

The Contours of Locke's General Substance Dualism
forthcoming in *Journal of Modern Philosophy*
(penultimate draft; please cite published version)

Graham Clay

Irish Research Council Government of Ireland Fellow
School of Philosophy, University College Dublin

In this paper, I will argue that Locke is a substance dualist in the general sense, in that he holds that there are, independent of our classificatory schema, two distinct kinds of substances: wholly material ones and wholly immaterial ones. On Locke's view, the difference between the two lies in whether they are solid or not, thereby differentiating him from Descartes. My way of establishing Locke as a general substance dualist is to be as minimally committal as possible at the outset, especially with respect to the classic debates on Locke's positions in this domain, including those concerning substrata, real essences, and the like. Nonetheless, I show that minimal commitments about Locke's primary/secondary quality distinction are sufficient to derive some substantive conclusions about his positions on these issues, as well as that he is a general substance dualist.

1. Introduction

The debate over Locke's position on substance is as old as the *Essay* itself. Since his 1697-1698 correspondence with Edward Stillingfleet, philosophers have debated Locke's position on substance, from his views on minds and bodies to his views on substrata and real essences, as well as his views on our ideas of these entities.

As their correspondence reveals, one of Stillingfleet's concerns is that Locke's views imply—or at least fail to rule out—substance monism. In this context, substance monism is the view that there is, independent of our classificatory schema, one and only one kind of substance with respect to materiality, where substances are understood to be, as Locke puts it, "distinct particular things subsisting by themselves" (II.xii.6).¹ In this paper, I will argue that Locke is a substance dualist in this general sense, in that he holds that there are, independent of our classificatory schema, two distinct kinds of substances: wholly material ones and wholly immaterial ones.² On Locke's view, the difference between the two lies in whether they are solid or not, thereby differentiating him from Descartes. My focus will be on the Locke of the fourth edition of the *Essay* and the Stillingfleet correspondence.

¹ Citations of this form, with Roman numerals first, are for the fourth edition (1700) of Locke's *An Essay Concerning Human Understanding* as it is rendered in P.H. Niddich's Clarendon Press edition (1975). The citation format is book.chapter.section.

² As will become clear, my position is that Locke is a substance dualist in that he was "implicitly committed" to substance dualism, to use José Luis Bermúdez's terminology (1996, 226). Locke does not explicitly advocate the argument I attribute to him in one fell swoop, and Locke does not explicitly advocate for its conclusion since the most promising passages are ambiguous when considered in isolation (e.g., II.xxiii.15).

One way to establish this claim would be to work from considered interpretations on Locke's metaphysical positions on the nature of substrata, real essences, and the like. However, much of this terrain is hotly disputed given the challenge of directly interpreting the relevant texts. My way of establishing Locke as a substance dualist is to go the other way around—my goal is to be as minimally committal as possible with respect to the classic debates on his positions on substrata and real essences. I will work to substance dualism from a cluster of views that are nearly universally attributed to Locke and, indeed, are strongly supported by the text of the *Essay*. Along the way, I will attribute to Locke some metaphysical positions on substrata, real essences, and the like, but only those which follow closely from my foundation and are necessary to arrive at substance dualism. I then will supplement this account with a corroborating epistemological story that is intended to be equally minimal in its commitments. My hope is that this method offers a new path forward, even if I follow it imperfectly.

The cluster of views that will act as my foundation are those that form the core of Locke's famed distinction between primary and secondary qualities. To be clear, this is not to claim that *all* aspects of Locke's primary/secondary quality distinction are uncontroversial. Rather, it is to claim that there is a sufficiently well-defined core cluster of theses composing the distinction that are and ought to be uncontroversial.

Few interpreters have dedicated significant ink to Locke's *general* substance dualism in isolation.³ The lack of work dedicated to the question is surprising, given that an answer to questions like it is, as Edwin McCann puts it, one of the main desiderata traditionally demanded of a theory of substance.⁴ Of course, this is not to claim that the issue has remained untouched. Indeed, some have explicitly argued that Locke is a substance dualist.⁵ However, many commentators either expressly argue that Locke was unable to commit to substance dualism, given his epistemological agnosticism, or they argue for positions that imply this inability.⁶ In the lattermost camp, there are some who argue that Locke holds that a substance's real essence is unknowable and that its nominal essence "alone determines its species or genus membership."⁷ As Locke says, "[n]or indeed *can we* rank, and *sort Things*, and consequently (which is the end of sorting) denominate them *by their real Essences*, because we know them not" (III.vi.9). There are a variety of versions of this sort of view, but their defenders would agree that Locke's

³ Michael Ayers (1991b, 33-39) and Han-Kyul Kim (2010, 2019) are notable exceptions.

⁴ See McCann 2001 (87-90). Notably, McCann also denies (2001, 90-91) that Locke sought to or could satisfy this desideratum (or any of the others) with his theory of substance. Hence McCann's defense of the "no-theory" reading.

⁵ Richard Aaron (1937, 143) and Peter Alexander (1985, 255) argue that Locke is a substance dualist (see also Alexander 1974, 1980, 1981).

⁶ Those who hold the explicit position include Ayers and Kim (2010, 2022). They maintain that his agnosticism prevents him from being one or, at least, a committed one. Kim denies that Locke is committed to "metaphysical dualism" (2022, 229). Ayers argues that substance dualism was, for Locke, "dispensable *in toto*", despite his occasional "dualist lapses" (1991b, 39). Those, like Jonathan Bennett (1971, 1987, 2001), who argue that substrata are bare particulars must hold that Locke could not be a substance dualist due to this part of their interpretation, as Nicholas Jolley (2015, 60-61) has argued.

