware of that passivity; and finally, our awareness of that passivity plays an important role in our sensitive knowledge (though, to be sure, it is not a premise from which we infer the existence of the external world).

The discussion of simple ideas in Chapter 1 and the broad shape of Locke’s theory of ideas has shown that there is at least one passive component to sensory experience: the reception of simple sensory ideas. Simple ideas are ideas with respect to which the mind is passive. Sensation is a source of simple ideas. It is the source by which ideas operating on our mind through our sense organs produce simple ideas in the understanding.¹¹⁴ Moreover, we are aware of this passivity.¹¹⁵ Most importantly for current purposes, Locke connects our awareness of this passivity in sensory experience with sensitive knowledge. After locating sensitive knowledge in sensory experience, Locke writes, “‘Tis therefore the actual receiving of ideas from without, that gives us notice of the existence of other things, and makes us know that something doth exist at that time without us which causes that idea in us, though perhaps we neither know nor consider how it does it” (IV.xi.2/630; emphasis added). In other words, we are passively affected by objects operating on us, we are aware of our passivity in

¹¹³ From IV.ii.14/538: Locke allows, “these three degrees of knowledge, ‘intuitive, demonstrative, and sensitive...”

¹¹⁴ On the passivity of sensation, see II.i.2-5, II.i.25, II.ii, II.xxx, II.xxxi.

¹¹⁵ On our awareness of passivity in sensation, also see II.xxi.4-5, IV.ii.14, IV.ix

that respect, and our knowledge of the existence of the thing which affects us reflects our awareness of our passivity with respect to it. We know that something exists which affects us by producing ideas in us.

Locke's four desiderata for an analysis of sensitive knowledge constrain interpretations of Locke's account of sensitive knowledge in the following way. Whichever ideas we posit as agreeing in Locke's analysis of sensitive knowledge should explain why Locke thinks an analysis of sensitive knowledge in terms of *those ideas* meet the four desiderata sketched in this section.

2.3 Locke on sensory experience: simple ideas and substance ideas

In this section I will argue that the relevant idea-containment revealed by Locke's account of sensory experience is between a simple idea and a substance idea. The substance idea contains the simple idea. Locke's only explicit discussion of which ideas are perceived to agree in sensitive knowledge occurs in his correspondence with Stillingfleet. I will quote Locke's response at some length since several aspects will be important going forward:

(S) "In the last place your Lordship argues, that because I say, That the Idea in the Mind proves not the Existence of that thing whereof it is an Idea; therefore we cannot know the actual Existence of any thing by our Senses; because we know nothing, but by the perceived Agreement of Ideas. But if you had been pleased to have consider'd my Answer there to the Scepticks...you would, I humbly conceive, have found, that you mistake one thing for another, viz. the Idea that has by a former Sensation been lodged in the Mind, for actually receiving any Idea, i.e. actual Sensation, which I think I need not go about to prove, are two distinct things, after what you have here quoted out of my Book. Now the two Ideas, that in this case are perceived to agree, and do thereby produce Knowledge, are the Idea of actual Sensation (which is an Action whereof I have a clear and distinct Idea) and the Idea of actual Existence of something without me that causes that Sensation." (Works, 12th ed., vol. 4, p.360).

(S) contains Locke's clearest, most explicit statement of which ideas agree: the idea of actual sensation, and the idea of actual existence of something without me that causes that

sensation. Notice, however, that these phrases — ‘the idea of actual sensation’ and ‘the idea of actual existence of something without me that causes that sensation’ — are ambiguous.¹¹⁶

Consider first the ambiguity afflicting ‘the idea of actual sensation’. This phrase can be read in at least the following two ways. First, this phrase can be read as characterizing the idea by stating what it is an idea *of*, characterizing the idea in terms of its content. That is, the idea referred to by this phrase is an idea of a certain mode of cognition, namely, sensation, and this mode of cognition is distinct from other forms of cognition, such as memory or imagination. If this is correct then the idea would be what Locke calls an idea of reflection, an idea of the operations of one’s mind. Such an idea might function as a cognitive-faculty indicator within experience indicating that one is engaged in sensation, like a timestamp on a camcorder. Call this idea ‘the idea of sensation’. Alternatively, the phrase could be characterizing an idea by describing its origins and hence by the kind of idea it is within in Locke’s taxonomy of ideas. In this case, Locke’s point would be that the idea is a sensory idea, an idea received through sensation. For purposes of contrast, we can call such ideas ‘sensory ideas’ rather than ‘idea of sensation’.

A similar ambiguity afflicts the second phrase: ‘the idea of actual existence of something without me that causes that sensation’. Namely, ‘the Idea of actual Existence of something without me that causes that Sensation’ can be read as describing an idea by articulating its content. In this case the idea would be an abstract idea whose content is as spelled out between the quotation marks. Call this idea ‘the idea of existence’. Alternatively, the phrase could be characterizing a class of ideas by describing some feature of a category

¹¹⁶ We have already seen in chapter 1 an example of a similar problem. Locke and his readers are often not careful to distinguish in their readings of phrases like ‘idea of red’ between a simple idea produced in one by an object operating on one’s senses, such as a particular red visual sensation, and an idea of that object’s color, which is an idea of a quality, a complex idea of a power to produce that particular red visual sensation.

of ideas within Locke's taxonomy of ideas. As we saw in chapter 1 above, ideas of substances are ideas of things which exist and affect our minds in various ways. Locke's phrase, then, can be read as a description of a certain category of ideas within his taxonomy of ideas: ideas of substances in sensory experience. Thus, there are at least four possible ways to interpret the last sentence in (S), corresponding to combinations of the two possible interpretations of each of the two key phrases. These possibilities are encapsulated in Table 1:

Table 1	Characterization by content-specification	Characterization by place in Locke's theory of ideas
'Idea of actual sensation'	the idea of sensation	simple sensory idea
'Idea of actual existence of something without me that causes that sensation'	the idea of existence	substance idea

We can take each phrase in (S) as characterizing an idea either by specifying its content or its describing it within Locke's taxonomy of ideas.¹¹⁷ If both phrases are interpreted as characterizing the ideas which agree by specifying their content, then we have an agreement between the idea of sensation and the idea of existence. This interpretation has been defended

¹¹⁷ This characterization of the two ways of reading the phrases may be a little misleading. After all, all ideas are particular existences for Locke. In the previous two paragraphs I have clearly specified the ambiguity for each phrase. The terminology here is merely a tool to help compare the different kinds of interpretations of (S) that arise from the dual ambiguities.

by Nagel (forthcoming), Allen (forthcoming), and Newman (2007) and (2004).¹¹⁸ If the first phrase is interpreted as characterizing an idea by describing some of its distinguishing features within Locke's taxonomy of ideas and the second phrase is interpreted as characterizing an idea by specifying its content, then we have an agreement between a sensory idea and the idea of the existence. Owen (MS) defends this interpretation. If the first phrase is read as specifying the content of the idea and the second phrase as characterizing an idea by describing some of its features within Locke's taxonomy of ideas, the agreement is between the idea of sensation and a substance idea. No interpreters have suggested this interpretation.¹¹⁹ Finally, if both phrases are interpreted as describing ideas in terms of their features within Locke's taxonomy of ideas, we have an agreement between a sensory idea and a substance idea. No one has defended, or even recognized this possibility before; nevertheless, I will argue that it is the best interpretation of (S). I will defend this interpretation one idea at a time, beginning with the claim that the phrase 'idea of actual sensation' is a description of simple sensory ideas.

¹¹⁸ To be fair, both of these views incorporate sensory ideas into their accounts. For Nagel, such ideas are associated with the idea of sensation (i.e. an idea of a mode of cognition) during sensory experience. On Nagel's interpretation, a sensory idea is then said to agree with an idea of existence insofar as that sensory idea is associated with the idea of sensation (the mode of cognition) and the idea of sensation is perceived to agree with the idea of existence. Newman similarly extends his interpretation of sensitive knowledge beyond the mere perceived agreement of the idea of sensation and the idea of existence. The agreement between the idea of sensation and the idea of existence is, for Newman and Nagel, the same as the agreement between ideas in general knowledge, say, when one knows that gold is yellow. In fact, one might almost say that such knowledge is trifling. On Newman's view, sensitive knowledge also incorporates sensory ideas by virtue of the mind judging its agreement with an external archetype. Judgment, according to Locke, is a presumed agreement. For Newman, then, sensitive knowledge involves two distinct cognitive acts: the perceived agreement between the idea of sensation and the idea of existence; the judged agreement between the sensory idea and its external cause. As we will shortly see these views fail to assimilate Locke's account of sensitive knowledge to his definition of knowledge.

¹¹⁹ There is some room to Nagel's view in here; I've done her the courtesy of moving to talk of what is strictly speaking sensation; not what are ideas in sensory experience, such as a particular rose that one sees. Such ideas are complex, and Nagel is only concerned to apply her account to sensation. I've done this to prevent her view from being straightforwardly falsified before it even gets off the ground.

Before turning to arguments in favor of my view, I should note that there is not much need to argue *against* existing views in the secondary literature. This is because none of the existing views claim that their interpretation successfully reconciles Locke's account of sensitive knowledge with Locke's definition of knowledge. Each interpreter only claims that their account of sensitive knowledge as a perception of agreement between ideas is only a perception of agreement in an extended, looser sense rather than a perception of agreement in a stricter sense.

According to Owen, for example, the perceived agreement between a sensory idea and an idea of existence is what marks out sensation from other modes of cognition such as imagination. The agreement of these ideas is, according to Owen, a matter of their association through temporal simultaneity. Owen admits that his account of the agreement of ideas in sensitive knowledge does not conform to the kind of agreement between ideas that holds in intuitive and demonstrative knowledge, and that if Locke would have stuck to his guns, he, like Hume, would have seen that this was not really knowledge by his own definition at all. In the end, then, this interpretation (as well as Nagel's insofar as it makes use of an association of ideas between a sensory idea and the idea of actual sensation to account for sensitive knowledge) does not quite solve the puzzle of how sensitive knowledge can be understood in terms of Locke's definition. Worse for these interpretations, 2.33 of the *Essay* makes quite clear that Locke takes the kind of brute association of ideas invoked by Owen and Nagel to be the grounds of irrational and unreasonable opinion. An association of ideas doesn't merely fail to provide grounds for knowledge, it is not even a ground of reasonable opinion according to Locke. It is instead the ground of irrational opinions that Locke calls a form of madness.

Though Newman does not draw on an association of ideas, his interpretation similarly only makes good on Locke's account of sensitive knowledge as a form of knowledge in an extended sense. According to Newman, sensitive knowledge involves a perception of agreement as well as a presumption of agreement; that is, it involves both knowledge and opinion. Sensitive knowledge involves a perception of agreement between the idea of sensation the idea of existence. This piece of knowledge is more or less trifling knowledge: in calling it an idea of *actual* sensation, you are saying there's some real existent which produces the sensation. In addition to this perception of agreement, however, Newman adds that there is a presumption of agreement between the idea of existence and the existing cause in the world. The problem with this view is straightforward. Just as Locke insists that knowledge is a perception of agreement *between* ideas, he likewise insists that the presumption of agreement is *between* ideas. Newman's interpretation is therefore in no better position than those who argue that sensitive knowledge is a perception of agreement between an idea and something extra-ideational in the world. It is incompatible with Locke's own accounts of knowledge and opinion.

In contrast to these views, which are the most charitable views in the literature as far as trying to make sense of Locke's claim that sensitive knowledge is a perception of agreement between ideas, I will argue that sensitive knowledge involves the perception of agreement between ideas in a strict sense. Indeed, it involves a perception of agreement between ideas in just the way that all other knowledge does: it is the perception of idea-containment.

2.3.1 '*Idea of actual sensation*' as simple sensory idea

Let us first consider the ‘idea of actual sensation’. I will give two reasons to interpret this phrase as a description of sensory ideas. First, I will argue that the relevant idea is a sensory idea and not an idea of a mode of cognition. Second, I will argue that such ideas are simple ideas.

2.3.1.1 ‘Idea of actual sensation’ as sensory idea

The first, local textual reason to interpret ‘idea of actual sensation’ as a description of sensory ideas rather than as referring to the idea of sensation is that it fits naturally with the phrase Locke goes on to use in picking out the second idea. Locke characterizes the second idea as, ‘the idea of actual existence of something without me that causes that sensation’ (emphasis added). If ‘idea of actual sensation’ means ‘sensory idea’, a particular sensation, Locke’s use of ‘that’ in the phrase he uses to characterize the other idea perceived to agree makes good sense. It is less clear what use ‘that’ has to do if ‘idea of actual sensation’ is interpreted in a content-specifying way as an idea of a mode of cognition.

The second, broader reason to interpret ‘idea of actual sensation’ as a description of sensory ideas rather than as referring to the idea of sensation is that it makes good sense of Locke’s reply to Stillingfleet in (S) as well as many of his claims in the Essay about the importance of the obvious difference between sensation and other forms of cognition like memory or imagination. Consider the portion of (S) before the last sentence. Locke notes Stillingfleet’s objection: merely having an idea of something in mind does not prove the existence of the thing the idea is an idea of; thus, we can never know the existence of anything simply by having an idea of it. This echoes the way in which Locke begins his discussion of knowledge of the existence of other things in 4.11. He writes:

(1) The having the idea of any thing in our mind, no more proves the existence of that thing, than the picture of a man evidences his being in the world, or the visions of a dream make thereby a true history. (IV.xi.1/630).

And similarly, merely having an idea in mind can't let one know the existence of what that idea is of because there is:

(2) No necessary connection of real existence, with any idea a man hath in his memory, nor of any other existence but that of God, with the existence of any particular man. (IV.xi.1/630).

Locke's point in these passages is clear: merely having an idea of X neither is nor gives one knowledge that X exists now.

One might be tempted to understand these passages and Locke's articulation of Stillingfleet's objection as stating a veil of ideas worry: since ideas have no necessary connection with reality, there is no way to know reality on the basis of ideas. Locke's response to Stillingfleet and the way in which he follows up (1) and (2) suggest that this is not the problem Locke is concerned with. Locke's claim is more limited: not any old way of having an idea in mind lets one know the existence of something outside of one. Rather, only having a sensory idea, an idea of actual sensation will do. Remembering or imagining the idea is of no help with respect to knowing the existence of something. Consider (2) in full:

(2') The knowledge of the existence of any other thing we can have only by sensation: For there being no necessary connection of real existence, with any idea a man hath in his memory...no particular man can know the existence of any other being, but only when by actual operating upon him, it makes it self perceived by him. (IV.xi.1/630)

Similarly, Locke immediately follows (2) with passage (g) cited in section 2.2.1 above: "'Tis therefore the actual receiving of ideas from without, that gives us notice of the existence of other things, and makes us know that something doth exist at that time without us, which causes that idea in us..." (IV.xi.2/630). The key point in these passages is that sensation,

perceiving a sensory idea, allows for knowledge of the existence of other things whereas merely having an idea in mind either by imagination or memory does not. This point is at the heart of Locke's reply to Stillingfleet as well.

Locke replies to Stillingfleet by pointing back to these portions of the Essay. He writes in (S), 'you mistake one thing for another, viz. the idea that has by a former sensation been lodged in the mind, for actually receiving any idea, i.e. actual sensation, which I think I need not go about to prove, are two distinct things, after what you have here quoted out of my book.' Locke agrees, then, that not just any way of having an idea in mind will do for knowledge of the existence of other things; that is, for knowing what now exists. It is only by having a sensory idea—perceiving an idea produced in one through sensation—and not a memory idea—perceiving a recalled idea—that one can know the existence of other things. Stillingfleet, as Locke portrays him, is neglecting this distinction. Memory may let you know the past existence of things, but only sensation let's one know the existence of things now.¹²⁰ Moreover, the distinction between sensory ideas and memory ideas is one that Locke claims is as clear as a distinction between any two ideas. When Locke first discusses knowledge of the external world he insists on the importance of the manifest difference between sensory and memory ideas:

(3) But whether there be any thing more than barely that Idea in our Minds, whether we can thence certainly infer the existence of anything without us, which corresponds to that Idea, is that, whereof some Men think there may be a question made, because Men may have such Ideas in their Minds, when no such Thing exists, no such Object affects their senses. But yet here, I think, we are provided with an evidence, that puts us past doubting: For I ask anyone, whether he be not invincibly conscious to himself of a different Perception, when he looks on the Sun by day, and thinks on it by night; when he actually tastes wormwood, or smells a rose, or only thinks on that savour, or odour? We as plainly find the difference there is between any idea revived in our

¹²⁰ For further support of this point, see IV.xi.9.

minds by our own memory, and actually coming into our minds by our senses, as we do between any two distinct ideas. (IV.ii.14/537).

According to Locke there is a manifest difference between sensory ideas and memory ideas. Indeed this difference between sensory and memory ideas is so clear that it is as clear as the difference between any two ideas. Sensory and memory ideas of the sun are as distinct as the ideas of the sun and the moon. This difference is at the heart of our knowledge of the existence of other things beyond our ideas.

All of these passages suggest that sensory ideas are central to sensitive knowledge. A sensory idea, of the sun, for example, is central to knowledge that something exists without. Given that knowledge is a perceived agreement of ideas for Locke, it is reasonable to conclude that the centrality of sensory ideas to knowledge of the external world is a matter of such ideas being a constituent of the perceived agreement. In light of Locke's claim in the letter to Stillingfleet that the 'idea of actual sensation' is one of the ideas perceived to agree, we can conclude that Locke intends this phrase to be understood as a 'sensory idea'. More importantly for the current dialectical purpose of deciding between a general and particular interpretation of the phrase, it is clear that Locke nowhere invokes an idea of reflection, an idea whose content is a certain mode of cognition. Rather, he consistently points to sensory ideas.

2.3.1.2 Sensory idea as simple ideas

Having seen that we ought to interpret 'idea of actual sensation' as a description picking out sensory ideas, I will briefly make the case that sensory ideas are *simple* sensory ideas. To begin, recall from our discussion of ideas of substances that there is an important distinction within Locke's theory of ideas between sensory experience and sensation.

Sensation is, strictly speaking, a way in which ideas enter the mind; namely, by the operation

of other things on the understanding.¹²¹ The ideas that enter the mind through sensation enter ‘simple and unmixed’ (II.ii.1/118). The mind is therefore passive in sensation (and hence with respect to the reception of simple ideas into the understanding).¹²² Indeed simple ideas only enter into the mind passively.¹²³ Our sensory experience, by contrast, is far richer. It involves experience of objects, their properties and relations. As we have seen, our ideas of objects, their properties, and relations are complex ideas according to Locke. They are constructed by operations of the mind.

Next, note that when it comes to the phrase ‘sensory idea’, there is, to be sure, a sense in which memories can also be considered sensory ideas. When you remember some past experience, say, the beautiful red sunset from the night before, you remember a *sensory* experience. That is, the ideas your mind recalls are ideas that entered your mind by sensation and were composed by your mind into the experience you are now remembering.¹²⁴ This is not, however, the sense of sensory idea in which sensitive knowledge involves an ‘idea of actual sensation’. Locke’s use of ‘actual’ is intended to make this point. Ideas of ‘actual

¹²¹ “Our senses, conversant about particular sensible objects, do convey into the mind several distinct perceptions of things, according to those various ways, wherein those objects do affect us...this great source, of most of the ideas we have, depending wholly upon our senses, and derived by them to the understanding, I call sensation” (II.i.3/105).

¹²² “In this part, the understanding is merely passive; and whether or no, it will have these beginnings, and as it were materials of knowledge, is not in its own power...these simple ideas, when offered to the mind, the understanding can no more refuse to have, nor alter, when they are imprinted, nor blot them out, and make new ones in it self, than a mirror can refuse, alter or obliterate the images or ideas, which, the objects set before it, do therein produce” (II.i.25/118).

¹²³ These simple ideas, the materials of all our knowledge, are suggested and furnished to the mind, only by those two ways above mentioned, viz. sensation and reflection” (II.ii.2/119)

¹²⁴ Similarly, there is a sense in which complex ideas of substances in sensory experience are also sensory ideas: they are composed directly from the ideas received in sensation. As we will see in the next subsection, however, the phrase Locke employs the phrase ‘Idea of actual Existence of something without me that causes that Sensation’ to describe substance ideas. Since Locke seems to think that the ideas which agree are different ideas, we can safely assume that ‘idea of actual sensation’ does not describe substance ideas.

sensation' are ideas that are now actually entering your mind. As I have just argued, Locke uses this phrase to explicitly distinguish sensory ideas from memories. That is, ideas of actual sensation are strictly speaking ideas now in the understanding as a result of the operation of other things on the understanding. Such ideas are, according to Locke, simple. Thus, ideas of actual sensation are simple sensory ideas.

2.3.2 *'Idea of actual existence of something without me that causes that sensation' as substance ideas*

In this subsection I will argue that the best interpretation of Locke's phrase 'Idea of actual existence of something without me that causes that sensation' is as a description of substance ideas. We have already seen some *prima facie* motivation for this view. First, in our discussion of substance ideas in the previous chapter, I argued that such ideas are ideas of things existing which affect our minds in various ways. An idea of a substance in sensory experience, as opposed to a memory of a substance, would therefore be naturally described by Locke as an idea of an *actually* existing thing that affects our mind by producing a sensation in our understanding. Second, as we saw in the previous section of this chapter, Locke thinks that sensitive knowledge is knowledge of the existence of substances distinct from our minds. It would thus be natural if Locke analyzed sensitive knowledge partly in terms of substance ideas. In this section I will flesh out this *prima facie* motivation. In doing so I will articulate how it is Locke can make sense of ideas of substances as ideas of things *distinct* from our own minds, as ideas of things *without*. I will argue that once we understand Locke's account of sensory experience and the role of substance ideas in sensory experience, we can see why Locke would think his phrase 'Idea of actual existence of something without me that causes that sensation' would be an apt description of substance ideas in sensory experience.

My argument will unfold in four steps. First, as I have suggested above, I will argue that Locke is a constructivist about sensory experience. Second, I will briefly cover the main results from chapter 1 regarding our complex ideas of substances as it pertains to the construction of substance ideas in sensory experience. Third, I will apply that account of substance ideas to illustrate the structure of substance ideas in Locke's account of sensory experience. Finally, I will show how this model accounts for our awareness of our passivity in sensory experience and hence how substance ideas in sensory experience are ideas of actually existing things distinct from our minds producing sensations in our minds.

2.3.2.1 Locke's constructivism about sensory experience

Sensory experience is experience of objects, their properties and relations. Ideas of objects, their properties and relations are highly complex ideas according to Locke.¹²⁵ So, sensory experience is constructed by the mind from simple materials received in sensation and reflection. We have to be careful in our discussion of Locke to distinguish between sensory experience and Locke's technical use of sensation.

Sensation: A way in which simple ideas enter the understanding by the operation of other objects on the mind.

Sensory Experience: Conscious, occurrent experience that is as if of a world of objects, their properties and relations.

When it comes to sensation, the mind is passive. When it come to sensory experience, the mind is active in constructing its ideas from the materials provided by sensation. Sensation is a passive dimension to sensory experience. The ultimate result of the mind's operations is what we are familiar with upon reflecting upon our mental lives.

¹²⁵ As we saw in the Introduction above, a brief look over the structure revealed by the *Essay*'s highly detailed table of contents reveals this (ideas of substance, mode, and relation, all come under discussion of complex ideas). II.xii also explicitly lists these ideas as complex idea. See chapter 3 for a defense against the popular claim that Locke abandons this taxonomy of ideas.

Let's turn now to the construction of sensory experience from sensation. As noted above, sense experience is experience of objects, their properties, and their relations. One's sense experience for example, consists of seeing pieces of white paper scattered about the oak desk in front of one. A piece of paper, or the desk, or anything else that we would ordinarily think of as an object, is what Locke calls a substance. Experience of a substance as such consists in the perception of an idea of a substance, or for short, a substance idea. Sensory experience of a paper, *as* a piece of paper, that is, *as* a thing of a certain kind, therefore consists in the perception of a substance idea according to Locke. So, Locke's account of sensory experience as constructed from sensation will be an account of how substance ideas, among other complex ideas, are constructed from simple ideas of sensation by mental operations.

To set the stage for Locke's account of the construction of sensory experience from simple ideas, we can begin by reflecting on some features of sense experience. Suppose you are holding a piece of paper in front of you. It is of thick enough stock that it doesn't flop over but stays upright as you hold it in your hand. It is also thick enough so that it is completely opaque. As you hold it you notice that it has the grainy texture of high quality paper stock. The paper is white and the type printed on the side you are looking at is black. Now, imagine you turn the paper over in your hand so that you look at the back of the paper. It is the same color as the front, but without any type. Of course, being familiar with physical objects, even though you no longer see the text-side of the paper, you take the paper to have the text-side. Moreover, being familiar with paper, and though you aren't near any flame now, you take the paper to be flammable. The unseen side of the paper and the paper's flammability are not part of your sensory experience in the same way as are the paper's

grainy texture and the side of the paper facing you. Nevertheless, they are part of your experience of the piece of paper *as a thing, as a physical object, as a piece of paper*.

I should be careful to note that the description I've given of your experience of the paper here is somewhat presumptuous. If you disagree with the description of the phenomenology here, feel free to substitute your own. As we will shortly see, Locke's strategy is not to directly provide an account of phenomenology. Rather, Locke's theory takes a description of your experience (as provided by you) and provides an account of that experience (per your description) in terms of ideas. The account in terms of ideas serves to show how your experience can be shown to consist in nothing but ideas received in sensation and operations of your mind on those ideas. So, even describing your experience as an experience that is as if of a piece of paper, you are somewhat under-describing it from the perspective of Locke's theory. To set the stage for Locke's account to begin, you need to say a little bit more about why you describe your experience as an experience that is as if of a piece of paper. I have taken the liberty in the preceding paragraph of filling in some of those details that I imagine someone might provide in explaining why they would call an experience they have an experience that is as if of a piece of paper, rather than as a mere experience of a white patch in their visual field: because it is an experience of something as having certain paper properties. If you disagree with the above characterization of the phenomenology of what it is like to have an experience that is as if of a piece of paper, you may substitute your own and make the necessary substitutions in what follows below. The important point for Locke, as I will shortly bring out, is that having a sensory experience that is as if of a certain kind of object consists in more than merely being stimulated in certain

ways by one's environment. Locke is not alone, especially in the early modern period, in holding this view.

2.3.2.2 Locke on substance

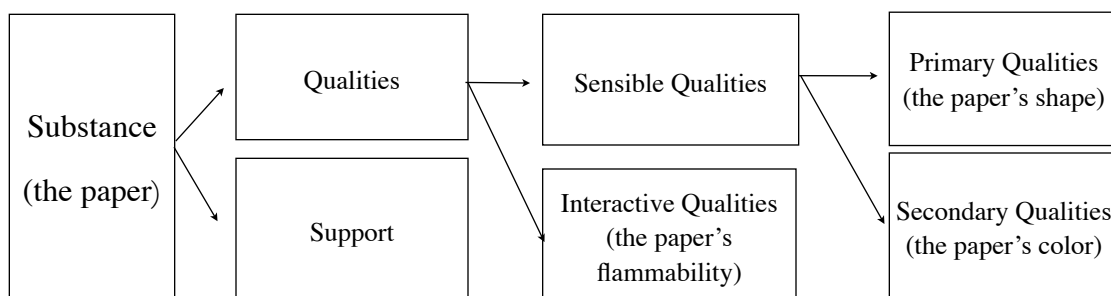
Locke's account of the construction of the sensory experience of the paper involves the construction of a substance idea of the paper from simple ideas. To facilitate the exposition of Locke's account of this construction it will be helpful to turn to some of the distinctions Locke draws when discussing substances. My discussion here is a brief reminder of the claims I developed and defended in detail in chapter 1. The piece of paper is what Locke calls a substance. It has a variety of (what Locke calls) qualities: its shape, color, tactile texture, flammability, etc. Locke divides qualities into two broad categories: sensible and interactive (II.viii.10). Sensible qualities are powers to produce ideas in perceivers like us (II.viii.8). Sensible qualities come in two kinds: primary and secondary (II.viii.8-10). The whiteness of the paper is a secondary sensible quality. The paper's rectangular shape is a primary sensible quality. Exactly how to draw the primary/secondary quality distinction is, of course, a matter of interpretive and philosophical debate, as is the epistemological and ontological status of that distinction. Fortunately, we can set this thorny issue aside for current purposes.

In addition to sensible qualities, Locke also allows for what we can call interactive qualities. Interactive qualities are powers of substances to undergo or produce a change in either their own or another substance's sensible qualities by interacting with that substance (II.viii.10, II.xxi.1, II.xxiii.7-10). The paper's flammability is an interactive quality. Suppose we burn the edge of the paper. To simplify the case, focus on the change in color the paper goes through in burning. Before burning, the paper is white. The paper's color is a sensible

quality, a power to produce a certain idea in a perceiver who looks at it. After burning, the edge of the paper has a black, ashen color. This color is a different sensible quality; it is a power to produce a different visual idea in a perceiver who looks at the paper. The paper therefore has what Locke calls a passive interactive quality: when exposed to sufficient heat, it undergoes a change in sensible qualities. The lit match has an interactive quality in this respect as well: an active power to produce a change in the paper's sensible qualities corresponding to the paper's passive power to undergo that change.

To review, substances have sensible and interactive qualities. Qualities are powers to produce or undergo change. Sensible qualities are powers to produce simple ideas in the minds of perceivers. Interactive qualities are powers to produce or undergo changes in sensible qualities by interaction with other substances. Finally, the qualities of a substance have some existence, or, as we might say, some existential support, something by which they exist. (II.xxiii.1). Figure 3 below-summarizes Locke on substance in terms of qualities and existential support:

Figure 3



2.3.3.3. The construction of substance ideas from simple ideas in sensory experience

These distinctions provide a guide to the construction of substance ideas from simple ideas. First, the mind is affected in various ways by the world of substances around it. That is, various sensory simple ideas are produced in the mind. Next, the mind constructs some ideas

of qualities, sensible and interactive. Finally, the mind puts together these ideas of qualities with an idea of existential support, for the qualities to form a substance idea. This last stage is crucial because it is the defining feature of substance ideas among complex ideas, according to Locke (II.xxiii.3-6). For Locke, the idea of existential support distinguishes ideas of substances from ideas of modes or relations; it is that by which ideas of substances are ideas of *existing things*.

According to Locke's theory of ideas, simple ideas of sensation enter the understanding as a result of the operation of other objects on the mind. So, when you are looking at the paper, one of the various ways in which you are affected by the paper is by the production of a simple idea of a certain shade of white, the predominant color of the paper you see when looking at it, in your understanding. The mere production of this simple idea in your understanding, however, does not constitute your experience of the paper as white, as a white object. To have an experience that is of an object as white is to have an experience of an object as having a certain quality. Qualities are powers, and so ideas of qualities are ideas of powers. Since sensible qualities are powers to produce ideas, ideas of sensible qualities are ideas of powers to produce ideas. Thus, it is crucial according to Locke to distinguish what we can call the sensation of white produced in you by the paper from your idea of the paper's quality of whiteness. The former is a simple sensory idea. The latter, however, is a complex idea produced by the mind by operating on, among other ideas, that simple sensory idea. The idea of the quality therefore includes that sensory idea as a part. Another component of this complex idea, in addition to the simple sensory idea, will be the simple idea of power. So, your idea of the paper's white quality is an idea of a power to produce a certain simple

sensory idea, and its composition includes at least that simple sensory idea and the simple idea of power.

Of course, your sensory experience of the paper is much richer than simply of a white object. It is of a white object with a particular size and shape. Your ideas of the paper's size and shape are likewise ideas of qualities and so constructed from simple sensory ideas and the simple idea of power.¹²⁶ Thus, even what we can call your current visual image you of the paper is a complex idea according to Locke. It is the result of putting together other complex ideas of qualities, which themselves are the result of putting together simple sensory ideas and a simple idea of power. This highlights the way in which Locke's theory of ideas is *not* primarily a description of conscious experience. As Berkeley was quick to point out we never have experiences of colors without shapes or shapes without colors. This point, however, is not a square attack on Locke because Locke's claim that we have discrete ideas of colors, shapes, sizes, etc., is not supposed to be answerable to reflection on conscious, occurrent experience. Instead, as I argued in section two above, it is an attempt to articulate a theory of the mind capable of explaining the nature, grounds, and limitations of knowledge and reasonable opinion.

¹²⁶ According to Locke, ideas of shape and size are simple modes of extension. That is, they are complex ideas composed solely of the simple idea of extension. Ideas of different shapes and sizes therefore differ not with respect to the simple sensory ideas which compose them but in the kind and order of operations. Locke insists that extension is a simple idea received by sight and touch. In positing a simple idea of extension, then, we can see Locke as anticipating Kant in locating our thought about space at the root of cognition. Of course *how* Kant locates space at the root of cognition (as a form of intuition) is significantly different than Locke's positing a simple idea of extension. Nevertheless, the epistemological consequences which follow are similar for each figure. We can never know that things as they are in themselves are extended. For Kant this is because space is merely a form of our own kind of thinking. For Locke this is because, as we will see later in the paper, to say that we have a simple idea of extension, is merely to know that something has a certain power to produce that idea in us, but no more. By contrast, in claiming that we have a perfectly clear and distinct idea of extension, Descartes claims that we have insight into the nature of material things as they are in themselves.

Of course, one's current sensory experience of the paper is not limited (in this case) to a current visual image. One also smells and feels the piece of paper as well. So, a richer, complete current sensory appearance of the paper integrates all of the current sensations of the paper (its solidity, (slight) heft, grainy texture, distinct smell, etc.) and so is an even more complex idea than the idea of the paper's white quality or the complete visual image of a white quadrilateral.

Indeed, even the richer complete sensory appearance of the paper fails to reach the complex substance idea of the paper the perception of which constitutes your sensory experience of the paper as a piece of paper. As noted above, you take the paper to be a *physical* object and so to have an occluded side. This too will be a matter of including certain ideas of qualities in the idea of the paper.

Moreover, in addition to taking the idea to be a physical object, you take it to be a certain *kind* of physical object. As we saw above in section 2.1, our concepts are what Locke calls nominal essences.^{127,128} They include all the qualities that one attributes to paper. That is, in having a sensory experience of the piece of paper *as* a piece of *paper* your substance idea of the paper will include in it all the ideas that are currently in your nominal essence of 'paper'.¹²⁹ Many of these will be ideas of qualities of course (surely others will be ideas of

¹²⁷ Strictly speaking, then, the account in the previous paragraph merely states that one's substance idea of the paper includes in it the qualities that belong to one's nominal essence of 'physical object'.

¹²⁸ See, for example, III.v.10-11, III.vi.7-8.

¹²⁹ It is important to remember that within Locke's genetic constructivism, different people will have different nominal essences for kinds depending on which ideas of qualities they associate with a given name. As a result, your experience of the paper *as* a paper could be more or less rich depending on the richness of your nominal essence for 'paper', which is itself a function of your past experience and familiarity with paper, as well as your practical interests in paper. A paper salesman, for example, will have a far, far richer nominal essence for 'paper' than a kindergarten student, and so their experience of a piece of paper *as* a piece of paper will be far richer than that of the paper neophyte.

relations), and so again will involve the simple idea of power. For example, the paper's flammability will be an interactive quality, and so your idea of the paper's flammability is an idea of an interactive quality—an idea of a power to undergo changes in sensible qualities.

Finally, tying together all of these various ideas of qualities, from the complete current sensory appearance, to the ideas which constitute your experience of the paper *as a physical* object and *as* a certain kind of physical object, namely, a piece of *paper*, is an idea of existential support for the qualities. This is the defining feature of substance ideas, what captures the dimension of existential commitment in our thought of substances. So, after constructing all the ideas of qualities, the mind binds the various ideas of qualities to an idea of existential support to form a substance idea, and hence has an experience of existing thing. Since it is composed from ideas of actual sensation, from actual simple sensory ideas, rather than from remembered simple ideas, it is an idea of an *actually* existing thing.

Clearly, then, our substance ideas are highly complex. The construction of these ideas provides Locke's account of our going from merely being the subject of actions by our environment to coming to have thoughts that are as if of objects and as if of certain kinds of objects. A defining aspect of substance ideas is that they involve what I have called sensory appearances and so simple sensory ideas.¹³⁰ Complete current sensory appearances are constructed from ideas of qualities which are in turn are constructed from simple sensory

¹³⁰ It is important to note that not all substance ideas are *current* sensory experiences of substances. Substance ideas can also be a part of memory, imagination, abstractions, etc. In each case, what sets such an idea apart as a substance idea rather than a relation idea or mode idea is the supposition of support. In case of looking at a piece of paper above, the Lockean history of the substance idea is a history of a particular sensory experience and hence draws heavily on ideas delivered by sensation, such as the simple sensory idea of white. In non-sensory thoughts of substances, the analogs to the likes of that simple sensory idea in the substance idea will enter the mind in some other way. For example, they will be recalled (since it is a fundamental tenet of Locke's empiricism that the mind cannot create any simple ideas). Thus, insofar as a substance idea involves any qualities of an object whose effect on the subject is not currently sensed, it will be composed of recalled simple ideas rather than bare simple sensory ideas.

ideas. Complete sensory appearances (and the component complex ideas of qualities or current visual images) can be distinguished from other ideas that compose substance ideas in the following way. The current complete sensory image can be analyzed into simple sensory ideas (by way of ideas of powers to produce those simple sensory ideas). Other ideas belong to one's current nominal essence of 'paper' (or 'body', or whatever other kinds you see the paper as) but are not currently sensorily experienced. These ideas are part of your substance idea of the paper you see now in that you see it as a piece of paper. These ideas of qualities will not be analyzed into simple sensory ideas but recalled or remembered sensory ideas. We can graphically represent Locke's analysis of a sensory experience of a white piece of paper in the series of diagrams.¹³¹ Figure 4 depicts the basic claim of Locke's theory: we can analyze thoughts and experiences as the perception of ideas. Here we have Locke's basic analysis of the sensory experience of a piece of paper: it consists in the perception of a substance idea of the paper.

Figure 4: Series 1 Part A: Perception of a substance idea of the paper in the understanding
(note: these diagrams, especially Series 2 and Series 3, are best viewed in color)

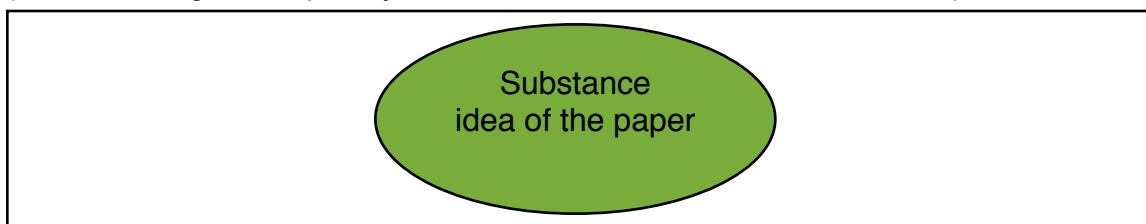
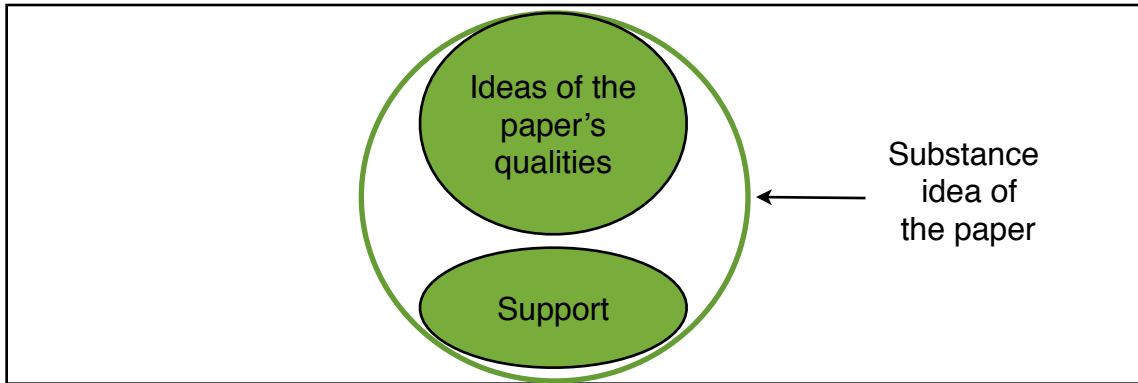


Figure 4, however, is opaque with respect to the internal structure of the idea. By taking seriously Locke's attempt to provide a corpuscular-analogic theory of mind, we can depict the next level of Locke's analysis of our experience the white paper by 'zooming in'

¹³¹ All diagrams focus on highlighting the composition of substance ideas relative to the particular cases discussed in the texts which they illustrate. They therefore abstract from and leave out almost all of the ideas which would be included in a full analysis in Locke's theory of ideas. In addition, these diagrams will leave out which operations of the mind operate to bind together the ideas depicted.

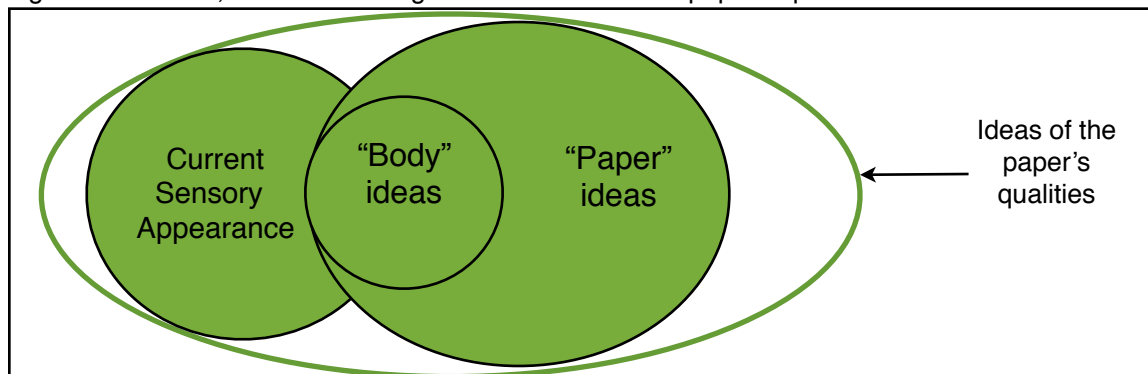
on the molecular structure of the substance idea of the paper. All substance ideas are composed of an idea of some support and ideas of qualities. Series 1, Part B below depicts this regarding the substance idea of the paper:

Figure 5: Series 1, Part B: Zooming in one level on the substance idea of the paper



To continue our graphical depiction of Locke's analysis of the substance idea of the paper into simple ideas, we can next consider the ideas of the paper's qualities. Series 1, Part C depicts the component ideas that make up the ideas of the paper's qualities depicted in Series 1, Part B.

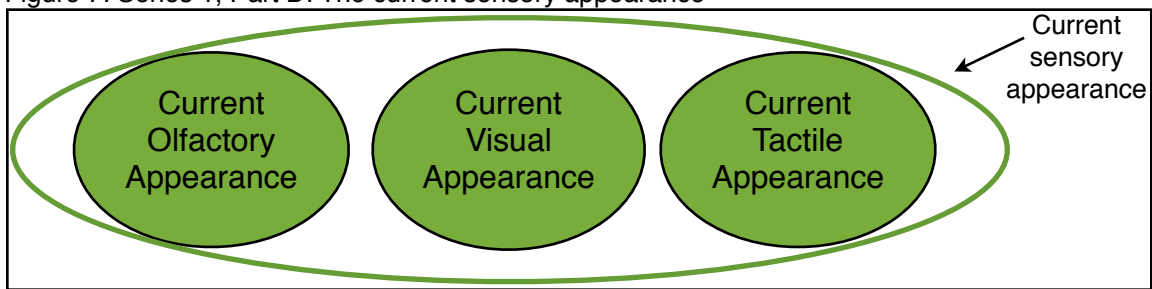
Figure 6: Series 1, Part C: Zooming in on the ideas of the paper's qualities.



Since a paper is a kind of body, the ideas for which you call your experience an experience of a piece of paper will include all of the ideas for which you would call your experience an experience of a kind of body. Similarly, since some of those ideas are part of the current sensory appearance you have of the paper—it is extended, solid, has a papery

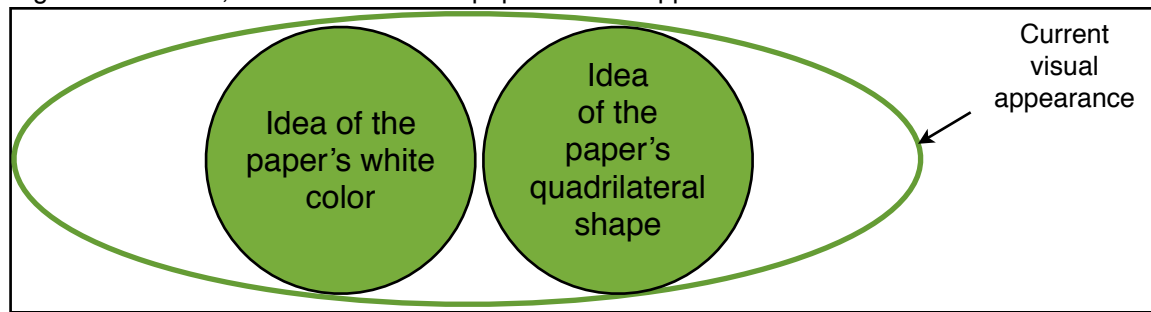
texture and flexibility—there will be overlap between your current sensory appearance of the paper and your “paper” and “body” ideas. Not everything in the current sensory experience of the paper, however, will be a “body” or “paper” idea. For example, the particular color of the paper may not be. Moreover, your experience of the paper as a paper consists in more than how the paper currently appears insofar as you take it to have an occluded side, or to be flammable, or even just insofar as you take it to be an object and not simply a white patch in your visual field. So the overlap between the “paper” ideas and your current sensory appearance will only be partial. To continue to trace the sensory origins of the substance idea of the paper, we can further focus on the ideas of the current sensory appearance. Series 1, Part D depicts the different components of the current sensory appearance:

Figure 7: Series 1, Part D: The current sensory appearance



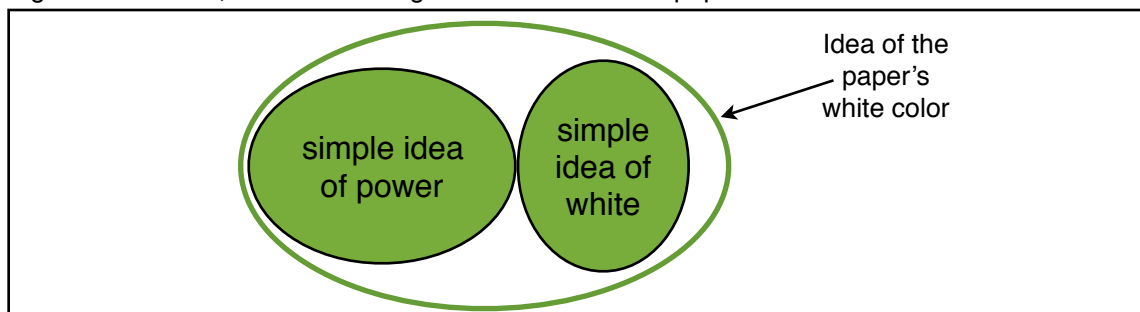
The current sensory appearance of the paper to you can be broken down into each of the sense modalities by which the paper affects your mind. Here I have included the visual, olfactory and tactile appearances. To continue the analysis of the substance idea of the paper to its sensory origins we can zoom in on any of the appearances, but I’ll focus on the current visual appearance here. Series 1, Part E depicts the ideas that belong to the current visual appearance.

Figure 8: Series 1, Part E: Ideas of the paper's visual appearance



The idea of the paper's white color is not yet a simple idea. Rather, it is an idea of a quality, of a power to produce a certain simple sensory idea. We can zoom-in on the idea of the paper's white color to get to some of the sensory atoms of the substance idea and complete Locke's analysis of the sensory experience of the paper to some of its sensory origins.

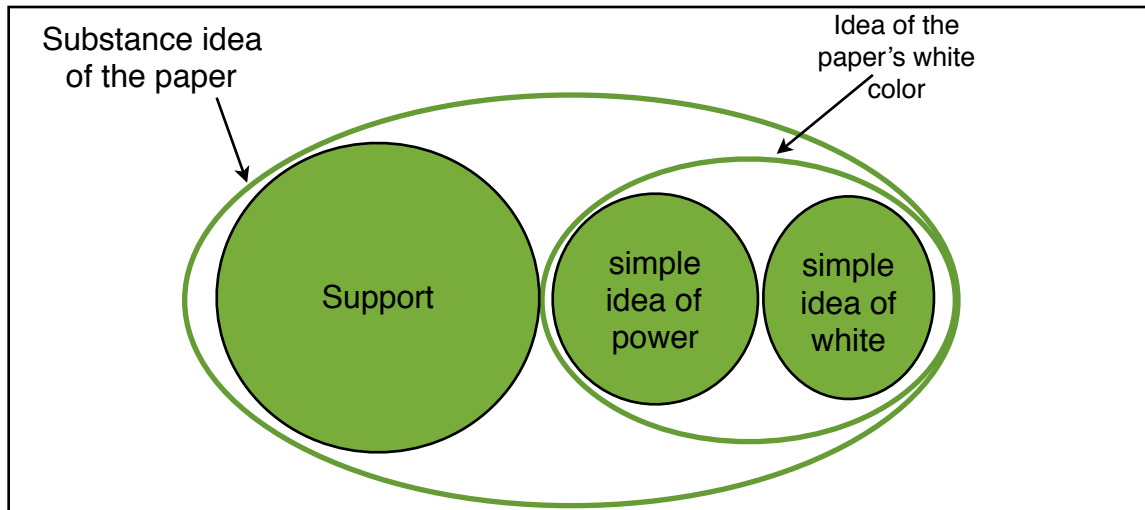
Figure 9: Series 1, Part F: Zooming in on the idea of the paper's white color



Finally, we can summarize the results of our analysis by offering a depiction of the substance idea of the paper that is transparent with respect to the above analysis of its sensory origins.

Series 1, Part G depicts the relevant compositional structure of the substance idea of the paper:

Figure 10: Series 1, Part G: Compositional structure and sensory origin of the substance idea of the paper revealed



Thus, a crucial step in the move from merely being affected by an object to having experience as if of an object on Locke's view is the construction of ideas of powers to produce some effect. To move from being affected in a certain way, say that which results in the perception of a certain simple idea, to being able to think of an object as white, involves the construction of an idea of a power to produce that simple sensory idea. In the next step, ideas of those qualities are combined to form a complete sensory 'image' and then combined with an idea of support to form a substance idea.¹³² This stage of constructing ideas of powers not only plays a role in Locke's account of the construction of sensory experience of objects from sensation, but is also at the heart of Locke's account of our awareness of our passivity in sensory experience.

2.3.2.4 Substance ideas as ideas of things that produce sensations in us: Locke's analysis of our awareness of passivity in sensory experience

¹³² Not all minds are equally capable of all forms of thought. Throughout Locke's discussion of the powers of the mind he speculates about the relative capacities of different creatures and hence what kinds of thoughts the beasts are capable of thinking. Sensory experience will therefore differ between creatures depending not only on which sensory modalities they possess but also on which mental operations they are capable of.

Both in his epistemology and in his earlier discussions of ideas, Locke is clear that we are passive in sensation and that we have a sense of this passivity in sensory experience. Sensory experience is, for example, one of the primary sources of our ideas of passive powers (II.xxi.4-5). To see how Locke analyzes our awareness of our passivity in sensation we can turn again to the role of simple ideas and substance ideas in Locke's account of our experience of our own mind.¹³³

To begin, it is one of the hallmarks of Locke's philosophy that, contrary to Descartes, we do not have direct access to the essence of our mind.¹³⁴ Instead our awareness of our mind is mediated by appearance just as is our awareness of other things—appearances through

¹³³ Other commentators, especially Ayers (1991) and Chappell (1994), have recognized the important role Locke gives to our passivity in sensation and awareness of that passivity in sensitive knowledge. The way in which such passivity factors in, however, has never been given an adequate explanation within Locke's theory of ideas. Nor, for that matter, do such commentators offer an account of the way in which our awareness of passivity factors into Locke's account of sensitive knowledge. These commentators treat our awareness of that passivity in sensation as a ground for a judgment about the externality of the cause of sensation. Bolton (2006) has rightly criticized such views for having no account of how Locke could make sense of a judgment about sensations having an 'external cause'. Bolton herself attempts to make some sense out of sensitive knowledge by talk of a 'marking role' for simple sensory ideas. Unfortunately, it is less than clear what exactly a 'marking role' is on her reading (as Chappell himself notes in his (2004) commentary on Bolton's article) nor how the simple ideas play that role. As I will shortly demonstrate, the interpretation I offer here solves both of these problems through an account of our ideas of substance and therefore offers a substantial advance in Locke scholarship regarding Locke's account of our cognition of external objects as well as our own mind.

¹³⁴ We have seen extensive textual evidence in the preceding chapter in which I developed Locke's account of substance ideas. As we saw, one of Locke's chief polemical aims with respect to substance is to argue just this point; that our ideas of other substances and our minds are structurally the same, differing only with respect to the ideas of qualities that compose them.

reflection rather than sensation.^{135,136} As a result, our idea of our own mind is structurally similar to our ideas of other substances: they all involve ideas of qualities and a supposition of support for those qualities.¹³⁷ Though this dimension of Locke's philosophy is not unknown it is under appreciated.¹³⁸ In particular, it is under appreciated with respect to the way it allows Locke to make sense of our awareness of our own passivity in sensation and the experience of objects as distinct from oneself in sensory experience.

¹³⁵ II.xxiii.5, 15, 22-37 (especially 29-33). It is worth reiterating here that reflection, the mind's awareness of itself, is analogous to sensation for Locke. Both are sources of simple ideas and both are respects in which the mind is passive in some sense. In sensation, simple ideas are produced in the mind as a result of the operations of other objects on the understanding (II.i, II.ii, II.iii). In reflection, simple ideas are produced in the mind as the result of the operations of the mind on its own ideas (II.i, II.ii, II.vi). Locke's strict sense of reflection clearly anticipates Kant's 'inner sense'. Moreover, Locke puts this parallel to great use in his account of our knowledge and cognition of our own minds: in both cases we know outer objects or our own mind only by their appearance to us in outer or inner sense and cannot penetrate further (see II.xxiii.5, 13, 15-37, for Locke's extended discussion in which he draws out the parallel between the limitations in our ideas of bodies and our own minds).

¹³⁶ 'Reflection' can thus be thought of as a source of ideas analogous to Kant's notion of inner sense. Our awareness of our minds is mediated in exactly the same way as is our awareness of outer objects but is delivered by a different channel than our awareness of other outer objects.

¹³⁷ In discussing the supposition of support, Locke makes clear that our ideas of substances are composed of ideas of qualities and a confused idea of support: "...our complex ideas of substances, besides all these simple ideas they are made up of, have always the confused idea of *something* to which they belong, and in which they subsist: and therefore when we speak of any sort of substance, we say it is a *thing* having such or such qualities." (II.xxiii.3/297, Locke's emphases). And again, "Hence when we talk or think of any particular sort of corporeal substances, as horse, stone, etc., though the idea we have of either of them, be but a complication, or collection of those several simple ideas of sensible qualities, which we use to find united in the thing called horse or stone, yet because we cannot conceive, how they should subsist alone, nor in one another, we suppose them existing in, and supported by some common subject..." (II.xxiii.4/297). Though Locke here uses the phrase 'simple idea of sensible qualities', it is presumably in a relative sense of simplicity. For a documentation of Locke's relative and absolute use of simplicity and its parallel to the relative and absolute senses of simplicity for corpuscularians, see Stewart (1979) and (1980). Moreover, in II.xxiii.7-10, Locke more firmly establishes that our ideas of substances are composed of ideas of qualities and support for those qualities when, drawing on his claim that qualities are powers to produce ideas in 2.8.8, he details the way in which ideas of powers "make a great part of our complex ideas of substances" (II.xxiii.8).

¹³⁸ In the secondary literature on Locke, Han-Kyul Kim's (2008) and (2010) comes the closest to recognizing the important parallel for Locke between our ideas of our own minds and our ideas of external objects, though his route to the point proceeds by way of developing an interpretation of Locke as offering a thoroughgoing nominalist metaphysics. Even Kim fails to recognize that ideas of reflection are appearances to the mind of itself and so our idea of our own mind as a substance (not our idea of ourself as a person!) is parallel to our ideas of ordinary physical objects in terms of its structure.

Return to your experience of the paper in your hand. According to Locke, there is a passive component of your sensory experience and you are aware of that passivity. In Locke's theory of ideas, the passive components of that sensory experience are with respect to the simple sensory ideas produced in you by the paper. For example, you are passive with respect to the simple sensory idea of white, the white sensation, produced in your mind by the paper operating on you.

Locke's analysis of your awareness of your passivity works by extending the model applied to your idea of the piece of paper *as a thing*, an *object*, to your idea of your own mind as a *thing*, as an *object*.¹³⁹ Your idea of your own mind is an idea of a substance, an idea of a thing with various qualities. Qualities are powers, for Locke, and powers are active or passive (II.xxi.2, 4). So, your grasp of your own mind is a matter of perceiving a certain substance idea of a substance with various powers to receive or produce ideas. Your awareness with respect to the white sensation is an awareness of a passive power to receive that sensation, as opposed to the idea of an active power to produce that sensation which, in part, composes your substance idea of the paper. Besides the various ideas of powers with respect to ideas, as a substance idea your idea of your own mind includes an idea of support for those many qualities.

At the heart of Locke's analysis of our awareness of passivity in sensation is an overlap between two distinct substance ideas. Specifically, it is an overlap with respect to simple sensory ideas. The objects of sensory experience are experienced as distinct from our mind and as active with respect to us in the following sense. Our sensory experience of

¹³⁹ The distinction between a mind and a person is, of course, an important distinction for Locke and is widely held as one of Locke's chief contributions to the philosophy of personal identity. The account I am about to offer is not an account of Locke on what a person is, however, but instead on our experience of our own mind.

objects is a matter of perceiving a substance idea that is partly composed of ideas of active powers to produce simple sensory ideas. Our experience of our own mind is partly composed of passive powers to receive those same simple sensory ideas. *Our mind and the objects of sensory experience are considered as distinct objects in our thought by virtue of the fact that the passive and active powers with respect to the simple sensory ideas are supposed by the mind to have different support.* The substance without is what is regarded as that which has an active power with respect to a simple sensory idea. One's own mind is regarded as that which has a passive power with respect to that simple sensory idea. There is, on the one hand, a substance idea partly constituted by the idea of a power to produce some sensory idea, and, on the other hand, another substance idea partly constituted by the idea of a power to receive that sensory idea.¹⁴⁰ The distinctness of the substance ideas of the outer object and one's mind is the distinctness of the support of the powers. In the case considered so far in which you experience a piece of paper before you, the power to produce the sensation of white and the power to receive that sensation are supposed to have different support by you in your sensory experience of the piece of paper. So, our sensory experience of objects always involves the perception of at least two substance ideas: one of an object and one of our mind.¹⁴¹ Series 2 below extends the graphical model employed in Series 1 to depict the structure of our substance ideas to graphically depict Locke's analysis of our awareness of our passivity in sensory experience. Parts A and B in Series 2 are straightforward extensions

¹⁴⁰ Though this surely deserves its own treatment, note that this account of knowledge of sensation also includes knowledge of one's own existence as the substance subject to some sensory appearance. This is surely another advantage of the interpretation offered here: it treats knowledge of one's own existence as analogous to knowledge of the existence of other things. In each case, real existence knowledge is had by perceiving an agreement between an idea and a substance. Moreover, this fits with Locke's claim that, "In every Act of Sensation, Reasoning, or Thinking, we are conscious to our selves of our own Being" (IV.ix.3/619).

¹⁴¹ This point is explicitly supported by the quote from IV.ix.3 cited in the previous note.

of Series 1 to include a substance idea of one's own mind. I omit parallels to Parts C and D for the sake of space.

Figure 11: Series 2, Figure A: Our experience of the paper and mind as the perception of two distinct substance ideas.

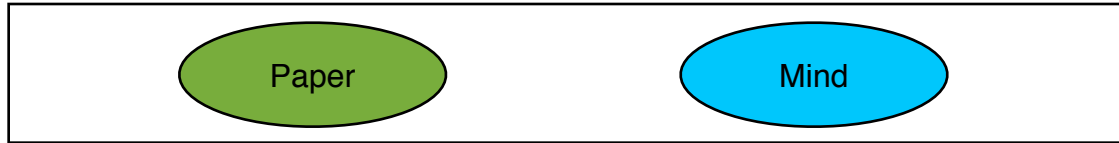
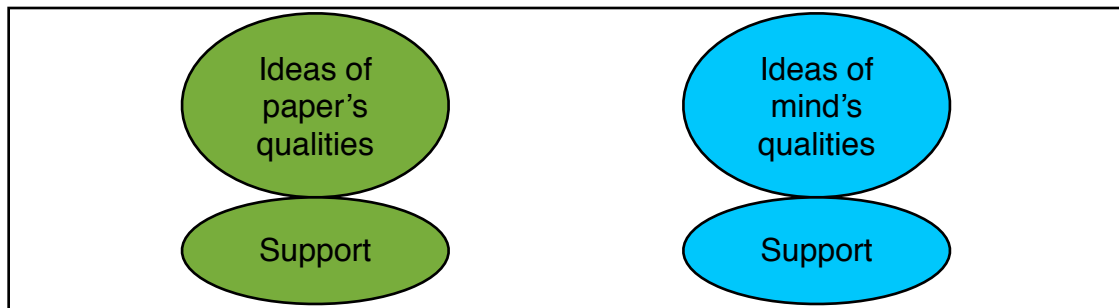


Figure 12: Series 2, Figure B: Zooming in on the substance ideas of the paper and one's own mind



As I argued above, Locke's account of our awareness of our passivity in sensation is in terms of overlap between our ideas of the objects of sensory experience and our own minds with respect to a simple sensory idea. Our awareness of our passivity in sensory experience is a matter of our ideas of objects of sensory experience being partly composed of a quality that is an active power to produce a certain sensory simple idea and our idea of our own mind being partly composed of a quality that is a passive power to receive that simple sensory idea. Series 2, Part C focuses on the ideas of qualities that we will use to illustrate Locke's account of our awareness of our passivity in sensory experience. Series 2, Part D illustrates the common origins and overlap of the respective ideas of qualities by zooming-in on the ideas of the paper's and mind's qualities.

Figure 13: Series 2, Part C: Focusing on ideas of qualities

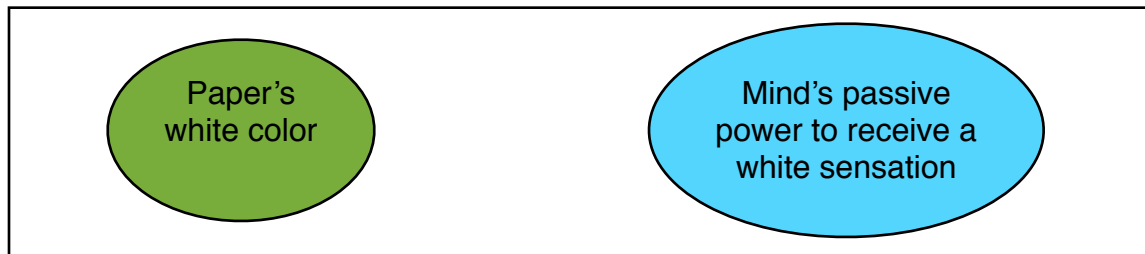
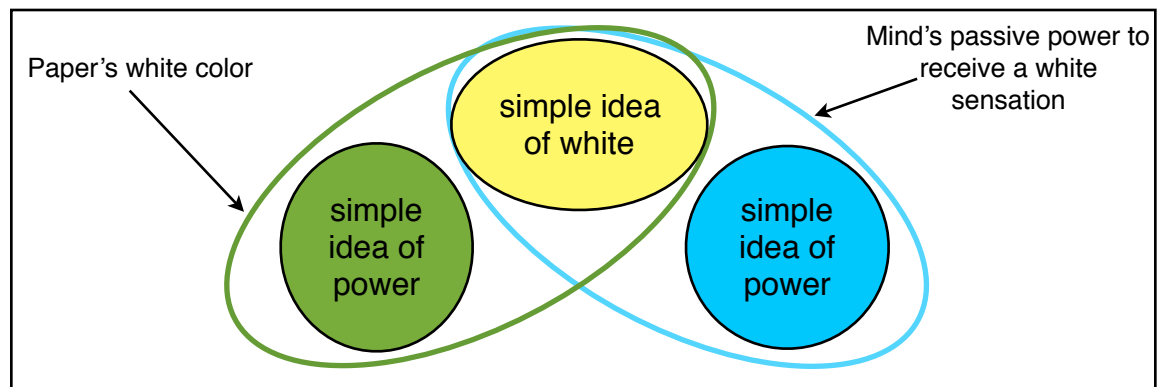
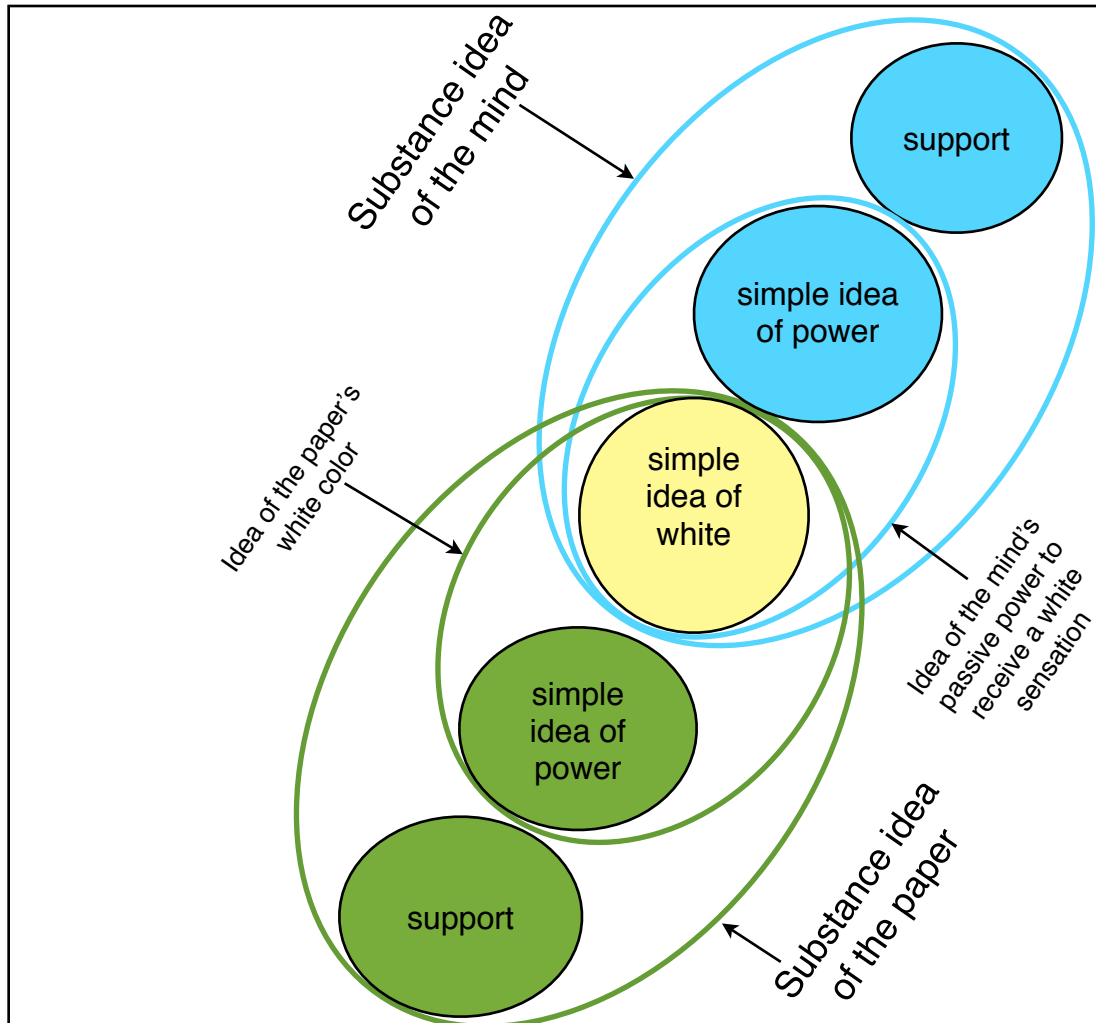


Figure 14: Series 2, Part D: Zooming in on the ideas of qualities to highlight overlap and shared origins



Finally, we can summarize Locke's analysis of both our experience of the paper as distinct from us and our awareness of our passivity in sensation by rendering a transparent depiction of the compositional structure of our substance ideas of the paper and our mind in Series 2, Part E below.

Figure 15: Series 2, Part E: Revealing the compositional structure and overlap between substance ideas of mind and object of sensory experience with respect to simple ideas.



The paper is experienced as distinct from us because it is a substance idea which has a distinct idea of support to which its qualities are bound. We experience ourselves as passive in sensory experience in that the paper has an active power to produce a certain simple idea corresponding to a passive power of our mind to receive that idea. The correspondence of these powers is analyzed by their overlap in genetic structure at that simple idea.

So, in sensory experience the construction of our ideas uniquely begins with simple sensory ideas. Locke's genetic theory of ideas analyzes all thoughts in terms of simple ideas and operations of the mind. Since simple ideas cannot be created *ex nihilo* by the mind and

can only enter the mind for the first time as a result of the operation of something else on the mind,¹⁴² in cases of imagination or memory the ideas of qualities will always be composed of recalled ideas.¹⁴³ These ideas will therefore not share the same simultaneous overlap and distinctness with one's idea of one's own mind with respect to simple sensory ideas. In the analysis of these ideas provided by Locke's genetic theory which traces the role of mental operations in coming to think some thought, the mind is the active power with respect to the ideas of memory and imagination: their component ideas are not simply assembled by the mind but also *recalled* by the mind.

An example can help clarify this important point. Suppose, in the scenario above in which one is holding and seeing a piece of paper, the text on the paper one is reading describes a beautiful white, ivory elephant tusk. Suppose the tusk is described as such a pristine specimen, so white, that it is very nearly the uniform, bright white color of high quality paper. In imagining that tusk one perceives a substance idea of the tusk. Among the qualities the tusk is imagined to have is that it has a power to produce an idea more or less the same as the sensation of white one has in looking at the paper. Locke's account of the history of the idea of the tusk's quality, however, reveals that the substance idea of the tusk has a distinct genetic structure from the substance idea of the paper. Since the mind recalled the simple ideas that go into the construction of the tusk's qualities, the mind is active with respect to these ideas rather than passive. As a result, one's idea of one's own mind is constituted by an *active* rather than passive power with respect to all of the component ideas

¹⁴² See II.i generally, and II.ii.2 specifically, and II.xii.1 for the relevant contrast with complex ideas.

¹⁴³ For Locke's discussion of the mind's operations with respect to memory see II.x, 'Of Retention', in which Locke discusses the variety of operations by which a mind may retain an idea over longer and shorter temporal intervals.

of the substance idea of the tusk (in addition to one's active powers in composing the substance idea of the tusk). Series 3 illustrates Locke's analysis of the difference between the paper and the tusk.

Figure 16: Series 3, Part A: Experiencing a piece of paper, one's own mind, and imagining an elephant tusk by perceiving three substance ideas

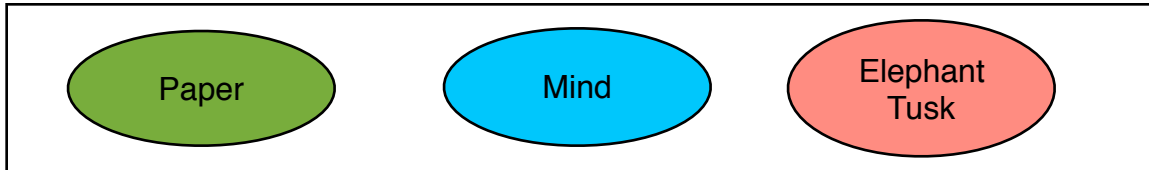


Figure 17: Series 3, Part B: Zooming in on the substance ideas

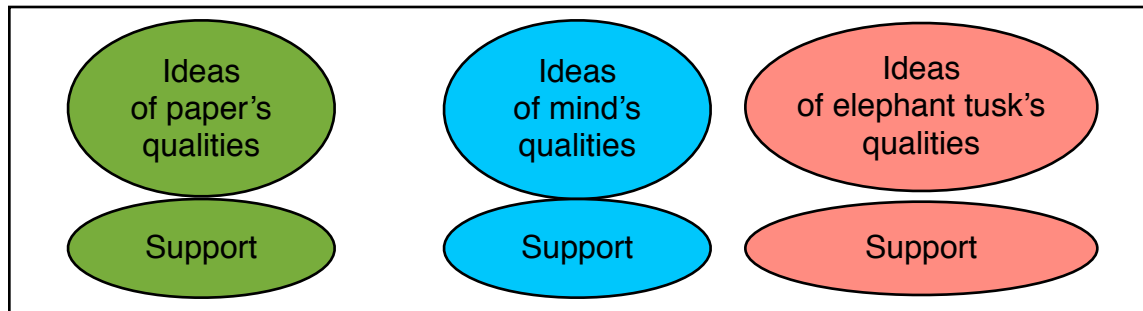


Figure 18: Series 3, Part C: Focusing on the relevant ideas of qualities

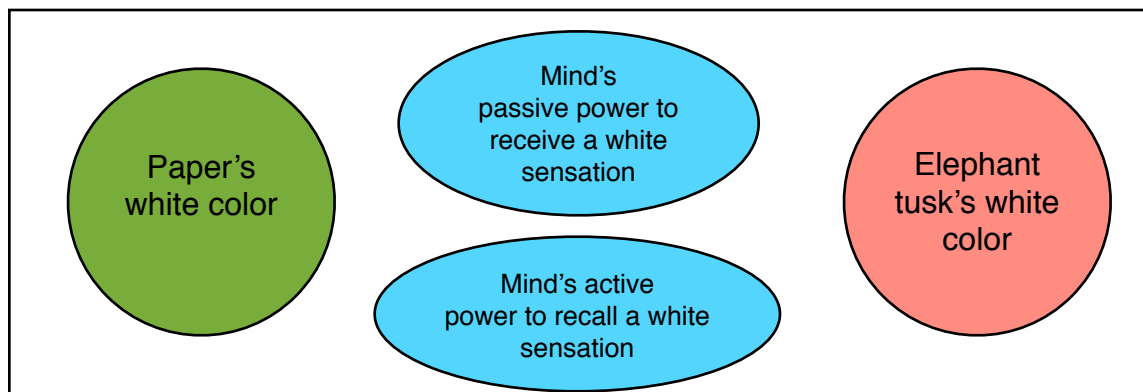


Figure 19: Series 3, Part D: Zooming in on the relevant ideas of qualities

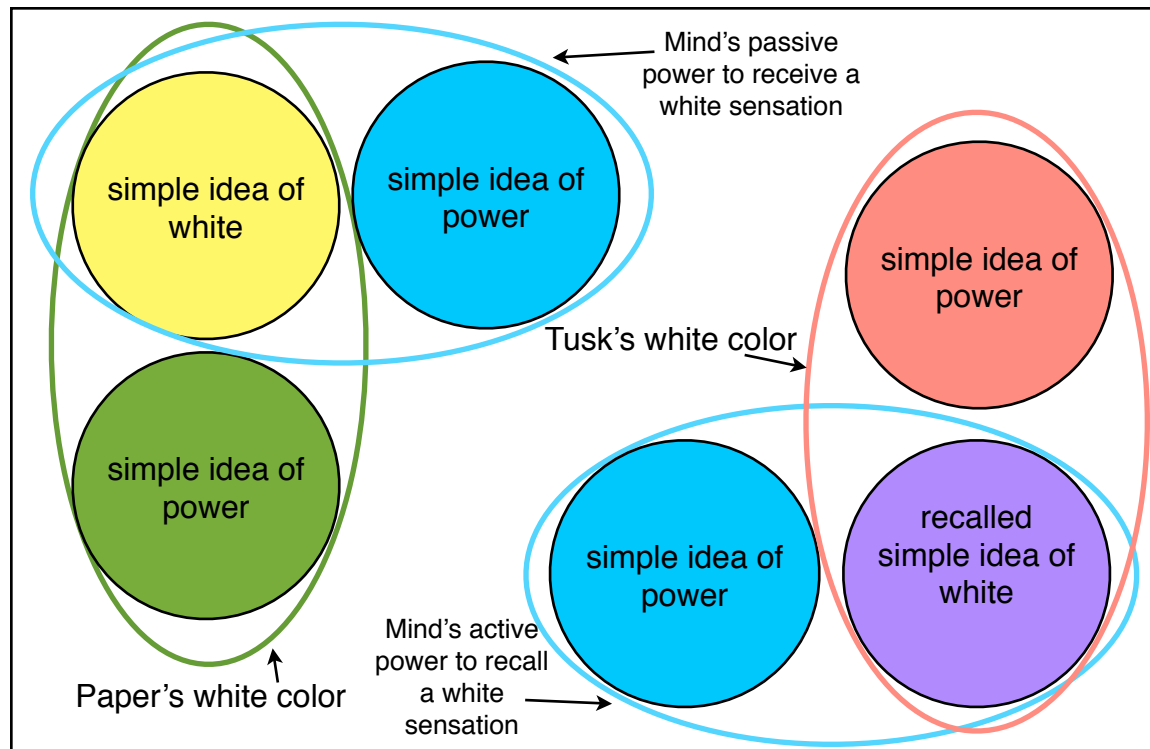
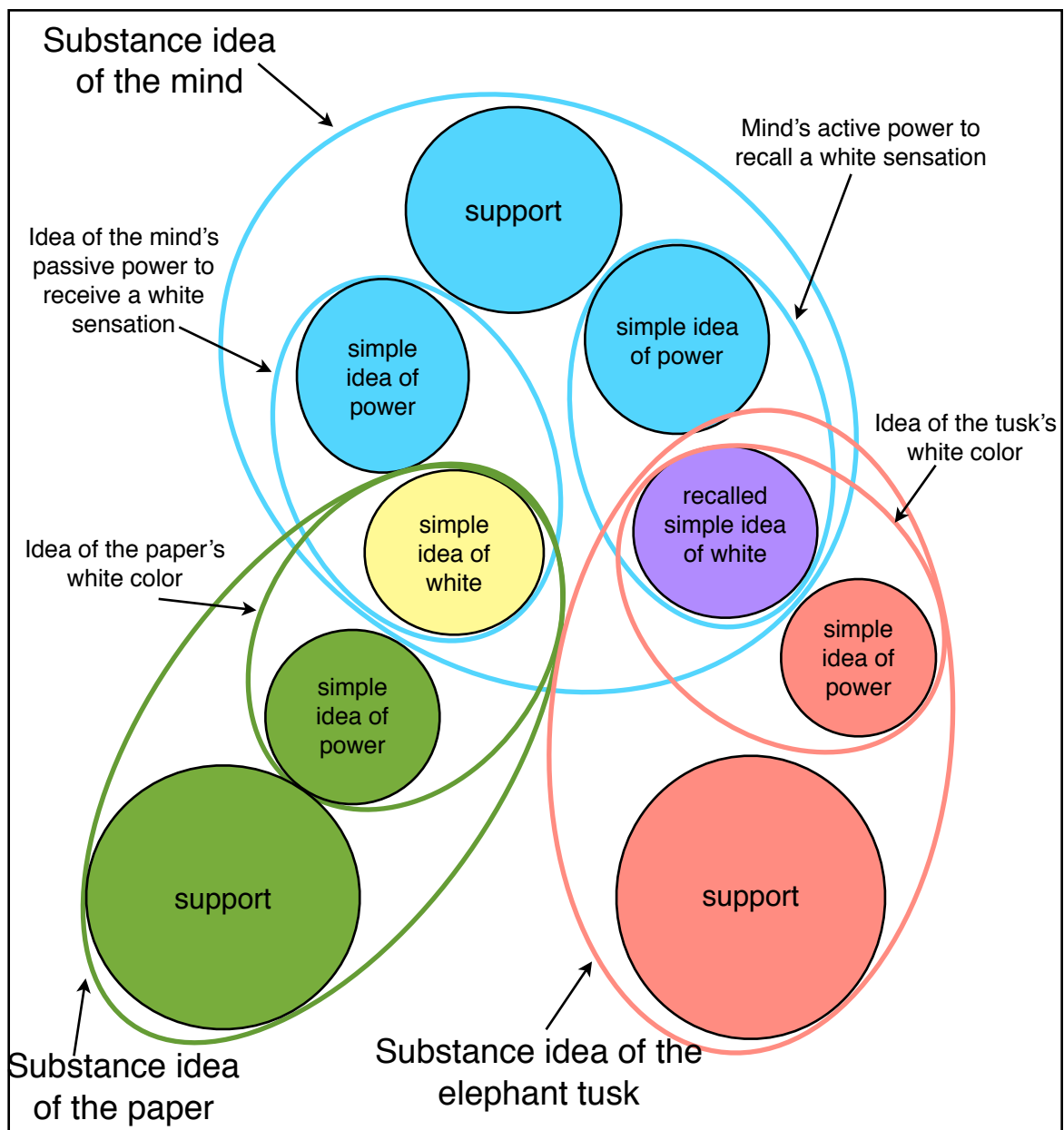


Figure 20: Series 3, Part E: Contrasting overlap between substance ideas of mind, object of sensory experience, and object of imagination revealed by exposing their compositional structure



2.3.3 The containment of simple sensory ideas by substance ideas

Locke's constructivist account of sensory experience reveals the following compositional, genetic structure of our substance ideas in sensory experience. Simple sensory ideas are the products of the operations of other objects on the mind. They are constructed

into ideas of qualities, ideas of powers to produce the simple sensory idea, by combining the simple sensory idea with, among other ideas, a simple idea of power. The ideas of powers to produce simple sensory ideas are then assembled by the mind into a complete current sensory appearance of, say, the piece of paper you are now looking at. Finally, the complete current sensory appearance is compiled with other ideas of qualities of the object of sensory experience and they are supposed to have some unifying support. The perception of this substance idea constitutes Locke's analysis of our sensory experience as if of objects. In cases of memory or imagination, by contrast, our ideas of substances have a different genetic structure in which either the simple ideas themselves or some more complex component of the substance idea, or the entire substance idea itself, is recalled.