⁷ This is Jan-Erik Jones' description of the position in Jones 2018 (Jones surveys the surrounding terrain and literature in section 2 and section 4). As Allison Kuklok (2022, 311) explains, "[m]any take Locke to mean that the observable similarities and differences between things leave it undetermined how we are to group and distinguish them into kinds, so that classification is, and must be, a matter of convention." Kim has the most global version of this view, arguing that Locke holds that "the categories of materiality and mentality" are "both *equally* nominal" (2019, 4-5). See Kim 2019 for an extended defense of this view.

statements about the inferiority (i.e., inadequacy, obscurity, confusion, or imperfection) of our ideas of substances would undermine my kind of reading of his metaphysics, given that material substances and immaterial substances are genera or sorts.⁸

Yet, commentators have generally failed to notice the relevance of so-called "relative ideas" to Locke's account. Once I show their importance, it becomes clear how Locke has the tools to maintain substance dualism despite our use of nominal essences to sort substances and our lack of adequate "positive" ideas—and knowledge—of substances' schema-independent nature. The schema-independent materiality and immateriality of substances' real essences enables us to classify them into two broad natural kinds on that basis.

Other commentators have argued in the opposite direction, urging us to think that establishing that Locke is a substance dualist is a rather trivial affair.⁹ I deny this. Among other things, we need to find Locke asserting that there are material substances, that God exists, that God is a substance, that God is immaterial, that a view on substrata and real essences like the one that I attribute to him is true, and that our ideas of substrata and real essences are up to the task. To the extent that the debate over substrata and real essences has been non-trivial—on both the metaphysical and epistemological sides—the debate over Locke's substance dualism is non-trivial. As Nicholas Jolley puts it, "it is easy to see how Locke's teachings about substance might be thought to undermine substance dualism with regard to the created world" or, so I maintain, in general.¹⁰

In section 2, I analyze the core of Locke's primary/secondary quality distinction and display its consequences for how we should understand his positions on bodily substances. In section 3, I add some interpretative claims about God and immaterial substances to arrive at an attribution of substance dualism to Locke. In section 4, I display and corroborate the consequences of the core of Locke's primary/secondary quality distinction that are relevant to how we should understand Locke's positions related to substance, substratum, and real essence. In section 5, I explain how Locke's epistemology does not cut against this interpretation of his metaphysics.

2. A minimal interpretation of Locke's primary/secondary quality distinction

There are four core features of Locke's primary/secondary quality distinction that I will focus on here. These four are the minimal commitments that enable me—when conjoined with some further general Lockean principles and key passages—to derive more substantive interpretative views in the subsequent sections. First, Locke holds that, unlike ideas of secondary qualities, ideas of primary qualities like extension and solidity *resemble* bodily substances' primary

⁸ As Jones (2018, section 1) puts it, "when Locke thinks of a *species* or *genus*, he is not thinking of these terms as applying exclusively in the biological realm, but rather as applying generally to any possible classification scheme we create when we organize our world through naming."

⁹ For instance, Matthew Stuart claims that Locke offering "what he takes to be absolutely decisive arguments for God's existence and God's immateriality" is "enough to make him a substance dualist" (2013, 245; see also 221-23, 246-50, 264).

¹⁰ Jolley 2015, 58.

qualities, at least in standard non-deceptive cases.¹¹ Call this '(A)'. (In the literature, this is often called the "resemblance thesis."¹²) Here is a case where Locke asserts (A):

[...] the *Ideas of primary Qualities* of Bodies, are *Resemblances* of them, and their Patterns do really exist in the Bodies themselves; but the *Ideas*, produced in us by these *Secondary Qualities*, have no resemblance of them at all [...]. (II.viii.15)

As this passage indicates, resemblance is factive for Locke. That is, Locke holds that if an idea of a quality *F* of a substance *S* resembles a quality *F* of that substance *S*, then *S* has *F*. As Locke asserts shortly thereafter, when qualities and ideas are "the perfect resemblance of the other", they are "as they are in a Mirror" (II.viii.16). But this is ambiguous between (i) *S* having *F* while there is an idea resembling *F* and (ii) *S* having *F* independently of an idea resembling *F*. For all we know, it is possible that, as soon as the idea disappears, so does the quality—this would maintain resemblance but leave open the possibility of perceiver-dependence. The quality and the image in the mirror resemble only insofar as the quality is before the mirror.

Locke blocks this concern with a second claim about primary qualities. Locke maintains that primary qualities are perceiver-independent.¹³ Call this '(B)'. Locke repeatedly asserts (B), as in the following case:

The First of these, as has been said, I think, may be properly called *real Original*, or *primary Qualities*, because they are in the things themselves, whether they are perceived or no. (II.viii.23)¹⁴

Secondary qualities are defined by Locke as the arrangements of primary qualities in bodies that cause us to perceive those bodies as colored, odorous, and so on.¹⁵ As a consequence, since the primary qualities are perceiver-independent, secondary qualities would exist even if we did not exist, and are perceiver-independent, too. However, since our ideas of colors, odors, and so on are not ideas of these powers (but rather ideas of categorical qualities caused by the powers), these ideas have no perceiver-independent objects that they resemble.

Putting (A) and (B) together, we end up with the following: there are standard non-deceptive cases where our ideas of bodily substances' primary qualities resemble the perceiver-independent qualities of those bodily substances. So, for instance, our ideas of bodily substances' solidity or extension resemble the perceiver-independent solidity or extension of those substances.

Locke gives two broad kinds of arguments for these claims. Members of the first sort rely on some components of Locke's corpuscularian physical theory. Summarizing the theory, Hylarie Kochiras argues that

¹¹ Locke does grant that there are cases where our ideas of bodies primary qualities are deceptive. See II.i.17.

¹² See, e.g., Cummins 1975 and Jacovides 1999.

¹³ For discussion of this view, see Jacovides 2017, 109.

¹⁴ C.f., 4:75 (see footnote 27 for background on this citation format).

¹⁵ See, e.g., II.viii.10, II.viii.13-15, II.viii.18, II.viii.23, II.viii.25-26.