When one idea is partly composed of some other, the former contains the latter. So, corresponding to this account of the composition of sensory experience is an account of the containment relations between ideas in sensory experience. Since substance ideas are composed of simple sensory ideas in sensory experience, substance ideas contain simple sensory ideas. Sensitive knowledge, then, is a matter of perceiving this agreement. We can summarize the composition and hence relevant containment relations that feature in Locke's constructivist account of sensory experience in Table 2:

<p>Table 2</p> <p>↑ Partial composition of higher idea by lower idea</p>	Substance idea (sensory experience as if of a piece of paper)	<p>→ Idea-containment by higher idea of lower idea</p>
	Idea of the complete current sensory appearance	
	Ideas of qualities	
	Simple sensory ideas	

Turning to Locke's only explicit consideration of a case of sensitive knowledge in the *Essay* confirms that the ideas perceived to agree in sensitive knowledge are a simple sensory idea

and a substance idea. Locke's only explicitly discussed example of sensitive knowledge in the *Essay* is the following:

(E) Whilst I write this, I have, by the Paper affecting my Eyes, that Idea produced in my Mind, which whatever object causes, I call *White*; by which I know, that that Quality or Accident (*i.e.* whose appearance before my Eyes, always causes that *Idea*) doth really exist, and hath a being without me. (IV.xi.2/630-1)

In (E), Locke makes clear that the basis of our sensitive knowledge is an idea produced in us by the operation of some object on us. This is a simple sensory idea, or as he calls it in (S), an 'idea of actual sensation'. In the example we have been considering throughout the paper, as well as in (E), the simple idea is a simple idea of white produced in the understanding by the paper operating on your mind. So, (E) and (S) together confirm that Locke holds one of the ideas perceived to agree in sensitive knowledge is a simple sensory idea.

(E) also suggests that Locke's description of the other idea in (S), the 'idea of actual existence of something without me that causes that sensation', is a description of a substance idea. According to (E), in sensitive knowledge we know that some quality exists and 'has a being without me'. In (S), Locke makes clear that not only does the quality have a distinct existence from one's mind but also that it is taken to be something which causes the sensory simple idea in one. In Locke's constructivist account of sensory experience, as I developed it above, both of these descriptions are apt descriptions of substance ideas. In particular, these features of our sensory experience are revealed by the way in which Locke's constructivist account of sensory experience analyzes our awareness of passivity in sensory experience. A substance idea in sensory experience is aptly described as an idea of something without, as an idea of something which gives being to a quality distinct from one's own being, which is experienced by virtue of perceiving a substance idea of one's own mind. Similarly, a

substance idea is aptly described as an idea of a being ‘which causes that sensation’ because of the overlap between the substance idea of the object of sensory experience and the substance idea of one’s mind. These ideas overlap with respect to the simple sensory ideas which go into the construction of the substance idea of the object of sensory experience. The object of sensory experience is regarded as having an active power corresponding to one’s own passive power with respect to those simple sensory ideas.

To sum up, Locke’s constructivist account of sensory experience reveals his analysis of sensitive knowledge to be the following. Sensitive knowledge is knowledge of the existence of finite beings distinct from our minds. This knowledge can be analyzed in Locke’s theory of ideas as a particular idea-containment that is perceived in sensory experience. Namely, it is the containment of a simple sensory idea by a substance idea. In the example we considered above, and which Locke himself considers in the *Essay*, it is an agreement between the simple sensory idea of white produced in one by the paper and one’s substance idea in sensory experience of the paper. This containment relation is revealed by the natural history and corresponding genetic structure of the substance idea of the paper, the perception of which constitutes sensory experience as if of a piece of white paper.

We can close this section by summarizing how an analysis of sensitive knowledge in terms of simple sensory ideas and substance ideas satisfies Locke’s four desiderata.

1. Knowledge of the existence of the external world is knowledge of the existence of finite substances distinct from our minds.
2. Knowledge of the existence of the external world is limited to current sensory experience.
3. Knowledge of the existence of the external world is achieved in sensory experience and *not* through reason.
4. Knowledge of the existence of the external world tied to our awareness of passivity in sensory experience.

Locke's account meets the first desideratum by virtue of including an idea of substance. Ideas of substances, as we have seen, are ideas of existing, finite things. Substance ideas which are composed of ideas of sensible qualities are ideas of things distinct from our minds because such ideas involve an idea of support for their qualities that is distinct from the idea of support which composes our substance idea of our own mind. Locke's account meets the third desideratum by virtue of being an idea-containment that is perceived in sensory experience. It does not involve the chain of agreements that involve nominal essences which we saw in 2.1 above that Locke uses to analyze demonstrative reasoning. The second desideratum is met because sensory experience is composed of ideas that have at least some origin in actual simple ideas (rather than having an origin in recalled simple ideas, as is the case for memories or imaginings or hallucinations). The only time we have sensitive knowledge is when substances act on us to produce actual simple sensory ideas in us. The imagined idea of the white tusk considered above, for example, does not give us sensitive knowledge because it has an additional layer of genetic complexity compared to our idea of the paper: built from *recalled* sensory simple ideas rather than actual sensory simple ideas. Finally, Locke's account of the fourth desideratum is tied to his account of the first. The way in which our ideas of our own minds are tied uniquely to ideas of substances in sensory experience with respect to actual simple sensory ideas accounts for our awareness of passivity in sensory experience and our ideas of substances as things distinct from our minds which operate on us.

2.4 Sensitive knowledge: limitations

Finally, we can conclude our exposition of Locke's analysis of sensitive knowledge by taking the final step of a Lockean epistemology. According to Locke's description of his

project in the *Essay*, his aim in analyzing knowledge and opinion within his theory of ideas is to reveal the boundaries and limitations of knowledge and opinion. Having seen his analysis of sensitive knowledge as the perceived agreement between a simple sensory idea and a substance idea, what lessons can we draw about the limitation of sensitive knowledge? What does one know by perceiving an agreement between a simple sensory idea and a substance idea?

According to Locke's analysis, sensitive knowledge is quite limited. We know merely that something, which appears in a certain way, now exists producing that appearance in our mind (IV.xi.9). We are a long way from knowledge of the essence or nature of anything, and so a long way, for example, from knowledge of the nature of bodies or mind. We merely know things through their appearances to us and no further.¹⁴⁴

The strict limitations of our knowledge can be highlighted by returning to the case considered above about knowing that the piece of paper in front of you exists by seeing (and feeling) it. Does one know, for example, that something white *and* rectangular exists? Does one know that something white with a grainy texture exists? According to Locke, *no*. We do not know that the way in which we construct our complex ideas of substances in sensory experience, the way in which we carve up the simple appearances to our mind by the world, in fact tracks the structure of the world around us. All that one knows is that something has the power to appear to one in a particular way. For any of the simple sensory ideas that go into one's ideas of powers to produce those ideas, and then into one's idea of complete current sensory appearance of the substance, and finally into one's substance idea, one knows that there is an object with the power to produce that idea. So, in this case, for example, one

¹⁴⁴ Locke explicitly details these limitations on our knowledge of substances from IV.iii.11-17

knows that there a thing with a power to produce a simple sensory idea of white. And one may also know that there a thing with a power to produce a simple sensory idea of extension (one's idea of the rectangular shape is a complex idea, what Locke calls an idea of a simple mode, and is constructed from of a simple idea of extension received in sensation).¹⁴⁵

These implications are textually confirmed by passage (E) in section 2.3.3 above. What Locke knows is that some quality, some power to produce an idea, has a being without him. That is, what Locke knows is that something has the power to produce a certain idea in him. This knowledge is facilitated by the production of that particular simple sensory idea in him. By virtue of being partly composed of that simple sensory idea vis-à-vis the idea of the power to produce that simple idea, one's substance idea of the white paper in one's hand is an idea of a white thing. The agreement of ideas constitutive of sensitive knowledge, then, is merely knowledge that some quality exists without one, that something has a particular sensible quality. We do not know that papers, or pieces of gold, or trees, etc., exist *as such*. We know only things in relation to us, and so know only that some thing, which appears in a certain way by producing a simple sensory idea in us, exists.

In sum, Locke's epistemology of sensitive knowledge is as follows. We begin with what we take, in our untutored, unreflective state to be a typical expression of knowledge that something exists: here is a piece of paper. Locke then analyzes that piece of knowledge in terms of his theory of ideas. The knowledge is analyzed as the perceived agreement of a simple sensory idea, on the one hand, and substance idea, on the other. Locke then draws on this analysis to make more perspicuous what is known and hence how such knowledge is

¹⁴⁵ See footnote 126 above on the importance of the simple idea of extension for properly understanding the relation between the simple idea of extension and our ideas of shape and size. Properly appreciating this point is crucial for properly understanding Locke's theory of ideas and its relation to Kant as well as Locke's empiricist successors Berkeley and Hume.

limited. In particular, for any such claim, the subject knows that there is a substance with a certain quality to affect her in some way. For each actual sensory quality attributed to the substance in the subject's substance idea, the subject knows that there is a substance with such a power to affect her (or, better, the untutored expression of knowledge can be analyzed in terms of any of the actual sensory qualities attributed to the substance). What the subject does not *know*, however, is that there is a substance that possesses the combination of qualities corresponding to the bundle of qualities tied together in her substance idea.

In the end, then, Locke's account of sensitive knowledge as a perceived agreement of ideas is *not* an attempt to provide some justification for sensitive knowledge in the face of skeptical arguments. Instead, Locke's account of sensitive knowledge as a perceived agreement of ideas is an analysis of *the knowledge* expressed when someone says, "I know that there's a piece of paper in my hand".¹⁴⁶ That analysis is not idle, however. It reveals that such knowledge is more limited than might be ordinarily thought. We know only the existence of things with some power to produce an idea in us. We do not know that the distribution of different powers in the things themselves is successfully tracked by our distribution of ideas of those powers in our substance ideas. Furthermore, in sensitive knowledge we merely know that something with a power to produce certain ideas now exists without. You do *not* know *that you know* that something exists without you in sensitive knowledge. This is a distinction and topic to which we will return in the final chapter of the dissertation, which will complete our investigation of Locke on knowledge of the external world by examining Locke's attitude towards skepticism. For now we have achieved a radical enough goal: to show how sensitive knowledge consists in the perception of an idea-

¹⁴⁶ Surely there is more expressed in saying that phrase than the bit of knowledge I describe. Locke's theory, however, is only meant to explain the knowledge expressed.

containment in sensory experience. To build up sufficient resources to complete our account of Locke on knowledge of the external world, including his response to skepticism, it will help to take a digression over the next two chapters into some of the methodological commitments of Locke's naturalized epistemology.

Chapter 3: Locke's Naturalized Epistemology: Simple and Complex Ideas

The previous two chapters applied the naturalized epistemology sketched in the Introduction to develop a new understanding of Locke's account of sensitive knowledge. This account stands alone within Locke scholarship for showing how Locke's account of sensitive knowledge fits with his official definition of knowledge as a perceived agreement between ideas. Some of the central elements of this interpretation, however, are controversial in Locke scholarship. Over the next two chapters I will defend two of the most controversial elements: first, the claim that the distinction between simple and complex ideas plays a central role in Locke's project in the *Essay*; second, that Locke's project in the *Essay* is an ambitious explanatory project.

In other words, in the previous two chapters I have illustrated how the naturalized epistemology of Locke's *Essay* can account for knowledge of the external world. In the next two chapters, I will argue that the naturalized epistemology I have claimed to be in the *Essay* is in fact Locke's project. There are currently two main sources of resistance to this latter claim in Locke scholarship. The first concerns Locke's commitment to the distinction between simple and complex ideas. Several influential commentators have claimed that Locke himself *abandons* the distinction between simple and complex ideas. Obviously, if Locke himself has abandoned the distinction between simple and complex ideas, then the interpretation I have offered of Locke's naturalized epistemology cannot be an accurate interpretation of Locke. The second concerns the relation between Locke's philosophy of

science and the ambitious explanatory project I have ascribed to Locke's naturalized epistemology and it will be our topic in the next chapter.

My aim in this chapter, then, is to defend the following claim. Locke distinguishes simple from complex ideas by virtue of a difference in their natural history in the understanding. Simple ideas are passively received in the understanding as a result of substances operating on the mind. Complex ideas are actively produced in the understanding as a result of the mind operating on its ideas. Consequently, complex ideas have a compositional genetic structure; they are composed of simple ideas. Their structure is then a function of their component simple ideas and the kind and order of operations involved in their production. Simple ideas, by contrast, have no genetic structure. Most importantly, Locke never abandons this distinction. The distinction maintains a central role in the *Essay* throughout its development.

The structure of this chapter will be as follows. First, I will draw on the previous chapters to clearly articulate the significance of the distinction between simple and complex ideas both broadly in Locke's naturalized epistemology and more specifically in specific case of knowledge of the external world. Second, I will lay out the strong textual evidence in favor of both my account of the distinction between simple and complex ideas as well as Locke's continuing commitment to that distinction throughout the *Essay*. Third, and finally, I will consider and address arguments that have been offered as evidence against Locke's commitment to the simple/complex distinction as I have drawn it.

3.1 The simple/complex distinction within Locke's Naturalized Epistemology

The distinction between simple and complex ideas has two important roles in the discussion of Locke's naturalized epistemology thus far. First, and more globally, it is at the

heart of Locke's definition of knowledge (and opinion, though I have only argued for an interpretation of knowledge). Second, more narrowly, the distinction between simple and complex ideas plays a central role in Locke's account of knowledge of the external world. This section will illustrate the role of this distinction in both respects.

3.1.1 The simple/complex distinction in Locke's account of knowledge

The central aim of the *Essay* is to explain the limitations on human knowledge. To achieve that aim Locke draws a distinction between knowledge and mere probable opinion. Knowledge is the perception of agreement between ideas. Opinion is the presumption of agreement between ideas. At the heart of Locke's *Essay*, then, is a distinction between knowledge and opinion.

Locke's distinction between knowledge and opinion is drawn in terms of his theory of ideas. Locke's theory of ideas analyzes thoughts through what Locke calls his 'historical, plain method'. This historical plain method is a method for tracing the natural history of an idea in the understanding. At the core of Locke's historical plain method is a distinction between simple and complex ideas drawn in terms of the natural history in the understanding of each kind of idea. Simple ideas are ideas produced in the understanding as a result of substances operating on the mind. The mind is passive with respect to the origins of simple ideas in the understanding. Complex ideas, by contrast, are ideas produced in the understanding as a result of the mind operating on ideas that are somehow already in the mind. The mind has an active role in the production of complex ideas in the understanding.

Locke employs this distinction between simple and complex ideas to show how all of the materials of our thought, all of our ideas, can be understood as having their ultimate foundations in simple materials provided in experience. Our ordinary thoughts of substances,

modes, and relations are analyzed by Locke as the perception of complex ideas of substances, modes, and relations. These complex ideas are then traced to their origins in simple ideas of sensation or reflection by revealing their genetic structure, the kinds and orders of operations of the mind by which the component simple ideas are constructed into a complex idea.

Finally, Locke distinguishes knowledge and opinion in terms of genetic structure. Knowledge, I have argued, is defined in terms of idea-containment—knowledge is perceiving that one idea contains another. Opinion is also defined in terms of ideas: it is the presumption rather than perception of agreement between ideas. I have suggested, but not fully defended the claim, that the presumption of agreement between ideas should be understood as perceiving a conjunction without containment relation between ideas; that two ideas are conjoined in some third idea but neither contains the other as a part. Locke's ultimate explanation of the difference between knowledge and opinion, then, is in terms of the distinction between simple and complex ideas. In the preceding chapter I have illustrated how Locke applies his account of knowledge as the perception of idea-containment to cases of trifling knowledge, the intuitive knowledge we have of each stage in a demonstration, instructive demonstrative knowledge, and knowledge of the external world.

If I am correct that Locke ought to be understood as engaged in this kind of naturalized epistemology aimed at explaining the distinction between knowledge and opinion, then the distinction between simple and complex ideas is at the very heart of the *Essay*. The entire framework and its explanatory tools fall apart without a distinction between simple and complex ideas that can fund the account of genetic structure Locke uses to distinguish knowledge and opinion. To abandon it is to abandon the framework by which Locke proposes to carry out all the central project of the *Essay*.

3.1.2 Simple and complex ideas in Locke's account of sensitive knowledge

The distinction between simple and complex ideas also has a central role to play in the narrower topic of Locke's account of sensitive knowledge. In particular, the nature of simple ideas within Locke's theory of ideas as appearances of substances to the mind is what allows Locke to account for the fact that sensitive knowledge obtains in sensory experience.

Locke puts forth four desiderata for accounts of sensitive knowledge. Most important for the purpose of illustrating the importance of the simple/complex distinction to the account of sensitive knowledge are the desiderata that connect knowledge of the external world to sensory experience. In particular, Locke insists that there is a passive component to sensory experience, that we are aware of that passivity, and that our knowledge of the external world is founded on our awareness of that passivity. I have argued in the previous chapter that the passive component of sensory experience is the reception of simple ideas. Our awareness of our passivity is a matter of the overlap between our ideas of substances and our substance idea of our own mind with regard to simple sensory ideas. Our idea of our own mind is composed, in part, of an idea of a passive power with respect to some simple idea. Our idea of a distinct substance without is composed, in part, of an idea of active power with respect to that same simple idea.

If we have reason to suspect that Locke abandoned the claim that the mind is passive with respect to simple ideas then the account of how Locke's analysis of sensitive knowledge meets his own desiderata is threatened. If the mind is not passive with respect to simple ideas then we need another account of how Locke can account for our passivity in sensory experience. Similarly, we need an account of how Locke can account for our *awareness* of that passivity otherwise than in the overlap account I have sketched. Thus, the distinction

between simple and complex ideas as a distinction between structureless, passively received ideas and structured, actively produced ideas is at the heart of both Locke's larger naturalized epistemology and its more narrow application to sensitive knowledge.

3.2. In favor of Locke's commitment to the distinction between simple and complex ideas

In contrast to my claim that the distinction between simple and complex ideas is at the heart of both Locke's naturalized epistemology and his account of sensitive knowledge, several prominent scholars have claimed that not only does the distinction between simple and complex ideas break down but Locke recognized as much and therefore abandoned it. Rehabilitating the distinction against the first of these charges, that the distinction is irredeemably flawed, is an entire project in and of itself.¹⁴⁷ My aim in this section will simply be to defeat the arguments offered in support of the claim that Locke himself abandons the distinction. Thus, I will defend Locke's commitment to the following thesis in this section of the chapter:

Composition: Simple ideas are received passively in the understanding. Complex ideas are produced in the mind operating on its ideas. Complex ideas have compositional structure defined by the idea(s) they are composed of and the operations of the mind by which they are produced. Simple ideas are atomic in that they have no such compositional structure.

¹⁴⁷ A full defense of Composition would require a rehabilitation of, essentially, all of Books II and III of the *Essay*. That is, it would require sketching the entirety of Locke's framework of simple and complex ideas so as to show how Locke believes all ideas can be analyzed into nothing but simple ideas received in sensation and reflection and operations of the mind. In particular, the most difficult ideas in Locke's taxonomy of ideas to reconcile with Composition have been ideas of relations and abstract ideas. Lockean abstraction has looked to many like stripping away some ideas from others. As a result, it has looked to many of Locke's readers that abstraction could, possibly, yield fully stripped, that is, simple, ideas. Similarly, it has seemed to many as though some ideas of relations must be simple ideas for Locke. If that's right then Composition is in trouble because simple ideas of relations could have structure that precedes operations of the mind. A full defense of Composition should show how each of these, and similar other problems, can be avoided. Such a defense of Composition, however, is at least a book-length project in and of itself and so I shall have to set it aside here. See Brown (2006) for such an effort.

Before considering arguments against Locke's commitment to Composition, we can briefly consider some of the strong textual evidence exhibiting Locke's commitment to the thesis.

Evidence in favor of Composition comes in two varieties. First, there is evidence concerning the passivity of the mind with respect to simple ideas. We have considered ample such evidence in 1.3 above. Second, there is evidence tying activity of the mind to complex ideas. We will focus on that evidence here.

We can begin with Locke's introduction of complex ideas in II.xii, 'Of Complex Ideas'. Locke contrasts simple and complex ideas in terms of the activity of the mind:

We have hitherto considered those ideas, in the reception whereof, the mind is only passive, which are those simple ones received from sensation and reflection before mentioned...but as the mind is wholly passive in the reception of all its simple ideas, so it exerts several acts of its own, whereby out of its simple ideas, as the materials and foundations of the rest, the other are framed. (II.xii.1/163)

Though this passage begins a paragraph which we will consider in great detail shortly, the message here is unequivocal. The mind is passive in the reception of simple ideas. It then acts on those ideas in various ways to make all the rest of its complex ideas.

Later in II.xii Locke briefly describes each kind of complex idea. In his descriptions of each kind of complex idea he repeatedly emphasizes that it is the activity of the mind operating on its ideas which brings about the complex idea. Locke begins with ideas of modes. There are two kinds of complex ideas of modes: ideas of simple modes and ideas of mixed modes. Ideas of simple modes are ideas in which there are, "only variations, or different combinations of the same simple idea, without the mixture of any other, as a dozen, or score; which are nothing but the ideas of so many distinct unites added together, and these I call simple modes" (II.xii.5/165). Complex ideas of simple modes are formed by the mind repeating and combining the same simple idea. This is the distinct genetic structure of

complex ideas of simple modes. In addition to complex ideas of simple modes, Locke also allows for complex ideas that are composed of many different kinds of simple ideas, which he calls ideas of mixed modes. Complex ideas of mixed modes are ideas in which, there are “compounded of simple ideas of several kinds, put together to make one complex one; v.g. *beauty*, consisting of a certain composition of colour and figure, causing delight in the beholder; *theft*, which being the concealed change of the possession of any thing, without the consent of the proprietor, contains, as is visible, a combination of several ideas of several kinds” (II.xii.5/165). The distinct genetic structure of complex ideas of mixed modes is that they are composed of many different simple ideas and are put together by the mind combining its ideas. Simple modes and mixed modes are complex ideas because they involve the mind operating on its ideas by combining or compounding its simple ideas. Simple and mixed modes differ as complex ideas because the former, but not the latter, is only composed of one kind of simple idea.

The next kind of complex idea Locke introduces is complex ideas of substances. We have seen in great detail the characteristic genetic structure of complex ideas of substances in Chapter 1. They are formed, like ideas of modes, by the mind combining its ideas. Locke consistently characterizes the mind as having an active role with respect to substance ideas, and attributes the complexity of substance ideas to that activity. For example, substance ideas are, “such combinations of simple ideas as are taken to represent distinct particular things subsisting by themselves, in which the supposed or confused idea of substance, such as it is, is the first and chief” (II.xii.6/165; emphasis added). Unlike ideas of modes, complex ideas of substances have as a part the idea of substance₁. Again, then, substance ideas are

characterized by the operations of the mind on its simple ideas and by what kinds of ideas go into it.

Finally, the last kind of complex ideas Locke introduces are complex ideas of relations. Complex ideas of relations differ from complex ideas of substances or modes by virtue of the distinctive operation of the mind involved in their production. Locke writes, “the last sort of complex ideas, is that we call relation, which consists in the consideration and comparing one idea with another” (II.xii.7/166; emphasis added). Unlike complex ideas of modes or substances, complex ideas of relations are formed by putting together ideas through *comparing* rather than *combining* or compounding them. I suggested in the Introduction that the sense in which ideas are put together by being compared without being combined is analogous to the sense in which sentences can be put together by disjoining them to form a new sentence.

Clearly, then, when Locke introduces the category of complex ideas, he explains their complexity in terms of operations of the mind involved in their production. What makes a complex idea *complex* is that it contains other ideas and is formed by the mind operating on those ideas in some way to bring them together. In addition to Locke’s explicit definition of complex ideas in terms of the activity of the mind, Locke’s explanation of what it is for complex ideas to be clear or obscure and distinct or confused also shows that he takes complex ideas to be characterized by the fact that they are actively produced by the mind operating on its ideas.

According to Locke we can evaluate our ideas on a continuum from clear to obscure. Locke explicitly conceives of this dimension of evaluation for ideas on analogy with visual perception. A clear view of something is a view which provides us with a good apprehension

of its various features. By contrast, “we give the name of ‘obscure’, to that, which is not placed in a light sufficient to discover minutely to us the figure and colors, which are observable in it, and which, in a better light, would be discernible” (II.xxix.2/363). We might say that the clarity or obscurity of a visible object is defined in terms of what a visible object is. What it is to be a visible object is to have a (visible, as opposed to merely tactual) figure and colors. Thus, a visible object is clearly perceived when its figures and colors are evident. Similarly, a visible object is obscure when its figures and colors are not evident, though there are such features to be discovered in a better light. When it comes to complex ideas, “as they are made up of simple ones; so they are clear, when the ideas that go to their composition, are clear; and the number and order of those simple ideas, that are the ingredients of any complex one, is determinate and certain” (II.xxix.2). What it is for a complex idea to be clear is for it for its component parts and their structure to be evident. Continuing the analogy with visible objects then, *what it is to be* a complex idea is to be an idea composed of others in some way by various operations of the mind. This is what explains what it is for a complex idea to be clear. That is, what it is for a visible object to be clear depends on what it is to be a visible object. Similarly, what it is for a complex idea to be clear depends on what it is to be a complex idea. Locke’s definition of the clarity of complex ideas in terms of their genetic structure thus tells us what complex ideas *are*: they are ideas with genetic structure, ideas with other ideas as components, and produced by operations of the mind.

A similar argument can be drawn from Locke’s discussion of what it is for complex ideas to be confused or distinct. Ideas are distinct to the degree that they are distinguishable from other ideas. A distinct idea, “is that wherein the mind perceives a difference from all other; and a confused idea is such an one, as is not sufficiently distinguishable from another,

from which it ought to be different” (II.xxix.4/364). We have to be careful to understand the sense of ‘ought’ in play here for Locke. Ideas ought to be distinct, according to Locke, by virtue of being signified by different terms. Locke writes,

That which makes [an idea] confused is, when it is such, that it may as well be called by another name, as that which it is expressed by, the difference which keeps the things (to be ranked under those two different names) distinct, and makes some of them belong rather to the one, and some of them to the other of those names, being left out; and so the distinction, which was intended to be kept up by those different names is quite lost. (II.xxix.6/364)

Ideas are thus only confused with respect to language.¹⁴⁸ When one cannot make sense of the difference in terms by a difference ideas, and the terms are not supposed to be synonymous, then one has confused ideas. So, ideas are distinct and confused to the degree that they can be distinguished from one another.

What it is for complex ideas to be distinct from one another is defined in terms of their genetic structure, in terms of their component ideas and the operations which produce the complex. Confusion can happen in a several ways. Sometimes, ideas can be confused simply because they do not have enough distinguishing parts, though they are supposed to be ideas of distinct kinds because they are signified by different names. For example, Locke suggests that the idea one attaches to ‘lynx’ may not have enough material in it when compared to the idea one attaches to ‘panther’ or ‘leopard’ to differentiate the ideas (II.xxix.7/365). This may be because, for example, one only thinks of each kind of cat as a large, wild

¹⁴⁸ Locke continues this emphasis on the role of language throughout his discussion of the confusion of ideas and then emphasizes the point again when he summarizes his discussion. at II.xxix.11/367: “confusion, making it a difficulty to separate two things that should be separated, concerns always two ideas; and those most which most approach one another. Whenever therefore we suspect any idea to be confused we must examine what other it is in danger to be confounded with, or which it cannot easily be separated from, and that will always be found an idea belonging to another name, and so should be a different thing, from which yet it is not sufficiently distinct; being either the same with it, or making a part of it, or, at least, as properly call’d by that name, as the other it is ranked under; and so keeps not that difference from that other idea, which the different names import”. (emphasis added)

cat.¹⁴⁹ One's ideas of lynxes, panthers, and leopards are thus confused because, as complex ideas, they do not differ in their genetic structure. They all involve the same component ideas.

Another way in which complex ideas can be confused is that, "even though the particulars that make up any idea, are in number enough; yet they are so jumbled together, that it is not easily discernible, whether it more belongs to the name that is given it, than to any other" (II.xxix.7/365). Complex ideas can be confused when, even if they have some different component ideas, the structure provided by operations of the mind is not sufficiently distinct. The sense in which such ideas are confused is that the idea may as well be called by some name as any other. Locke illustrates this kind of confusion by an analogy with drawing.¹⁵⁰

¹⁴⁹ This is Locke's own example, but the greater familiarity of modern day readers with these cats through fashion, sports mascots, or any number of avenues may make this a very implausible example. Feel free to substitute any example from the semantic externalist literature where two words are taken to have different meaning even though the descriptions one associates with the terms are not different—elm and beech, might work for you.

¹⁵⁰ I here reproduce the quote in its entirety for the convenience of my readers. In the following paragraph I will provide my gloss on this passage: "There is nothing properer to make us conceive this confusion, than a sort of pictures usually shewn, as surprizing pieces of art, wherein the colours, as they are laid by the pencil on the table it self, mark out very odd and unusual figures, and have no discernible order in their position. This draught, thus made up of parts, wherein no symmetry nor order appears, is, in it self, no more a confused thing, than the picture of a cloudy sky; wherein though there be as little order of colours, or figures to be found, yet no body think it a confused picture. What is it then, that makes it be thought confused, since the want of symmetry doe not? As it is plain it does not: for another draught made, barely in imitations of this, could not be called confused. I answer, that which makes it be thought confused, is the applying it to some name, to which it does no more discernibly belong, than to some other. v.g. When it is said to be the picture of a man, or Caesar, then any one with reason counts it confused: because it is not discernible, in that state, to belong more to the name Man, or caesar, than to the name baboon, or Pompey; i.e. from the ideas signified by those names. Just thus it is with our ideas, which are, as it were, the pictures of things. no one of these mental draughts, however the parts are put together can be called confused, till it be ranked under some ordinary name, to which it cannot be discerned to belong, any more than it odes to some other name, of an allowed different signification." II.xxix. 7/365-6

Suppose you have a drawing made by random differently colored pencil marks strewn across a paper. In itself, Locke thinks, the drawing is not confused. You could, for example, make an approximate copy of the paper by recreating the strokes in the appropriate length, direct, and color. Such a drawing would be confused, according to Locke, were one to classify it under a certain category, say as a drawing of a tree, even though it bears no more discernible similarity to trees than it does to cars, planets, flowers, or dogs. That is, even though there are lots of colors and visible features to the drawing, lots of material for differences, it is a confused drawing if one tries to rank it as a drawing of something because it lacks sufficient structure to qualify as a drawing of some kind of thing rather than another. Similarly, Locke thinks, even if ideas have plenty of component ideas in them to be distinguished from others, those component ideas need to be assembled into a sufficiently distinguished structure whereby they can bear an appropriate connection to some names (or nominal essences) rather than others. The structure of complex ideas is provided by the operations of the mind that are active in the production of that complex as well as their order of operation. Complex ideas are distinct or confused, then, to the degree that they have distinguishable genetic structure. Just as Locke's account of the clarity of complex ideas sheds light on what complex ideas *are*, so too does Locke's account of the distinctness and confusedness of complex ideas shed light on what complex ideas are. They are ideas with genetic structure. They have component simple ideas which are ordered and combined by operations of the mind.

The final piece of evidence in favor of Locke's commitment to Composition can be drawn from Locke's explanation of the reality, adequacy, and truth of complex ideas. In each case, Locke explains the reality, adequacy, and truth of complex ideas by emphasizing that

such ideas are produced by the mind operating on its ideas and that such ideas are ideas with genetic structure. Unlike simple ideas, the reality of complex ideas does not simply follow from the nature of complex ideas. Locke writes:

Though the mind be wholly passive in respect of its simple ideas: Yet I think we may say it is not so in respect of its complex ideas: for those being combinations of simple ideas, put together, and united under one general name; 'tis plain, that the mind of man uses some kind of liberty, in forming those complex ideas...the question then is, which of these are real, and which barely imaginary combinations: what collections agree to the reality of things, and what not? (II.xxx.3/373)

The mind is active with respect to complex ideas. It produces them by combining, in some way, the simple ideas it receives. As a result, the reality of complex ideas, what it is for complex ideas to “agree to the reality of things” needs more explanation than in the case of simple ideas. Simple ideas, as mere products of things operating on the mind have a foundation in nature by being produced by things in nature. Complex ideas, by contrast, are produced by the mind. This therefore demands a different explanation of how what makes it the case that such ideas do or do not have a foundation in nature and so are real. We need not bog down in the details of Locke’s explanation of what it is for each kind of complex idea to be real. It is enough to note the passage above which emphasizes that the reality of simple ideas differ from the reality of complex ideas because the latter are combinations of the former made by the mind.

Locke makes a similar argument point regarding the adequacy of ideas. After stating that simple ideas are by their nature, Locke again goes on to explain that complex ideas are not in and of themselves adequate because they are combinations of simple ideas made by the mind. Complex ideas of modes and relations are adequate: “being voluntary collections of simple ideas, which the mind puts together without reference to any real archetypes or standing patterns existing any where are, and cannot but be adequate ideas” (II.xxxi.

3/376).¹⁵¹ By contrast, complex ideas of substances are not adequate: “complex ideas of substances are ectypes, copies too; but not perfect ones, not adequate: which is very evident to the mind, in that it plainly perceives, that whatever collection of simple ideas it makes of any substance that exists, it cannot be sure, that it exactly answers all that are in that substance” (II.xxxi.13/383).¹⁵² Complex ideas of modes, relations, and substances are all combinations of ideas made by the mind, and hence have genetic structure. The different genetic structure of these ideas, in particular the role of the idea of substance in ideas of substances, explains the adequacy of ideas of modes and relations, on the one hand, and the inadequacy of ideas of substances, on the other. Again, we need not bog down in Locke’s details here. It is enough to demonstrate Locke’s commitment to Composition to show that Locke explains the adequacy of complex ideas as a function of their genetic structure. Locke explains the adequacy of complex ideas in terms of what they are within his theory; that is, in terms of their genetic structure. Moreover, Locke adduces the same considerations to explain the truth of complex ideas of modes and relations,¹⁵³ and the falsity of complex ideas of substances¹⁵⁴. In each case, Locke explains the truth or falsity of complex ideas in terms of their genetic structure, thereby reaffirming his commitment to his definition of complex ideas as ideas with genetic structure, as ideas composed of other ideas and produced by the mind’s operations.

¹⁵¹ Locke reiterates the same point at II.xxxi.14/383-4.

¹⁵² This is the summary Locke gives of an extended discussion and illustration of this point from II.xxxi.6-2.31.11/377-82

¹⁵³ See II.xxxii.17 for details.

¹⁵⁴ See II.xxxii.18 for details.

There is, then, an extremely strong textual case in favor of Locke's commitment to Composition. First, Locke introduces and defines complex ideas as ideas composed of other ideas and produced by the mind operating on those ideas. That is, Locke introduces and defines complex ideas as ideas which differ from simple ideas in that they have genetic structure. Second, when Locke explains what it is for complex ideas to be clear or obscure, confused or distinct, real or fantastical, adequate or inadequate, or true or false, he explains each of these properties of complex ideas by reference to the fact that they are ideas with genetic structure. The differences between simple and complex ideas in all of these respects are explained by Locke as due to the fact that simple ideas have no genetic structure, they contain no other ideas and the mind is wholly passive with respect to them, but complex ideas do have genetic structure, they contain other ideas and the mind is active in their production. Moreover, differences between different complex ideas in these respects (namely, between ideas of substances and ideas of modes or relations) are explained by differences in their genetic structure. Clearly, then, Locke distinguishes between simple and complex ideas in terms of genetic structure and puts their distinction in terms of genetic structure to work in explaining differences regarding clarity, distinctness, reality, adequacy and truth.

3.3 Defusing arguments against Locke's commitment to Composition

Even those who claim Locke abandons Composition, such as Bolton and Aaron, admit the large amount of textual support for it: with one possible exception to be considered (and rejected as an exception) shortly, every time Locke explicitly discusses simple and complex ideas as such he draws the distinction in accord with Composition. As a result, and as I hope to have established in the preceding section, there is a very strong interpretive burden in favor of Composition. My concern, then, is to defend Composition by showing

that Locke himself did not abandon it as has been argued in the secondary literature. It is one thing for Locke's project to fully succeed. It is another thing for Locke himself to believe that it cannot do the work he initially thought it could do and to have abandoned it. Thus, my aim is to merely block the arguments that are offered *against Composition on the grounds that Locke himself abandoned it*. Given the heavy burden of interpretation in favor of Composition, without any good reason to reject it, Locke's commitment to Composition can be treated as secure for my purposes.

Opponents of Composition tend to draw on three main sources of support. First, an alleged change to Locke's description of the categories of ideas in II.xii.1. Second, a passage from 'Of Power' in which Locke seems to state that all simple ideas contain a relation, and so must not really be simple in the sense defined by Composition since they have relevant structure that precedes acts of the mind. Similarly, in the chapter 'Of Perception' in which Locke discusses the famous 'Molyneux problem', Locke states that vision, and perception more generally, involves judgment. That has seemed to many to compromise Locke's claim that we are passive in experience, and so has seemed to many to compromise Composition. Finally, there are a few specific examples of alleged simple ideas—space, time—which Locke categorizes as simple ideas but also appears to say are divisible and so have some composite structure. Let's tackle these challenges one at a time.

3.3.1. Complex ideas in II.xii.1

Book II of the *Essay* contains Locke's taxonomy of ideas. The vast majority of the Book, 28 of 33 chapters, is structured by the simple-complex distinction. As I have argued above, the remaining chapters, II.xxix-xxxii are dedicated to drawing on that taxonomy to explain various features of ideas; explaining what it is for ideas to be clear or obscure,

distinct or confused, real or fantastical, adequate or in adequate, and true or false. The first eleven chapters address simple ideas. Complex ideas are introduced and defined in II.xii and Locke's discussion of complex ideas continues through unbroken to II.xxviii. The opening paragraph of II.xii in which Locke introduces complex ideas went through a significant revision in the fourth edition of the *Essay*. This revision has been cited by Aaron (1971) as evidence that Locke himself eventually came to abandon the simple-complex distinction as spelled out in Composition.

We will look at the fourth edition change shortly. First, however, it will be useful to consider Aaron's interpretation of the change. According to Aaron, the following two tables best represent the change to II.xii.1 in the fourth edition of the *Essay*. The pre-fourth edition taxonomy of ideas is built around the simple/complex distinction (Aaron, 113):

- I. Simple Ideas
- II. Complex Ideas
 - a. Modes
 - b. Substances
 - c. Relations

In this table, the main division between ideas is that between simple and complex. Then, within the broader category of complex ideas, Locke offers a tripartite distinction between ideas of modes, substances, and relations. By contrast, the changes to II.xii.1 suggest the following taxonomy of ideas according to Aaron (Aaron, 113):

- I. Simple Ideas
- II. Complex Ideas
 - a. Ideas of modes
 - b. Ideas of substances
- III. Ideas of Relation
- IV. General Ideas

In this table, the main distinction between ideas is no longer a two-part distinction between atomic ideas received passively and ideas with structure created by operations of the mind.

Instead we have a four-part distinction. Ideas of substances and modes are lumped together as the only complex ideas.

Notice, however, that it is less clear on this view what exactly is supposed to guide this taxonomy. What is the dimension on which these four kinds of ideas are distinguished? This is a first hint that Aaron's interpretation of II.xii.1's revision is problematic. Moreover, when we consider the text it becomes clear that far from representing Locke's repudiation of Composition, the fourth edition change to II.xii.1 reaffirms and clarifies Composition and Locke's commitment to it. As we will see shortly, the guiding principle dividing the table even as Aaron has construed it is (a) whether operations of the mind are involved and (b) if they are, which. That is, category I ideas are distinct from the other three categories because they alone do not involve operations of the mind and categories II, III and IV differ from each other by *which* operations of the mind are involved in their production.

Let's now consider the fourth edition addition to II.xii.1. After the original opening sentence to II.xii, Locke adds: "But as the Mind is wholly Passive in the reception of all its simple ideas, so it exerts several acts of its own, whereby out of its simple ideas, as the materials and foundations of the rest, the other are frame" (II.xii.1/163). So far, there is no evidence of a departure from Composition. Indeed, it is as clear an affirmation of the principle as one could ask for. The next sentences are the inspiration for Aaron's claims. Locke continues:

The acts of the Mind wherein it exerts its Power over its simple ideas are chiefly these three, 1. Combining several simple ideas into one compound one, and thus all Complex ideas are made. 2. The second is bringing two ideas, whether simple or complex, together; and setting them by one another, so as to take a view of them at once, without uniting them into one; by which way it gets all its ideas of relations. 3. The third is separating them from all other ideas that accompany them in their real existence; this is called abstraction: and thus all its general ideas are made. (II.xii.1/163)

The first sentence of this passage drives Aaron's interpretation. Locke appears to restrict complex ideas to those ideas constructed by the mind's operation of combining. Thus, relations and general ideas, which come about by the mind comparing or abstracting its ideas, are not complex ideas. Presumably, then, ideas of substances and modes are the only complex ideas for Locke on this reading.

Finally, the last two sentences of the fourth edition addition appear to articulate a similar sentiment as that of the immediately preceding passage. Locke writes:

This shows man's power and its way of operation to be much what the same in the Material and Intellectual World. For the materials in both being such as he has no power over, either to make or destroy, all that Man can do is either to unite them together, or to set them by one another, or wholly separate them. I shall here begin with the first of these in the consideration of complex ideas, and come to the other two in their due places. (II.xii.1/163-4)

Here it is the last sentence that drives Aaron's interpretation. Locke here states that he will 'begin with the first of these in the consideration of complex ideas, and come to the other two in their due places'. Locke goes on to discuss complex ideas of modes (II.xiii-II.xxii) and then complex ideas of substances (II.xxiii-II.xxiv). Those, as Aaron read the passage, are all the complex ideas there are. The other two kinds of ideas Locke will discuss are ideas of relations (II.xxv-II.xxviii) and abstract ideas (III.iii-III.vi). Again, then, Aaron's claim that Locke has abandoned Composition is motivated by this passage insofar as the passage seems to identify complex ideas with an operation of the mind that unites or compounds its ideas.

To see that Locke's claims about 'complex' ideas are merely verbal and represent no serious repudiation of the simple/complex distinction as characterized by Composition, we can consider the original II.xii.1 into which the above passages were inserted. The original and post-fourth edition II.xii.1 begins as follows:

We have hitherto considered those ideas, in the reception whereof, the mind is only passive, which are those simple ones received from sensation and reflection before-mentioned, whereof the mind cannot make any one to itself, nor have any idea which does not wholly consist of them. (II.xii.1/163)

This passage is unequivocal. Simple ideas are those that the mind receives passively.

Presumably, then, the contrasting class of ideas are those in the mind as a result of the operations of the mind. In the pre-fourth edition II.xii.1, the next sentence and remainder of the paragraph continues as follows:

As simple ideas are observed to exist in several combinations united together; so the mind has a power to consider several of them united together, as one idea; and that not only as they are united in external objects, but as itself has joined them. Ideas thus made up of several simple ones put together, I call complex; such as are beauty, gratitude, a man, an army, the universe; which though complicated of various simple ideas, or complex ideas made up of simple ones, yet are, when the mind pleases, considered each by itself, as one entire thing, and signified by one name. (II.xii.1/164)

Again, the theme sounded throughout these passage is that there are, on the one hand, simple ideas passively received in the mind, and on the other hand, ideas created by the mind putting ideas together by operations of the mind so as to form a new unit of ideas.

The fourth-edition addition is inserted between the two passages quoted above. Moreover, the remainder of II.xii is largely unchanged and Locke continues to refer to ideas of relations and abstract ideas as complex ideas in the remainder of the chapter (and, indeed, in the very next paragraphs). This suggests the following interpretation of the II.xii.1 fourth-edition addition. The primary division Locke is concerned with is between simple and complex ideas as per Composition. I am not aware of any place in the *Essay* besides the fourth-edition addition that Locke uses the phrase ‘complex idea’ to mean ideas produced by compounding rather than comparing or abstracting. That is, the main division in the taxonomy of ideas is between ideas passively received in the understanding and those produced in the understanding by virtue of the operations of the mind on ideas already

somehow in the understanding. Rather than take the fourth-edition addition as a repudiation of Composition, then, I suggest we understand Locke as simply adding detail by explaining what kinds of operations of the mind are involved in producing such ideas. In the original II.xii.1, Locke only describes complex ideas produced by compounding operations. The fourth-edition addition just adds more detail about the ways in which complex ideas may be produces to avoid confusion about what kinds of operations of the mind are allowed.

The different ways in which the mind may produce new ideas are as follows. In the first place, a new single idea can be produced from other ideas by the mind compounding them into a kind of unity. These are ideas are ideas of substances and modes. What is special about this kind of operation of the mind is that the new single idea is supposed to be a kind of unity to it. The difference between substance and mode ideas, as we have seen, is not a difference in this respect, then, but instead that substance ideas contain the idea of substance as one of the ideas compounded together. In the fourth-edition addition Locke calls these complex ideas. However, even in the addition it is clear that in calling such ideas complex Locke means to emphasize the *distinct kind of unity* these ideas have. That is, the new ideas produced in this way are unique among ideas produced by operations in the sense that the way that the mind puts its ideas together to create these kinds of ideas has a distinct effect on what we might call the ‘content’ of the idea. Or, to put it another way in terms that highlight the compatibility of Composition with the fourth-edition addition: complex ideas are structures of ideas and operations of the mind; so, complex ideas differ not only by virtue of their constituent ideas but also by the operations of the mind by which those constituent ideas are brought together to form a new, single idea. Or, as I have suggested, the mind puts ideas together in the case of ideas of modes and substances in two senses. First, it puts them

together in sense analogous to that in which the truth-functional connective of conjunction puts ideas together. Second, there is a broader sense in which the ideas are put together in the case of ideas of modes and substances which applies to all complex ideas. Namely, the sense in which a sentence can be formed by conjoining, disjoining, or conditionalizing other sentences. The best way to see this point is through the clear contrast case of ideas of relations.

Another way the mind forms a new, single idea from other ideas is by comparing them. When a new idea is formed in this way it is an idea of a relation. As Locke states, idea of the relation is an idea in which other ideas are brought together but not united in the same sense in which ideas of modes and substances are united: “The second [act of the mind wherein it exerts is power over its simple ideas] is bringing two ideas, whether simple or complex, together; and setting them by one another, so as to take a view of them at once, without uniting them into one; by which it gets all its ideas of relations” (II.xii.1/163). This way of creating a new, single idea from ideas already in the mind is a way of putting the ideas already in the mind together without having that unity as part of the content of the idea. So, suppose we have two ideas A and B. The mind can put these together to in at least the following two ways. It can compound them to form an idea of a substance or mode (depending on what else the ideas are compounded with). The mind can also compare them to form an idea of a relation (of what relation the idea is of will depend on the respects A and B are compared). Even though we have the same two ideas operated on, we nevertheless have two distinct complex ideas produced as a result. One is a complex whose structure is one in which two ideas are put together by a compounding operation. The other is a complex whose structure is one in which two ideas are put together a comparing operation. This

difference in genetic structure is what accounts, in part, for the difference in ‘content’ of the complex idea. Correcting on Aaron’s tables to reflect the interpretation I have suggested based on how Locke integrates the fourth edition material into the original II.xii.1 yields the following:

- I. Simple Ideas
- II. Complex Ideas
 - a. Compounded Ideas
 - i. Ideas of Substances
 - ii. Ideas of Modes
 - b. Ideas of Relations
 - c. General Ideas

Thus, we can conclude that the fourth edition addition is not a repudiation by Locke of Composition. Instead, the addition adds some detail and clarity. The central distinction in the taxonomy of ideas is still that between simple and complex ideas as characterized by Composition.

3.3.2. Simple ideas and representation

The next line of argument offered against Locke’s commitment to composition comes from Locke’s discussion of the representational aspects of simple ideas. This line of argument draws on a family of texts spread throughout the *Essay* in which Locke discusses simple ideas as ideas of qualities. In chapter II.xxi, ‘Of Power’, Locke appears to admit that all of our simple ideas are, in a way, relational. In chapter II.ix, ‘Of Perception’, Locke’s response to the famous Molyneux problem seems to suggest that on his account of perception our simple ideas are altered by acts of the mind. In discussing the names of simple ideas, Locke describes the names of simple ideas as having a ‘tacit reference’ to their cause or ‘intimating some real existence’, suggesting there is some extra complication to simple ideas beyond what Locke’s official account of simple ideas suggests. Finally, in discussing

the reality, adequacy, and truth of simple ideas Locke repeatedly emphasizes that simple ideas are real, adequate, and true with respect to their causes. Thus, readers have inferred, simple ideas must represent their *causes* and so again, there must be more to them than is suggested by Locke's official definition of them. Bolton (2007) develops this line of argument most forcefully.

The fact that simple ideas are ideas of *qualities*, according to Bolton, forces Locke into a bind. On the one side is his account of simple ideas within his taxonomy of ideas. On the other side is that with respect to which simple ideas are real, adequate, and true: qualities. Locke characterizes simple ideas in three ways at various points. He characterizes them as consisting in a single, uniform appearance (II.ii). He characterizes them as undefinable (III.iv). And, as I have detailed at length in 1.4, he characterizes them as ideas with respect to which the mind is passive. I have argued in 1.4 above, it is the passivity of simple ideas that is their defining feature in simple ideas and Locke draws on this passivity to explain the reality, adequacy, and truth of simple ideas. Bolton, by contrast, finds a tension between Locke's claims about the mind's passivity on the one hand, and the reality, truth, and adequacy of simple ideas with respect to qualities, on the other.

Bolton starts by claiming that in order to be real, adequate, and true with respect to qualities, simple ideas must be representations of qualities. As a result, she argues, simple ideas cannot simply be passively received for Locke. According to Bolton, the reality, adequacy, and truth of simple ideas "force a qualification of the view of paradigmatic simple ideas that pervades the early chapters of Book II. The idea of blue, for example, turns out to be more than a phenomenal presentation, 'uniform in appearance' an ineffable" (Bolton 2007, 79). The qualification that the reality, adequacy, and truth of simple ideas forces,

according to Bolton, is that the mind must refer such ideas to their *cause* since they are real, adequate, and true with respect to their cause. To make this point clear, Bolton contrasts a *phenomenal presentation* with a simple idea. Bolton notes, “it is not intrinsic to the phenomenal presentation, but it is surely essential to the idea of blue. It could not represent as it does or perform its marking function without the reference” (Bolton, 80; emphasis added). Bolton’s reasoning is as follows. Simple ideas, by their nature as simple ideas, are real, adequate, and true with respect to what they represent. They represent their causes. So, by their nature, simple ideas represent their causes. Phenomenal presentations do not in themselves represent their causes. Thus, there is more to simple ideas as they are in themselves than mere phenomenal presentations. According to Bolton, the more that there is to the simple ideas beyond a phenomenal appearance is a ‘tacit reference’ by the mind of the simple idea to its cause.

On Bolton’s reading, this activity of the mind with respect to simple ideas compromises Locke’s claim that simple ideas are simple in the sense of being simple, uniform appearances. There is more to simple idea than a phenomenal appearance, there is in addition a reference of that appearance to a cause. It is then clear how the definition of simple ideas in terms of passivity is compromised: the very thing that is added to phenomenal presentations to make them into simple ideas, ideas which represent qualities, is an *act* of the mind referring them to their cause. Simple ideas also become definable, in a sense, as a result of including an act of the mind. All simple ideas can be defined in terms of (a) their

phenomenal presentation and (b) the act of the mind of referring such ideas to their cause that is common to all simple ideas.¹⁵⁵

So far we have seen a compromise to the passivity of simple ideas that is demanded by their representational content. Bolton points to Locke's discussion in the chapter entitled 'Of Perception' as evidence that there is a further complication when it comes to simple visual ideas in particular. Locke's discussion of the famous Molyneux case suggests to Bolton that Locke further abandons his account of simple ideas as passively received. We can consider Locke's texts before examining Bolton's interpretation. Locke writes, "the ideas we receive by sensation are often in grown people alter'd by the judgment without our taking notice of it" (II.ix.8/145). Locke goes on to illustrate the secret role of judgment in perception by contrasting our visual experience of things as three dimensional with the claim that what the visual senses in fact deliver is but a two-dimensional mosaic of colors. For example:

"When we set before our eyes a round globe, of any uniform colour, v.g....alabaster... 'tis certain that the idea thereby imprinted in our mind is of a flat circle variously shadow'd with several degrees of Light and brightness coming to our eyes. But we having by use been accustomed to perceive, what kind of appearance convex bodies are wont to make in us; what alterations are made in the reflections of light by the difference of the sensible figures of bodies, the judgment presently by an habitual custom alters the appearances into their causes: So that from that which truly is variety of shadow or colour, collecting the figure, it makes it pass for a mark of figure, and frames to itself the perception of a convex figure, and an uniform color; when the ideas we receive from thence, is only a plain variously color'd as is evident in painting. (II.ix.8/145)

¹⁵⁵ "This is in tension with the thesis that names of simple ideas are indefinable, which naturally accompanies the atomic notion of simplicity. Because the idea of blue involves a phenomenal representation and an 'intimation' common to other simple sensory ideas, the name of the idea can be expressed by two names, neither of which is synonymous with the name defined. Strictly speaking, this undermines the thesis about language, and eposes Locke's tendency to neglect the intentional content of sensory ideas" (Bolton 2007, 80).

Just as a painter paints a three-dimensional, uniformly colored object in two dimensions by using various shading, so too does our visual system take the two-dimensional colored inputs of visual ideas and form ideas of objects as three-dimensional. Color constancy and edge perception are similar kinds of modifications our perceptual systems makes with respect to sensory inputs in producing our sensory experience of a three-dimensional world. Locke attributes such modifications to ‘habit’ and experience, and consequently claims that a man born blind and instantly made to see would not be able to immediately distinguish a globe from a cube (II.ix.8/145-6).

Bolton renders these passages as evidence against Locke’s commitment to Composition in the following way. The mind takes the visual idea it is presented with of white circle “variously shadow’d”, and through experience of tactually interacting with what it takes to be the tactual appearance of the white object comes to associate that visual presentation with the idea of a convex shape. Hence we come to see white circles “variously shadow’d” as globes. According to Bolton’s reading, this is a matter of the visual simple idea one has when looking at the globe representing a globe. The visual idea of the globe is “an idea that marks, corresponds to, and represents the cause of the passively received idea” (Bolton 2007, 81). The visual simple idea comes to have that content by being referred to the tactual idea: “a sighted person normally acquires visual ideas of figure, position, and so on; but only by forming the habit of altering the ideas that appear in the mind directly from external causes” (Bolton 2007, 82). As a result, “although Locke ranks both visual and tactual ideas of extension, figure, motion, and so on as *simple*, he nevertheless maintains that the visual ideas are derived from other ideas” (Bolton 2007, 82). In the end, according to Bolton, “judgment is said [by Locke] to mediate the connection between bodily qualities and

the ideas that represent them—threatening the reality and adequacy of those ideas, and blurring the dichotomy of simple and complex ideas based on their origins” (Bolton 2007, 82). So, besides referring simple ideas to their causes, in the case of visual ideas at least, the mind also refers such ideas to other ideas. Namely, our visual ideas of three dimensional shapes, for example, come to have their content by being referred to tactual ideas. Nevertheless, according to Bolton, these ideas are simple ideas for Locke even though the mind is active with respect to them. This, as I will shortly argue, is Bolton’s mistake.

Thus, according to Bolton, the mind is doubly active with respect to simple ideas of sensation. In each case Locke thinks that the mind intervenes between the passively received sensory material and its simple ideas. In the first place, it intervenes in imposing a kind of causal content or supposition. This is how we get the *idea* of blue, on Bolton’s account, from a mere phenomenal presentation of blue. Second, for at least some of our visual simple ideas, the mind replaces what is the mere or pure visual content of a colored two-dimensional figure, with the content of a colored three-dimensional figure imported from tactual ideas. In each case, the mind is active in supposing something over and above what is passively received. Now, as it happens by the goodness of God or efficiency of nature, these suppositions of the mind are accurate for the most part.

Careful consideration of the paragraphs following those cited by Bolton suggests, however, that Locke thinks that the ideas altered by the mind in the ways Bolton draws on *are no longer* simple ideas. In fact, far from threatening the theory of perception embodied in Composition, II.ix offers a resounding endorsement. The textual evidence in II.ix gives us a very strong endorsement of the distinction drawn in the previous chapter between Locke’s technical ‘sensation’ and sensory experience. As I will now display, after Locke insists on

the active role of the mind in sensory experience in II.ix, he states that the altered ideas are no longer ideas of ‘sensation’ but now ‘ideas of judgment’, although Locke thinks we are likely to confuse the latter for the former.

After considering the Molyneux problem and endorsing Molyneux’s suggestion that a man born blind and newly made to see would not right away be able to visually discern a cube from a globe, Locke again repeats the role of judgment and habit in sensory experience:

[T]he far different ideas of space, figure, and motion, the several varieties whereof change the appearance of its proper object, viz. light and colors, we bring our selves by use, to judge of the one by the other. This in many cases, by a settled habit, in things whereof we have frequent experience, is performed so constantly, and so quick, that we take that for the Perception of our Sensation, which is an idea formed by our judgment; so that one, viz. that of Sensation, serves only to excite the other, and is scarce taken notice of it self; as a man who reads or hears with attention and understanding, taking little notice of the characters, or sounds, but of the ideas, that are excited in him by them (II.ix.9/146-7).

Locke’s point here is, again, that when it comes to our sensory experience we, as adults with much experience, put together visual and tactile ideas so quickly that we hardly notice the mind’s activity in doing so. Indeed, the mind’s activities in such cases are as transparent and unnoticed as when one is engrossed in a story or book and penetrates straight through the medium to the content. Nevertheless, what stands out in this passage is that our failure to notice the mind’s activity in sensory experience leads to a *confusion*. Namely, we tend to (confusedly and hence wrongly) regard the products of the mind’s activity as the deliverances of sensation. The mind’s actions are “performed so constantly, and so quick, that we take that for the perception of our *Sensation*, which is an idea formed by our judgment” (II.ix. 9/146). As Locke has not yet introduced his technical notion of judgment (and does not do so until well into Book IV) but has introduced his technical notion of sensation in II.i (and elaborated it in detail in II.ii), we can take Locke’s use of judgment here to be shorthand for

mental activity. Thus, if we *confuse* sensation for the products of the operations of the mind, we confuse simple ideas of sensation with complex ideas. Simple ideas and ideas of qualities are in fact *two different kinds of ideas*.

Moreover, in the very next paragraph, Locke goes on to emphasize that quick, habitual actions of all types are commonly unnoticed. And, again, he emphasizes this leads to a *confusion*. He writes, “Habits, especially such as are begun very early, come, at last, to produce actions in us, which often escape our observation. How frequently do we, in a day, cover our eyes with our eye-lids, without perceiving that we are at all in the dark?...And therefore ‘tis not strange, that our Mind should often change the ideas of its Sensation, into that of its Judgment, and make one serve only to excite the other, without our taking notice of it” (II.ix.10/147). This passage again confirms that the deliverances of Sensation are changed into *a different kind of idea* by the operation of the mind. They are no longer simple. And, moreover, we often fail to consider this difference when introspecting our own sensory experience. Nevertheless, Locke’s point in this passage is to emphasize the importance of the mind’s activity. That is, his point is to emphasize that our sensory experience is *constructed from the deliverances of Sensation by operations of the mind* even though we do not consciously think of it as such.

The picture Locke paints in II.ix therefore confirms the constructivist account of sensory experience developed over the previous two chapters. Simple ideas are received passively by the operation of objects on the understanding. These ideas are constructed into ideas of qualities using, in part, the simple idea of power. This is what Locke calls a ‘tacit reference’ by the mind of simple ideas to their causes. These ideas of qualities are then assembled into an idea of substance. This construction constitutes what Locke calls the

intimation of some real existence by simple ideas. Locke's point in II.ix regarding the active role of the mind in sensory experience is that we confuse one idea of another: *we confuse simple ideas with ideas of qualities*. Simple ideas are not, in themselves, ideas of qualities. Instead, they are merely the products of things operating on the mind. They indicate the power to produce that idea. As I explained in 1.4, because simple ideas of sensation cannot be produced by the mind they cannot fail to indicate the existence of a power to produce that idea. As a result, they are real, adequate, and true.

Finally, this account of the role of the mind in constructing sensory experience from simple sensory ideas gives us a line of response to what seems like the most powerful piece of textual evidence against Locke's commitment to Composition. In 'Of Power', Locke gives the following apology for including power among our simple ideas:

I confess power includes in it some kind of relation, (a relation to action or change) as indeed which of our ideas, of what kind soever, when attentively considered, does not? For, our ideas of extension, duration, and number, do they not all contain in them a secret relation of the parts? Figure and motion have some thing relative in them much more visibly: And sensible qualities, as colours and smells, &c. what are they but the powers of different bodies, in relation to our perception? &c. And if considered in the things themselves, do they not depend on the bulk, figure, texture, and motion of the parts? All which include some kind of relation in them. Our idea therefore of power, I think may well have a place amongst other simple ideas, and be considered as one of them, being one of those that make a principal ingredient in our complex ideas of substances, as we shall hereafter have occasion to observe. (II.xxi. 3)

The next subsection will address the way in which the divisibility of extension and duration do not compromise Locke's claim to simple ideas of extension and duration. For now, we can focus on the challenge presented by this passage concerning sensible qualities. It is, ultimately, the same as that raised by Bolton above. This passage is taken by Bolton (2007), for example, to undermine the idea that simple ideas are distinct from complex ideas by virtue of their atomicity (their lack of genetic structure) and passivity (Bolton 2007, 74-75).

On Bolton's interpretation of this passage, Locke claims that even simple ideas from sensation have some internal, relational structure insofar as they represent qualities in the world. Simple ideas are ideas *of* qualities and so have intentional as well as phenomenal content. The intentional content of such ideas means that they have structure, they carry in them as content a representational relation to the qualities they are ideas of, and so are not atomic. As we have seen, simple ideas are not ideas of qualities in the sense that they have the intentional content: cause of x (where x is some phenomenal content). They are ideas of qualities only in the sense that they are produced by objects operating on our mind. Ideas of qualities, by contrast, are constructed by the mind from its simple ideas of sensation and a simple idea of power. Locke's point in this passage is that simple ideas are constituents in our thought as ideas of powers of things in relation to our own mind. I have developed the way in which simple ideas so function in our thought and experience in extensive detail in the preceding two chapters. Locke's point about the simple idea of power is that it is likewise in a similar position. It functions in our thought and experience in a relational way, accounting for our thought of connections between objects, or between objects and our own mind. This relational role does not count against the simplicity of the simple idea of power.

Having seen how Locke's commitment to Composition is *confirmed* rather than *threatened* by his account of the role of simple ideas in our ideas of qualities, we can now turn to the final threat presented against Locke's commitment to Composition.

3.3.3 Simple ideas and Simple Modes: Extension and Duration, Space and Time

Both Aaron and Bolton refer to Locke's discussion of our ideas of space and time as evidence that Locke, in the end, abandons the simple/complex distinction as understood by Composition. This is intended as a challenge to the claim of Composition that simple ideas

are atomic and only complex ideas have compositional structure. The challenge is supposed to be that the ideas of space and time are (a) simple but (b) have compositional structure. Bolton points to II.xv.9 in support of this claim (Bolton, 75, 84). Let us consider some of the allegedly damning passages.

In II.xv.9 Locke considers some of the similarities between our ideas of time and space. Locke writes, “there is one thing more, wherein Space and Duration have a great conformity, and that is, though they are justly reckoned amongst our simple ideas: yet none of the distinct ideas we have of either is without all manner of composition, it is the very nature of both of them to consist of Parts: but their parts being all of the same kind, and without the mixture of any other idea, hinder them not from having a place amongst simple ideas” (II.xv.9/201-2) This passage seems to suggest that any amount of space or duration is divisible. As Bolton understands this claim, since any amount of space or duration is divisible, any idea of space or duration will also be divisible. If there are no spatial or temporal atoms, there are no ideas of spatial or temporal atoms, and so no atomic ideas of space or duration.

Though this passage and other similar parts of Locke’s discussion of the ideas of space and time may appear to cut against Composition in attributing compositional structure to some simple ideas, careful consideration of the passages removes this illusion. To begin, focus on the portion of the passage quoted that follows the colon. Locke writes, ‘but their parts being all of the same kind, and without the mixture of any other idea, hinder them not from having a place amongst simple ideas’. What we have, then, is Locke’s explanation for why the ideas of Space and Duration are rightly regarded as simple: such ideas are composed of, respectively, the same kind. That is, our ideas of space are composed only of ideas of

space. Our ideas of duration is composed only of ideas of duration. Since each is only composed of other ideas of the same kind, each can be regarded as simple.

The criterion Locke invokes here to justify calling the ideas of space and duration simple is exactly the way in which he characterizes what he calls ideas of simple modes, which are a kind of complex idea. He introduces simple modes as follows:

Though in the foregoing part, I have often mentioned simple ideas, which are truly the materials of all our knowledge; yet having treated of them there, rather in the way that they come into the mind, than as distinguished from others more compounded, it will not be, perhaps, amiss to take a view of some of them again under this consideration, and examine those different modifications of the same idea. (II.xiii. 1/166)

Locke's point here is quite clear. First, the main distinction between ideas which structures Book II is the distinction between simple and complex ideas as defined by Composition with respect to origin and compositional structure. Simple ideas were the topic of the first eleven chapters of Book II. Chapter xii introduces complex ideas. Chapter xiii begins with the differences among complex ideas. In particular, II.xiii begins with simple modes, which are distinct among complex ideas insofar as they are composites of the same simple idea, repeated several times over. Their genetic structure, then, is unique among complex ideas in that simple modes only involve one kind of simple idea.

Simple modes can differ from one another by virtue of either the number of repetitions of the same simple idea that are constituents of the simple mode or by different kinds and orders of operations of the mind. The point is that different genetic structures constitute different ideas, even if they are all variations on the same one simple idea. Locke reaffirms these points for ideas of simple modes again shortly after, "Those modifications of any one simple idea, (which, as has been said, I call simple modes) are as perfectly different and distinct ideas in the mind, as those of the greatest distance or contrariety" (II.xiii.1/167).

Again, Locke insists that the genetic structure of complex ideas is a function of both the component ideas and the operations of the mind involved in their production. Simple modes illustrate the importance of the latter in determining differences among complex ideas over and above the component ideas contained in a complex idea.

Finally, it is clear from the first passage cited in II.xiii.1 that Locke is willing to call ideas of simple modes simple ideas. That is, they are, in the sense just explained of only involving one kind of simple idea, simple with respect to the other complex ideas. It does not follow from this that Locke is abandoning the main simple/complex distinction as Composition draws it. They are, nevertheless, complex ideas in the foundational sense which structures Book II. Locke often (II.viii, 2.23, to name a few) plays loose with terminology when technical definitions have been given. Calling strictly simple ideas and simple modes ‘simple ideas’ looks to be another place in which he does so.

The fifth edition of the *Essay* adds a footnote to II.xv.9. It is a note from Coste reporting Locke’s response to the objection under consideration now. Locke’s reply emphasizes that he is not following the scholastic tradition of laying down strict definitions whenever a new terms is introduced and then following to use precisely differentiated terminology. Instead, Locke believes he makes clear what he means by his terms and which sense of his terms are in use in different portions of the *Essay*. Thus, not only does Locke admit that he is loose in his terminology, in general, but what is more important he admits to loose usage of terminology in exactly the way that has confused Bolton and Aaron regarding space and duration: Locke does not call ideas of space and duration which are composed of other ideas of space and duration simple in a strict sense. Rather, as he makes clear in invoking the definition of simple modes, he is calling them simple modes.

Thus, Locke's claim in II.xv.9 that our ideas of space and duration are simple despite having compositional structure does not compromise Composition. Rather, Locke's claim is merely that our ideas of space and duration are simple modes. The simple/complex distinction as drawn by Composition is helpful in clarifying Locke's point here. The strictly simple idea of space is received by the senses through vision and touch (II.xiii.2/167). Any length or distance is a simple mode, composed only of the simple idea of space by the mind compounding and repeating that simple idea: "each different distance is a different modification of space, and each idea of any different distance, or space, is a simple mode of this idea" (II.xiii.4/167). Shape and place are also simple modes of space (II.xiii.5-10/168-171). A similar story holds for our ideas of duration. We receive a simple idea of duration through reflection (II.xiv.2-4/181-2). Our ideas of different lengths of time are simple modes of this simple idea: "this [simple idea] we call duration, the simple modes whereof are any different lengths of it, whereof we have distinct ideas, as hours, days, years, etc. Time and Eternity" (II.xiv.1/181). In stating that all the parts of space are only more space and all the parts of duration are only more duration, Locke is merely noting that for any amount of space or time that we pick, we can further divide that amount into subdivisions of space or time. Locke is therefore not saying that all of our *ideas* of space are divisible ideas.

The closest we can come, Locke thinks, to an idea of indivisible space or duration is phenomenological: a moment, in the case of duration, or a minimal sensible point (Locke suggests that this is 'less than thirty seconds of a circle, whereof the eye is the centre'), in the case of space (II.xv.9/202-203). This does not mean, however, that the strictly simple idea of space *is* a minimal sensible point or that a strictly simple idea of duration *is* a moment in experience. Even those ideas are simple modes of the strictly simple ideas received in

sensation and reflection. They are ideas of space and duration whose parts are not clear and distinct, but it does not follow that they are not, in fact, composed of simple ideas. They are, instead simple ideas in at least two other senses. First, in that they are simple modes, and so simple relative to other kinds of complex ideas. Second, in that they are the closest we can get to an indivisible unit of space or time in experience, and so the simplest *phenomenal* building blocks of any other *phenomenal* ideas of space and duration.

Thus, we have no good reason to suppose that Locke himself abandons Composition. In fact, when closely considered, the evidence raised against Locke's commitment to Composition turns out in fact to be a reaffirmation and elaboration of Composition. Far from abandoning the simple/complex distinction, as Aaron maintains, the II.xii.1 fourth-edition addition elaborates and clarifies the kinds of operations the mind employs in creating its complex ideas. Moreover, Locke's insistence that the mind is active in sensory experience affirms a corollary to the simple/complex distinction as characterized by Composition: the distinction between Locke's technical use of Sensation and sensory experience, and the construction by the mind of the latter from the materials supplied by the former. Finally, in calling our ideas of space and time simple in II.xiii-II.xv, Locke's point is merely to emphasize their special status *within* the family of complex ideas: they are simple modes composed of only one kind of simple idea. Thus, Locke's commitment to Composition cannot be doubted.

Moreover, we have seen further confirmation of some of the central claims of the preceding chapters. For example, we have seen strong textual confirmation of Locke's constructivism about sensory experience. Locke himself distinguishes between sensation and sensory experience in noting that the operations of the mind have an important role to play.

Locke's discussion of the active role of the mind also confirms that his account of the genetic structure of ideas is not responsible to conscious reflection on our thought and experience.

Instead, I have suggested that Locke holds his account of the structure of thought responsible to its adequacy with respect to knowledge and opinion. Several of Locke's readers, however, have found a philosophy of science in the *Essay* that rules out this form of speculative inquiry. In the next chapter we will redress this second major tentpole of Locke's naturalized epistemology by clarifying both Locke's explanatory ambitions and his philosophy of science as it pertains to hypotheses and the scope of human understanding.

Chapter 4: Locke's Naturalized Epistemology as a Theoretical Project

The second main tenet of Locke's naturalized epistemology likely to raise an eyebrow among Locke scholars is that Locke's theory of ideas provides a *theoretical* framework for explaining the nature, grounds, and limitations of knowledge and opinion. Locke's claims about the compositional structure of complex ideas are not to be evaluated against what is available upon introspecting our own thought. Rather, the criteria for evaluating the framework are its explanatory adequacy with respect to knowledge and opinion. Can the framework distinguish the two and accommodate canonical cases of knowledge and opinion under the terms of its definitions for each?

To give this pillar of Locke's naturalized epistemology a name for easy reference throughout our discussion, we can call this thesis Theoretical as we labeled the central thesis of the previous chapter Composition.

Theoretical: Locke's discussion of ideas is a theory of ideas. Locke's claims about the genetic structure of ideas and which ideas are simple ideas are theoretical posits made in the service of explaining the nature, grounds and limitations of knowledge. Consequently, the basic tenets of Locke's theory of ideas are best understood as hypotheses of his naturalized epistemology.

In the remainder of this chapter my aim is to defend Theoretical. The structure of this chapter will parallel the structure of the previous. First, I will illustrate and explain how the interpretation of Locke's account of sensitive knowledge developed in the first two chapters depends on Theoretical. To do this we will consider a competing, mainstream approach to Locke's discussion of ideas. As we will see, on this kind of approach the simple/complex distinction between ideas is doomed to fail, and with it, Locke's account of sensitive

knowledge as a perceived agreement between ideas. Second, I will explain Theoretical in more detail and make the textual case for ascribing it to Locke. Finally, I will consider and reject some objections that may be raised against Theoretical.

The objections that we will consider pose a particularly deep challenge to the claim that Locke is engaged in a naturalized epistemology. If either were to succeed, they would show that Locke himself rules out the kind of project I have ascribed to him as a form of rational inquiry. In particular, there is an increasingly popular interpretation of Locke's philosophy of science according to which hypotheses about the workings of nature can merely serve a heuristic role in our understanding of the natural world. They can merely facilitate new experiments that can provide new observations to broaden generalizations over observable phenomena. Hypotheses *do not*, on this interpretation of Locke, increase our understanding of the world. If these interpretations of Locke's epistemology are well founded, then it is clear that Locke could not, with any semblance of consistency be engaged in the naturalized epistemology so far ascribed to him. Before considering this challenge in detail, however, we can now turn to Locke's explicating the way in which Locke's naturalized epistemology and account of sensitive knowledge depend on Theoretical.

4.1 Locke's Naturalized Epistemology and Theoretical

In Chapter 3 I illustrated the deep dependence of Locke's naturalized epistemology and its specific application to sensitive knowledge on the distinction between simple and complex ideas. More specifically, I argued that Locke's naturalized epistemology and its application to sensitive knowledge depend on a particular construal of the simple/complex distinction—it is a distinction in terms of genetic structure. Simple ideas are passively received into the understanding and have no genetic structure. Complex ideas are actively

produced by the mind operating on ideas that are already somehow in the understanding.

Complex ideas have a genetic structure defined in terms of their component ideas and the kinds and order of operations of the mind involved in their production.

My aim in this section is to detail the way in which the claims of Locke's naturalized epistemology and its account of sensitive knowledge depend on taking Locke's claims about ideas to be theoretical posits of his naturalized epistemology. To do this I will draw on secondary literature for evidence of how quickly Locke's distinction between simple and complex ideas, and so, ultimately, how quickly Locke's entire naturalized epistemology falls apart by holding Locke's theory of ideas accountable to the wrong standard. Specifically, we should *not* understand Locke's claims about the genetic structure of ideas and his list of which ideas are simple as descriptions or generalizations over introspection or reflection on our mental lives. As the history of philosophy and secondary literature on Locke's *Essay* has repeatedly shown, applying this standard to Locke's distinction inevitably leads to the collapse of the distinction. However, if my arguments in the previous chapter are correct, such a collapse is devastating to Locke's project in the *Essay*. Indeed if Locke's project in the *Essay* were so easily and straightforwardly undermined, one might wonder why the tome is worth reading at all. As we saw in the previous chapter, Locke's readers have responded to the easy collapse of the simple/complex distinction, not by questioning the standards against

which that distinction is evaluated, but instead by denying that Locke was genuinely committed to the distinction or put it to any real philosophical work in the *Essay*.¹⁵⁶

Thus, the point of the section is a meta-scholarly point. It is a point *about* the ways in which Locke's claims about the simple/complex distinction are evaluated. My aim is to show that the criticisms of Locke's distinction rest on the assumption that the adequacy of the simple/complex distinction is supposed to be evaluated by asking the following question:

Is the simple/complex distinction descriptively adequate with respect to our thought in the following sense: does reflecting or introspecting on our thought reveal that all of our thought breaks down along the lines Locke suggests?

The overwhelming answer to this question in the history of philosophy and the secondary literature on Locke is a resounding, 'No'. If that approach to Locke's simple/complex distinction is correct, Locke's entire naturalized epistemology collapses immediately.

Fortunately this 'no' is of no consequence for Locke. In this chapter I will argue that this is *not* the right standard to use in evaluating Locke's distinction between simple and complex ideas. Instead the question we ought to ask is:

Are Locke's definitions of knowledge and opinion in terms of genetic structure, which is articulated by his distinction between simple and complex ideas, adequate to explain familiar, canonical cases of knowledge and mere opinion?

In section 4.2 I will provide the positive case that this is the question Locke intends to be the basis for evaluating his distinction between simple and complex ideas. In section 4.3 I will defuse arguments which would show that Locke himself would never engage in such a

¹⁵⁶ Taken to its extreme, this line of interpretation attributes *no* philosophical purpose to Locke's discussion of ideas. It is merely a collection of observations about our ideas. Not even concerns of consistency or coherence guide the presentation. It is simply a *a record*. This view is articulated in Walmsley (2003): The multiplication of taxonomic structures within the *Essay* reflects not a disenchantment on Locke's part with the classification of ideas laid out in book 2, but a recognition of the complexity of thought and of the inevitable limitations of taxonomic categories. In this Locke shows the natural historian's commitment to comprehensiveness. Consistency must take second place to inclusiveness in forming a full and working record of the phenomena. The sprawling structure of the *Essay* and a predilection for exhaustive example reflect Locke's drive to distinguish and label all the varieties of human thought." (Walmsley, 58)

project. In this section my aim is to clearly articulate the alternative, aforementioned view. Bolton (2007) contains clearest, most charitable application of what might be called the ‘introspectively adequate’ approach to Locke’s distinction between simple and complex ideas in the secondary literature.¹⁵⁷ I will therefore take her examination of the simple/complex distinction as my primary focus in illustrating how criticism of that distinction depends on holding it to a standard to which Locke himself never intended the distinction to be held.

According to Bolton, Locke’s theory of ideas is a way of taxonomizing the ideas of which we are consciously aware.¹⁵⁸ Bolton begins her account of Locke’s theory of ideas by locating ideas as the object of conscious awareness in thought. She writes, “Ideas are fundamental in Locke’s theory, because they account for the content of all conscious states—they account for what consciousness is *of*” (Bolton 2007, 69). Ideas account for the content of conscious states in two ways. First, “ideas are present to awareness; when a person has in mind an idea, the person is aware of the idea (although perhaps not as such). So ideas constitute the ‘accessible content’ of consciousness inasmuch as a person has awareness *of* ideas” (Bolton 2007, 69). Thinking is a matter of being conscious of an idea, for Bolton’s Locke. Perhaps one is not aware of what one is aware of *as* an idea, but it is that at which one’s mind is directed in thinking. It is the object of awareness. Second, “many, (perhaps not all) ideas have intentional content, that is, they are ‘of’ something.” Ideas are representational vehicles, they represent things. So, when one thinks of a shoe one perceives an idea.

¹⁵⁷ Ayers (1991) is also very explicit that he approaches Locke’s discussion of ideas in this spirit. I have focused on Bolton’s view because it is more recent and succinct than that of Ayers. Ayers, for example, writes: It is clear that Locke’s psychological ‘atomism’ was not offered as an explanatory hypothesis, but as a descriptive account of what is present in consciousness and open to view” (Ayers 1991, 18)

¹⁵⁸ As exposition, the next several pages will be in the voice of someone who reads Locke along the lines Bolton suggests rather than my own. I will note the end of that exposition and shift to my own voice in another footnote.