[...] the corpuscular hypothesis (i) takes observable bodies to be composed of material particles or corpuscles, (ii) takes impulse (action by surface impact) to be the primary if not the sole means of communicating motion, and (iii) attempts to reduce qualities at the level of observable bodies, such as color, to the primary, that is, inherent properties of the particles composing those observable bodies.¹⁶

It is clear that Locke relies on this sort of theory when he discusses "how *Bodies* produce *Ideas* in us" and argues that it is "manifestly *by impulse*, the only way which we can conceive Bodies operate in" (II.viii.11); when he argues that "the *Ideas of secondary Qualities* are also produced, viz. *by the operation of insensible particles on our Senses*" (II.viii.13); and when he argues that "what is Sweet, Blue, or Warm in *Idea*, is but the certain Bulk, Figure, and Motion of the insensible Parts in the Bodies themselves" (II.viii.15). Locke explicitly argues "from whence [(i.e., these aspects of the corpuscularian theory)] I think it easie to draw" the "Observation" that (A) and (B) are true.

Members of the second sort of argument that Locke gives are built on perceptual relativity cases. Using these cases, Locke argues that ideas of secondary qualities, like colors or odors, vary (with respect to *whether* they appear and *how* they appear) relative to the circumstances of the perceiver who has them, while ideas of the primary qualities do not. Locke is clear that we should think that there is a primary/secondary quality distinction—in that (A) and (B) are both true—because the distinction provides the best explanation of this idea variation data. Locke uses many cases to make his argument, including the fire case (II.viii.16), the sweetness-pain analogy (II.viii.18), the porphyry case (II.viii.19), the almond case (II.viii.20), and the hot water-cold water case (II.viii.21).

In the fire case, Locke assumes that all would grant that the pain we experience when we get too close to a fire is *in us* and not *in the fire*. On this basis, Locke argues that variations in our ideas of warmth as we approach and retreat from a fire, which have the same sort of causes and vary just as much as our ideas of pain, are evidence that warmth is in us and not in the fire. In the following passage, note Locke's emphasis on what one "ought" to think and "what Reason" one must have to hold a view on where the quality in question is located:

And yet he, that will consider, that *the same Fire*, that at one distance *produces* in us the Sensation of *Warmth*, does at a nearer approach, produce in us the far different Sensation of *Pain*, ought to bethink himself, what Reason he has to say, That his *Idea of Warmth*, which was produced in him by the Fire, is actually *in the Fire*; and his *Idea of Pain*, which the same Fire produced in him the same way, is *not* in the *Fire*. (II.viii.16)

Locke makes a similar point in comparing ideas of sweetness (and whiteness) with ideas of pain (and sickness). Again, the argument is presented as a justification, as is exemplified by Locke's normative language:

These *Ideas* [of *Sweetness and Whiteness* on the one hand and of *Pain and Sickness* on the other] being all effects of the operations of *Manna*, on several parts of our Bodies, by the size, figure, number, and motion of its parts, why those produced by the Eyes and

¹⁶ Kochiras 2020.

Palate, should rather be thought to be really in the *Manna*, than those produced by the Stomach and Guts; or why the Pain and Sickness, *Ideas* that are the effects of the *Manna*, should be thought to be no-where, when they are not felt; and yet the Sweetness and Whiteness, effects of the same *Manna* on other parts of the Body, by ways equally as unknown, should be thought to exist in the *Manna*, when they are not seen nor tasted, would need some Reason to explain. (II.viii.18)

Ideas of primary qualities are different. Locke argues that we do not have reason to think that primary qualities vary according to whether we are sensing them or not:

A piece of Manna of a sensible Bulk, is able to produce in us the *Idea* of a round or square Figure; and, by being removed from one place to another, the *Idea* of Motion. This *Idea* of Motion represents it, as it really is in the *Manna* moving; A Circle or Square are the same, whether in *Idea* or Existence; in the Mind, or in the *Manna*: And this, both *Motion and Figure are really in the Manna*, whether we take notice of them or no: This every Body is ready to agree to. (II.viii.17)

Whether this sort of argument is ultimately successful by our lights or not, Locke relies upon it repeatedly in justifying (A) and (B).

The third feature of Locke's primary/secondary quality distinction that is important for my purposes is that Locke holds that bodily substances have primary qualities through-and-through. Call this '(C)'. A bodily substance *S* has a quality *F* through-and-through if, and only if, all parts of *S* have *F* and *S* has *F* regardless of *S*'s state, size, or circumstances. Having a quality through-and-through contrasts with, for instance, having a quality *only* on the macroscopic level or *only* in one limited region. In standard non-deceptive cases, our ideas of bodily substances' primary qualities are ideas of their macroscopic primary qualities, which are the sort of qualities that so-called "medium-sized dry goods" are observed to have. Locke is emphatic about (C) in many of the passages where he discusses primary qualities, including the following:

Qualities thus considered in Bodies are, First such as are utterly inseparable from the Body, in what estate soever it be; such as in all the alterations and changes it suffers, all the force can be used upon it, it constantly keeps; and such as Sense constantly finds in every particle of Matter, which has bulk enough to be perceived, and the Mind finds inseparable from every particle of Matter, though less than to make it self singly be perceived by our senses. *v.g.* Take a grain of Wheat, divide it into two parts, each part has still *Solidity, Extension, Figure, and Mobility*; divide it again, and it retains still the same qualities; and so divide it on, till the parts become insensible, they must retain still each of them all those qualities [...] These I call *original or primary Qualities* of Body [...]. (II.viii.9)¹⁷

Locke could justify (C) in a variety of different ways. I will discuss three such arguments: one from Locke's corpuscularianism, one from his views on explanatory relations, and one from his justification of (A) and (B).

¹⁷ See also II.viii.22.