Perceiving that idea plays two roles. First, it is the object of which one is aware. Second, in being aware of that object, one thereby thinks of what the idea represents.

According to Bolton, Locke offers his distinction between simple and complex ideas as a tool for sorting these objects of conscious awareness. She understands Locke's definition of simple and complex ideas as follows: "Simple ideas are those ideas a human mind can have only by encountering them in or abstracting them from experience; complex ideas are those a human mind can have without receiving them in or abstracting them from experience *because* it can form them from simple ideas" (Bolton 2007, 72). With simple ideas so-defined, we are to take this definition and apply it to the ideas we are consciously aware of to sort them into simple and complex: "the aim [of Locke's distinction] is to pick out, on empirical grounds, those ideas that are simple in the sense specified..." (Bolton 2007, 73; emphasis added). By 'picking out, on empirical grounds', Bolton seems to have following picture in mind. Locke's definition gives us a sorting filter. We take, as it were, a pile of ideas, on the one hand, and Locke's definition, on the other, and sort that pile into two—one is a pile that meets Locke's definition for simple ideas, the other a pile that meets Locke's definition for complex ideas.

The polemical ends to which Locke puts this distinction are, according to Bolton, anti-nativist. Bolton writes, "the plausibility of the empiricist claim depends largely on the contention that simple ideas are constituents, preferably the only constituent ideas, of the complex" (Bolton 2007, 73). Locke's empiricism, in other words, depends on the following result holding when we have sorted all of our ideas according to his definition. All complex ideas are only composed of simple ideas. There are no other components of complex ideas. If correct, then all ideas have their foundation in experience and none are innate.

Locke's distinction and his case for empiricism becomes more complicated, however, because he does not simply discuss the simple/complex distinction in terms of the origins of ideas. He *also* distinguishes simple from complex ideas in terms of their structure. Moreover, according to Bolton, Locke seems to allow two senses of structure: compositional and non-compositional. Here is Bolton's understanding of Locke's treatment of the simple/complex distinction in terms of compositional structure: "simple ideas have no compositional parts, whereas complex ideas are partwise composed of two or more other ideas (and ultimately of simple ones); this would allow that some simple ideas might have non-compositional internal structure" (Bolton 2007, 74). Sometimes Locke seems to offer a stronger view that simple ideas contrast with complex ideas in having no structure whatsoever: "a simple idea comprises no other ideas, whereas a complex idea comprises two or more other ideas and has either compositional or non-compositional structure" (Bolton 2007, 74). Simple ideas on this view have neither compositional nor non-compositional structure. Some examples of ideas with non-compositional structure but without compositional might come be found among our ideas of relations. For example, perhaps our idea of power, an idea of a relation between things has no other ideas as constituents, but as an idea of a relation that holds between two things it has some structure into which the ideas of the things related fit.

To understand Locke's theory of ideas and its relation to his empiricism, it is essential to sort out how we understand Locke's definition of simple and complex ideas. Locke provides what look like two, logically independent criteria for distinguishing simple and complex ideas. On the one hand, simple and complex ideas are distinguished in term of origins. On the other hand, they're distinguished in terms of structure. What happens if, while sorting our ideas to see if Locke's empiricism can be sustained, we find ideas that match the

definition of simple ideas in terms of originating in experience, but the definition of complex ideas in terms of having structure? In fact, Bolton thinks, *we do find* such ideas when we get to trying to sort our piles by Locke's logically independent criteria. Namely, some ideas of relations. For example, we have experiences of causal relations; or, less controversially against Hume's account of causal cognition, sensory experience delivers ideas of spatial and temporal relations. As relations, they seem to have some sort of structure, and so qualify as complex. As received in experience, they seem to qualify as simple.

The logical independence of the origins and structural criteria puts pressure on Locke's readers to determine *which* of the two criteria is the main or important one to employ when sorting our ideas. Bolton comes down in favor of the origins criteria. She concludes, "it seems best to say that *structure* is not what differentiates the classes of simple and complex ideas. Ideas that have compositional and non-compositional structure are found on both sides of the divide" (Bolton 2007, 77). Given the two criteria for distinguishing simple from complex ideas we can come up with the following categories of ideas:¹⁵⁹

1. Compositionally structured ideas received in experience; *Examples*: ideas of space, ideas of time.¹⁶⁰

¹⁵⁹ As Bolton draws these distinctions, I am in large part in agreement. The ideas she claims to be complex and in sensory experience are indeed as she claims. Her interpretation fails to account for Locke's distinction between sensation and sensory experience and mistakenly interprets the significance of there being complex ideas in sensory experience.

¹⁶⁰ We saw in the previous chapter that Locke in no way claims that the simple ideas of extension have compositional structure. Simple modes of extension, ideas of particular lengths, say, do have compositional structure but as ideas of modes these are complex ideas. Indeed, even the closest we can come to a phenomenologically simple idea of extension will be an idea of a particular length (Locke speculates that the length is 30" of a circle) and so a simple mode.

2. Non-compositionally structured ideas received in experience; *Examples*: idea of power, ideas of spatial and temporal relations, ideas of sensible qualities.¹⁶¹
3. Compositionally structured ideas not received in experience, built by the mind; *Examples*: ideas of modes, ideas of substances.¹⁶²
4. Non-compositionally structured ideas not received in experience, built by the mind; *Examples*: ideas of relations.¹⁶³

Indeed, Bolton seems to think that, for Locke, the category of atomic ideas, ideas with neither compositional nor non-compositional structure is empty. In support of that claim, she points to the passage we examined in the last chapter from Locke's discussion of the simple idea of power when he writes that all of our simple ideas are, in a way, relational. Bolton thus concludes that since the issue of structure does not allow for any neat sorting of our ideas into piles in a way that could support Locke's empiricism, it is not the best way to understand his simple/complex distinction.

Nevertheless, that is not to say that all of Locke's discussion of structure is for naught. It still is relevant to his empiricism by detailing the ways in which the mind is active in forming complex ideas from ideas received in experience: "Locke's taxonomy of the structure of complex ideas is crucial to his case for empiricism. It gives specific content to [the simple/complex distinction in terms of passivity and activity of the mind] by identifying the patterns according to which complex ideas are formed from simple ideas if Lockean empiricism is true" (Bolton 2007, 77). Locke's discussion of the structure of complex ideas, in other words, plays no part in the distinction he draws between simple and complex ideas.

¹⁶¹ I argued in the previous chapter that Locke does not claim the simple idea of power, or any other simple sensory ideas, are in fact tacitly complex in the sense of having non-composite structure. They are relational ideas in the sense of being parts of ideas by which ideas of substances are connected in the mind; but they themselves need not be taken as being relations.

¹⁶² Here I agree with Bolton's claim. Complex ideas of modes and substances are constructed by the mind.

¹⁶³ See Brown (2006) for a thorough argument in favor of the claim that Locke's ideas of relations can be understood as having nothing but compositional structure.

Instead, it provides some details regarding the ways in which the mind is active in forming its complex ideas. Bolton thus pushes back the simple/complex distinction from a two-part distinction to a single criterion. The benefits of doing so, it seems, is that it renders the distinction something that can be wielded when examining our ideas in such a way as to test Locke's empiricism.

Unfortunately, Bolton admits, even pushing back the simple/complex distinction to one concerning origins is unhelpful for Locke's case for empiricism. As we saw in the previous chapter, the mind *is* active even in sensory experience. The distinction between simple and complex ideas in terms of origins is, "itself more complicated than might appear. Ideas that originate in experience are not entirely innocent of mental processing, because experience involves memory, predictive inference, abstraction, and more (as we will see)" (Bolton 2007, 78). In the previous chapter we saw two ways in which the mind is active with respect to sensory experience. First, it refers simple sensory materials to objects or causes. Second, in cases such as visual perception of three dimensional spatial qualities, the mind comes to modify the sensory inputs it receives to make them reflect one's experience. Bolton puts the consequences of this oversight for Locke's empiricism politely: "To the extent that Locke provides no clear way to distinguish the sorts of mental processes that constitute experience and those operations that make further ideas from those delivered by sense and reflection, the [origins distinction]—and the empiricist argument that turns on it—is less than precise" (Bolton 2007, 78). In other words, when we apply Locke's own criteria to sort our ideas between those received in sensory experience and those built by the mind, we find that it fails to yield two separate piles of ideas which we can then use to evaluate whether all of our ideas have their origins in experience. In fact, even Locke himself

recognized as much in II.ix, 'Of Perception'. It is no surprise, then, to learn as we did in the previous chapter, that Bolton takes Locke himself to have abandoned the distinction between simple and complex ideas as having much important philosophical or explanatory work to do in his philosophy.¹⁶⁴

At the core of Bolton's approach to Locke's theory of ideas is the thought that the simple/complex distinction between ideas is a distinction that is supposed to be mapped onto differences that are available to introspection of our conscious mental states. Whether an idea enters through sensory experience or not is available to introspection. Whether an idea has structure, compositional or non-compositional, is something we find upon introspection. Locke's exclusive, exhaustive distinction between simple and complex ideas is descriptively adequate with respect to our ideas just in case when we introspect our conscious thought we find that there is nothing in ideas produced by the mind besides what is received by the mind in sensory experience. Unfortunately for Locke, as it happens, the mind plays an active role even in the production of sensory experience. Locke's distinction between simple and complex ideas, even if just restricted to the origins of ideas, falls flat as a descriptively adequate distinction between ideas. The class of simple ideas, so-understood, is more or less empty. Even our ideas of sensible qualities, as we saw in the previous chapter, involve mental activity. Whatever ideas populate that class of simple ideas, if any, on Bolton's view, will be clearly inadequate to account for the rest of our thought.

Bolton's understanding of Locke's distinction between simple and complex ideas provides a clear contrast case with Theoretical. Rather than take Locke's distinction between simple and complex ideas as a filter to use in sorting our ideas to evaluate whether Locke's

¹⁶⁴ This ends the exposition of Bolton's view. I will now present my own views.

empiricism can be sustained, Theoretical suggests that Locke's distinction between simple and complex ideas is a theoretical posit aimed at explaining knowledge and opinion. Thus, the fact that Locke defines the simple/complex distinction along two, logically independent dimensions (activity/passivity; structure/no structure) is of no problem. In fact, as I have suggested, the notion of structure that Locke is concerned with is *genetic structure*. Simple ideas are, by definition, structureless in the sense that they have no genetic structure: they are not produced by mental operations on ideas somehow already in the mind, and so include no other ideas as parts. Complex ideas, by definition, have structure as they are actively produced by operations of the mind on ideas already in the understanding, and so contain other ideas as parts. The active/passive distinction and the (genetic) structure/no-(genetic) structure distinction go together by definition.

Moreover, as we saw in the last chapter, it seems clear that Locke does not expect genetic structure to be fully perspicuous to introspection (and so not fully perspicuous when ideas have genetic structure at all). Genetic structure itself is not something that Locke takes to be of full use in sorting ideas upon introspection of our conscious thought. For example, as we saw in the last chapter, ideas can be obscure. When complex ideas are obscure their genetic structure is not evident to conscious reflection. Genetic structure, when it comes to obscure ideas, then, is not something by which we can always sort ideas. Perhaps most relevant to the current issue of the simple/complex distinction, Locke thinks that we are almost completely unaware of the mind's activity in sensory experience. This is why Locke finds it crucial to distinguish between *sensation* and *sensory experience* to avoid confusion about the mind's passivity with respect to sensory experience. In a point that Bolton misses in her interpretation of chapter II.ix, Locke insists that we almost always

confuse ideas with respect to which we are active for ideas with respect to which we are passive. Ultimately, then, Locke's distinction between simple and complex ideas is not a distinction that is grafted onto distinctions between ideas that we are given through introspection of our conscious thought and experience. Instead, as I will argue in the next section, it is a distinction that is posited in an effort to explain the nature, grounds, and limitations of knowledge and opinion.¹⁶⁵

A useful analogy for comparing Bolton-style approaches to Locke's discussion of ideas with Theoretical can be taken from one of Locke's own favorite sources of comparison—chemistry. We can compare Locke's theory of ideas with the periodic table of elements. In itself, the periodic table of elements is not of much use for taxonomizing familiar, everyday objects such as rocks, plants, artifacts, animals, foods, toys, etc. Instead, the periodic table is of great use for explaining and understanding the chemical properties of compounds. Similarly, Locke's theory of ideas is not intended by Locke to be, in the first place, a way of taxonomizing our thoughts and experiences as we are familiar with them through introspection. Instead, it is a distinction and set of elements that are supposed to be of use in understanding and explaining the difference between knowledge and mere probable opinion, and the limitations that follow for the scope of our knowledge.¹⁶⁶

¹⁶⁵ This point can also be made with the following claim: simple ideas are never subject to introspection, never, indeed even part of conscious experience, *as such*. This is because simple ideas are parts of experience either as components of our ideas of modes, relations, or substances; or else they are abstracted; or else the mind has to hold them in mind to introspect them. As a result, simple ideas are always part of conscious experience or our reflection on conscious experience as parts of complex ideas, ideas with genetic structure. It will never be the case, then, that we even *could* introspectively discover the simple ideas as such. For a detailed exposition of this point as it arises in Hume's theory of ideas, see Nelson and Landy (2011).

¹⁶⁶ I should note that this analogy may not be perfect. At another level of inquiry, the periodic table can be considered purely taxonomical. To the degree that elements can be in some sense directly studied, say, by the creation of some of the more exotic particles in particle accelerators, the table can be regarded as evaluated on purely descriptive, rather than explanatory, grounds in a way that I think Locke does not intend his theory of ideas to be.

In this section, I have illustrated how a prominent, mainstream approach to Locke's claims about ideas leads to straightforward and obvious trouble for Locke. If we regard Locke's claims about ideas as intended to be descriptively adequate with respect to our conscious thought as we introspect it, his distinction between simple and complex ideas will collapse. Along with that distinction, as I argued in the previous chapter, the whole of Locke's naturalized epistemology will collapse. Fortunately, we have seen some reason to suspect that the mainstream approach is likely not the one intended by Locke. As Locke's comments about the mind's role in sensory experience, and the obscurity of complex ideas suggests, he did not intend his theory of ideas to be descriptively adequate with respect to introspection of conscious thought and experience. Instead, he intended his theory of ideas and its core distinction between simple and complex ideas to be explanatorily adequate with respect to knowledge, opinion, and their distinction.

4.2 Locke's theoretical project: no castle in the air

In this section, I will provide the positive case for the thesis that Locke's claims about ideas are best understood as a set of theoretical posits intended to explain the nature, grounds, and limitations of knowledge and opinion. There will be three parts to my argument. First, I will consider in some detail several passages that I referenced in the Introduction concerning Locke's own description of his project in the *Essay*. Second, building on arguments from 2.1 above, I will motivate the claim that the way in which Locke's discussion of ideas in Book II furthers the goal of the *Essay* is by providing a theoretical framework for understanding knowledge and opinion. Finally, we will examine the detailed fine structure of Book IV. Examining the structure of Book IV in detail reveals it to be organized in a way aimed to illustrate the explanatory adequacy of Locke's theory of ideas and definition of knowledge

with respect to ideas. That is, Locke himself sets up his discussion of knowledge as one would expect if he were engaged in a theoretical, explanatory project.

4.2.1 Locke's description of his aims in the Essay

Locke opens the *Essay* by declaring his subject: the human understanding. The human understanding is not, however, the most straightforward or transparent object of inquiry. Locke compares the human mind to the eye: “The understanding, like the eye, whilst it makes us see, and perceive all other things, takes no notice of it self: and it requires art and pains to set it at a distance and make it its own object” (I.i.1/43). The eye, though it is that by which we see, is not itself seen. But what is the activity of the mind analogous to the eye’s seeing? Knowing and forming probable opinion. Locke writes, “this therefore being my purpose to enquire into the original, certainty, and extent of humane knowledge; together, with the grounds and degrees of belief, opinion, and assent” (I.i.2/43). Though it is the mind by which we know and believe all that we know and believe, the mind itself in these respects is not easily made the object of study, the object of human understanding. Locke’s goal in the *Essay*, then, has to do with knowledge and opinion.

More specifically, as Locke makes clear in the subsequent paragraphs, his goal is ultimately to clarify the boundaries between knowledge and mere probable opinion and thereby make clear the limitations of our knowledge. Locke views this project as a matter of bringing order and clarity to what otherwise might appear a chaotic epistemological scene. Epistemological chaos looms in the great diversity of opinions:

Which are to be found amongst men, so various, different, and wholly contradictory; and yet asserted some where or other with such assurance and confidence that he that shall take a view of the opinions of mankind, observe their opposition, and at the same time, consider the fondness, and devotion wherewith they are embrac’d; the resolution, and eagerness wherewith they are maintain’d, may perhaps have reason to

suspect that either there is no such thing as truth at all; or that mankind hath no sufficient means to attain certain knowledge of it. (I.i.2/44)

Locke worries that the widespread disagreement over all manner of subjects and claims may give us reason to think that there is no truth, or at least no knowledge of any truth that there might be. Locke views his project in the *Essay* as an antidote to the chaos one might find in the wide and deep intellectual disagreement. He follows the above worry with his proposed antidote: “It is therefore worth while, to search out the bounds between opinion and knowledge; and examine by what measures, in things whereof we have no certain knowledge, we ought to regulate our assent, and moderate our perswasions” (I.i.3/45).

Locke’s response to the apparent epistemological chaos found in wide and deep intellectual disagreement is to impose order by explicating what he takes to be a strict distinction between knowledge and mere opinion. By articulating and clarifying what this distinction is Locke hopes that we may more responsibly and effectively direct our intellectual efforts.

Two chief benefits follow from establishing a clear understanding of our epistemic capacities. First, Our intellectual efforts can be more effectively directed, focusing on our strengths and not worrying about our weaknesses. Emphasizing the importance of knowing our intellectual limits, Locke writes:

If by this enquiry into the nature of the understanding, I can discover the powers thereof; how far they reach; to what things they are in any degree proportionate; and where they fail us, I suppose it may be of use to prevail with the busy mind of man, to be more cautious in meddling with things exceeding its comprehension; to stop, when it is at the utmost extent of its tether; and to sit down in a quiet ignorance of those things, which upon examination are found to be beyond the reach of our capacities. (I.i.4/44-45)

A consequence of Locke’s project, if successful, is a clearer grasp of our epistemic place in the world. We will have a clearer view of what knowledge is, where it is to be had, and where it is not. Similarly when it comes to our reasonable opinions. We will have a clearer

view of what it is, where it is to be had, and what is beyond the scope of even probable opinion. Beyond the boundaries of probable opinion are matters of either faith or “quiet ignorance”. Locke hopes that this clear view of our intellectual capacities will discourage fruitless inquiry: “we should not the perhaps be so forward, out of an affectation of an universal knowledge, to raise questions, and perplex ourselves and others with disputes about things to which our understandings are not suited; and of which we cannot frame in our minds any clear or distinct perceptions, or whereof...we have not any notions at all” (I.i. 4/45). Finite creatures that we are it is similarly important to clarify our epistemic place in the world to better succeed where we can have success: “when we know our strength, we shall the better know what to undertake with hopes of success.” So, by clarifying the nature of human understanding, not only do we not waste time hunting secrets of nature that are beyond our reach, but we can also more properly direct our efforts where they be helpful.

Second, and perhaps more importantly from Locke’s perspective, we arrive at an anti-skeptical result. The important upshot of Locke’s project from his perspective is that Locke *does* carve out some knowledge. Locke believes that, “If we can find out, how far the understanding can extend its view; how far it has faculties to attain certainty; and in what cases it can only judge and guess, we may learn to content ourselves with what is attainable by us in this state” (I.i.4/45). Despite the apparent chaos of the collective epistemic state of humanity, there *is* human knowledge. Properly understanding the anti-skeptical upshot of the *Essay* is an important point to which we will return in the next chapter. For now we can simply appreciate that Locke insists that there is such an upshot of the *Essay*. Section 6 of I.i is entitled, ‘knowledge of our capacity a cure of scepticism and idleness’. Locke believes that, “when we have well survey’d the powers of our own minds, and made some estimate

what we may expect from them, we shall not be inclined either to sit still, and not set our thoughts on work at all, in despair of knowing any thing; nor on the other side question every thing, and disclaim all knowledge, because some things are not to be understood” (I.i.6/46). Locke’s project provides an anti-skeptical result in that it establishes or supports the claim that we have knowledge. It clearly distinguishes knowledge from merely probable opinion and in doing so secures human knowledge. That is not to say we can know all that the workings of the universe. Rather, the human understanding is like the sailor’s depth line. For the sailor, “tis of great use to [...] know the length of his line, though he cannot with it fathom all the depths of the ocean. ‘Tis well he knows, that it is long enough to reach the bottom, as such places as are necessary to direct his voyage, and caution him against running upon shoals that may ruin him” (I.i.6/46). The sailor’s depth line does not let him know all the depths of the ocean. Any depth deeper than the sailor’s line can reach is beyond the scope of what the line can reveal about the ocean’s depth. Nevertheless, the sailor still can know what he needs to know for his purposes by use of the depth line: how to avoid water that is too shallow. Similarly, Locke thinks, by clarifying the limitations of human understanding we achieve an anti-skeptical result. Human knowledge is possible, even if there is much we cannot know. Locke writes, “our business here is not to know all things, but those which concern our conduct. If we can find out those measures, whereby a rational creature put in that state which man is in in this world, may, and ought to govern his opinions, and actions depending thereon, we need not be troubled that some other things escape our knowledge” (I.i.6/43). As it is not the sailor’s business to know all the depths of the ocean, so too it is not the business of human understanding to know all of the natural world. Instead, our knowledge is sufficient for our purposes if it is sufficient to guide our conduct.

One result of Locke's project in the *Essay* is that when we are clear on the distinction between knowledge and opinion, it may turn out that our knowledge is more limited than we might have thought before engaging in the *Essay*'s project. To resist these conclusions, however, is a mistake. Indeed, Locke addresses those who would want more knowledge with a special scorn:

How short soever their knowledge may concern of an universal or perfect comprehension of whatsoever is, it yet secures their great concernments, that they have light enough to lead them to knowledge of their maker, and the sight of their own duties. Men may find matter sufficient to busy their heads and employ their hands with variety, delight, and satisfaction; if they will not boldly quarrel with their own constitution and throw away the lessing their hands are fill'd with, because they are not big enough to grasp everything. (I.i.5/45)

We shall not have much reason to complain of the narrowness of our minds, if we will but employ them about what may be of use to us; for of that they are very capable: and it will be an unpardonable, as well as childish peevishness, if we undervalue the advantages of our knowledge and neglect to improve it to the ends for which it was given us because there are somethings that are set out of the reach of it. (I.i.5/45-6)

It will be no excuse to an idle and untoward servant who would not attend his business by candle-light, to plead that he had not broad sun-shine. The candle that is set up in us shines bright enough for all our purposes. (I.i.5/46)

If we will disbelieve everything because we cannot certainly know all things; we shall do much-what as wisely as he, who would not use his legs, but sit still and perish, because he had no wings to fly. (I.i.5/46)

One may be disappointed with the knowledge that Locke's project secures for human understanding, or even disappointed with the probable opinion that Locke secures for human understanding. Nevertheless, Locke thinks such disappointment stems from a presumptive, immodest, and perhaps immature sense of intellectual entitlement. The more important result is that Locke secures knowledge and secures knowledge that is adequate for our purposes.

Locke's introduction to the *Essay* in I.i contains a clear statement of purpose. Locke's account of the *Essay*'s inception similarly shows that the *Essay* was born of an interest in the

limitations and scope of knowledge and reasonable opinion. Locke recounts the origins of the *Essay* in the *Epistle to the Reader*, which prefaces the *Essay*:

Were it fit to trouble thee with the History of this Essay, I should tell thee that five or six friends meeting at my chamber and discoursing on a subject very remote from this found themselves quickly at a stand by the difficulties that arose on every side. After we had a while puzzled ourselves without coming any nearer a resolution of those doubts which perplexed us, it came to my thoughts that we took a wrong course; and that before we set ourselves upon enquiries of that nature it was necessary to examine our own abilities and see what objects our understandings were or were not fitted to deal with. (*Epistle*, 7)

The situation described in this passage mirrors the apparent chaos in the diversity of opinions which Locke claims in the Introduction to combat. Locke found himself mired in a seemingly intractable debate. Progress seemed impossible. As a result, Locke thought it best to clarify the nature of human understanding, to see whether knowledge or reasonable opinions were even possible on the subject of their debate. Locke repeats this account of the *Essay*'s origins in the introduction. He writes in I.i.7, labelled 'Occasion of this Essay'

This was that which gave the first rise to this Essay concerning the Understanding. For I thought that the first step towards satisfying several enquiries, the mind of man was very apt to run into, was to take a survey of our own understandings, examine our own powers, and see to what things they were adapted. Till that was done I suspected we began at the wrong end, and in vain sought for satisfaction in a quiet and secure possession of truths that most concern'd us, whilst we let loose our thoughts into the vast ocean of being, as if all that boundless extent, were the natural and undoubted possession of our understandings, wherein there as nothing exempt from its decisions, or that escaped its comprehensions. Thus men, extending their enquiries beyond their capacities, and letting their thoughts wander into those depths, where they can find no sure footing; 'tis no wonder, that they raise questions, and multiply disputes, which never coming to any clear resolution, are proper only to continue and increase their doubts, and to confirm them at last in perfect scepticism. Whereas were the capacities of our understandings well considered, the extent of our knowledge once discovered, and the horizon found, which sets the bounds between the enlightened and dark parts of things; between what is, and what is not comprehensible by us, men could perhaps with less scruple acquiesce in the avow'd ignorance of the one, and imploy their thoughts and discourse with more advantage and satisfaction in the other. (I.i.7/47)

This passage concludes the substantive part of Locke's introduction to the *Essay* (it is followed only by his apology for the use of the term 'idea'). Again, Locke emphasizes his point that the origins of the *Essay*, which defined its ultimate aims, are to cut through the apparent intellectual chaos of interminable and unending debate and shed some clarity on what can and cannot be known, what can and cannot be reasonably believed, and what must be left to faith or ignorance. At least in many important areas of debate, Locke believes that we are best off turning inwards to first examine the human understanding and have a grasp on what is and what is and what is not within the scope of knowledge or reason. Once we have a clear handle on our own epistemic state we will, Locke thinks, be better positioned to engage (or perhaps not engage) in the line of inquiry in question.

Finally, Locke shows no signs throughout the *Essay* of abandoning this overarching aim. In fact, Locke is so conscious of the fact that this is the aim structuring the whole of the *Essay* that he pauses to explain what might appear to be a deviation in Book III from the plan articulated in the *Essay*'s introduction. At the end of Book II, Locke takes the opportunity to explain the existence of the next book of the *Essay* which concerns language. As Locke sees it, his readers might expect that, "having thus given an account of the original, sorts, and extent of our ideas, with several other considerations, about these...instruments, or materials, of our knowledge, the method I at first proposed to myself, would now require that I should immediately proceed to shew what use the understanding makes of them and what knowledge we have by them" (II.xxxiii.19/401). In the *Essay*'s introduction, Locke proposed to carry out the aim of the *Essay* by first investigating the origins of our ideas and then examining the nature and grounds of knowledge and opinion in light of his account of the origins of our ideas. In contrast with the proposed plan, however, Locke transitions from an

account of the origins of ideas in Book II to an account of language and its role with respect to knowledge in Book III. He explains this apparent deviation from his proposed method as follows: “Upon a nearer approach, I find, that there is so close a connection between ideas and words; and our abstract ideas, and general words, have so constant a relation one to another, that it is impossible to speak clearly and distinctly of our knowledge, which all consists in propositions, without considering, first, the nature, use, and signification of language” (II.xxxiii.19/401). In the preceding chapters above, I have noted that in Locke’s discussions knowledge, the classification of substances by nominal essences, the fragility of knowledge of mental truths (that can’t even be linguistically expressed without destroying their purely mental status), etc., it is evident that Locke believes there is a very deep and perhaps inextricable connection between language and knowledge. Locke here explicitly affirms what his texts suggest: the examination of language in Book III is an essential step in getting clear on the nature of human understanding.

Similarly, at the beginning of Book III, Locke again emphasizes that we cannot have an adequate understanding of knowledge and opinion without first examining language. Locke explains that Book III is organized to study language as it relates to knowledge and opinion. It is no more a self-standing philosophy of language than the Book II discussion of ideas is a self-standing philosophy of mind. Both are directed, ultimately, at laying an a foundation for an epistemological project. Locke writes:

To better understand the use and force of language, as subservient to instruction and knowledge, it will be convenient to consider, First, to what it is that names, in the use of language, are immediately applied. Secondly, since all (except proper) names are general, and so stand no particularly for this or that single thing; but for sorts and ranks of things; it will be necessary to consider in the next place what the sorts and kinds, or, if you rather like the latin names, what the species and genera of things are; wherein they consist; and how they come to be made. (III.i.6/404)

There are two important ways in which a clear understanding of knowledge depends on a clear understanding of language. First, we must be clear on what our terms immediately signify (looking ahead to Locke's answer: ideas). Second, we must be clear on how general terms relate to the classes and kinds they represent (looking ahead to Locke's answer: by signifying nominal essences, which are ideas; not real essences). Locke hopes to draw on his study of language for understanding knowledge and opinion to illustrate both *that* knowledge is deeply tied to language and *how* knowledge is tied language:

These being (as they ought) well looked into, we shall better come to find the right use of words; the natural advantages and defects of language; and the remedies that ought to be used to avoid the inconveniences of obscurity or uncertainty in the signification of words, without which, it is impossible to discourse with any clearness, or order, concerning knowledge: which being conversant about propositions, and those most commonly universal ones, has greater connection with words than perhaps is suspected. (III.i.6/404)

Ultimately, then, Locke's explanation of his examination of language in Book III shows that Locke does not lose sight of his narrowly focused aim of clarifying the nature and grounds of knowledge and opinion. The Book III discussion of language is structured and aimed at clarifying the ways in which human understanding depends on and makes use of language.

In sum, then, Locke explicitly states that his aim in the *Essay* is to clearly articulate and explain the nature, grounds, and limitations of knowledge and opinion. This project, Locke believes, is beneficial not only for better directing our intellectual efforts but also for its anti-skeptical upshot. The very circumstances which inspired Locke to write the *Essay* were circumstances that led him and others to question the possibility, nature, and scope of knowledge and reasonable opinion. Finally, Locke does not abandon this project as the *Essay* progresses. The entire, carefully structured work is narrowly and continuously focused on carrying out this project of making the human understanding its own object. Locke refers

back to the overarching aim of the *Essay* to explain the *Essay*'s structure and apparent deviations from its proposed topic and method.

4.2.2 *Locke's theory of ideas and Locke's epistemology*

The aim of this chapter is to argue that Locke's claims about ideas, and his definitions of knowledge and mere probable opinion, are best understood as theoretical posits intended to explain the nature, boundaries and limitations of knowledge and opinion. So far, I have covered the overwhelming textual evidence in favor of the claim that the *Essay* as a whole, which includes the discussion of ideas in Book II, is aimed at explaining the nature, boundaries, and limitations of knowledge and opinion. In this subsection, I want to touch on a point covered in 2.1 above: Locke intends to achieve his aim by explaining knowledge and opinion by examining the origins of our ideas.¹⁶⁷ He does this by defining them in terms of genetic structure.

As we saw in 2.1, Locke is very clear that he intends to pursue his goal in the *Essay* by examining the origins of our ideas. Book II contains Locke's discussion of ideas. It is organized around the notion of genetic structure and illustrating the genetic structure of our ideas by analyzing our thoughts into ideas and revealing the origins of all ideas in simple ideas of sensation and reflection. The book is first divided into a discussion of simple and

¹⁶⁷ The relevant passages, cited above in 2.1, repeated here for convenience. After expressing the aim to find the boundaries between knowledge and opinion, Locke writes: "In order whereunto, I shall pursue this following Method. First I shall enquire into the original of those ideas, notions, or whatever else you please to call them, which a man observes, and is conscious to himself he has in his mind; and the ways whereby the understanding comes to be furnished with them. Secondly, I shall endeavour to show what knowledge the understanding hath by those ideas; and the certainty, evidence and extent of it. Thirdly, I shall make some enquiry into the nature and grounds of faith, or opinion: whereby I mean that assent, which we give to any propositions as true, of whose truth yet we have no certain knowledge: and here we shall have the occasion to examine the reasons and degrees of assent" (I.i.3/44).

complex ideas. Each of the main sections is further subdivided according to genetic structure.

Here is the outline of Book II:¹⁶⁸

- II.i: Of ideas in general
 - II.ii: Of simple ideas
 - II.iii: Of ideas of one sense
 - II.iv: Of Solidity
 - II.v: Of simple ideas by more than one sense
 - II.vi: Of simple ideas of Reflection
 - II.vii: Of simple ideas, both of sensation and reflection
 - II.viii: Other considerations concerning simple ideas
 - II.ix: Of perception
 - II.x: Of retention
 - II.xi: Of discerning, etc.
 - II.xii: Of Complex ideas
 - II.xiii: Of space, and its simple modes
 - II.xiv: Of Duration
 - II.xv: Of Duration and expansion considered together
 - II.xvi: Of Number
 - II.xvii: Of Infinity
 - II.xviii: Of other simple modes
 - II.xix: Of the modes of thinking
 - II.xx: Of modes of pleasure and pain
 - II.xxi: Of power
 - II.xxii: Of mixed modes
 - II.xxiii: Of the complex ideas of substances
 - II.xxiv: Of collective ideas of substances
 - II.xxv: Of relations
 - II.xxvi: Of cause and effect, and other relations
 - II.xvii: Of identity and diversity
 - II.xxvii: Of other relations
 - II.xxix: Of clear and distinct, obscure and confused ideas
 - II.xxx: Of real and fantastical ideas
 - II.xxxi: Of adequate and inadequate ideas
 - II.xxxii: Of true and false ideas
 - II.xxxiii: Of the association of ideas

What emerges from the structure of Book II is a taxonomy of ideas that is based around genetic structure. The first, and main, division in genetic structure is between passively received ideas and ideas produced by the mind operating on ideas already somehow in the

¹⁶⁸ The relative indentations in the following chart is not reflected in Locke's own detailed table of contents. I have displayed the chapters in this way to make more perspicuous Locke's organization of Book II.

understanding. That is, between simple and complex ideas. Simple ideas are then distinguished by which route they enter the mind: sensation, reflection, or both. Simple ideas of sensation are distinguished by which senses they enter the mind through, or whether they can enter through multiple sense modalities (such space and motion). Locke then discusses each kind of complex idea. Each kind of complex is distinguished by their genetic structure; either their characteristic operations of the mind, or their characteristic. Ideas of modes and substances are discussed first and they share a characteristic operation of the mind in their formation: compounding or combining. Ideas of modes differ from ideas of substances in virtue of their composition. Ideas of substances but not modes have the idea of substance as a part. Within the category of modes, simple modes and mixed modes are likewise distinguished by their composition. Simple modes consist in only one kind of simple idea, manipulated in various ways by the mind. Ideas of mixed modes, by contrast, have a mixed composition. Ideas of relations are distinguished from ideas of modes or substances by their characteristic operation of the mind: comparison, rather than compounding. Different ideas of relations, ideas of causation, identity, diversity, etc., are distinguished from one another by their component ideas.

If we take Locke's claims about the distinction between simple and complex ideas, or his claims about which simple ideas we have, to be a taxonomy driven by introspection on conscious experience, this taxonomy is a straightforward and uncontroversial failure (as we saw in 4.1 above). Given Locke's aim in the *Essay*, however, and more importantly, given that Locke's proposed method of achieving this aim by examining the origins of our ideas, it seems better to understand Locke's discussion of ideas as theoretical posits made in the service of explaining the nature, grounds, and limitations of knowledge and opinion. That is,

Locke's discussion of ideas in Book II ought not be regarded as a mere catalog of our ideas but as a *theory of ideas* aimed at explaining knowledge and opinion. Indeed, in 2.1 I argued that Locke's account of the origins of our ideas is tied to his accounts of knowledge and opinion in the following way: knowledge and opinion are defined in terms of the core machinery of Locke's theory ideas—genetic structure. Indeed, part of the power of the interpretation of Locke's definition of knowledge offered in 2.1 is that it makes good on Locke's own description to explain knowledge in terms of his account of the origins of ideas.

4.2.3 Locke's Naturalized Epistemology at work in Book IV

Thus far in this section I have argued for two main points. First, that Locke's *Essay* is a focused effort to explain the nature, grounds, and limitations of knowledge and opinion. Second, that Locke's discussion of ideas ought to be regarded as a *theory* of ideas posited in the service of the aforementioned aim. My aim in this subsection is to complete my argument in favor of Theoretical by showing that when it comes to Locke's discussion of knowledge in Book IV, much of it is given over to illustrating the adequacy of the definition of knowledge he gives in the terms of his theory of ideas. That is, Locke's discussion of knowledge reflects that he treats his own project as a theoretical, explanatory project and not merely a taxonomical, descriptive project. Understanding Locke as engaged in such a project sheds clarifying, unifying light on Locke's discussion of knowledge and so we have good reason to understand the *Essay* in this way. Moreover, once we recognize the structure of Locke's discussion of knowledge some previous texts that have been disregarded or misunderstood can be read to reinforce the suggested interpretation.

To begin, Book IV of the *Essay* is divided into two parts, which reflects Locke dual concerns in the *Essay* to explain knowledge as well as opinion. From IV.i, 'Of Knowledge',

to IV.xiii, ‘Some other considerations concerning our knowledge’, Locke discusses knowledge. From IV.xiv, ‘of judgment’, to IV.xx, ‘of wrong assent, or error’, Locke discusses opinion. My current aim is only to show that Locke’s discussion of knowledge manifests the structure of a theoretical project modeled on the natural science of Locke’s day, so we can limit our focus to Locke’s discussion of knowledge.

Locke begins his discussion of knowledge with the definition we examined in 2.1 above. Knowledge, according to Locke, is “nothing but *the perception of the connection and agreement, or disagreement and repugnancy of any of our Ideas*. In this alone it consists” (IV.i.2/525). The first two chapters of Book IV proceed to discuss the two significant parts of the definition: Chapter i discusses the kinds of agreement of ideas;¹⁶⁹ chapter ii discusses the way in which such agreements can be perceived.¹⁷⁰ With his definition of knowledge on the table, and with some basic clarification, Locke then goes on in chapter iii, ‘of the extent of humane knowledge’, to fulfill the *Essay*’s central aim of determining the boundaries of knowledge. First, corresponding to the ‘perception of...ideas’ aspect of the definition are five limitations: we have no knowledge where we have no ideas (IV.iii.1);¹⁷¹ we have no knowledge where we cannot perceive the agreement of ideas in one of the ways of the three degrees of knowledge (IV.iii.2); intuitive knowledge is limited by

¹⁶⁹ Ideas can agree or disagree with respect to: identity, or diversity; relation; coexistence, or necessary connection; and real existence (IV.i.3/525).

¹⁷⁰ Agreements or disagreements of ideas can be perceived intuitively (IV.ii.1/530), demonstratively (IV.ii.2-13/531-6), and sensitively (IV.ii.14-15/537-8).

¹⁷¹ The significance of this limitation derives from the theory of ideas articulated in Book II in which Locke illustrates how all of our ideas can be shown to derive from either sensation or reflection (inner sensation). The significance of this limitation could be made clearer if it were phrased as: we have no knowledge where we have no idea of either sensation or reflection.

what agreements are immediately perceivable, and so it is of narrower scope than demonstrative knowledge (IV.iii.3); the scope of our knowledge does not exhaust the scope of our ideas (IV.iii.4)¹⁷²; finally, sensitive knowledge is limited to the “existence of things actually present to our senses” (IV.iii.5/539). After laying out the scope of knowledge in terms of the degrees of knowledge, Locke spends the remainder of the IV.iii examining the scope of knowledge with respect to the kinds of perceivable agreements: the scope of the knowledge of identity (IV.iii.8); coexistence, necessary connection (IV.iii.9-17); relation (IV.iii.18-20); and real existence (IV.iii.21).

What is particularly startling about the structure of the Book IV discussion of knowledge is that the *Essay*’s central question with respect to knowledge is answered almost at the very beginning of Locke’s discussion of knowledge. He gives his account of the boundaries or limitations of knowledge in the third of twelve chapters on knowledge. The question, then, whose answer I will leverage to motivate my claim that Locke is engaged in a science or natural philosophy of knowledge, is: what is going on in the rest of the Book IV discussion of knowledge and how does it relate to the first three chapters on knowledge?

The *Essay* is a highly structured work, and as we have seen, Locke took that structure seriously enough to explain why a discussion of language appears between his examination of ideas and his account of knowledge and opinion. More evidence that the *Essay*’s structure is important to Locke can be found in the fact that he gives a highly detailed table of contents

¹⁷² Some examples from later in IV.iii: “We have the *Ideas* of a *Square*, a *Circle*, and *Equality*; and yet, perhaps, shall never be able to find a Circle equal to a Square, and certainly know that it is so. We have the *Ideas* of *Matter* and *Thinking*, but possibly shall never be able to know whether any mere material Being thinks, or no; it being impossible for us, by the contemplation of our own *Ideas*, without revelation, to discover, wither Omnipotency has not given to some Systems of Matter fitly disposed, a power to perceive and think, or else joined and fixed to Matter so disposed, a thinking immaterial Substance” (IV.iii.6/540-1).

in which Locke lists every section heading within each chapter of every Book. The question about the structure of Book IV has not seemed pressing, interesting, or even occurred, to previous interpreters, I suggest, because they don't take Locke's own description of his project seriously.¹⁷³ The fact that Locke makes claims about the bounds of knowledge in IV.iii, and so achieves the *Essay*'s central goal, is only an interesting question capable of shedding light on Locke's project when we take Locke at his word as I have portrayed it above.

If we understand Locke as engaged in a kind of naturalized epistemology modeled on the natural science of his day, the following picture of his discussion of knowledge emerges. In Books II and III of the *Essay* Locke has laid out a theory of ideas that provides an atomic model of thought and an account of how thought so construed relates to language. This is the theoretical framework in which Locke plans to explain knowledge, opinion and the difference between the two. The definition of knowledge which opens Book IV is Locke's application of the more general theory of ideas to knowledge in particular. That is, it is a definition of knowledge in the terms of his theory of ideas; the definition is meant to bridge the gap between the theory of ideas, on the one hand, and the phenomena of knowledge which Locke is concerned to explicate, on the other. The subsequent two chapters clarify that definition and then draw from it an account of the limitations of knowledge. These limitations are, again, given in Locke's theoretical terms, that is, in terms of ideas. Though

¹⁷³ A particularly bold strain of this interpretive approach can be found in Woolhouse who explicitly dismisses even Locke's definition of knowledge as relevant for understanding Locke's claims about knowledge and opinion: "I shall begin by constructing an outline of Locke's views about scientific knowledge; and go on, in the following chapters, to elucidate those features which need this. Not, as might be expected, base this outline on Locke's chapter 'Of knowledge in general' where he defines knowledge as 'the perception of the connexion of and agreement, or disagreement and repugnancy of any of our ideas' and then distinguishes four different sorts of agreement and disagreement." (Woolhouse (1971), 3).

he has answered the *Essay*'s primary question concerning knowledge in IV.iii, Locke has yet to *support or defend* that answer by defending the definition of knowledge on which it rests. The remainder of Locke's discussion of knowledge, at least its substantive discussion through IV.xi, is Locke's attempt to defend his answer by illustrating the adequacy of his definition of knowledge in terms of ideas. So, if we understand Locke as engaged in a theoretical, explanatory project in the *Essay*, then IV.iv through IV.xi emerge as Locke's attempt to show that he is not offering *merely* speculative hypotheses about knowledge and its limitations, but well founded hypotheses that are adequate to their phenomena. Thus, Locke supports his answer to the *Essay*'s central question concerning the limits of knowledge by defending the adequacy of the account of knowledge in terms of ideas on which that answer rests.

Indeed, the very first sentence of IV.iv suggests that Locke is concerned to show the adequacy of his hypothesis to its target phenomena. Locke worries: "I doubt not but my Reader, by this time, may be apt to think that I have been all this while only building a Castle in the Air; and be ready to say to me, To what purpose all this stir?" (IV.iv.1/562). As Anstey (2005) has documented, in seventeenth century discussions, the charge of building a castle in the air was a charge that someone has offered a merely speculative hypothesis, a hypothesis that is not adequately connected to its target phenomena.¹⁷⁴ Sydenham, for example, with whom Locke worked closely, was one to level this charge against others.¹⁷⁵ So, immediately after specifying the limits of knowledge on the basis of his definition of knowledge, Locke

¹⁷⁴ Anstey (2005), p. 225. Anstey provides several examples of the use of this terminology.

¹⁷⁵ "Had I begun with my hypotheses, I should have shown the same want of wisdom that a builder would show who began with the roof and tiles, and ended with the basement and foundation. But it is only those who build castles in the air [Aere Castella] that may begin at either end indifferently." (Sydenham, vol. II p. 173).

worries that he may be charged with offering mere hypotheses concerning knowledge and its limits rather than any real instruction on the matter.

It is easy to mistake this broader worry, that his definition is an ill-founded, merely speculative hypothesis, with a more narrow worry about defining knowledge in terms of ideas because doing so threatens to make all knowledge nothing but mere castles in the air. That is, one may worry that if knowledge is defined as the perceived agreement of ideas, then, “if there be a sober and a wise Man, what difference will there be, by [Locke’s] rules, between his Knowledge, and that of the most extravagant Fancy in the World? They both have their *Ideas*, and perceive their agreement and disagreement one with another” (IV.iv.1/562). This narrower worry is that Locke’s account of knowledge will not be able to distinguish the real knowledge of the sober, wise person from the lunatic’s ‘knowledge’ of their own fantasies. In the end, all “such castles in the Air, will be as strong Holds of Truth, as the Demonstrations of *Euclid*” (IV.iv.1/563). On the one hand, then, there is the broader worry that Locke has offered a merely speculative hypothesis concerning knowledge, a hypothesis that is not adequately connected to knowledge, what it aims to explain. On the other hand, there is a more narrow charge, a particular way in which Locke’s hypothesis fails to be adequate to its phenomena: Locke’s account of knowledge cannot distinguish between the real knowledge of the wise and sober from the castles in the air of the crazy. The difference between these two worries can be made evident by recognizing other ways in which Locke’s definition may fail to be in touch with its target phenomena besides failing to account for a distinction between real and imaginary knowledge: it may fail to be able to account for the connection between truth and knowledge (a worry Locke takes up in IV.v);

or, it may be unable to account for canonical cases of knowledge (a worry Locke addresses in IV.vi-xi). Thus, though it begins with the broader worry about the definition of knowledge, Locke's main focus in IV.iv is to show how he can account for the distinction between real knowledge and the lunatic's castle in the air. He answers this question fully in terms of his theory of ideas, that is by clarifying how to understand this difference between real knowledge and the lunatic's castle in the air in terms of differences concerning their ideas:¹⁷⁶

by their nature, simple ideas—because they are merely signs of powers to produce such ideas (IV.iv.4)—and complex ideas except those of substances—because they are signs of themselves (IV.iv.5-11)—agree with the reality of which they are signs. Thus, insofar as perception of agreement concerns simple ideas or non-substance complex ideas, such knowledge will be real and not a mere fiction of one's imagination.¹⁷⁷

Further evidence that Locke's aim is to illustrate the adequacy of his definition of knowledge comes from the end of his substantive discussion of knowledge. In IV.xi, Locke illustrates how his definition of knowledge can accommodate our knowledge of the existence of other things besides our self and God. I suggested above that one of Locke's concerns in defending the adequacy of his definition of knowledge was to show in IV.vi-IV.xi how it accounts for various canonical cases of knowledge. From IV.vi-IV.viii Locke shows how his

¹⁷⁶ 'Tis evident, the mind knows not Things immediately, but only by the intervention of the *Ideas* it has of them. *Our Knowledge* therefore is *real*, only so far as there is a conformity between our *Ideas* and the reality of Things. But what shall be here the Criterion? How shall the Mind, when it perceives nothing but its own *Ideas*, know that they agree with Things themselves? This, though it seems not to want difficulty, yet, I think there be two sorts of *Ideas*, that, we may be assured, agree with things"(IV.iv.3/563).

¹⁷⁷ This is of course just a cursory account of how Locke addresses the issue and needs further discussion to be made sufficiently clear. The point for now is just *that* Locke addresses the issue about his theory of knowledge in terms of ideas.

definition of knowledge accounts for canonical cases of knowledge of general truths (maxims and verbal or trivial knowledge). From IV.ix-IV.xi Locke illustrates how his definition accounts for knowledge of particular truths, truths that some thing or other exists (one's own existence (IV.ix), God's existence (IV.x) and the existence of other things (IV.xi)). At the end of IV.xi, Locke summarizes IV.vi-IV.xi as follows. He begins by repeating the distinction he draws in IV.vi between particular (existential) and general propositions (IV.vi.2/579). He then sums up his defense: "In the former case, our Knowledge is the consequence of the Existence of Things producing *Ideas* in our Minds by our Senses: in the latter, Knowledge is the consequence of the *Ideas* (be they what they will) that are in our Minds producing there general certain Propositions" (IV.xi.14/638). Locke here reiterates that what he has shown is that in both cases, canonical cases of knowledge of existence and canonical cases of general or abstract knowledge, knowledge can be understood in terms of ideas. That is, these various canonical cases of knowledge can all be understood in the terms of his definition of knowledge, and by extension, his theory of ideas. How, exactly, these defenses goes is of course an issue that requires its own paper or ten. I have offered an account of how Locke accounts for sensitive knowledge in Chapter 2 above.

To sum up my positive argument in favor of understanding the *Essay* on the model of a natural philosophical project that employs hypotheses to explain certain phenomena: In 4.2.1 I developed an interpretation of Locke's own understanding of the *Essay*. According to Locke, the *Essay*'s aim is to explain the boundaries of knowledge and opinion. In 4.2.2, I claimed that the *Essay*'s structure suggests that Locke intends to explain these boundaries by giving an account of knowledge and opinion within the framework of his theory of ideas. If

we take Locke's own description of his project seriously, however, we are faced with the following question concerning the structure of his discussion of knowledge in Book IV: what is going on in the bulk of his discussion of knowledge given that Locke answers the *Essay*'s central question regarding knowledge in the third of twelve chapters on knowledge? I have argued that if we understand Locke's project on the model of a natural philosophical project, a project which offers hypotheses to explain certain phenomena, we get an answer to this question which provides a unifying account of Locke's discussion of knowledge. On this interpretation Locke's theory of ideas consist in several hypotheses which provide an atomic model of thought in terms of simple ideas and operations of the mind on those ideas. At the beginning of his discussion of knowledge, Locke gives a definition of knowledge in terms of ideas. That is, Locke applies that theory of ideas to the phenomena of knowledge. After some clarifying discussion, he then draws out the consequences of his definition for the limitations of knowledge. This constitutes his answer to the *Essay*'s central question concerning knowledge and its limits. Though he has answered the question, he has yet to *support* his answer by defending the definition of knowledge on which it rests. This defense consists in showing that his definition is not a mere speculative hypothesis, not a mere castle in the air, and has three parts: first, in showing how his definition can account for the difference between *real* knowledge and mere knowledge of one's own imaginings; second, in showing how his definition makes sense of the connection between truth and knowledge; finally, and most importantly, how his definition can account for canonical cases of knowledge. By accomplishing these three goals, Locke can be understood as illustrating the *adequacy* of his hypotheses concerning knowledge and hence defending his answer to the

Essay's central question concerning the boundaries of human knowledge. Given the adequacy of his definition of knowledge to the phenomena of knowledge in these respects then—it can account for the difference between real knowledge and mere castles in the air, can account for important relations knowledge bears to truth, and can accommodate canonical cases of knowledge—we have reason to accept the claims about the limitations of knowledge which Locke draws from that definition. And specifying those limitations is the *Essay*'s central aim with respect to knowledge.

I have thus far argued that the broad structure of Locke's discussion of knowledge suggests that Locke is concerned to illustrate the adequacy of his definition of knowledge in IV.iv-IV.xi. In particular, from IV.vi-IV.xi Locke is concerned to illustrate the adequacy of his definition in this respect: it can account for some canonical cases of knowledge. I now will bolster this claim by examining Locke's discussions in those chapters in greater detail.¹⁷⁸ Locke begins to illustrate the ability of his definition to account for canonical cases of knowledge by noting the division of knowable truths into general/universal and particular.¹⁷⁹ The first canonical case of knowledge Locke considers is knowledge of maxims, a kind of general/universal truth (IV.vii). However, before he gives these sample analyses, Locke takes some time to carefully set up how general propositions, and hence general truths, are treated by the theories of ideas and language developed Books II and III as they pertain to kinds, or

¹⁷⁸ I have already done this with regard to Locke's illustration of the adequacy of his account of knowledge to trifling knowledge in Chapter 2 above. In this discussion I will focus on the remaining cases to which Locke illustrates the adequacy of his account of knowledge.

¹⁷⁹ All the Knowledge we have, being only of particular or *general Truths*, 'tis evident, that whatever may be done in the former of these, the latter, which is that which with Reason is most sought after, can never be well made known, and is very *seldom apprehended, but as conceived and expressed in Words*. It is not therefore out of our way, in the Examination of our Knowledge, to enquire into the Truth and Certainty of universal Propositions." (IV.vi.2/579)

sorts (which, after all, is the subject matter of general truths¹⁸⁰) (IV.v, IV.vi). In other words, general propositions concern kinds, or sorts, and in order to give his analysis of our knowledge of general truths in terms of a perceived agreement of ideas, Locke takes time to remind his readers of his claims from Books II and III about our ideas of kinds, or sorts.

With the basic refresher on how his theory of ideas handles general propositions, Locke moves on to showing how a canonical case of knowledge, knowledge of maxims, can be understood in terms of his definition (IV.vii). In addition, Locke believes that his account of maxims will reveal that others have erred in their claims about how maxims relate to the broader body of knowledge. In particular, he is concerned to show that those who describe maxims as the first principles of all knowledge are wrong.¹⁸¹ Locke analyzes knowledge of maxims as intuitive knowledge, that is, as consisting in the immediately perceived agreement of ideas. This is what explains, on Locke's view, the familiar self-evidence of maxims.¹⁸² The next sections of IV.vii then proceed to discuss maxims in terms of the perceivable agreements, identity (IV.vii.4), coexistence (IV.vii.5), relation (IV.vii.6), and real existence (IV.vii.7). Throughout this discussion of maxims, it is fairly clear, and I have not found any

¹⁸⁰ Now because *we cannot be certain of the Truth of any general Proposition, unless we know the precise bounds and extent of the Species its Terms stand for*, it is necessary we should know the Essence of each *Species*, which is that which constitutes and bounds it." (IV.vi.4/580)

¹⁸¹ "There are a sort of Propositions, which under the name of *Maxims* and *Axioms*, have passed for Principles of Science: and because they are *self-evident*, have been supposed innate, without that any Body (that I know) ever went about to shew the reason and foundation of their clearness or cogency. It may however be worth while, to enquire into the reason of their evidence, and see whether it be peculiar to them alone, and also examine how far they influence and govern our other Knowledge." (IV.vii.1/591)

¹⁸² Recall the definition of intuitive knowledge: "sometimes the mind perceives the agreement or disagreement of two *Ideas* immediately by themselves, without the intervention of any other: and this, I think, we may call *intuitive knowledge*" (IV.ii.1/530-1; emphasis original). Locke's account from IV.vii, 'wherein that self-evidence [of maxims] consists', of the self-evidence of maxims: "Now where that agreement or disagreement is perceived immediately by it self, without the intervention of help of any other, there our *Knowledge is self-evident*" (IV.vii.2/591; emphasis original).

commentator to have claimed otherwise, that Locke is *not* trying to establish something or other as a maxim, as a self-evident principle. It is obvious that there is no justificatory project with respect to maxims in general or with respect to any proposition being a maxim or not. That is not to say that Locke has nothing to say about what others have said *about* maxims. Rather the opposite. As he notes in the opening paragraph of the chapter, by giving an account of the knowledge of maxims, he hopes to undermine claims others have made about the epistemologically privileged status of maxims. Nor is he attempting to undermine claims about the certainty or self-evidence of maxims. His targets are instead those who claim that maxims play a foundational role in our system of knowledge. Locke's problem is with the account others have given of maxims with respect to the body of human knowledge rather than the status of any particular claim as a maxim. By contrast, Locke claims that since maxims can be understood in accord with his definition as intuitive knowledge, the foundations of our knowledge are the clear and determined ideas by which such immediate perception of agreement is facilitated.¹⁸³

Having illustrated the adequacy of his definition with respect to knowledge of general truths Locke moves on to illustrate the adequacy of his definition with respect to knowledge of particular truths; that is, the adequacy of his definition with respect to existential

¹⁸³ And as these Maxims are of *little use*, where we have determined *ideas*, so they are, as I have shewed, of *dangerous use*, when our *Ideas* are not determined; and where we use Words that are not annexed to determined *Ideas*..." (IV.vii.20/608).

knowledge.¹⁸⁴ Since the particular truths are existential truths, i.e. that some thing or other exists, all knowledge of particular truths is knowledge that something exists. There are some special difficulties concerning existential knowledge for Locke, but my aim now is to emphasize a parallel between the chapters on maxims and the existential knowledge discussed in IV.ix-xi.

In IV.vii, Locke's goal is *not* —by all accounts—to establish that some claim or other is a maxim, or ought to be taken as a maxim. I have suggested that his goal is to illustrate the adequacy of his definition of knowledge by showing that it accounts for a canonical case of knowledge. My claim is that the same strategy is at work in IV.ix-xi: to demonstrate the adequacy of his definition of knowledge and thereby support the answer that definition provides to the *Essay*'s driving question. His aim in these chapters is not to prove the existence of anything just as his aim in the chapters on maxims is plainly not to lay down some claim or other as a maxim while ruling some other claim out.

In IV.ix, Locke claims that our knowledge of our own existence is intuitive knowledge of our own existence.¹⁸⁵ In support, Locke emphasizes that such knowledge needs

¹⁸⁴ Hitherto we have only considered the Essences of Things, which being only abstract *Ideas*, and thereby removed in our Thoughts from particular Existence, (that being the proper Operation of the Mind, in Abstraction, to consider an *Idea* under no other Existence, but what it has in the Understanding) gives us no Knowledge of real Existence at all. Where by the way we may take notice, that *universal Propositions*, of whose Truth and Falshood we can have certain Knowledge, concern not *Existence*; and farther, that all *particular Affirmations or Negations*, that would not be certain if they were made general, are only concerning *Existence*; they declaring only the accidental Union or Separation of *Ideas* in Things existing, which in their abstract Natures, have no known necessary Union or Repugnancy." IV.ix.1/618

¹⁸⁵ I say then, that we have the Knowledge of *our own Existence* by Intuition." IV.ix.3/618

no argument.¹⁸⁶ The canonical example Locke invokes of knowledge of our own existence is Descartes' *cogito*, with which Locke was certainly familiar. By invoking Descartes' *cogito*, Locke is training his readers on a certain knowledge phenomenon: that any thought whatsoever constitutes knowledge of our own existence. As a result, since language is simply the exterior sign of thought, any way of expressing doubt about one's own existence will be self-refuting since the thoughts signified by such words contain in themselves knowledge of one's own existence. *Every* mental going on contains knowledge of one's own existence. I propose that Locke is not here attempting to *justify* a claim to knowledge of one's own existence. Instead, he is training his audience on the target of knowledge of one's existence exemplified in Descartes' *cogito*: it is that one knows one's own existence, knows that one exists, in every act of thought. Thus, insofar as Book II details how all thought can be analyzed in terms of ideas and acts of the mind on its ideas, Locke's claim in IV.ix is that there is something about the perception of any ideas whatsoever that constitutes knowledge of our own existence.¹⁸⁷

The subsequent chapter on our knowledge of God's existence might seem to be deviate from the picture I am painting. Many find therein a clear attempt by Locke in IV.x to prove that God exists. To see that this is not in fact Locke's central aim in this chapter, we

¹⁸⁶ *I think, I reason, I feel Pleasure and Pain*; Can any of these be more evident to me, than my own Existence? If I doubt of all other Things, that very doubt makes me perceive my own *Existence*, and will not suffer me to doubt of that" IV.ix.3/618). And again: "In every Act of Sensation, Reasoning, or Thinking, we are conscious to our selves of our own Being; and, in this Matter, come not short of the highest degree of *Certainty*." IV.ix.3/619

¹⁸⁷ Again, there are obviously interpretive questions to be addressed in this neighborhood to explicate how exactly this claim is to be made out and understood. My aim here, however, is merely to sketch the view of these chapters provided by understanding Locke as engaged in illustrating the adequacy of his definition of knowledge then proving any existential claim proving that we know some existential claim. In fact, I believe that model I developed in Chapter 2 as an explanation of Locke's account of sensitive knowledge can be applied to cover knowledge of our own existence and even that we have such knowledge in all of our thoughts.

need only look at the very beginning of IV.x: “Though God has given us no innate *Ideas* of himself; though he has stamped no original characters on our minds, wherein we may read his being...To shew therefore that we are capable of *knowing*, i.e. *being certain that there is a God*, and how we may come by this certainty, I think we need go no farther than our selves, and that undoubted knowledge we have of our own existence.” (IV.x.1/619). Locke is here concerned to show that his account of knowledge can account for our knowledge of God’s existence despite the fact that he does not appear to allow, in his theory of ideas, the right kind of idea of God to support such knowledge: an idea of an actually infinite being. Locke’s goal is then to illustrate that our knowledge of God’s existence is *in fact* had by reasoning from knowledge of our own existence. The remainder of the chapter then displays that reasoning. Thus, insofar as our knowledge of God’s existence is had by reasoning beginning from knowledge of our own existence, Locke is able to account for our knowledge of God’s existence under his definition of knowledge as demonstrative knowledge. Our knowledge of God’s existence is mediated by our knowledge of our own existence.

IV.xi can be understood similarly to IV.x. Locke’s definition of knowledge may look to be in trouble because it cannot account for some bit of knowledge. In IV.x, the problem was that Locke doesn’t allow what might seem to many to be the kind of idea. Without the right kind of idea to perceive, knowledge of God’s existence trivially cannot be accounted for by a definition of knowledge in terms of a perceived agreement of ideas. In IV.xi, the worry is that the existence of anything besides oneself and God cannot be proved, “there being no necessary connexion of *real Existence*, with any *Idea* a Man hath in his Memory, nor of any other Existence but that of God, with the Existence of any particular Man” IV.xi.2/630. In

response to this worry Locke locates our knowledge of the existence of other things with sensation: “The *knowledge of the* Existence of any other thing we can have only by *Sensation*” (IV.xi.2/630). Knowledge of the existence of other things, then, is a perceived agreement of ideas in sensation. As I argued in detail in chapter 2, Locke does, in fact have an analysis of such knowledge in the terms of his theory of ideas. Of course, I have not here articulated Locke’s accounts in these chapters of knowledge of one’s own existence, God’s existence, or the existence of other things; *how it is* that Locke thinks such cases can be accounted for under his definition of knowledge. My current goal is only to have established an important parallel that emerges once we recognize that Locke is engaged in a naturalized epistemology. His discussion of various cases of knowledge in IV.vi-IV.xi are attempts to illustrate the adequacy of his definition of knowledge with respect to canonical cases of knowledge.

4.3 Reconciling Locke’s philosophy of science and Locke’s naturalized epistemology

In this chapter I have argued that Locke’s aim is to explain the nature, grounds, and limitations of knowledge by in the terms of his theory of ideas. Locke’s discussion of ideas, including his distinction between simple and complex ideas, his claims about which ideas are simple ideas, and his claims about how complex ideas are made by the mind from simple ideas, ought to be regarded as a set of hypotheses intended to explain the distinction between knowledge and mere probable opinion and the limits of human understanding. There are two popular lines of interpretation in the secondary literature that may be leveraged as arguments against the interpretation I have offered. First, one of the most influential scholars in Locke scholarship, M.R. Ayers argues that Locke explicitly disavows any distinction between explanans and explananda in the *Essay*. Second, according to a popular understanding of

Locke's philosophy of science, Locke rejects hypotheses from the scope of human understanding. If either of these views are correct, then it would be extremely unlikely for Locke to be engaged in the theoretical, explanatory project I have ascribed to him. We will consider them in order.

4.3.1 Distinguishing explananda and explanans in the Essay

The first line of objection to the claim that Locke's discussion of ideas is best regarded as a theory of ideas is a line of interpretation offered by M.R. Ayers (1986) and (1994). Ayers draws on two sources of support for his claim that Locke's discussion of ideas can only, by Locke's own lights, be introspectively derived descriptions of conscious experience. The first basis of Ayers' arguments comes from Locke's use of phrase 'historical, plain method' to describe his method in the *Essay*. The second comes from Locke's repeated insistence on staying out of debates concerning the materiality and essence of the mind. According to Ayers, both of these claims by Locke suggest that there is no relevant distinction for Locke between explanans and explananda when it comes to Locke's claims about ideas. If that were right, then, quite clearly, Locke could not be engaged in the more ambitious, explanatory project I have attributed to his naturalized epistemology.

4.3.1.1 Locke's historical, plain method and the distinction between explanans and explananda

Ayers contrasts Boyle's distinction between the roles of natural history and hypotheses in natural philosophy with Locke's claims about ideas.¹⁸⁸ Natural history is a matter of observing natural phenomena and making some generalizations over what is observed. Boyle's law is an example of a claim in natural history, according to Ayers. It is a

¹⁸⁸ "He sees his theory of ideas and knowledge as the application of what he calls the 'historical, plain method' to the experienced operations of the mind" (Ayers (1986), 9).

generalization over observations. By contrast, the mechanical or corpuscularian hypotheses, are not mere generalizations. They are hypotheses posited to explain what is observed, albeit at a very general level.¹⁸⁹ On Ayers' interpretation of Locke, there is no similar distinction between explananda and explanans, between observation and explanation, when it comes to Locke's claims about ideas. Conscious experience is, according to Ayers, the analog to Boyle's observation level.¹⁹⁰ The distinction between simple and complex ideas is a description of conscious experience. Therefore, Locke's claims about ideas are analogous to Boyle's law and are not posited as explanations of some phenomena. Thus, no distinction between explanans and explananda can be drawn for Locke.

I have sown the seeds to reveal the problem with this line of interpretation. Conscious experience is not the level of explananda for Locke, at least not primarily. As I have argued in 4.2.1, as Locke himself describes his own project in the *Essay*, Locke is interested in explaining the limits and boundaries of knowledge and opinion. And, as I have suggested above in 4.2.2-3, he intends to do so by drawing on his theory of ideas. A relevant distinction between explanans and explananda can therefore be found in the *Essay*. Knowledge, opinion, and their limitations are what is to be explained. They are to be explained by locating them

¹⁸⁹ "Boyle's method included two distinct components, experimental and theoretical. The first, generally known as 'natural history', was a process of observation and experiment leading to empirical or merely descriptive generalization such as, indeed, Boyle's Law. The second consisted in speculative and usually rather general explanation in accordance with the hypothesis of corpuscles and the void. This speculation was valuable in explaining how material variety and change might arise from a few simple principles" (Ayers (1986), 7).

¹⁹⁰ "Now consciousness for Locke is an attribute of the mind or thinking thing at the level of observation..." (Ayers (1986), 7-8). Or again, "It is clear that Locke's psychological 'atomism' was not offered as an explanatory hypothesis, but as a descriptive account of what is present in consciousness and open to view" (Ayers (1994), 18). "In other words, the analogy between the composition of ideas and the composition of physical particles does no theoretical work for Locke, but arises as little more than a decorative conceit" (Ayers (1986), 8).

within the framework of Locke's theory of ideas. Specifically, they are to be explained in terms of the genetic structure of ideas.

Pace Ayers, Locke's famous 'historical, plain method' is *not* 'historical' in a sense to be contrasted with hypothetical or speculative. It is historical in the sense of articulating the history of an idea in the understanding. Ayers writes: "[Locke] sees his theory of ideas and knowledge as the application of what he calls the 'historical, plain method' to the experienced operations of the mind. Consequently, whereas absolutely simple material particles would be ontologically or, to use Berlin's word, 'literally' atomic, simple ideas are only 'simple at the superficial level of appearance and mere description'" (Ayers (1986), 8). And again, "He explicitly claimed to be applying the 'Historical, plain method' to our thought, and disclaimed any intention to 'meddle with the physical consideration of the mind'. The natural basis of consciousness he regarded as unknown, and the dispute between materialists and immaterialists as irresolvable. It follows that the analogy he drew between the composition of ideas and the composition of physical particles was in effect a sort of conceit, doing no philosophical work" (Ayers (1991), 18).

Ayers motivates his interpretation by drawing on the contrast Locke draws in I.i.2 between his historical plain method and speculation as to the essence of the mind and the role of matter in thinking and sensory perception. A fuller view of the passage, however, reveals that the salient contrast between speculation as to the mind's essence and materiality is not Locke's historical, plain method, but Locke's stated purpose to "enquire into the original, certainty, and extent of humane knowledge; together, with the ground and degrees of belief, opinion, and assent" (I.i.2/43). That is, Locke contrast speculation as to the mind's essential nature with his project of understanding the nature, grounds, and limitations of knowledge

and opinion. The method he intends to pursue in carrying out his epistemological inquiry is what he calls his historical, plain method of articulating the natural history, or genetic structure of ideas.

Similarly, when Locke elaborates on his ‘Method’ in the very next paragraph, he again emphasizes that his investigation into the boundaries of knowledge and opinion is to be carried out by tracing the origins of thought: “It is therefore worth while, to search out the *Bounds* between opinion and knowledge...In order whereunto, I shall pursue this following Method. First, I shall enquire into the *original* of those *Ideas*, notions, or whatever else you please to call them, which a man observes, and is conscious to himself he has in his mind; and the ways whereby the understanding comes to be furnished with them” (I.i.3/44). It is clear from these passages that Locke contrasts his project with speculations as to the essence of the mind not on the grounds that his is merely observational, but that it is more limited: it is an inquiry into the boundaries of knowledge and opinion rather than into the essence of the mind and its materiality.

Thus, Locke’s historical, plain method is historical in the sense of providing histories of thoughts; it is a method for specifying how any particular thought comes to be in the mind. As I have argued in 4.2, Locke’s claims about ideas in this respect are best understood as hypotheses. The framework of ideas and mental operations and his definitions of knowledge and opinion are intended by Locke to be accepted or not to the degree that they can accommodate the phenomena of knowledge and opinion. That is, Locke’s theory of ideas and analyses of knowledge and opinion succeed to the degree that, for example, canonical cases of knowledge can be successfully analyzed within his theory. Locke’s claims about the

boundaries and limitations of knowledge and opinion are then justified by the explanatory adequacy of the definitions of knowledge and opinion from which they are derived.

4.3.1.2 Locke on the undecidability of materialism and the distinction between explanans and explananda

Ayers also draws on Locke's claims in Book IV that the debate over the materiality of the mind is irresolvable to argue the claim that Locke's discussion of ideas could not, by his own lights, be anything other than generalization over introspection. After all, Ayers claims, Locke would not bother entering a debate he himself takes to be undecidable. Two points count against Ayers here. First, failing to speculate on the essence of the mind does not mean that the project Locke does engage in is not speculative in the sense that it employs explanatory hypotheses rather than mere observations. Second, taking account of the wider context of Locke's discussion in Book IV suggests that his claims about human limitations regarding the essence of the mind are merely limitations regarding *knowledge* in the strict sense Locke develops. This doesn't mean that such questions are unintelligible or beyond the scope of human understanding whatsoever. We are in a similar position regarding the essence of bodies and yet Locke does not think natural philosophy beyond observations, enquiry into the nature of bodies, is fully beyond the scope of human understanding. It is merely beyond the scope of human *knowledge*.

In IV.iii, Locke addresses the limitations of our knowledge. In IV.iii.6, Locke launches a long, famous discussion of how we do not know and can never know whether materialism about minds is correct. He here famously states that, for all we know, God may superadd the powers of thinking to a piece of matter. Or, perhaps, thinking things are simply material things fitly disposed. Or, again, perhaps the soul is simply united to a portion of matter by divine will. Ayers points to this passage as evidence that Locke holds the nature of

the mind as being beyond the reach of our understanding and hence that he himself would not speculate with a theoretical project concerning the mind.¹⁹¹ Locke instead limits himself merely to what is observable about the mind, according to Ayers.¹⁹² Namely, what is available in introspection.

There are two important lines of response to this possible objection to Theoretical. First, it is crucial to take note of the context in which Locke makes these claims about whether the materialist debate can be decided. It is in the context of the discussion of the limitations of our *knowledge*. The difference between knowledge and opinion must always be kept in mind when reading the *Essay* because it is one of Locke's chief aims to explain that difference. Indeed, Locke himself adds this caveat in his discussion of materialism. He writes:

“I say not this, that I would any way lessen the belief of the Soul's immateriality: I am not here speaking of probability, but knowledge; and I think not only, that it becomes the modesty of philosophy, not to pronounce magisterially, where we want that evidence that can produce knowledge; but also, that it is of use to us, to discern how far our knowledge does reach; for the state we are at present in, not being that of Vision, we must, in many things, content our selves with Faith and Probability: and in the present question, about the immateriality of the soul, if our Faculties cannot arrive at demonstrative certainty, we need not think it strange” (IV.iii.6/541-2).

Locke could not be more clear in these passages. When it comes to knowledge, we cannot knowably decide between materialism and immaterialism about the soul and mind. These can at most be matters of probability (mere opinion) or faith. Thus, these passages provide no

¹⁹¹ To continue a passage from Ayers (1986) cited earlier: “[Locke] sees his theory of ideas and knowledge as the application of what he calls the ‘historical, plain method’ to the experienced operations of the mind. Consequently, whereas absolutely simple material particles would be ontologically or, to use Berlin's word, ‘literally’ atomic, simple ideas are only ‘simple’ at the superficial level of appearance and mere description. That is why Locke disclaims any Cartesian intention to ‘meddle with the Physical Considerations of the Mind’ (‘physical’ here meaning ‘natural’ rather than ‘material’). He even refuses to arbitrate between materialism and immaterialism as explanations of the natural basis of consciousness” (Ayers 1981, 8). See also Ayers (1991) Part I, Chapter I, pp. 17-18.

¹⁹² See note 191 above for some of Ayers' direct statements to this effect.

evidence that Locke refuses to engage in a theoretical, explanatory, rather than an observational project with respect to the mind. As is also clear in the passage above, to relegate some line of inquiry to opinion is in no way to denigrate it for Locke. This point will become central in the next subsection and so we will return to it there.

In addition to noting the wider context, however, we can draw on the interpretation of Locke on our ideas of substance I developed in the previous chapter to show how Locke could make these claims about the undecidability of materialism within his explanatory project. This will explain the deeper sense of undecidability that some may find (and which I presume motivates Ayers) in Locke's IV.iii.vi discussion of materialism.

At the heart of my interpretation of Locke's category of ideas of substance I offered in chapter 1, and the account of sensory experience I developed in chapter 2, is the claim that according to Locke our only cognition of substances, including our own mind, is by way the ways in which they affect us. That is, by the ideas they produce in us. As a result, we only cognize substances in relation to us as things with powers to produce ideas. What remains forever beyond our cognitive grasp is how things are in themselves, independent of their relation to us (again, this famously holds for our own mind as well on Locke's view). If this is correct, then Locke's is merely emphasizing this point of his theory in IV.iii.6. Indeed, as he frames it, his point in IV.iii.6 is to highlight a limitation to our knowledge that results from the limited nature of our ideas. On the interpretation I have offered, the relevant limitation is that ideas of things are only ideas of things as they are in relation to us and never as they are in themselves. That is, our ideas of substances are ideas of things with powers to produce ideas in us. Locke's language in IV.iii.6 confirms that this is the relevant limitation placed on our knowledge by our ideas when it comes to materialism. He writes:

[I]t being impossible for us by the contemplation of our own ideas, without revelation to discover whether omnipotency has not given to some systems of matter fitly disposed, a *power* to perceive and think..." (IV.iii.6/540, emphasis added)

[S]ince we know not wherein thinking consists, nor to what sort of substances the almighty has been please to give that *power*, which cannot be in any created being, but merely by the good pleasure of the creator..." (IV.iii.6/541, emphasis added)

[O]r, who on the other side, finding not cogitation within the natural *powers* of matter, examined over and over again, by the utmost intention of mind, have the confidence to conclude, that omnipotency it self cannot give perception and thought to a substance, which has the modification of solidity" (IV.iii.6/542, emphasis added)

It is clear throughout his discussion that the problem is that our only apprehension of minds and bodies is through their effects on us, through their powers to produce ideas in us. As a result, our ideas of substances are limited to being ideas of things with powers to produce ideas in us. Thus, with no access to things except as they are in relation to us, we have no way to conclude that a thing with one kind of power cannot have another kind of power.

The deeper point, then, that Locke makes in IV.iii.6 can be appreciated within the context of Locke's project of giving a theoretical, or speculative account of the nature of our thought. Locke's naturalized epistemology makes no claims about the essence of the mind. Instead, he only offers speculative hypotheses about its powers, passive (sensation and reflection) and active (the operations of the mind) in an effort to clarify knowledge and opinion. Locke's posited system of the mind, then, is used to explain the nature of knowledge, opinion, and their grounds and limitations. Contrary to Ayers, then, Locke's theory of ideas can thus be regarded as consisting in theoretical posits or hypotheses with explanatory ambitions, even if it does not aim to determine about the essence of the mind or how the mind is in itself. Instead, the distinction between explanans and explananda is to be found between the theory of ideas, on the one hand, and knowledge and opinion, on the other.

4.3.2. *Locke on hypotheses*

The second line of objection to the claim that Locke's discussion of ideas ought to be regarded as a set of hypotheses aimed at explaining knowledge and opinion derives from a popular interpretation of Locke's epistemology of hypotheses. On a widespread interpretation of Locke's epistemology of hypotheses, Locke is understood to have rejected hypotheses from our understanding of the world. The only legitimate form of inquiry according to this interpretation of Locke is observational rather than explanatory. If correct, then Theoretical would be an implausible interpretation of Locke because it attributes to him a form of inquiry that he himself rejects.

When it comes to Locke on hypotheses, there are two camps. On one side are the Anti-Hypotheses interpreters, those who take Locke to exclude hypotheses from our understanding of the world.¹⁹³ These interpretations of Locke maintain that hypotheses such as the Corpuscularian hypothesis, or other hypotheses about unobservable beings and activities do not inform us about the world but, at best, help us to devise experiments which increase our understanding of the world. On the other side are the Pro-Hypotheses interpreters, those who claim that Locke admits hypotheses into our understanding of the world.¹⁹⁴ My aim in engaging this debate is to add support to the Pro-Hypotheses side of the text. To do so, however, I will argue that the texts on each side of the debate draw on are not in tension or opposing one another, but instead are two complementary parts of one consistent, coherent view on the role of hypotheses in our understandings.

¹⁹³ Yost (1951), Yolton (1970), Anstey (2002), (2003), (2005), (2011), de Pierris (2006), Walmsley (2003), Winkler (2008) Domski (forthcoming)

¹⁹⁴ Mandelbaum (1964), Laudan (1967), Woolhouse (1971), Farr (1987) and Soles (2005) and (1985).

To begin, let's consider some texts often offered as evidence that Locke rejects hypotheses from our understanding of the world. The relevant passages come from Locke's discussion of how to improve our knowledge of substance in IV.xii, 'On the improvement of our knowledge'. This discussion follows on the heels of Locke's longer discussion that our knowledge cannot be improved in other areas by searching for some fundamental, self-evident principles from which we can deduce new knowledge, as others have claimed. Rather, our knowledge can only be improved, Locke claims, by getting clear, determined ideas and being very careful to constantly use words to signify the same ideas.¹⁹⁵

Our knowledge of the natural world, that is, of substances existing in the world around us, cannot be improved much in this way, however, because we lack the right kinds of ideas. Namely, "our want of *Ideas*, that are suitable to such a way of proceeding, obliges us to a quite different method. We advance not here, as in the other (where our abstract *Ideas* are real as well as nominal Essences) by contemplating our *Ideas*, and considering their relations and correspondencies; that helps us very little, for the Reasons, that in another place we have at large set down" (IV.xii.9/644). Locke claims here that since our ideas of substances are limited in the ways I have developed in chapters 1 and 2 above, we cannot increase our knowledge of substances merely by contemplating our ideas. Instead our knowledge can only be increased experience and observation. To bring out the limitations on our knowledge of substance that are due to the nature of our ideas of substance as I developed the notion in chapters 1 and 2, it will help to consider a particular example.