The argument from Locke's corpuscularianism is an inductive argument. We veridically perceive bodily substances' macroscopic primary qualities via the unaided senses, as well as some of their microscopic primary qualities via instruments like microscopes, so we should expect that we will find that they have primary qualities at all levels. In this way, Locke might argue that his corpuscularian theory justifies (C), especially if he holds—as noted—that it justifies the resemblance claim (A). Even though Locke is skeptical about its adequacy in explaining all physical phenomena, there still is room to read him as holding that it justifies (C).¹⁸

The second justification of (C) from Locke's tenets relies on a further view he has about the asymmetries holding between the microscopic primary qualities of bodily substances and their macroscopic primary qualities: namely that bodily substances' microscopic primary qualities (asymmetrically) *explain* their macroscopic primary qualities. This view is my fourth and final interpretative claim of this section. Call it '(D)'. Setting aside Locke's use of the concept of real essence in this passage (to which I will return in section 4), it makes clear that he endorses (D):

The particular parcel of Matter which makes the Ring I have on my Finger, is forwardly, by most Men, supposed to have a real Essence, whereby it is *Gold*; and from whence those Qualities flow, which I find in it, *viz.* its peculiar Colour, Weight, Hardness, Fusibility, Fixedness, and change of Colour upon a slight touch of Mercury, *etc.* This Essence, from which all these Properties flow, when I enquire into it, and search after it, I plainly perceive I cannot discover: the farthest I can go, is only to presume, that it being nothing but Body, its real Essence, or internal Constitution, on which these Qualities depend, can be nothing but the Figure, Size, and Connexion of its solid Parts [...].
(II.xxxi.6)

With (D) in hand, Locke's views on the necessary conditions of explanations come into play. Like many others in the early modern period, Locke endorses the Principle of Sufficient Reason (PSR) and uses it in his argument for the existence of God.¹⁹ From the PSR, Locke explicitly infers that "it is evident, that what had its Being and Beginning from another, must also have all that which is in, and belongs to its Being from another too" (IV.x.4). Specifically, Locke argues that because we have power and knowledge, we can infer that we were created by something that was itself powerful and knowledgeable. This, too, is a common view on the demands of the PSR—roughly, that if x explains why y is F , where ' F ' is a kind term, then x is F .²⁰ It follows that if the microscopic primary qualities of a bodily substance were not of the same kind as the macroscopic primary qualities of the body, then the macroscopic primary qualities of the body

¹⁸ For discussion, see Cummins 1975, Mackie 1976 (17-22), Atherton 1991 (48), McCann 1994 (58-9, 67-76), and Rozemond & Yaffe 2004. For examples of Locke doubting, see II.xxiii.24, II.xxiii.28, IV.iii.6, IV.iii.13, IV.viii.11, 4:464-8.

¹⁹ For Locke's use of the PSR in his argument for the existence of God, see IV.x.3, IV.x.8, and IV.x.10-11 (c.f. 4:61-2).

²⁰ It is not clear if this view on the demands of the PSR should pressure Locke into holding that God is solid as well, given that He creates all of the solid beings. Locke may have room to maneuver here, but this is not my concern. See Newlands 2016 for further discussion of this sort of pressure more generally. Note also that much more needs to be said on which sorts of kind terms are relevant here, as Locke would deny, for instance, that our weakness implies God's weakness.

could not be explained by the microscopic primary qualities.²¹ In this way, there is room to justify (C) via (D) with Locke's explicitly stated view on the consequences of the PSR.

While I do not want to oppose these ways of justifying (C), I do think that there is a third path that is more direct, and it is one that follows from Locke's original justification of (A) and (B). The argument goes like this: either bodily substances have primary qualities (i) *only* at the macroscopic level; (ii) at the macroscopic level *and* at some other level(s), like the microscopic level circa 1700, but *not* through-and-through; or (iii) through-and-through. If (i) or (ii), then non-deceptive ideas of the primary qualities of bodily substances vary (with respect to whether they appear and how they appear) relative to the circumstances of the perceiver who has them. But, as we have seen, Locke holds that it is not the case that ideas of the primary qualities of bodily substances vary (with respect to whether they appear and how they appear) relative to the circumstances of the perceiver who has them because of (A) and (B)—our ideas of bodily substances' primary qualities resemble the perceiver-independent qualities of those bodily substances. So, Locke must deny both (i) and (ii). So, Locke must hold that bodily substances have primary qualities through-and-through (C).

This argument can be put in the key of a *reductio*. Suppose there were a lack of resemblance between *our ideas of the macroscopic primary qualities of substances* and *the other (microscopic) primary qualities of these substances* similar to that between *our ideas of the macroscopic secondary qualities of bodies* and *the macroscopic primary qualities of those bodies*. If the non-macroscopic qualities of bodies were nothing like their macroscopic primary qualities—either because their macroscopic primary qualities were strongly emergent or because their macroscopic primary qualities constitutively depended on our responses to them—then it would be hard to see how our ideas of the primary qualities would *not* be reduced to useful fictions that have appearances that are a function of the circumstances of our perception of these primary qualities, just like our ideas of the secondary qualities. Since Locke is committed to our ideas of the primary qualities not being useful fictions like our ideas of the secondary qualities, there must be a similarity between the non-macroscopic and macroscopic primary qualities of bodies. That is, (C).

3. The structure of Locke's argument for substance dualism

With (A)-(D) established as minimal Lockean commitments, I will now discuss how close this gets Locke to substance dualism. I have organized an argument for Locke's substance dualism in premise-conclusion form below. If Locke endorses all its premises and it is valid, Locke is implicated in holding its conclusion, which makes him a substance dualist:

- P1. Independent of our classificatory schema, there are solid bodily substances that have explanatorily basic solid microscopic parts.
- P2. Independent of our classificatory schema, God exists, He is not solid (either macroscopically or microscopically), and He is a substance.

²¹ I submit that it is because of PSR-based reasoning like this that Locke asserts "that where the Faculties, or outward Frame so much differs, the internal Constitution is not exactly the same" (III.vi.22), granting what I argue in section 4 that internal constitutions are real essences, which in turn are substrata.

C1. So, independent of our classificatory schema, there is a non-solid substance that lacks explanatorily basic solid microscopic parts.

P3. Substances that *have* explanatorily basic solid microscopic parts are wholly material and belong to a fundamentally different schema-independent natural kind than those that *lack* such parts and are thereby wholly immaterial.

C2. So, independent of our classificatory schema, there are wholly material substances with explanatorily basic solid microscopic parts that are distinct from wholly immaterial substances that lack these parts.

P1 has been established already, at least once we add to (A)-(D) the three trivial claims that Locke holds that there are bodily substances, that these substances are macroscopically solid, and that solidity is a primary quality.²²

With regards to P2, Locke is firm that God exists and that God is a substance.²³ Locke maintains that God occupies all spaces, as Geoffrey Gorham argues.²⁴ Thus, if God were solid, God would exclude all other solid beings from existing. But God does not, so God could not be solid on Locke's view. There is also direct evidence for this claim that I will discuss below.