¹⁹⁵ "But since the Knowledge of the certainty of principles, as well as of all other truths, depends only upon the perception, we have, of the agreement, or disagreement of our *Ideas*, *the way to improve our Knowledge*, is not, I am sure, blindly, and with an implicit Faith, to receive and swallow principles; but is, I think, *to get and fix in our Minds clear, distinct, and complete Ideas*, as far as they are to be had, *and annex to them proper and constant Names*." (IV.xii.6/642)

We know only that a substance has some qualities or other by virtue of the ideas it produces in us when we observe it. Thus, we can never know more about that substance (that is, what other qualities it has) by simply contemplating our idea of the substance (that is, by contemplating what qualities it is observed to have) because the ideas of the qualities which compose our ideas of substances will in almost all cases have no necessary connection to one another. To emphasize this point, Locke uses the following example: "For example, I cannot be certain from this complex idea, whether gold be fixed, or no: because, as before, there is no necessary connexion, or inconsistency to be discovered betwixt a complex idea of a body, yellow, heavy, fusible, malleable, betwixt these, I say, and fixedness, so that I may certainly know, that in whatsoever body these are found, there fixedness is sure to be. Here again for assurance, I must apply my self to Experience; as far as that reaches, I may have certain knowledge, but no farther" (IV.xii.9/645). So, if I see a piece of gold (that is, I see a lump of stuff that has qualities which match the nominal essence *gold*), I cannot know on that basis (that is, on the basis of the similarity between my idea of the object before me and my idea of *gold*) whether that lump will have other qualities that were possessed by previous substances which conformed to the nominal essence *gold*. Contemplating my ideas of substances cannot improve my knowledge of them because, in the vast majority of cases, the qualities composing my ideas of substances do not have any necessary connection to other qualities just as fixedness has no necessary connection, either individually or collectively, to yellowness, heft, fusibility, nor malleability.

Thus, continuing with Locke's example in which fixedness is not part of the nominal essence *gold*, the best I can do with respect to my knowledge of gold is either trifling knowledge, that gold is yellow, for example, or no knowledge at all, that gold is fixed, for

example. I can know that gold is yellow in a trivial sense because to know this is just to know that whatever conforms to the nominal essence *gold* is yellow. This is trifling since to conform to the nominal essence *gold* is, in part, to be yellow. I can never know that gold is fixed, by contrast, because I can't know that *whatever* conforms to the nominal essence *gold* (again, following Locke's example and supposing this is not built into the nominal essence), will be fixed, for the reasons articulated above. There is nothing in my ideas of yellow, heavy, etc. that implies fixity and so nothing about being gold by which I can know that gold is fixed. Our knowledge of substances therefore cannot be improved by contemplating our ideas because of the limitations of our ideas of substances: we never know anything of substances beyond their appearance to us, that is, except by the ideas they produce in us, and so cannot know how the various qualities of substances are connected. We cannot know, then, on the basis of a substance having some quality or qualities and hence qualifying as a member of some kind, that it will have some other qualities. Of course, we can always change the nominal essence of a substance to include some other qualities, but this is just to trivialize the knowledge that such substances have the aforementioned quality(ies).

Locke's comments about the improvement of our knowledge come against the above background of our cognitive limitations with respect to substances. Here are the comments offered as evidence that Locke rejects the use of hypotheses in natural philosophy:

KH1: "I deny not, but a man accustomed to rational and regular experiments shall be able to see farther into the nature of bodies, and guess righter at their yet unknown properties, than one, that is a stranger to them: but yet, as I have said, this is but judgment and opinion, not knowledge and certainty. This way of getting, and improving our Knowledge in substances only by experience and history, which is all that the weakness of our faculties in this state of mediocrity, which we are in in this world, can attain to, makes me suspect, that natural philosophy is not capable of being made a science. We are able, I imagine, to reach very little general knowledge concerning the species of bodies, and their several properties. Experiments and historical observations we may have, from which we may draw advantages of ease

and health, and thereby increase our stock of conveniences for this life: but beyond this, I fear our talents reach not, nor are our faculties, as I guess, able to advance." (IV.xii.10/645)

KH2: "He that shall consider, how little general maxims, precarious principles, and hypotheses laid down at pleasure, have promoted true Knowledge, or helped to satisfy the Enquires of rational men after real improvements; how little, I say the setting out at that end, has for many ages together advanced men's progress towards the Knowledge of natural philosophy, will think, we have reason to thank those, who in this latter age have taken another course and have trod out to us, though not an easier way to learned ignorance, yet a surer way to profitable knowledge." (IV.xii.12/647)¹⁹⁶

Here is how Peter Anstey interprets these statements by Locke: "so ends the first half of the most important passage in the *Essay* on the method of natural philosophy...experience and observation, the two central components of natural history, yield the only certain knowledge we can have of bodies...Hypotheses, such as Cartesianism or corpuscularianism, are not knowledge in natural philosophy, neither are the guesses that good experimenters make about unobservable qualities and the relations between such qualities." (Anstey 2003, 28).¹⁹⁷ What is clear in this and subsequent statements by Anstey¹⁹⁸ on the relation between hypotheses and natural philosophy—our understanding of the world—for Locke is that Anstey draws no distinction between knowledge and natural philosophy. Natural philosophy just *is* knowledge about the natural world according to Anstey's interpretation of Locke on natural philosophy. Thus, Locke's negative attitude towards hypotheses in the context of knowledge is a negative

¹⁹⁶ Notice that this quote on its face need not be taken as evidence of Locke's negative attitude towards hypotheses *as such* but merely those '*laid down at pleasure*'.

¹⁹⁷ Yost, in the slightly more narrow context of discussing Locke's attitude towards sub-microscopic mechanistic explanations, makes similar claims after citing the above and other passages, from the *Essay* and others of Locke's works: "the foregoing passages constitute Locke's principal *explicit* utterances on the question of the proper method of research in the empirical sciences. So far as I know there is no clear-cut statement in Locke's published works which asserts the fruitfulness of employing hypotheses about the specific sub-microscopic mechanisms of material objects. And this implies, as I said at the beginning of this section, that in Locke's opinion there was little, if any, hope of getting well-founded knowledge about them." (Yost, 130).

¹⁹⁸ See also Anstey 2005 and especially Anstey 2011.

attitude towards hypotheses in natural philosophy.¹⁹⁹ As I will shortly argue, this identification of knowledge and natural philosophy is a mistake.

In contrast to these interpretations, others—Mandelbaum, Laudan, Rogers, Farr, Soles—have argued that Locke does, in fact, embrace hypotheses in natural philosophy and so understands natural philosophy as a project that extends beyond natural history. Farr (1987) and Soles (2005) in particular have thoroughly documented Locke’s endorsement and praise of particular hypotheses across the entire body of his writings.²⁰⁰ From the *Conduct of our Understanding*, to the *Elements of Natural Philosophy*, to a journal entry titled ‘On method’, to the *Essay* itself, Locke offers and endorses particular hypotheses, and speaks well of hypotheses in general as a part of natural philosophy. That is not to say that he doesn’t also think that many have greatly erred because of their attachment to certain hypotheses or their *confusing* hypotheses for certain knowledge. But the textual evidence that Locke embraces various hypotheses in natural philosophy and gives them a valuable role in his reflections on natural philosophy is overwhelming and places a heavy burden on anti-hypothesis interpreters to explain away such statements as somehow in conflict with Locke’s considered epistemology.

Rather than add to the pro-hypotheses side of this debate by citing further textual evidence of Locke’s endorsement of particular hypotheses in natural philosophy or natural philosophical hypotheses in general, I want to add a new dimension of support for that interpretation by expanding on how Locke’s incorporation of hypotheses into natural

¹⁹⁹ The same holds for Yost. Yolton (19xx) makes this a central theme in the introduction to his *Locke and the Compass of Human Understanding*.

²⁰⁰ Farr (1987) even goes so far as to track Locke’s usage of the term ‘hypothesis’ across his political writings, where Locke presents his own views and competing views as competing hypotheses (Farr 61-62).

philosophy fits within the broader epistemology and project of the *Essay*. I will do this by first considering the texts from the *Essay* used by pro-hypotheses interpreters as supporting evidence.²⁰¹ I will argue that even though the following texts and the above texts, **KH1** and **KH2**, are invoked by opposing interpretations, they can be read in a coherent way as part of a single take on hypotheses by Locke that does not exclude hypotheses from natural philosophy.

After discussing knowledge in chapters i-xiii of Book IV, Locke turns to judgment and opinion in chapter 14. We come to the texts often cited by pro-hypothesis interpreters when Locke turns, in his discussion of how opinion is regulated by experience and testimony, to consider how opinion regarding the unobservable is regulated. Opinions regarding the unobservable can concern the *existence* of unobservable things—which covers both spiritual entities as well as physical entities that are either too small or too distant to experience—as well as the *operation* of the unobservable which results in what is observed:

JH1: “The probabilities we have hitherto mentioned, are only such as concern matter of fact, and such Things as are capable of observation and testimony. There remains that other sort *concerning* which, Men entertain Opinions with variety of Assent, though the Things be such that falling not under the reach of our senses, they are not capable of testimony [of either the senses or other people]. Such are 1. The existence, nature and operation of finite immaterial beings without us; as spirits, angels, devils, etc. Or the existence of material beings; which either for their smallness in themselves, or remoteness from us, our senses cannot take notice of, as whether there be any plants, animals and intelligent inhabitants in the planets, and other Mansions of the vast Universe. 2. Concerning the manner of operation in most parts of the works of nature: wherein though we see the sensible effects, yet their causes are unknown, and we perceive not the ways and manner how they are produced. We see animals are generated, nourished, and move; the load-stone draws iron; and the parts of a candle successively melting, turn into flame, and give us both light and heat. These and the like effects we see and know: but the causes that operate, and the manner they are produced in, we can only guess, and probably conjecture. For these and the like coming not within the scrutiny of humane senses, cannot be examined by them or attested by any body, and therefore can appear more or less probable, only as

²⁰¹ Laudan, Mandelbaum, Farr, and Soles all draw on these passages in support of their interpretations.

they more or less agree to Truths that are established in our minds, and as they hold proportion to other parts of our knowledge and observation.” (IV.xvi.12/665)

Opinions regarding the existence and operations of unobservable causes of observable processes and effects are, of course, hypotheses. Thus, what Locke has to say regarding such opinions is obviously essential for understanding Locke’s attitude towards hypotheses.

The first thing to note about **JH1** is that Locke approaches the grounds for regulating opinions about hypotheses in exactly the same way he approaches the grounds for regulating opinions concerning observable matters. This alone is reason to believe that Locke holds hypotheses in some esteem. After all, opinion as such is not to be denigrated (more on this point shortly). Indeed, some opinion is *practically*—that is, in practice—as good as knowledge.²⁰² Other passages surrounding **JH1** offer even more explicit endorsements of the use of hypotheses, at least when properly formed and evaluated. After discussing examples of analogical reasoning, Locke notes:

JH2: This sort of probability, which is the best conduct of rational Experiments, and the rise of hypotheses, has also its use and influence; and a wary reasoning from analogy leads us often into the discovery of truths, and useful productions which would otherwise like concealed.” (IV.xvi.12/666-7)

This passage is an explicit endorsement of hypotheses, at least those formed on the basis of ‘a wary reasoning from analogy’. These passages and the broader context in which they

²⁰² For the vast majority of humanity, Locke thinks, probable opinion, and sometimes unreasoned but merely dogmatically remembered probable opinion, is the only recourse in life: “This is all that the greatest part of men are capable of doing, in regulating their opinions and judgments; unless a man will exact of them, either to retain distinctly in their memories all the proofs concerning any probable truth, and that too in the same order, and regular deduction of consequences, in which they have formerly placed or seen them; which sometimes is enough to fill a large volume upon a single question: or else they must require a man, for every opinion that he embraces, every day to examine the proofs, both which are impossible. It is inavoidable therefore that the memory be relied on in the case, and that men be perswaded of several opinions, whereof the proofs are not actually in their thoughts; nay, which perhaps they are not able to actually recall. Without this, the greatest part of men must be either very scepticks, to change every moment, and yield themselves up to whoever, having lately studied the question, offers them arguments; which for want of memory they are not able presently to answer” (IV.xvi.2/658).

appear—Locke’s account of the different grounds for regulating the degrees of assent or strength of opinion—provide strong evidence that Locke does in fact accept the use of hypotheses. Indeed, hypotheses allow greater insight into the world than we would otherwise be capable of and have led to inventions that have improved the quality of life.²⁰³

Anti-hypotheses interpreters, however, tie natural philosophy and knowledge together. As a result, such interpreters might not be worried by such passages about hypotheses and maintain that while Locke certainly sees a role for hypotheses he still excludes them from directly contributing to our understanding of the world. This, however, would be a mistake as an interpretation of Locke’s attitude towards the relation between knowledge and opinion. To call something opinion, for Locke, is not to denigrate it in anyway, as he makes clear in I.i of the *Essay*. The claim that Locke excludes hypotheses from natural philosophy, then, is the result of *conflating* knowledge and natural philosophy in a way that does not properly appreciate the significance of the distinction between knowledge and opinion for Locke. A brief return to I.i will strengthen this point.

Recall that Locke’s purpose in the *Essay* is to explore and explain the boundaries of opinion and knowledge. By having a clear account of the boundaries of opinion and

²⁰³ Crucially, and against the anti-hypothesis interpreters, immediately after stating that hypotheses are not knowledge in IV.xii, Locke goes on to praise the importance of what judgment and opinion we do have regarding the natural world, or substances in IV.xii.11. He notes that the discovery of iron and its uses has been particularly important to the improvement of life, as is evidenced by the lack of both in the Americas. After pointing this out, he concludes, “I would not therefore be thought to disesteem, or dissuade the study of nature. I readily agree the contemplation of his works gives us occasion to admire, revere, and glorify their Author: and if rightly directed, may be of greater benefit to mankind, than the monuments of exemplary charity, that have at so great charge been raised, by the founders of hospitals and alms-houses. He that first invented printing; discovered the use of the compass; or made publick the virtue and right use of *kin kina*, did more for the propagation of knowledge; for the supplying and increase of useful commodities; and saved more from the grave, than those would built colleges, work-houses, and hospitals. All that I would say, is, that we should not be too forwardly possessed with the opinion, or expectation of knowledge, where it is not to be had; or by ways we will not attain it...In the knowledge of bodies, we must be content to glean, what we can, from particular experiments: since we cannot from a discovery of their real essences” (IV.xii.12/647).

knowledge, Locke hopes that, "If we can find out, how far the Understanding can extend its view; how far it has faculties to attain certainty; and in what cases it can only judge and guess, we may learn to content our selves with what is attainable by us in this state" (I.i. 4/45). But to find out that something is beyond the scope of knowledge is not to find out that it is less important: "Our business here is not to know all things, but those which concern our Conduct. If we can find out those measures, whereby a rational creature put in that state, which man is in, in this world, may, and ought to govern his opinions, and actions depending thereon, we need not be troubled that some other things escape our knowledge" (I.i.6/46). Indeed, those who denigrate judgment and opinion because it is not knowledge are guilty of a childish peevishness:

We shall not have much Reason to complain of the narrowness of our Minds, if we will but employ them about what may be of use to us; for of that they are very capable: and it will be an unpardonable, as well as Childish Peevishness...The discoveries we can make with this ought to satisfy us: and we shall then use our understandings right, when we entertain all Objects in that way and proportion that they are suited to our faculties; and upon those grounds, they are capable of being propos'd to us; and not peremptorily, or intemperately require Demonstration, and demand certainty, where probability only is to be had, and which is sufficient to govern all our concernments. If we will disbelieve every thing, because we cannot certainly know all things; we shall do much-wisely as he, who would not use his legs, but sit still and perish, because he had no wings to fly. (I.i.5/45-6)

Given that, as we have seen, our knowledge of substances is greatly limited by the nature of our ideas, there is nothing wrong with approaching substance with the tools and methods of judgment and opinion. Hypotheses in the natural philosophy of substance, therefore, are indeed judgments and opinion rather than knowledge but no less a part of natural philosophy because of it. What Locke offers in his discussion of hypotheses across both the context of knowledge at IV.xii and the context of judgment in IV.xvi is an account of the epistemic status of hypotheses: they are not known and cannot be the starting point of our inquiry into

the world around us; they are, instead, judgments and opinions based on our knowledge and experience. He is not pronouncing on whether they belong in natural philosophy, on whether natural philosophy *ought* to use hypotheses in the understanding of the world it provides, or whether the understanding hypotheses provide is any less important because they are not knowledge. Instead, Locke is clarifying *what* hypotheses in natural philosophy are, cognitively and epistemologically speaking, in light of the nature of our ideas of substances.

Classifying hypotheses in natural philosophy as judgment rather than knowledge does not imply for Locke that hypotheses ought to be excluded from natural philosophy. The upshot is quite the opposite: demand for demonstration and skepticism in response to failure of demonstration is inappropriate regarding hypotheses in natural philosophy. Blanket skepticism regarding hypotheses as such is to sit still and perish for want of wings. By raising our interpretive gaze beyond the particular sentences and pages in which Locke discusses hypotheses, and recognizing the place of the comments within the structure of Book IV and the larger aims of the *Essay*, we can see that Locke's negative and positive claims about hypotheses fit within his larger project of exploring the bounds of knowledge and opinion and where various forms of inquiry fall with respect to those boundaries. Such passages therefore cannot support an interpretation on which Locke excludes hypotheses from natural philosophy.

To sum up: Locke's claims in IV.xii and his claims in IV.xvii have been employed by interpreters on opposite sides of the question of Locke's attitude towards hypotheses. Anti-hypotheses interpreters draw on Locke's negative attitude towards hypotheses in the context of knowledge, while pro-hypotheses interpreters draw on Locke's positive attitude towards hypotheses in the context of judgment. My aim here has been to bolster the pro-hypotheses

case by pointing out that these two sets of texts are in no way in tension with one another. Indeed, given their respective places in the structure of Book IV, and given Locke's stated aims to more clearly determine the boundaries between knowledge and opinion, it is not surprising to find Locke taking a negative attitude towards hypotheses in one context but a positive attitude in the other. Far from the IV.xii passage being the 'the most important passage in the *Essay* on the method of natural philosophy', as Anstey claims, it is but one half of Locke's treatment of hypotheses. Moreover, in light of Locke's claims in I.i about the relative merits of knowledge and opinion it seems hard to maintain that he would want to steadfastly and honorifically identify natural philosophy with *knowledge* in the strict sense he develops in Book IV of the *Essay*. Rather, the point of Locke's discussion of hypotheses spread over IV.xii and IV.xvi makes is the one he highlights at the beginning of the *Essay*: hypotheses in natural philosophy are beyond the scope of our knowledge, and so we should neither demand demonstrations nor give them up for want of knowledge. Our understanding of the world, then, is not limited to our observations, according to Locke, but can include what hypotheses tell us about the world as long as those hypotheses are well grounded in experience in the ways Locke explains. Thus, Locke does admit hypotheses into our understanding of the world and so Theoretical does not run Locke into any tension with his own epistemology and philosophy of science.

4.4. Conclusion

In this chapter I have defended a central tenet of Locke's naturalized epistemology: Theoretical. As I argued in 4.2, Theoretical is well grounded in Locke's own description of the *Essay*'s aims and the relation Locke sees between his discussion of ideas and the *Essay*'s aims. Locke's discussion of ideas is a *theory of ideas* intended to explain knowledge,

opinion, their nature, grounds, distinction, and limitations. Locke's epistemology in the *Essay* is a naturalized epistemology that ought to be understood on the model of the natural science of his day. Locke's discussion of ideas doesn't merely describe what is available to introspection any more than Newton's technical framework for forces describes what is immediately observable about the physical world. Both frameworks are composed of theoretical posits intended to explain some phenomena. For Newton, the phenomena were the motions of bodies. For Locke, the phenomena are knowledge and opinion. They then illustrate the adequacy of those definitions to familiar, canonical cases of their target phenomena. Finally, on the strength of the adequacy of their frameworks to these phenomena, each draws on their frameworks to characterize systems of the world and mind, respectively. Locke draws on his theory of ideas to draw conclusions about the limitations of our knowledge and reasonable opinion.

Theoretical has not come under much direct attack in the secondary literature on Locke. For the most part, this is because it has never been seriously considered as an interpretation of Locke's project in the *Essay*. Nevertheless, there are some deep-seated, wide spread interpretive commitment common withing Locke scholarship that are likely to make Theoretical seem antecedently implausible. First, Locke's use of the phrase 'historical, plain method' to characterize his method in the *Essay* has led many, such as MR Ayers to believe that Locke's theory of ideas is merely a description of what is available to introspection. Second, many Locke scholars believe that Locke's own epistemology rules out hypotheses from our understanding of the world. Thus, Locke could not be consistent with his own epistemology if he thought he offered insight into the mind, knowledge, and opinion, by

offering hypotheses and a system of the mind that went beyond what is available to observation via introspection.

The first two chapters of this dissertation offered a unique and novel interpretation of how we can understand Locke's category of sensitive knowledge in the terms of his own definition of knowledge. This chapter and the previous chapter have now provided a defense of the methodological underpinnings and assumptions of Locke's Naturalized Epistemology. In the next chapter, I will apply the interpretation of sensitive knowledge developed in chapters 1 and 2 and the methodological insights defended in this chapter and the last to address one of the most puzzling aspects of Locke's discussion of knowledge of the external world. How, in an era during which skepticism entered into so many philosophical discussions, could Locke take such a cavalier attitude toward skepticism, suggesting, in effect, that the skeptic can be cured by sticking her foot in a fire?

Chapter 5: Sensitive Knowledge and Skepticism

Locke's attitude towards skepticism may seem puzzling. On the one hand, he insists that we know the existence of finite objects distinct from us. Locke introduces knowledge of the external world as follows: "There is, indeed, another perception of the mind employed about the particular existence of finite beings without us; which going beyond bare probability and yet not reaching perfectly to either of the foregoing degrees of certainty, passes under the name of knowledge" (IV.ii.14/537). Moreover, he is also aware of skepticism about the external world and mentions it nearly every time he discusses knowledge of the external world. One sentence later, for example, Locke writes: "But whether there be any thing more than barely that idea in our minds, whether we can thence certainly infer the existence of anything without us, which corresponds to that idea, is that whereof some men think there may be a question made, because men may have such ideas in there minds, when no such thing exists, no such object affects their senses" (IV.ii.14/537). The basic worry Locke portrays here is that while we certainly know our own thoughts and experience, this thought and experience need not reveal any external reality because there is no necessary connection between thoughts or experience and the world. There is no doubt, then, that Locke's confidence that we have sensitive knowledge is not rooted in *ignorance* of skeptical worries.

On the other hand, he takes a cavalier attitude towards skepticism, seeming to treat it as no serious issue. Here are some of his responses to skeptical worries. Almost immediately after noting the skeptical worry, Locke responds:

If anyone say, a dream may do the same thing [as sensation], and all these ideas may be produced in us without any external objects, he may please to dream that I make him this answer, 1. That it is no great matter, whether I remove his scruple or no: where all is but dream, reasoning and arguments are of no use, truth and knowledge nothing. 2. That I believe he will allow a very manifest difference between dreaming of being in the fire, and actually being in it” (IV.ii.14/537; emphasis added).

Locke’s response to the skeptic here is first, to shut off debate by saying that under the skeptical hypothesis no reasoning is possible or worth engaging in, and second, that the skeptic can cure themselves by jumping in a fire. In neither case does Locke appear to think skepticism merits serious attention or poses a serious threat to our knowledge of the external world.

Moreover, these themes in Locke’s consideration of sensitive knowledge and skepticism are not unique to the above passages from IV.ii. The same pattern repeats itself in the chapter Locke dedicates to knowledge of the external world, IV.xi, ‘Of our knowledge of the existence of other things’. After introducing and giving his account of sensitive knowledge in the first two paragraphs of IV.xi and noting the possibility of skeptical doubts about the external world’s existence, Locke again dismisses skepticism as unworthy of serious engagement. He writes, “At least, he that can doubt so far, (whatever he may have with his own thoughts) will never have any controversy with me; since he can never be sure I say any thing to the contrary to his own opinion” (IV.xi.3/631). And again, after Locke recounts a list of reasons to believe in an external world, Locke writes, “But yet, if after all this, any one will be so skeptical, as to distrust his sense, and to affirm, that all we see and hear, feel and taste, think and do, during our whole being, is but the series of deluding

appearances of a long dream, whereof there is no reality; and therefore will question the existence of all things, or our knowledge of any thing: I must desire him to consider, that if all be a dream, then he doth but dream, that he makes the question; and so it is not much matter, that a waking man should answer him” (IV.xi.8/634). Again, Locke seems to think skeptical worries are not worthy of much serious response. Finally, the theme of curing the skeptic by fire returns with a vengeance: “and if our dreamer pleases to try, whether the glowing heat of a glass furnace be barely a wandering imagination in a drowsy man’s fancy by putting his hand into it, he may perhaps be wakened into a certainty greater than he could wish, that it is something more than bare imagination” (IV.xi.8/635).

From a contemporary perspective, then, Locke’s attitude towards skepticism may seem puzzling because though Locke acknowledges skeptical doubts he does not appear to take them seriously. Though he is aware of such skepticism Locke’s account of knowledge of the existence of finite things distinct from our minds is not built as or around a response to the skeptic. Indeed, the skeptic is someone to be set aside for Locke rather than deeply and directly engaged.

In this chapter I will first offer a new account of Locke’s attitude towards skepticism based on the interpretive, philosophical, and methodological insights developed in the previous four chapters regarding Locke’s category of sensitive knowledge and Locke’s broader project in the *Essay*. I will then consider and reject existing attempts in the secondary literature to make sense of Locke’s attitude towards and responses to skepticism. As we will see, existing accounts force Locke down one of two unpalatable roads: either Locke responds to the skeptic with fist-pounding dogmatism or else abandons his own account of knowledge. By contrast, on the interpretation I will offer, Locke’s naturalized epistemology offers a non-

dogmatic position on which skeptical worries fall by the side: Locke's explanatorily adequate accounts of knowledge and opinion offer a clear distinction between the two and places knowledge of the existence of finite objects without us on the knowledge side of the divide.

5.1 Reason and knowledge of the external world

To begin, let's look in some detail at how Locke describes knowledge of the existence of finite things distinct from our minds and how it relates to knowledge and opinion more broadly. Locke defines knowledge as the perceived agreement of ideas. Locke intends for this definition of knowledge to cover what he takes to be the three kinds of knowledge. Locke thinks that we can get a rough and ready handle on these different ways in which we come to knowledge by reflecting on our epistemic lives.

In the first place, some knowledge is so obvious and immediately grasped upon first consideration that we cannot help but know the truth of whatever proposition we have just considered. For example, "that white is not black, that a circle is not a triangle, that three are more than two, and equal to one and two" (IV.ii.1/531). When we know that white is not black, that a circle is not a triangle, etc., simply by grasping the meaning of these terms, Locke calls such knowledge intuitive knowledge. In terms of his definition of knowledge, Locke claims that intuitive knowledge is the immediate perception of agreement between ideas.

Not all knowledge is intuitive, however. Sometimes we have to reason our way to knowledge. For example, "the mind being willing to know the agreement or disagreement in bigness, between the three angles of a triangle, and two right ones, cannot by an immediate view and comparing them do it; because the three angles of a triangle cannot be brought at once, and be compared with any other one, or two angles, and so of this the mind has no

immediate or intuitive knowledge. In this case the mind is fain to find out some other angles to which the three angles of a triangle have an equality; and finding those equal to two right ones, comes to know their equality to two right ones” (IV.ii.2/532). When we do not or cannot intuit some truth we instead reason our way to it. Locke calls this form of knowledge demonstrative knowledge. Demonstrative knowledge, nevertheless, is parasitic on intuitive knowledge as it consists in a chain of intuitive knowledge (IV.ii.2, 7).

Another, related, difference between intuitive and demonstrative knowledge is that doubt is possible when it comes to demonstrative knowledge in a way that it is not for intuitive knowledge. Demonstrative knowledge is required because we do not or cannot intuit some truth and so we can have doubts about what it is that will be demonstrated (IV.ii.2, 5). Even after we demonstrate some claim, we can reflect on the role of memory in demonstration and doubt that the demonstration was a true demonstration because some step involved falsely remembering that some previous step was intuited. In intuitive knowledge no such doubt is possible. When we consider the proposition we immediately know it (IV.ii.5). Of course, even in demonstrative knowledge, the doubt is removed when we again carry out the proof, but it can return when the force of the proof has dissipated and one is again in the position of simply considering the proposition.

In the terms of Locke’s analysis of knowledge, demonstrative knowledge is the mediated perception of agreement between ideas. The perception of agreement between two ideas in demonstrative is mediated by immediate perceptions of agreements between intermediate ideas. To perceive that idea A agrees with idea C demonstratively, we must immediately perceive an agreement between idea A and idea B and then between idea B and idea C.

To sum up, Locke's categories of intuitive and demonstrative knowledge represent two familiar kinds of knowledge. In some cases, our knowledge immediately results from our grasp of the material in question. Simple arithmetic and geometry are paradigms of this kind of knowledge. In other cases, we need to take a stepwise approach of reasoning our way to knowledge. More complicated arithmetic and geometry are paradigms here for Locke. Locke offers analyses of these forms of knowledge in terms of his definition of knowledge as follows: intuitive knowledge is the immediately perceived agreement between ideas and demonstrative knowledge is the mediated perceived agreement of ideas. Mediated perceptions of agreement are mediated by a chain of immediate perceptions of agreement. Our knowledge does not stop with intuitive and demonstrative, however. Locke writes:

These two, (viz.) intuition and demonstration, are the degrees of our knowledge; whatever comes short of one of these, with what assurance soever embraced, is but faith or opinion, but not knowledge, at least in all general truths. There is, indeed another perception of the mind, employ'd about the particular existence of finite beings without us; which going beyond bare probability, and yet not reaching perfectly to either of the foregoing degrees of certainty, passes under the name knowledge. (IV.ii.14/37)

Again, it is important to emphasize that Locke is here describing phenomena he aims to analyze in terms of his account of knowledge and theory of ideas. He is stating what he takes to be a part of the phenomena to which his naturalized epistemology is answerable. The knowledge he describes in the passage above is expressed by statements like, 'here is a hand', or 'there is a table', or 'here is tree'. All of these statements, according to Locke, are taken by us as ordinary expressions of existential knowledge, knowledge that some 'finite being without us' exists. Thus, they belong in this preliminary characterization of the phenomena to which a naturalized epistemology is answerable.

A central feature of knowledge of the external world that Locke is concerned to highlight in the IV.ii.14 passage cited above is that such knowledge is *not* rational knowledge. It is *not* knowledge arrived at by an immediate rational apprehension constitutive of intuitive knowledge. Similarly, it is not arrived at by deductive or demonstrative reasoning. There is, in other words, no proof of the external world that can be had. The importance of this point cannot be stressed enough for understanding Locke's attitude towards skepticism. Locke's account of knowledge of the external world will not provide materials that a subject can use to refute a skeptical doubt about whether some objects exist beyond her ideas. If I doubt that there exists a table in front of me, Locke's account of the knowledge I have when I know that there is a table in front of me will not provide me with resources by which I can deductively or intuitively dismiss the doubts I may have about whether there is a table (or whatever) in front of me.

Knowledge of the external world is achieved not through the exercise of reason but in sensory experience. Locke writes, "we may add to the two former sorts of knowledge, this also, of the existence of particular external objects, by that perception and consciousness we have of the actual entrance of ideas from them, and allow these three degrees of knowledge, viz. intuitive, demonstrative, and sensitive: in each of which, there are different degrees and ways of evidence and certainty" (IV.ii.14/537-8). This is a point familiar from Chapter 2. Knowledge of the external world is grounded in sensation and obtained in the construction of sensory experience from sensation. It is not something achieved by reason. Thus, skeptical doubts cannot be assuaged through citing some premises about our ideas, sensory experience, etc., from which we can draw any conclusion about what exists.

5.2 Skepticism and Locke's naturalized epistemology

In light of Locke's take on knowledge of the external world as non-rational it will be helpful to draw some distinctions between ways of articulating skeptical worries and ways of responding to those worries. Since Locke's takes our knowledge of the external world to be non-rational, to be sensitive knowledge, his account of that knowledge is not in the form of a proof of the external world. It be possible, by Locke's own lights, to refute the skeptic with a deductive (or, as Locke would call it, demonstrative) proof. Notice, however, that when it comes to knowledge of the external world there are two relevant kinds of arguments.

First, there is what we can call a first-order debate between a skeptic and non-skeptic. They can debate in more or less general terms. They can debate whether or not a particular perceptible object, like a hand or a tree, exists. Or, they can debate, more generally whether an external world exists distinct from, say, God and oneself. In the context of Locke and his relationship with skepticism, the non-skeptic may try to motivate some premises concerning our ideas which end with one of the following conclusion:

FOP: So, that tree exists.

Or,

FOG: So, the external world exists.²⁰⁴

The skeptic may then offer reasons to doubt either that the tree or an external world exists. As I have noted above, Locke does not think any such argument is possible. The kind of knowledge we have when we know that a tree or the external world exists is not supported by deductive or intuitive proof. It is sensitive, grounded in sensation.

Second, there can be what we can call a second-order debate between a skeptic and a non-skeptic. In a second-order debate, the debate is *about* knowledge. The skeptic or non-skeptic may motivate some premises to arrive at conclusions like the following:

²⁰⁴ FOG follows from FOP, but obviously not vice versa. There may be other ways of arriving at FOG than by way of FOP or something similar. Thus, FOG, FOP and their skeptical denials can be treated as distinct.

SOP: So, I (we/humans) know that the tree exists

Or,

SOG: So, I (we/humans) know that the external world exists

A familiar form of external world skepticism takes the second-order form. Here is one route to a skeptical denial of **SOP**:

If I know the tree exists, then I know I'm not a brain in a vat.

I don't know I'm not a brain in a vat.

So, I don't know that the tree exists.

Now, just as Locke does not think any deductive proof of **FOP** or **FOG** is possible, he likewise does not think that any deductive proof of **SOP** or **SOG** is possible (which is reasonable, since it seems like the **FO** claims should follow from their **SO** counterparts).

It is important to distinguish the first and second order versions of these claims in the context of Locke's epistemology because it allows us to understand the way in which Locke is not skeptical about knowledge of the external world even though he does not think that either first or second order claims about the external world can be rationally *known*. What is particularly tricky about understanding Locke's attitude towards skepticism is that there is (a) a broader line of argument in the shape of the *Essay* and Book IV that is not always manifest when one is focused on particular sections of the text but also (b) a narrow direct line of argument explicitly addressed to skeptical worries. The broader line of argument is a second order line of argument manifest in the broader structure of Locke's naturalized epistemology. The narrower line of argument is a first order line of argument.

When Locke most directly addresses skepticism, it is in the context of first order debate. He writes, "But whether there be any thing more than barely that idea in our minds, whether we can thence certainly infer the existence of any thing without us, which corresponds to that idea, is that, whereof some men think there may be a question

made” (IV.ii.14/537). And again, “For I think no body can, in earnest, be so skeptical as to be uncertain of the existence of those things which he sees and feels” (IV.xi.3/631). Finally, “If after all this, any one will be so skeptical as to distrust his senses and to affirm that all we see and hear, feel and taste, think and do, during our whole being is but the series and deluding appearances of a long dream, whereof there is no reality and therefore will question the existence of all things, or our knowledge of any thing” (IV.xi.8/634).²⁰⁵ The consistent theme in these passages is that the skeptic doubts the existence of what he or she experiences.

Locke’s most explicit responses to the skeptic, and indeed, the only responses that the secondary literature recognizes, are responses in this narrower, first order sense. Locke offers what he calls concurring reasons to our sensitive knowledge of the external world. These are considerations offered in support of the deliverances of the senses that the external world exists. Locke offers four considerations, neatly summed up by the section headings in which he elaborates them:

IV.xi.4: ‘First, because we cannot have them but by the inlet of the senses’

IV.xi.5: ‘Because an idea from actual sensation, and another from memory, are very distinct perceptions’

IV.xi.6: ‘Thirdly, pleasure or pain, which accompanies actual sensation, accompanies not the returning of those ideas without the external objects’

IV.xi.7: ‘Fourthly, Our senses assist one anothers testimony of the existence of outward things.’

In short, then, Locke’s concurring reasons offered to the skeptic center on familiar reasons cited in favor of the existence of an external world and/or particular objects in the external world. That our experience of the external world is independent of our will, that our sensations are phenomenologically different from our memories and imaginations, part of

²⁰⁵ This passage does mention knowledge and so somewhat blurs the line between a first and second order debate, but for the most part this reads as first-order-concerned passage. The mention of ‘knowledge’ is also an outlier in Locke’s direct addresses to the skeptic.

that difference consists in being uniquely tied to pleasure and pain, and finally, there is a certain consistency and coherence to our sensory experience.

In each case these considerations are offered in support of a first order claim. The warmth of the sun and its pleasant feel. The difference between a memory of the sun and a sensory experience of the sun. The absence of a blind person's visual idea of the sun. The fact that a memory of the sun doesn't bring with it the pleasure that one felt when one had a sensory experience of basking in the sun. Of course, as Locke makes explicit, none of these considerations are the basis of our *knowledge* of the sun's existence or the existence of an external world. They are merely considerations that concur with the knowledge we have of the sun's existence in our sensory experience of the sun. At best, these considerations on their own make it probable that the sun exists, or that the external world exists. But more importantly for distinguishing Locke's responses to skeptical doubt, none of these considerations makes it probable that we *know* the existence of the objects of sensory experience. They merely make it probable that an external world or particular objects exists.

Nevertheless, Locke insists that when we see and feel the sun we know it exists. If we can only reason our way to a probable opinion that the sun exists, what grounds does Locke have to maintain that we know the sun's existence? Locke's claim about knowledge of the external world is a second order claim: it is grounded in a claim *about* knowledge; namely, Locke's definition of knowledge. The rough shape of Locke's grounds for claiming that we know the existence of the external world is that he has given an explanatorily adequate account of knowledge. Knowledge is idea-containment. Sensitive knowledge can be accommodated under this account of knowledge. Sensitive knowledge is the containment of a simple sensory idea by a substance idea. The containment of a simple sensory idea by a

substance idea counts as knowledge of the existence of something external to oneself because of the respective role of each kind of idea within Locke's theory of ideas. Simple sensory ideas are the appearance of substances to subjects. Substance ideas composed of those simple sensory ideas are the subject's thought of those objects *as* existing external finite objects with the powers to affect them in that way, by the production of the simple sensory idea in the understanding.

For Locke, knowledge of the existence of the particular objects without us is an epistemic phenomena to which a naturalized epistemology, a science of knowledge, is responsible. Passages in which Locke insists on such knowledge are often best understood as Locke's description of the phenomena. For example, Locke writes, "The notice we have by our senses, of the existing of things without us, though it be not altogether so certain, as our intuitive knowledge, or the deductions of our reason, employ'd about the clear abstract ideas of our minds; yet it is an assurance that deserves the name knowledge" (IV.xi.3/631). It is simply part of our epistemic lives that in our sensory experience of the world we know the existence of the things we sense. Such knowledge is, he admits, palpably different from the knowledge we have, for example, in mathematics. Nevertheless, such cognition is knowledge. Passages such as these are easily and often mistaken for more, for being part of Locke's *account* of such knowledge. Rickless (2006), for example, keys on Locke's use of 'assurance' to claim that Locke here abandons his earlier claims that we have *knowledge* of the external world and instead have mere opinion about the existence of finite objects without us.²⁰⁶

²⁰⁶ Though see Owen (forthcoming) for a debunking of Rickless' interpretation of assurance as a technical Lockean term equivalent to opinion. Allen (forthcoming) also provides a nice account of the severe textual difficulties facing Rickless's interpretation.

Similarly, Locke introduces knowledge of the existence of other things as *manifestly* knowledge just as knowledge in mathematics is manifestly knowledge. His aim in these passages is not to argue or otherwise establish that we have knowledge of the external world. Rather, it is to emphasize that knowledge of the existence of finite objects without us is part of the epistemic phenomena. It is part of how our epistemic lives appear. Moreover, *that* such knowledge is different (in some way, related sensory experience) is similarly part of the epistemic phenomena to which Locke thinks a science of knowledge is responsible. As we have seen above, he introduces such knowledge as “another perception of the mind, employ’d about the particular existence of finite beings without us; which going beyond bare probability and yet not reaching perfectly to either of the foregoing degrees of certainty, passes under the name knowledge” (IV.ii.14/537). And after fleshing this epistemic phenomenon out in a little more detail, Locke concludes: “So that, I think, we may add to the two former sorts of knowledge, this also, of the existence of particular external objects, by that perception and consciousness we have of the actual entrance of ideas from them, and allow these three degrees of knowledge, viz intuitive, demonstrative, and sensitive” (IV.ii. 14/537-8). Locke ‘adds to the former two sorts of knowledge’ sensitive knowledge not in the sense that he has shown by pointing to considerations of pleasure and pain, or the distinctness between sensory experience from other modes of cognition, that we have knowledge of the external world. Instead, he adds sensitive knowledge to the knowledge side of the ledger in the catalog of epistemic phenomena. It and its distinct features are to be explained by a naturalized epistemology.

Locke points to the distinct features of sensation as a mode of cognition both to illustrate the phenomena of sensitive knowledge as well as to combat (first order) doubts

about whether there is an external world or whether some specific finite thing exists without one. Thus, if we want to understand the force of Locke's response to a skeptic about knowledge of the external world, we must look elsewhere than his descriptions of sensitive knowledge as epistemic phenomena. The force of Locke's response to a skeptic is the force of his whole naturalized epistemology.

The epistemic phenomena are just that. They are how our epistemic lives appear. As such, it is of course open to a skeptic to deny that our cognition of the existence of external objects rightly belongs on the knowledge side of the divide between knowledge and opinion. However, Locke is not merely in the position of insisting on appearances. He has deeper grounds. First, he has provided an account of knowledge. Knowledge is idea-containment. Second, he has shown, as I have argued in Chapter 2, that knowledge of the existence of other finite things can be analyzed in terms of idea-containment. This second effort is part of Locke's wider effort to show that his theory of knowledge is adequate to the phenomena which it is intended to account for. Locke's claim in this respect is not trivial. Indeed, it might have turned out that no definition of knowledge capable of covering the variety of epistemic phenomena was possible. Or, even more problematically, it might have turned out that theories of knowledge fared well with other canonical cases of knowledge but not knowledge of the external world. In that case, the skeptic might have reason to insist that the **SOG** or **SOP** are false. Locke is not, as I have argued in the Chapter 2, in that position. What many take to be obviously inconsistent with his definition, knowledge of the external world, is not in fact inconsistent with his definition. Knowledge of the existence of other finite things without us can be understood in terms of idea containment.

The overall position that emerges for Locke against the skeptic, then, is the following. As Locke states in the *Essay*'s introduction, the *Essay* provides an explanation of the nature, grounds, and boundaries of knowledge and opinion. This explanation is provided by analyzing each in the genetic structure framework of Locke's theory of ideas. The theory of ideas framework and the accounts of knowledge, opinion, and their grounds and limitations, provided by that framework, are supported by the adequacy of those accounts to the epistemic phenomena. That is, Locke's claims that his theory of ideas provides a system of the mind, that knowledge is a perceived agreement between ideas, and that opinion is a presumed agreement between ideas, are supported by the ability of the framework to account for canonical cases of knowledge. I have called this the 'explanatory adequacy' of Locke's theory of ideas and accounts of knowledge and opinion to the epistemic phenomena. Within Locke's framework it is not possible to have *rational*—that is, intuitive or demonstrative—*knowledge* of the existence of the external world. Rather, such knowledge is achieved in sensory experience. Nevertheless, Locke's theory does provide us with rational opinion *that* we have knowledge of the existence of finite things without us. By providing an explanatorily adequate naturalized epistemology according to which we have such knowledge, Locke gives the only kind of justification for the claim that we know the existence of other finite things that is possible according to his own system.

Thus, to the skeptic that demands more, Locke is in a position to reply that the skeptic knows not of what he asks. Indeed, this is exactly the kind of response Locke envisions his naturalized epistemology can provide. As I suggested in Chapter 4, Locke conceived of the *Essay*'s naturalized epistemology as having an important anti-skeptical upshot. Locke set out in the *Essay* to specify the bounds and grounds of knowledge and opinion. The ultimate goal

of specifying these limitations of our knowledge is that that we can more responsibly direct our intellectual efforts. He writes,

“When we know our own strength, we shall the better know what to undertake with hopes of success: and when we have well survey’d the powers of our own minds, and made some estimate what we may expect from them we shall not be inclined either to sit still, and not set our thoughts on work at all, in despair of knowing any thing; nor on the other side question every thing and disclaim all knowledge because some things are not to be understood.” (I.i.6/46)

Indeed, part of this more responsible direction of our intellectual efforts is to get us to move along from varieties of skepticism. Inquiry, Locke thinks, has mostly gone without the guide of a clear grasp of human understanding, without a good handle on the nature of knowledge compared to merely probable understanding, and without a good handle on what lies beyond the grasp of human knowledge or probable opinion. As a result, “men, extending their enquiries beyond their capacities, and letting their thoughts wander into those depths, where they can find no sure footing; ‘tis no wonder, that they raise questions and multiply disputes, which never coming to any clear resolution are proper only to continue and increase their doubts, and to confirm them at last in perfect skepticism” (I.i.7/47). Locke’s aim in providing a clear presentation of human cognitive capacities is, partly, a rebuff to that skepticism:

Whereas were the capacities of our understanding well considered, the extent of our knowledge once discovered, and the horizon found, which sets the bounds between the enlightened and dark pars of things; between what is, and what is not comprehensible by us, men would perhaps with less scruple acquiesce in the avow’d ignorance of the one, and employ their thoughts and discourse, with more advantage and satisfaction in the other” (I.i.7/47).

Like the person who demands deductive proofs in natural science, the skeptic asks for a justification inappropriate to the relevant kind of knowledge. Locke’s theory of ideas and epistemology tell us both that we do in fact have knowledge of the existence of other finite things and, moreover, that no rational knowledge of the existence of other finite things is to

be had. A skeptic who demands such knowledge asks for something beyond our ken and wastes the time and energy of himself and others.

We can now shed some important light on why Locke is so cavalier in dealing with the skeptic. On the one hand, Locke suggests that the skeptic can be cured by putting him near a fire; or, even better, a heated furnace. The point of this exercise is not to convince the skeptic by torture, of course, nor by confronting him with an irrefutable, conclusive, knowledge conferring reason or proof of the external world. It is simply to give the skeptic a clear case of sensory experience, which in and of itself contains knowledge of the existence of a particular thing without him. Whether the skeptic is willing to call such cognition knowledge on the grounds that he has been provided no deductive proof, or intuitive evidence, is of no concern to Locke because Locke has provided an explanatorily adequate account of knowledge according to which (a) we have knowledge of the existence of particular things without us and (b) such knowledge is not demonstrative or intuitive. So whether the skeptic will call sensitive knowledge 'knowledge' is of no great concern to Locke. He has given a clear account of what knowledge is, how it contrasts with merely probable opinion, and shown how his accounts of each track well canonical cases of knowledge and mere probable opinion.

That Locke's theory is itself not known is no problem unless we assume that knowledge implies knowing that one knows. But Locke's naturalized epistemology makes no such demand on knowledge and, unless such a feature of knowledge is insisted on as a part of the epistemic phenomena to which an epistemology is responsible to, Locke's theory does not suffer for it. Of course, since Locke's theory is not by his own lights knowledge it is possible that a theory of knowledge or system of the mind with other, greater theoretical

virtues than his own could come about according to which we do not have knowledge of the existence of particular things without us. But until that is offered, and skeptical worries take the form of fretting that no rational knowledge is possible because, say, no premises concerning our ideas can guarantee that something else exists without one, skeptical worries can be safely set aside.

To fully grasp the power of what I will call Locke's naturalized epistemology response to skepticism I have developed, we can examine some of the existing literature on Locke's relation to skepticism. Given the clean explanation of Locke's variety of responses to skepticism and his cavalier attitude I have given in light of Locke's naturalized epistemology, it is a clear reason in favor of the naturalized epistemology interpretation. I will now argue that the naturalized epistemology interpretation is the best account of Locke's relation to skepticism.

5.3 Sensitive knowledge and skepticism: existing interpretations

Despite the widely held opinion that Locke's official account of knowledge as a perceived agreement of ideas is incompatible with knowledge of the external world, there is far less consensus on Locke's relationship to skepticism. We can isolate a few different camps. In the first place are those that focus on his official definition and what they take to be an obvious inconsistency between his definition and knowledge of the external world as evidence that Locke has no response to the skeptic. Indeed, one such interpreter, claims that Locke *is* a skeptic about the external world because Locke does not *really* allow that there can be knowledge of the existence of anything finite without us (Rickless 2006). Most such interpreters, however, seem to think that Locke simply bungled his epistemology and his insistence throughout Book IV that we do in fact have knowledge of the existence of finite

things without us was simply a dogmatic attitude which prevented him from adequately reflecting on his account of knowledge (e.g., Woolhouse (1994), Jolley (1999)). As a result, according to these interpretations, Locke has nothing but dogmatic fist pounding to fall back on when confronted by skepticism.

These interpretations have been shown to rest on a false premise in Chapter 2 of this dissertation. Namely, that knowledge of the existence of finite things without us cannot be understood as a perceived agreement between ideas, and so cannot be understood within Locke's definition of knowledge. Moreover, as I have sketched above, far from being unequipped to deal with the skeptic, Locke's naturalized epistemology gives him a powerful tool with which to respond to the skeptic.

In the second place are those who claim that Locke abandons his definition of knowledge when it comes to existential knowledge of at least ourselves and finite things without us (Aaron (1971), Ayers (199), Bolton (2004), and to some degree, Nagel, although the latter will be addressed later). Aaron (1970) simply claims that when confronted with the fact of existential knowledge Locke supplements his definition of knowledge as between-idea agreement with agreement of ideas with other existents, like oneself or another finite thing without one. This leaves Locke with a bifurcated account of knowledge in Book IV.

Bolton (2004), and Owen (MS) take a similar approach. According to each of these interpreters Locke is a reliabilist about knowledge of the existence of finite things without us. What separates these interpreters out from the simpler approach of Aaron, however, is that they offer textual evidence from Locke's discussion of the representational qualities of simple ideas as evidence of Locke's reliabilism. Simple ideas are natural indicators of kinds of qualities without us, according to Ayers' Locke. They are not infallible, but they are

reliable. Thus, the judgments we make concerning the existence of such qualities on the basis of our simple sensory ideas are reliably truth-tracking and so amount to knowledge.

Similarly for Bolton's Locke. Simple ideas are what Bolton calls markers of qualities and collections of qualities are partly constitutive of objects around us. Not infallible markers, but reliable nonetheless. Insofar as we use such ideas as markers of different qualities and collections of qualities which constitute objects around us, we know the existence of other finite objects without us.

According to Owen, sensitive knowledge is causal knowledge. It is knowledge by being an agreement between ideas that is produced in a certain way. Though it involves an agreement between ideas, it is, according to Owen, a distinct kind of knowledge from the conceptual knowledge articulated by Locke's official definition (Owen, 4). Indeed, according to Owen, this distinction is one that Hume recognized (and rightly refused to call causal 'knowledge' knowledge) but Locke did not (Owen, 4).

These interpretations are, like the previous interpretations, based on the assumption that knowledge of the existence of finite things without us cannot be understood under Locke's definition of knowledge as a perceived agreement between ideas.²⁰⁷ Insofar as my interpretation in Chapter 2 undermines this premise of such interpretations, they lose motivation for attributing a bifurcated epistemology to Locke when Locke seems, by all appearances, to make no such distinction. They do, however, incur not only the textual cost of imputing a bifurcated epistemology not indicated by Locke himself, but a deeper

²⁰⁷ Owen is something of an exception since he allows that there is an agreement between ideas involved. However, as I argued in chapter 1, Owen's interpretation is mistaken both about which ideas agree (he invokes the idea of actual, real existence) and in what their agreement consists (for him, it is habitual association in the case of existential knowledge, but not for other kinds of knowledge). As a result of the latter mistake by Owen, 'agreement' in existential and other forms of knowledge is not univocal.

philosophical cost. As I have argued in the previous two chapters, Locke's project in the *Essay* is a naturalized epistemology. His theory rests on the strength of its adequacy to the epistemic phenomena, which is mediated by Locke's definition of knowledge (and opinion). That is, Locke's theory of ideas and accounts of knowledge and opinion provide nothing but a 'castle in the air', as he calls it, if paradigmatic cases of knowledge, including existential knowledge, cannot be analyzed in the terms of his definition. Thus, it is no trivial matter for Locke to give up on the adequacy of his definition of knowledge to a kind of knowledge. Indeed, to do so, is to admit the failure of his project. Locke is thus left with little with which to respond to the skeptic: what grounds does he have in favor of this other kind of knowledge? Bifurcating his epistemology in response to existential knowledge is left as an *ad hoc* repair-job given that it bears no relation or similarity to the kind of knowledge for which he offers a definition.

This reliabilist line of interpretation has been extended into a response to skepticism by Ayers (1991) and Allen (forthcoming) in the following ways. The two interpretations do differ in an important way, so I will treat them separately. They do, however, share the following common thread. For Locke, sensation, or sensory experience is a foundational pillar of human understanding. For the skeptic to call its reliability into question is to call into question a foundation of human understanding. To call into question such a foundation, however, is to cast doubt the very coherence of discussing, reasoning, or thinking at all. Thus, it is to cast doubt on the very coherence of discussing, reasoning or thinking about knowledge in any way. That is, according to these interpretations of Locke, Locke responds to the skeptic by pointing out that the the very intelligibility of the skeptic's claim presupposes what it explicitly attempts to deny.

According to Ayers, the skeptic falls afoul of questioning a basic cognitive faculty. The senses deliver ideas which represent qualities. Those ideas are passively received by the mind and so our assent to the proposition that some such quality exists on the basis of the senses presenting such a quality to us is knowledge, according to Ayers.²⁰⁸ Locke's epistemology was consciously developed to contrast with Descartes' epistemology in terms of the epistemological status of the senses.²⁰⁹ The important contrast is to do with the authority of the senses. The senses have an epistemic authority that is independent of reason: "the independent authority of the senses: independent, that is to say, of any support that reason might give them" (Ayers, 155). Deliverances of the senses to the effect that such and such thing or quality exists are deliverances that do not need to be backed up or corroborated by reason in order to be knowledge, according to Ayers's Locke. The senses are themselves a basic *cognitive* faculty.

A skeptic who denies that our senses give us knowledge of the existence of their objects is therefore in the position of distrusting our basic cognitive faculties. According to Ayers:

Coupled with an appeal to the 'evidence' of perceptual knowledge and the impossibility of genuine doubt at a practical level, the point is made that metaphysical mistrust of the senses is mistrust of a basic cognitive faculty, a mistrust which makes the whole concept of knowledge meaningless: 'For we cannot act any thing, but by

²⁰⁸ "Sensitive knowledge is immediate awareness of an idea as a certain sort of effect. Now according to Locke's general theory of representation or signification, as we have seen, a simple idea is automatically fitted to represent in our thought precisely that 'something which causes that idea in ins': the idea of white represents the quality white conceived of as an external power. Hence sensitive knowledge is knowledge of the existence of such qualities, whatever actual attributes of things give rise to them." (Ayers, 155)

²⁰⁹ "Locke's account of perceptual knowledge can be read as a deliberate and often subtle attempt to be systematically different from Descartes, very broadly in the footsteps of Hobbes and Gassendi. First, he evidently rejected both the scepticism and the attempt to meet it by demonstrative, scientific argument: the former is psychologically impossible and methodologically unnecessary, while the latter dogmatically assumes a questionable speculative hypothesis about mind, matter and the mechanism of sense perception." (Ayers, 156)

our Faculties: nor talk of knowledge it self, but by the help of those Faculties, which are fitted to apprehend even what Knowledge is.' (Ayers, 159)

The skeptic who denies that we have knowledge from the senses that the objects of sensory experience exist presupposes *that* we can coherently think and talk about knowledge. For example, we can say what is and is not required for knowledge in a particular case or some range of cases. The skeptic then applies those standards to the deliverances of the senses with a negative result. Locke's response, to the skeptic, then, is to say that their denial of the reliability of the senses, their denial that the senses really are a cognitive faculty whose natural product is knowledge threatens the intelligibility or grounds of their skepticism. Reason and the senses are on a par, the stand and fall together, for Locke. Thus, to question one is to question all.²¹⁰ Given the equality of our cognitive faculties, then, the skeptic can no more coherently question the veracity of the senses than she could coherently question the veracity of reason.²¹¹ Once reason is called into question, then the authority of all reasoning about knowledge, including skeptical reasoning, is undermined.

Allen (forthcoming) offers a subtly different version of this kind of interpretation of Locke's response to skepticism. Allen takes Locke's discussion of ideas of reflection more

²¹⁰ Our faculties, he implied, stand or fall together. In this he was quite unlike Descartes, for whom the senses uncorrected by reason are intrinsically liable to illusion, and reason is the providential faculty by which truth may be securely distinguished from falsehood, and which stands in judgement over the senses." (Ayers, 159)

²¹¹ "In other words a doctrine of authority must refute the Cartesian view that, unless reasons for it can be given, acceptance of what the senses present is merely natural and normal belief, and not knowledge. Now here it is relevant to bear in mind Locke's appeal to the thought that our senses are after all basic cognitive faculties on a par with intuition, rather than the mere suppliers of mute grist for the intellect's mill. The natural, even if not (as Locke seemed to think) inevitable issue of the processes of sense perception is knowledge of the environment and of the subject's place in it; and that, it is arguable, should be enough. Were there no process, independent of reasoning, the natural outcome of which is knowledge of the physical world, we could have no knowledge of the physical world. If the world were not presented to us by a natural process at least broadly like that of our actual and imperfect animal sensation, then 'reason' could never have invented or postulated or 'posited' such a world, whatever mute data it can be supposed (*per impossibile*) to have received. Indeed, the notion of reason operating without sense is an absurdity: the first steps in knowledge are necessarily primitive instances of perceptual knowledge." (Ayers, 169-70)

seriously than does Ayers and puts it at the heart of Locke's reply to the skeptic. Allen offers essentially the same interpretation as does Nagel (forthcoming) when it comes to Locke's account of sensitive knowledge.²¹² Sensitive knowledge involves an agreement between the idea of sensation, which is the idea of a certain mode of cognition which differs from, say, memory, hallucination, or imagination, and the idea of actual, real existence. Ideas received in sensation are marked, according to Allen's and Nagel's interpretations, by their connection with the idea of sensation. Recalled, hallucinated, or imagined ideas are marked by their connections with respective ideas of reflection, ideas of the respective modes of cognition. None of those ideas agree with the idea of actual, real existence, however.

Allen goes on to explain Locke's response to the skeptic by emphasizing the self-undermining characteristic of skepticism. In particular, the skeptic's very questioning of the reliability of the senses calls into question our ability to think about knowledge at all. Allen writes,

Indeed for Locke, the very attempt to ask the question about the reliability of the senses presupposes their reliability. Given that we only know what knowledge is by reflection (II.xix.2), we cannot even identify the subject matter under discussion without relying on reflection. To then ask whether reflection is reliable—and specifically whether our reflective awareness of receiving ideas from without is capable of generating knowledge—requires us to assume the reliability of reflection in calling the reliability of reflection into question. (Allen, 19)

For Allen, recall, sensitive knowledge depends on a certain idea of reflection, namely the idea of sensation. Ideas of reflection function as cognitive faculty indicators on Allen's interpretation of Locke. Knowledge is an activity of our mind. Thus, any sense we can attach

²¹² Allen articulates his view of which ideas agree and their relation to sensory ideas from pp.11-21. He acknowledges the similarity of his view to Nagel's in footnote 27 on page 15. He distinguishes his view from Nagel's on the basis of their accounts of Locke's reply to the skeptic: "This interpretation is similar to that suggested by Nagel, "Sensitive Knowledge: Locke on Skepticism and Sensation." The current interpretation differs from Nagel's primarily in emphasizing the importance of the authority of the senses in Locke's response to the skeptic; Nagel focuses instead on sensation's relationship to pain and pleasure."

to the word must derive from ideas of reflection, ideas of the mind's operations. As Locke sees it, according to Allen, "the skeptic's arguments do not so much undermine our claims to knowledge, as undermine any sense that the word 'knowledge' might have. If we cannot rely on reflection to ground our awareness of our own mental operations, then we cannot rely on reflection to furnish our minds with the ideas that give talk of 'knowledge' its sense" (Allen, 20). The skeptic, on Allen's reading, challenges whether the idea of sensation *really is reliable* as a cognitive faculty indicator. To call into question the idea of sensation, however, is to call into question all ideas of reflection as guides to the operations of our minds. That, however, is a move too far for it undermines the very coherence of talking about knowledge. If we cannot take reflection to be a reliable source of indicating the activity of our mind, then our idea of knowledge is compromised as well since it cannot be made of anything but ideas of reflection.

Both of these views, while offering some good insight into Locke's reply to the skeptic, under appreciate the strength of Locke's hand against the skeptic. As Ayers and Allen portray it, Locke's reply to the skeptic is mostly negative, in the following sense. It is critical of the skeptic's position on the grounds that the skeptic is self-undermining. Ayers' account in particular seems to leave Locke in a dialectically vulnerable position. After all, plenty of philosophers in Locke's time were sympathetic with the claim that the senses do not have any independent authority. As Ayers sees it, the issue of whether the senses really do have independent authority turns on our intuitions about cases of accidentally true perceptual beliefs.²¹³

²¹³ "[Locke's] position can perhaps be supported by the consideration of a species of 'unreasonable' perceptual belief, i.e. the case of someone who continues to trust his senses in spite of a very strong reason for doubt, and who is not deceived" (Ayers, 170). For the actual intuition pumps Ayers attempts to use in favor of Locke's doctrine of independence, see pp. 170-172.

Allen's interpretation puts Locke on somewhat stronger footing in that it does not rest Locke's case against the skeptic on intuitions about difficult cases. Allen's interpretation, however, suffers for its account of sensitive knowledge. As I argued in Chapter 2, Locke's account of sensitive knowledge *does not* involve the idea of sensation, or anything like the idea of real, actual existence. Instead, it involves simple sensory ideas and ideas of substances constructed by the mind from those simple sensory ideas. Moreover, the very claim that there is something like a simple reflective idea of sensation which functions as a cognitive faculty indicator is not clearly supported by Locke's text. First, for Locke, ideas of reflection mark operations of the mind on its ideas. Sensation is, by Locke's definition, not an *operation* of the mind. Instead, sensation is a passive means by which ideas are received. More importantly, the texts which Allen leverages in favor of his account can be easily accommodated in the following way. Allen points to texts in which Locke says, for example, that the sensory idea of the sun is as different from a memory of the sun as an idea of the sun is as different from the idea of the moon (IV.ii.16). Allen explains such texts by claiming that this is because the sensory idea of the sun is a composite of an idea of the sun with the idea of sensation, while the memory idea of the sun is a compose of an idea of the moon with the idea of memory. Another equally good explanation is available, however, and it is similar to the one I suggested in Chapter 2.²¹⁴ Namely, that the sensory idea of the sun is not attached to any ideas of reflection while a memory of the sun is an idea of the sun attached to the reflective idea of memory.

²¹⁴ It is very important to note that I do not accept the following view just as it is explained here. My point here is only in the context of Allen's discussion of Locke. Allen's discussion does not appreciate the general role of genetic structure in Locke's theory of ideas, and so does not recognize that there are many, many operations of the mind involved in the production of a sensory idea of the sun.

Moreover, both of these views under appreciate the way in which Locke can respond to the skeptic as I have described in the previous section. Locke need not merely write the skeptic off as self-undermining (or, perhaps better, need not write all skeptics off as self-undermining; perhaps it is only the most extreme which fall guilty to that charge). Namely, Locke has an account of what knowledge is. That account strictly distinguishes knowledge from mere probable opinion. Finally, that account makes room for knowledge of the existence of the external world. That is, it locates some cognition of the external world on the knowledge side of its strict division. A skeptic, then, is put on their heels by Locke's account of knowledge and forced to supply a different account of knowledge which better accommodates our epistemic discourse and yet has no room for sensitive knowledge. As I suggested above, Locke's Introduction to the *Essay* suggests that this is exactly the form of the response he believes his naturalized epistemology provides.

Finally, there is a third kind of interpretation of Locke's relation to skepticism. Nagel (forthcoming) most clearly articulates this line, although there are some hints in other interpreters such as Owen (MS), and Newman (2004) & (2007). Since Nagel spends the most time developing this line as it relates to Locke's account of sensitive knowledge, and moreover, since she, like Owen (MS) and Allen (forthcoming), does try to give an account of sensitive knowledge as an agreement of ideas, I will consider her account of Locke's reply to the skeptic in more detail than what I have afforded the other accounts mentioned above.

According to Nagel, sensitive knowledge of the existence of finite things without us is a matter of the attachment of a reflective idea of sensation, an idea of a mode of cognition, to our sensory ideas in sensory experience. That is, Nagel argues that Locke holds what we can call a 'time-stamp' view of knowledge of the existence of the external world: rather than

being time-stamped as is footage produced by a camera, our sensory experience is cognitive-faculty-stamped with an idea of the mode of cognition by which such thought is thought. The reflective idea of sensation has, according to Nagel, a rational (deductive or intuitive) connection with real existence insofar as the idea of sensation is an idea of sensation, the mode of cognition in which one is operated on by really existing external objects. Thus, according to Nagel there are two pairs of agreements relevant to sensitive knowledge: first, between the idea of sensation and sensory ideas; second, between the idea of sensation and the idea of real, actual existence. The agreement between the former is correlation in thought, the sensory ideas and the idea of sensation co-occur together in experience. The agreement between the second is the more familiar conceptual agreement, the idea of sensation is an idea of a cognitive faculty which operates only in the presence of a really existence external object. In Chapter 2 I argued that Nagel's interpretation is wrong about which ideas agree (the idea of sensation and the idea of existence have no role to play) and the nature of Lockean agreement. Nevertheless, these details are helpful for setting the stage for discussing Nagel's account of Locke's reply to the skeptic.

Nagel considers two degrees of skepticism that Locke faces. The first, weaker form of skepticism worries that our cognitive-faculty indicator might be fallible but for the most part reliable.²¹⁵ This form of skepticism, Nagel points out, can be resisted by Locke. A similar problem can be raised about demonstrative knowledge: sometimes, when it seems like we carry out a deduction, we have really made a mistake somewhere and it only seems that we have succeeded. Likewise, sometimes it may seem like we are having sensations but we are not really. In both cases, Nagel claims, the occasional mistake against a background of

²¹⁵ For Nagel's discussion of this case, see pp. 28-29.

success is not problematic unless one (controversially) assumes that one has to know one knows in order to know.

The skeptic who worries that our cognitive faculty indicator is fundamentally broken and unable to distinguish our modes of cognition presents a more difficult problem according to Nagel.²¹⁶ This skeptic doubts that our cognitive faculty indicator is able to reliably distinguish modes of cognition and so cannot guide us in any way with respect to what exists. Nagel begins to articulate Locke's reply to this problem by pointing to the several passages in which Locke mentions the special connection between sensation and pain and pleasure (e.g. IV.xi.6/633). Indeed, Locke often points to this connection as his 'last resort' response to the stubborn dug-in skeptic.²¹⁷

Nagel interprets these passages as an indication that Locke posits a special connection between our sensory experiences and pleasure and pain. Namely, there is a regular correlation between pleasures and pains and patterns of objects in sensory experience. As such our sensory experience provides a reliable guide to pursuing pleasures and avoiding pains. Not even the most radical skeptic can *really* doubt this according to Nagel's Locke,

²¹⁶ Nagel develops her interpretation of Locke's response to the more radical skeptic from pp. 29-35. Also, note the difference between Nagel's approach to this more radical skeptic and that of Ayers and Allen. The latter think the radical skeptic poses *no real challenge* because they render themselves incoherent.

²¹⁷ After giving the 'concurring reasons' in support of sensitive knowledge, Locke writes, " But yet, if after all this, anyone will be so skeptical, as to distrust his senses, and to affirm, that all we see and hear, feel and taste, think and do, during our whole being, is but the series of deluding appearances of a long dream, whereof there is no reality....I must desire him to consider...that the certainty of things existing in *rerum natura*, when we have the testimony of our senses for it, is not only as great as our frame can attain to, but as our condition needs. for our faculties being suited not to the full extent of being, nor to a perfect, clear, comprehensive knowledge of things free from all doubt and scruple; but to the preservation of us, in whole they are; and accommodated to the use of Life: they serve our purpose well enough, if they will but give us certain notice of those things, which are convenient or inconvenient to us. For he that sees a candle burning, and hath experimented the force of its flame, by putting his finger in it, will little doubt that this is something existing without him, which does him harm, and puts him to great pain: which is assurance enough, when no man requires greater certainty to govern his actions by, than what is as certain as his actions themselves." (IV.xi.8/634; emphasis added)

even if the skeptic can *say* they doubt it. This is evident in the fact that even the most radical skeptic pulls her foot from the perceived flame or her hand from the perceived blazing glass furnace.

In order to defeat the skeptic, Locke turns the adequacy of the connection between sensation and pleasure and pain in guiding action into a claim about the adequacy of sensation for knowledge of real existence. Nagel's Locke does this by claiming that the purpose and significance of our knowledge of the existence of things without us is purely practical: "Locke anticipates that the skeptic might attempt to insist on a distinction between what is take to be real for practical purposes and what is actually known to exist. Locke resists this move by insisting that the purpose of our knowledge of outer existence is in any event practical" (Nagel, 33). Classifying things as really existing just is classifying them as guides to pleasure and pain. Thus, Locke collapses the practical and epistemic value of the constant conjunction between sensory experience and pleasures and pain by reducing existential knowledge to practical knowledge of how to pursue pleasure and pain. As a sufficient practical guide, sensory experience (or, equivalently for Nagel's Locke, our cognitive faculty indicator) is, on this account of existential knowledge, a knowledge-sufficient guide to real existence. Thus, as an adequate guide to real existence, sensory experience (or our cognitive faculty indicator) provides us with existential knowledge of real existence. Since the radical skeptic cannot *really* (as is evidence by their inability to resist acting on their sensations to avoid pleasure and pain) doubt the adequacy of sensations as guides with respect to pleasure and pain, they cannot *really* doubt sensations as an adequate guide to real existence.

There are a few difficulties with Nagel's interpretation. One difficulty, noted by Nagel, has to do with the adequacy of Locke's response to the skeptic. As Nagel acknowledges, a Humean skeptic may note that constant conjunction of past patterns of sensation with past patterns of pain and pleasure only allow current sensation to have epistemic value with respect to predicting future pain and pleasure when combined with a uniformity of nature premise.²¹⁸ Nothing in Nagel's construal of Locke's response to the skeptic addresses this point. Nagel fairly points out that this line of skepticism did not come into full bloom until after Locke had written and so was not at the forefront of his mind to address. Thus, it is not surprising if Locke fails to address this form of skepticism. Nagel notes, "in the context of the forms of skepticism alive for Locke, in particular, the seventeenth-century revival of Hellenistic skepticism, the appeal to the practical purpose of our rational faculties is not out of place" (Nagel, 33). Nagel argues that this form of skepticism—motivated by the practical benefits of skepticism—is directly addressed by the anti-skeptical line of argument offered by her Locke.

Another, deeper problem for Nagel's interpretation, one that cannot be rendered a plausible interpretation in light of historical context, is that it forces significant assumptions onto Locke about the nature of knowledge. Namely, Nagel's Locke simply assumes that existential knowledge of the external world *is* practical knowledge of how to pursue pleasure and avoid pain. Nagel is aware of this problem as well, writing: "Locke simply states what one might wish him to prove...Locke's argument that the radical skeptic is asking for an unreasonable level of certainty depends on the premise that our knowledge of external

²¹⁸ "Looking back on this Lockean move after the emergence of Humean skepticism, Locke seems highly vulnerable to the charge that our past experience may not be any guide to whether an object is now or will in the future be a reliable source of satisfaction or frustration" (Nagel, 33).

objects must serve a practical function; any radical skeptic who does not share Locke's views about the function of human rationality is unmoved" (Nagel, 34). Like Ayers's interpretation of Locke's response to the skeptic, Nagel's interpretation, by her own admission, leaves Locke in a dialectically precarious position. Sensations suffice for knowledge of real existence because they suffice for guiding action. Crucially, this is because there is nothing more to knowledge of real existence than such practical knowledge according to Nagel's Locke. But, one wonders, what entitles Locke to that claim? That is certainly a substantive claim about knowledge and one that the skeptic is free to resist for all that Locke has said in the *Essay*.

Of course, it is possible that Locke made such an assumption and that he never thought it worth defending. However, the passages Nagel points to as evidence that Locke in fact does make such an assumption do not support her claim upon closer inspection. Referring to I.i.6, Nagel writes, "In refusing to demand more of our rational faculties than that they serve our practical purposes, Locke is maintaining a course charted early in the *Essay*. In the introduction he suggests that one aim of surveying the natural limits of the understanding is to reconcile ourselves to our inability to answer questions which lie beyond the range of our practical concerns (I.i.6)." (Nagel, 34). This is close, but not quite correct.

The passage reads,

When we know our own strength, we shall the better know what to undertake with hopes of success: and when we have survey'd the powers of our own minds...we shall not be inclined either to sit still, and not set our thoughts on work at all, in despair of knowing any thing; nor on the other side question every thing, and disclaim all knowledge, because some things are not to be understood. (I.i.6/46)

Locke's point here is to justify and motivate his inquiry into the powers of the human mind: to better know its strengths and limits to be able to more effectively direct our intellectual

efforts. Locke finishes that paragraph, “our business here is not to know all things but those which concern our conduct. If we can find out those measures whereby a rational creature put in that state, which man is in, in this world, may, and ought to govern his opinions, and actions depending thereon, we need not be troubled that some other things escape our knowledge” (I.i.6/46). Locke’s point in linking our knowledge to our actions is that the very idea of limitations on our knowledge is not in and of itself problematic. In the context of the sentences which open I.i.6 and the immediately following sentence, Locke’s claim that our business is not to know all things but only those which concerns our sentence seems only intended to have the force that we have no reason to suspect, as finite beings, that our knowledge will be unlimited. By studying the powers of the mind, as Locke proposes to do in the *Essay*, we can better understand where these limits are. Locke’s point in I.i.6, then, is *not* that knowledge is tied to action. Indeed, he even says that when it comes to a guide for action, we should be happy to determine a good account of the grounds for the rational *opinions*—not knowledge—that govern our action.

A third difficulty cuts more directly against the plausibility of Nagel’s claims *as an interpretation of Locke*. According to Nagel’s interpretation of Locke, Locke insists that in moving their hand from the fire (or more broadly, using sensations as a guide to action) the skeptic betrays their own skepticism because their actions express practical certainty with respect to the action guiding provided by sensation: “whether or not the skeptic is read to grant that he is faced with a real furnace, he will find himself experiencing real pain. If he acts in response to the pain, as Locke expects he will, the skeptic displays some kind of certainty concerning the reality of the furnace: he takes it to be real for practical purposes” (Nagel, 33). The skeptic can’t help but take pain to be real, and can’t help but take

the objects of sensory experience as guides to pain. That is, the skeptic moves their hand *out of the fire*. The skeptic is therefore practically certain, and so, for the purposes of real existence, knows that the furnace exists. It should be clear that the impossibility Nagel's Locke is trying to draw out here is psychological impossibility: it is impossible, psychologically, to doubt the real existence of objects in sensory experience because it is psychologically impossible to not take sensations as action guiding. This is vividly brought out in cases of acute pain such as sticking ones hand into a glass furnace.

The problem for this as an interpretation of Locke is that Locke insists that opinion and knowledge need not differ when it comes to our ability to withhold assent to the proposition opined or known. According to Locke, "where any particular thing, consonant to the constant observation of our selves and others, in the like case, comes attested by the concurrent reports of all that mention it, we receive it as easily, and build as firmly upon it, as if it were certain Knowledge; and we reason and act thereupon with as little doubt as if it were perfect demonstration" (IV.xvi.6/661). Demonstration is a kind of knowledge, according to Locke. So, when the evidence is sufficiently overwhelming, according to Locke, our belief in some proposition is as psychologically automatic and as epistemically influential as when we have knowledge of that proposition's truth. After giving some examples of such compelling evidence, Locke continues, "These probabilities rise so near to certainty, that they govern our thoughts as absolutely, and influence all our actions as fully, as the most evident demonstration: and in what concerns us, we make little or no difference between them and certain knowledge" (IV.xvi.6/662). Finally, after reviewing the three highest 'degrees' of evidence, Locke concludes, "Thus far the matter goes easie enough. Probability upon such grounds carries so much evidence with it, that it naturally determines the judgment, and

leaves us little liberty to believe, or disbelieve, as a demonstration does, whether we will know, or be ignorant” (IV.xvi.9/663). Psychological compulsion, then, does not indicate, betray, or reveal ‘certainty’ for Locke. It is not a feature that in which *knowledge* and *probable opinion* differ. Thus, the ‘certainty’ betrayed by reactions to acute pain guided by sensory experience need not be knowledge by Locke’s own lights.

In fact, Locke’s specific examples of cases of opinion in which assent is compelled are cases of constant conjunction—exactly the grounds on which sensation provides a guide to pleasure and pain. When we always find two things together in experience, and no testimony discounts their connection, we are compelled to assent that the two are connected. So, if pain and a hot fire are constantly conjoined, we will be compelled to assent to the proposition that it is painful to be in a hot fire. This compulsion will be just as psychologically forceful, according to Locke, as if we had *deduced* a connection between pain and fire. And so we will not be able to resist moving our hand out of a fire when we find our hand painfully resting in a fire even if our cognition of the connection between fire and pain is mere opinion and not knowledge.

Nagel’s interpretation turns on the claim that the skeptic betrays their own skepticism by irresistibly and unfailingly taking sensations as a guide to action. That is, according to Nagel, Locke takes the fact that the skeptic can’t help but guide their actions by sensation as evidence that the skeptic in fact is (and can’t help but be) certain about the real existence of objects in sensory experience. However, as I have shown above, the compulsion of taking sensory experience as a guide to pleasure and pain and so a guide to action need not betray a certainty constitutive of knowledge according to Locke. The skeptic’s psychologically necessitated use of sensory experience as a guide to action may only betray a mere opinion

that sensory experience is a guide to action and hence a mere opinion that the objects of sensory experience really exist.

Thus, in addition to worries about the adequacy of the response Nagel's Locke has to the skeptic, we have strong grounds to suspect the accuracy of Nagel's interpretation of Locke. There are two important moves in the response of Nagel's Locke to the skeptic. First, the skeptic betrays her certainty about the action guiding import of sensation insofar as she uses her sensory experience as a guide to action. Second, this certainty is certainty about, and hence knowledge of, real existence because knowledge of real existence just is knowledge of how to govern one's actions with respect to pleasure and pain. I have just argued against the first move as an interpretation of Locke's reply to the skeptic by suggesting that even if the skeptic cannot help but take sensory experience as a guide to action, such 'certainty' need not be knowledge but can be opinion. The second move is weak because, even by Nagel's own lights, Locke does not offer any motivation or support for it. Moreover, I argued, Locke himself never even asserts it in the passages in which Nagel claims he does. Thus, we need not even attribute the move to Locke. Neither of Nagel's main moves in the reply to the skeptic ought to be attributed to Locke.

5.4 Conclusion

For contemporary readers, it may seem strange to learn that an early modern figure both insists on knowledge of the external world sees no need to establish such knowledge by confronting and defeating skeptical doubts. Nevertheless, in this chapter I have brought together the two main insights from the previous chapters to show how Locke fits this description. This is a novel line in Locke scholarship. The vast majority of scholars hold that sensitive knowledge cannot be a perceived agreement of ideas. In the Chapters 1 and 2 I

argued that sensitive knowledge can, in fact, be understood in terms of Locke's definition of knowledge as a perceived agreement of ideas. Even among those who allow that sensitive knowledge might be a perceived agreement of ideas, they do not believe that showing this to be so is of any aid in helping Locke's case against the skeptic rise above question begging or dogmatic fist pounding. In Chapters 3 and 4 I argued that Locke's project in the *Essay* is a naturalized epistemology built around the notion of genetic structure. Finally, in this chapter I have argued that Locke's naturalized epistemology provides the most comprehensive and textually accurate portrayal of Locke's attitude towards skepticism. Locke's naturalized draws a clear distinction between knowledge and opinion and locates knowledge of the existence of finite things distinct from our minds on the knowledge side of the divide. As an explanatorily adequate theory of knowledge and opinion we have reason to believe its divisions and classifications. Thus, Locke is no dogmatist about sensitive knowledge even though he thinks no proof can be given either for the claim that we do have sensitive knowledge or for any particular instance of sensitive knowledge. Locke's naturalized epistemology brushes aside the skeptic who insists on more than Locke offers as someone who knows not what they ask for.

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