P3 is less straightforward. In many texts, Locke is adamant that beings are generally divided into "Species" by their nominal essences because we lack access to their real essences, a fact that has led many interpreters to argue that he holds either that there are no real essences or, as noted in section 1, that there are real essences but we are at a great epistemic distance from them in our efforts to classify substances (via nominal essences and their names).²⁵ Nonetheless, Locke does not deny that there are in fact natural kinds that divide substances based on what they are like in themselves. Notably, Locke justifies his position by reference to the "obvious" observation that there are real kinds:

I would not here be thought to forget, much less to deny, that Nature in the Production of Things, makes several of them alike: there is nothing more obvious, especially in the Races of Animals, and all Things propagated by Seed. (III.iii.13)

In other instances, Locke indicates that the natural kinds stretch into the microscopic parts of things:

Nature makes many particular Things, which do agree one with another, in many sensible Qualities, and probably too, in their internal frame and Constitution. (III.vi.36)

Many of the debates in the literature regard Locke's views on the relationships between real essences and more fine-grained distinctions between natural kinds that our nominal essences may or may not license. The present question, though, is whether P3 is true, and all I need to establish

²² Regarding the first, see especially IV.xi, as well as II.xii.6, II.xxx.5, II.xxxi.2, IV.ii.14, IV.iii.21, IV.xi.3, 4:29, 4:236, 4:241, 4:345. Regarding the second, see II.iv.1, II.xiii, 4:460-1, 4:470-1. Regarding the third, see II.viii.9 and IV.iii.14.

²³ On the former, see IV.x. On the latter, see, e.g., II.xxiii.21, II.xxiii.32, II.xxvii.2, 4:468.

²⁴ In Gorham 2020. See II.iv.3 and II.xvii.20.

²⁵ See, e.g., III.iii.13 and 4:83-6. For thorough recent surveys of the literature surrounding this debate, see Jones 2018 (esp. section 4.3), Kuklok 2021, and Kuklok 2022.

P3 is that Locke holds that we have epistemic access to two very broad fundamental natural kinds to which solid substances with solid parts and non-solid substances with non-solid parts belong.

Locke sheds light on his views on the specific divide between material and immaterial substances, which P3 concerns, in his discussion of space in the *Essay*. In II.xiii, Locke argues that space is extended but not solid. Locke's goal is to differentiate himself from Descartes and others who maintain that space just is body. Locke argues for a real distinction between space and body by using the same kind of argument from conceivable separability that Descartes uses to defend his mind-body dualism in the *Meditations*:

And if it be a Reason to prove, that Spirit is different from Body, because Thinking includes not the *Idea* of Extension in it; the same Reason will be as valid, I supposed, to prove, that *Space is not Body*, because it includes not the *Idea* of Solidity in it; *Space and Solidity* being *as distinct Ideas*, as Thinking and Extension, and as wholly separable in the Mind one from another. (II.xiii.11)

As this passage indicates, Locke holds that bodies are solid, while non-bodies—whether space or spirit—are not. Likewise, following Aristotle, Locke argues that the existence of space (void or vacuum) which is extended but not solid is necessary for the possibility of movement.²⁶ Recognizing that this runs afoul of Descartes' divide between material and immaterial, Locke responds with a question of his own:

Those who contend that *Space and Body* are *the same*, bring this *Dilemma*. Either this *Space* is something or nothing; if nothing be between two Bodies, they must necessarily touch; if it be allowed to be something, they ask, whether it be Body or Spirit? To which I answer by another Question, Who told them, that there was, or could be nothing, but solid Beings, which could not think; and thinking Beings that were not extended? Which is all they mean by the terms *Body* and *Spirit*. (II.xiii.16)

In his correspondence with Stillingfleet (4:33), Locke clarifies his own position, arguing that there is a distinction between *spiritual* substances and *immaterial* substances.²⁷ Locke defines a spiritual substance as a substance that has "the modification of thinking, or the power of thinking joined to it [...] without considering what other modifications it has, as whether it has the modification of solidity or no", while he implies that an immaterial substance, by contrast, is one that is not solid. Locke also asserts that a "substance, that has the modification of solidity, is matter, whether it has the modification of thinking or no."²⁸ Thus, in this context, the possibility of superaddition is the possibility that there are material substances that are also spiritual. Yet, Locke is emphatic that no material substance can be immaterial, writing that even God "cannot make a substance to be solid and not solid at the same time" (4:465).

²⁶ II.xiii.22; c.f. II.xvii.4.

²⁷ C.f. 4:460-1, 4:470-1. Citations of this form, with Arabic numerals first, are for *The Works of John Locke* (1823), printed for Thomas Tegg, which I am using solely to cite the Stillingfleet correspondence contained therein. The citation format is volume:page.

²⁸ Locke asserts elsewhere that "I justified my use of the word spirit in that sense, from the authorities of Cicero and Virgil, applying the Latin word spiritus, from whence spirit is derived, to a soul as a thinking thing, without excluding materiality out of it." See 4:483.

It is clear, then, that for Locke the divide between material and immaterial substances is a function of solidity, and so P3. Locke confirms this in arguing to Stillingfleet that, even though God is extended (in occupying all locations), God is immaterial in not being solid.²⁹

This is not to say that P3 represents the only way that Locke might be plausibly read to divide up the world of substance. Locke considers the possibility of a three-substance view—God, finite spirits, and bodily substances—and refuses to rule it out, in part because he thinks there is a real distinction between those spirits that can move and those that cannot.³⁰ Furthermore, prior to that, Locke refuses to admit if space is itself a substance or not.³¹ In this way, Locke appears to be open to the possibility that there could be—under more fine-grained schema—four kinds of substances: God, finite spirits, space, and bodily substances. Locke expresses a similar thought in IV.iii.27, where he wonders: "But that there are degrees of Spiritual Beings between us and the great GOD, who is there, that by his own search and ability can come to know?"³² But P3 is not an assertion about the *only* way to divide substances into general kinds. P3 does not assert that there are no other natural or fundamental divisions. It is simply a claim about the divide between material and immaterial substances, which is the subject of this paper.

At this juncture, I have established P1 via the minimal commitments surrounding Locke's views on the primary/secondary quality distinction, P2 via some of the passages where Locke explicitly discusses the nature of God, and P3 via some minimal commitments about Locke's views on natural kinds. Nevertheless, I have not addressed the vexed issues surrounding substrata and real essences that are so disputed in the literature. Fortunately, some of the preceding interpretative conclusions—supplemented with some key passages—allow us to take some positions in these disputes that help defend the attribution of C2 to Locke.

4. Complications with substrata and real essences

Locke indicates at many junctures that substances are somewhat mysterious, in that their fundamental nature is not fully apparent to us. One typical way that Locke expresses this concern is in the form of claims about our ideas of bodily substances. Locke asserts that these ideas have, as components, ideas of substances' substrata, and these substrata are "supposed" to "support" the qualities we perceive the substances to have:

²⁹ See 4:33. Locke argues that God is immaterial in at least two other places. First, in IV.x.10 (c.f. 4:293). Second, a similar argument is found in the Stillingfleet correspondence (4:468-9; c.f. 4:62-3, 4:291; 4:294, 4:299). Note that Locke is more explicit in the correspondence and describes the conclusion of this argument as the claim that "God is an immaterial substance." For relevant discussion, see Duncan 2021.

³⁰ II.xxiii.21. Another possible differentiator would be whether they are thinking or not. Alexander (1985, 226) suggests this as an interpretation of Locke in the *Essay*. In a different context, Peter Anstey argues on the basis of IV.x.9 and other passages that Locke indicates "a preference for a cogitative/incogitative distinction over the material/immaterial distinction" (2015, 230). I do not think that this preference, if Locke had it more generally, is evident from either the *Essay* or the Stillingfleet correspondence. I grant that Locke eschews the material/immaterial distinction in many contexts, and this is an innovation, as Anstey rightly notes.

³¹ II.xiii.17.

³² C.f. III.vi.11-12, 4:18.

[...] it be manifest, and every one upon Enquiry into his own thoughts, will find that he has no other *Idea* of any Substance, v.g. let it be *Gold, Horse, Iron, Man, Vitriol, Bread*, but what he has barely of those sensible Qualities, which he supposes to inhere, with a supposition of such a *Substratum*, as gives as it were a support to those Qualities, or simple *Ideas*, which he has observed to exist united together. (II.xxiii.6)

Despite the "confused, loose, and undetermined ideas" we have of it (more on this in the next section), Locke is nonetheless clear that the substratum of each bodily substance does exist:

First, as to the existence of bodily substances, I know by my senses that something extended, and solid, and figured, does exist; for my senses are the utmost evidence and certainty I have of the existence of extended, solid, figured things. These modes being then known to exist by our senses, the existence of them (which I cannot conceive can subsist without something to support them) makes me see the connexion of those ideas with a support, or, as it is called, a subject of inhesion, and so consequently the connexion of that support (which cannot be nothing) with existence. And thus I come by a certainty of the existence of that something which is a support of those sensible modes, though I have but a very confused, loose, and undetermined idea of it, signified by the same substance. (4:29)

Before we can be confident that Locke is a substance dualist in the general sense discussed previously, we need to better understand Locke's answers to the following questions:

- (i) What are substrata like in themselves?
- (ii) How do substrata relate to real essences and, in the case of bodily substances, microscopic primary qualities?
- (iii) Why does Locke describe substrata as "unknown" or merely "supposed"?

In this section, I will address (i) and (ii), before turning to (iii) in the next section. The concern is that if Locke holds that we are in the dark about the substrata that we "suppose" are necessary to "support" the qualities we perceive substances to have, then he holds that we should not be at all confident about their nature and cannot rule out substance monism, contrary to the conclusion of the prior section.

There are many interpretations of Locke's position on substrata, but the most prominent ones are threefold.³³ First, some commentators argue for the "bare particular" interpretation, according to which Locke holds that substrata lack qualities entirely.³⁴ Second, some defend the "deflationary" interpretation, according to which Locke holds that substrata are identical to substances.³⁵ Third, some defend the "real essence" interpretation, according to which Locke holds that substrata are identical to real essences.³⁶ A further twist on the "real essence"

³³ A fourth view, the "functionalist" reading, is defended by Kim (2010, 2014, 2015, 2019, 2022).

³⁴ Prominent defenders of the bare particular reading include Leibniz, Jolley (1999), and Bennett (1971, 1987, 2001).

³⁵ Defended by Daniel Korman (2010), Robert Pasnau (2011), and Michael Jacovides (2017), among others.

³⁶ Those who have a version of this position include Margaret Atherton (1984a, 1984b), Maurice Mandelbaum (1964), John W. Yolton (1970), Ayers (1975, 1991), Lisa Downing (2007), and Gabor Forrai (2010). Others, like David Owen (1991), Lisa Shapiro (1999), Daniel Kaufman (2007), McCann (2007), and Martha Brandt Bolton

interpretation is to interpret Locke as identifying each real essence with the "internal constitution" or microscopic constituents of a substance.³⁷ In this section, my goal is to use the lessons of the primary/secondary quality distinction from section 2 to justify a general version of the "real essence" interpretation—one that also identifies real essences with internal constitutions—while using the texts to independently corroborate this interpretation.

Recall, first, that Locke maintains (C): bodily substances have primary qualities through-and-through. From (C), we can derive a reason to reject the "bare particular" interpretation via the following argument. According to the "bare particular" interpretation, substrata are bare in that they lack qualities of their own, but they still bear relations to the primary qualities of the substances—namely, relations of support or inherence. Yet, if Locke holds (C), then he holds that *all* the parts of bodily substances have primary qualities, regardless of their state, size, or circumstances. So, there is reason to interpret Locke as holding that there are no parts of substances, including their substrata, that lack primary qualities.

At this juncture, the rejoinder from defenders of the "bare particular" interpretation would be to assert that Locke holds that substrata are not parts of substances in the same sense that extremely small parts of a grain of wheat are its parts. On this view, Locke's position is that substrata are merely "logical" or predicative subjects, not mereological parts, and so they are immune to the demands of (C).³⁸

One issue with this aspect of the "bare particular" interpretation is that it is insensitive to the justification of (C) flowing from Locke's endorsement of (A) and (B).³⁹ If the substrata of bodies were nothing like their macroscopic primary qualities—because their substrata lacked qualities entirely—then the resemblance between our ideas of bodily substances' primary qualities and the bodies themselves would not extend to the substrata of the bodies. A lack of qualities is just as much a failure of resemblance as the possession of qualities unlike the macroscopic ones. The power of Locke's view on resemblance is that it rules out mismatches of any sort.

The other justifications of (C) provide further and more decisive reasons to reject the "bare particular" interpretation. (D) poses the most trouble for this interpretation. According to (D), bodily substances' microscopic primary qualities explain their macroscopic primary qualities. If it is also the case that Locke holds that bodily substances' substrata explain their macroscopic

(2015, but see 1976a), agree with the position on real essences I present, but either do not commit to a position on the identification of substrata with real essences or reject my position.

³⁷ For discussion and an endorsement of this interpretation, see Kuklok 2022, as well as Jones 2018, especially section 4. Two further spins on this interpretation are what Jones (2018, section 4.1) calls "the relativized real essence thesis, according to which a real essence just is whatever microstructure causes the nominally essential qualities of the object; and (for lack of a better name) the unrelativized real essence thesis, whereby the real essences consist of the total microstructure of the substance, not just the features causally responsible for the nominal essence." I hold the unrelativized real essence thesis. Atherton (1984b), Jean-Michel Vienne (1993), and Susanna Goodin (1998) deny that real essences are internal constitutions for Locke, but since Locke uses the terms interchangeably, as I will show, I take this to be strong evidence against their view.

³⁸ For defenses and discussions of this position (that Locke's use of 'substratum' is exclusively for "logical" work, which contrasts with his use of 'real essence' for "explanatory" work), see Ayers 1975 (16-17), Jolley 1999 (70-78), Bennett 2001 (109-110), and Stuart 2013 (217).

³⁹ Another issue is that this position does not conform with all the texts, as II.xxiii.1, II.xxiii.3, and II.xxiii.6 find Locke using explanatory language while writing of substratum.

primary qualities, then we are close to being able to infer that he holds that bodily substances' substrata are identical with the microscopic primary qualities of bodily substances. After all, if it were *not* the case that Locke holds that bodily substances' substrata are identical with the microscopic primary qualities of bodily substances, then he would be saddled with an overabundance of explanations of the macroscopic primary qualities of bodily substances: both the substances' substrata *and* the microscopic primary qualities. If they are distinct but both explain the macroscopic primary qualities, then we have a contradiction.

But does Locke hold that bodily substances' substrata explain their macroscopic primary qualities? It is clear that he does. Aside from describing it as a relation of *support*⁴⁰ and *inherence*⁴¹, Locke also says that the primary qualities of a substance are *caused by*⁴² and *depend on*⁴³ its substratum. And Locke is clear that it is *in virtue of* the macroscopic primary qualities of a substance bearing this relation to their substratum *that they exist at all* and, furthermore, that they are *unified* to form a single body.⁴⁴ Since this relation is asymmetric, Locke's descriptions indicate that substrata explain and are more fundamental than the macroscopic primary qualities that they support.

Beyond saddling Locke with an overabundance of explanations of the macroscopic primary qualities of bodily substances, the "bare particular" interpretation also implicates him in an inability to explain qualitative differences in substances. Because of the explanatory relation holding between substrata and substances, Locke must hold that if there are qualitatively distinct substances, then there are qualitatively distinct substrata. If there were *not* qualitatively distinct substrata for qualitatively distinct substances, then there would not be explanation of the nature and existence of the differences between the substances. As we have seen, Locke holds that "it is evident, that what had its Being and Beginning from another, must also have all that which is in, and belongs to its Being from another too" (IV.x.4), so the substrata of distinct bodily substances can explain their distinct macroscopic primary qualities *only if* they too have distinct sets of primary qualities. Since Locke clearly holds that there are qualitatively distinct substances, it follows that Locke must hold that there are qualitatively distinct substrata, which is ruled out by the "bare particular" interpretation.

In fact, Locke makes this very point in connection with real essences when he asserts that "it is impossible, that two Things, partaking exactly of the same real *Essence*, should have different Properties" (III.iii.17). The fact that real essences parallel substrata in role in this way provides evidence for their identity, as I note below, which in turn further supports the case against the "bare particular" interpretation.

If the "deflationary" interpretation is correct, then Locke holds that substrata are identical to their substances. However, since Locke holds that substrata bear an asymmetrical (explanatory) relation to their substances, and since identity is a symmetric relation, he must hold that substrata are not identical to their substances. Therefore, we have good reason to reject the "deflationary"

⁴⁰ I.iv.18, II.xiii.19-20, II.xxiii.2, 4:8, 4:19, 4:21, 4:33, 4:42, 4:450-3.

⁴¹ II.xiii.20, II.xxiii.2, II.xxiii.6, 4:21, 4:25, 4:33.

⁴² II.xxiii.6.

⁴³ 4:252.

⁴⁴ II.xxiii.3, II.xxiii.6.

interpretation from (D), too. (Another is that this interpretation does not account for the epistemological asymmetries between substrata and substances—something which will become more apparent in the next section.)

With regards to whether bodily substances' *real essences* explain their macroscopic primary qualities, Locke is equally clear, using both dependence language and "flow" language repeatedly.⁴⁵ Recall the gold ring passage from before:

The particular parcel of Matter which makes the Ring I have on my Finger, is forwardly, by most Men, supposed to have a real Essence, whereby it is *Gold*; and from whence those Qualities flow, which I find in it, *viz.* its peculiar Colour, Weight, Hardness, Fusibility, Fixedness, and change of Colour upon a slight touch of Mercury, *etc.* This Essence, from which all these Properties flow, when I enquire into it, and search after it, I plainly perceive I cannot discover: the farthest I can go, is only to presume, that it being nothing but Body, its real Essence, or internal Constitution, on which these Qualities depend, can be nothing but the Figure, Size, and Connexion of its solid Parts [...].
(II.xxxi.6)

So, we have three claims that Locke concurrently endorses: bodily substances' microscopic primary qualities explain their macroscopic primary qualities (D); bodily substances' substrata explain their macroscopic primary qualities; and bodily substances' real essences explain their macroscopic primary qualities. The best explanation of these three together, I contend, is that bodily substances' substrata and real essences are *identical with* the microscopic primary qualities of those bodily substances. Thus, we should believe that, on Locke's view, bodily substances' substrata and real essences are identical with the microscopic primary qualities of bodily substances. And this just is the "real essence" interpretation.⁴⁶

There is also independent evidence that Locke identifies real essences with substrata and internal constitutions, hence my defense of the version of the "real essence" interpretation that identifies real essences with internal constitutions. In the Stillingfleet correspondence, Locke explicitly identifies all three:

Your lordship adds, "for although we cannot comprehend the internal frame and constitution of things, nor in what manner they do flow from the substance."

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 in any created being, but to be in every thing that internal constitution, or frame, or modification of the

⁴⁵ For dependence language, see II.xxxi.6, III.iii.15, III.vi.2, IV.vi.12, 4:79, and 4:88. For 'flow' language, see II.xxxi.6, III.iii.17, III.vi.9, 4:82, and 4:91.

⁴⁶ Arguments from overlapping or shared role/object similar to this one have a long history and are used by Mandelbaum (1964, 39) and Ayers (1991a, 77-80, 84-5, 90-6), among others. It is important to note, nonetheless, that I do not "claim that the concept of a substratum (support to qualities) is the same as the concept of a real essence (the causal basis of the powers and qualities of an object), but instead that these different concepts pick out the same thing, that is, that the real essence of an individual substance also functions as the substratum to the properties and qualities of that individual substance", as McCann puts it (1994, 81). See also McCann 2007 (185) and Jones 2018 (section 4.4).

substance, which God in his wisdom and good pleasure thinks fit to give to every particular creature, when he gives a being: and such essences I grant there are in all things that exist. (4:82)⁴⁷

In this passage, Locke could not be using 'the substance' in "the substance in any created being" to refer to the created beings themselves (i.e., particular substances), since the substance in question is said to be "in" them. Instead, Locke is referring to the substrata of the created beings. Although it is common for Locke to use 'substance' to refer to particular substances and their substances, he also uses distinct terms for each when Locke calls the substance of a substance its 'substratum'.⁴⁸ Locke makes this especially clear in the *Essay* on the epistemological side of the equation, where he identifies a component of the complex idea of substance as an idea of (its) substance:

[...] 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. Thus if to Substance be joined the simple Idea of a certain dull whitish colour, with certain degrees of Weight, Hardness, Ductility, and Fusibility, we have the Idea of Lead [...]. (II.xii.6)

It is also evident from the context that Locke wants to resist Stillingfleet's assertion that the real essences, which are the essences being discussed in this passage, "flow from the substance". Locke says that real essences just are "that internal constitution, or frame, or modification of the substance". This is just to say that real essences are configurations of substrata, which brings us to an important distinction.

Here, as elsewhere, Locke implicitly relies on a count noun-mass noun distinction. As we can see from the above passage from the Stillingfleet correspondence (4:82), the real essence of a particular substance is the configuration of the (partially) unknown stuff that gives rise to the primary qualities of that substance. In this way, 'the substratum of that horse', with 'substratum' used as a mass noun to refer whatever stuff gives rise to the primary qualities of the horse, and 'the real essence of that horse' have the same referent.⁴⁹ 'Real essence' is here, as always, used as a count noun.⁵⁰ The distinction between 'substratum' used as a count noun and 'substratum' used as a mass noun is analogous to the Aristotelian distinction between matter modified by form into a particular substance and unmodified matter (of some variety; not prime matter). So, although the substratum (count noun) of a particular substance just is its real essence, that same

⁴⁷ Locke indicates that 'internal constitution' is a synonym for 'real essence' in many other places in the Stillingfleet correspondence. See also 4:25, 4:78, 4:82-3, 4:88. The same goes for the *Essay*. See, e.g., II.xxxi.6, III.iii.15, III.iii.19.

⁴⁸ See, e.g., I.iv.18, II.xxiii.1, II.xxiii.5, II.xxiii.6, II.xxiii.37, IV.vi.7, 4:7, 4:13, 4:18. That Locke uses 'substratum' to refer to the substance of a substance is noted by many commentators, including Bolton (1976a, 489fn5; 2015, 72-3), C.B. Martin (1980, 3), Korman (2010, 75), and Kim (2015, 29; 2022, 228-229).

⁴⁹ For a similar view and relevant discussion, see Millican 2015 (9-10) and Stuart 2013 (222-223, including fn. 12).

⁵⁰ In this connection, note that 'matter' is properly used, Locke argues, as a synonym for 'substratum' used as a mass noun. Locke is most direct about this in III.x.15: "For *Body* stands for a solid extended figured Substances, whereof *Matter* is but a partial and more confused Conception, it seeming to me to be used for the Substance and Solidity of Body, without taking in its Extension and Figure: And therefore it is that speaking of *Matter*, we speak of it always as one, because in truth, it expressly contains nothing but the *Idea* of a solid Substance, which is every where the same, every where uniform."

substratum (mass noun) could be modified to constitute a different real essence, although any modification of that real essence would result in its non-existence.⁵¹

In sum, I have used Locke's endorsement of (C) and (D)—with textual supplementation—to support the "internal constitution" variation of the "real essence" interpretation at the expense of the "bare particular" and "deflationary" interpretations. Along the way, we have come to answers of the first two questions I started the section with. In the case of bodily substances, substrata are the microscopic primary qualities of substances that bear asymmetric explanatory relations to their macroscopic primary qualities (which themselves bear asymmetric explanatory relations to their macroscopic secondary qualities and powers). Each bodily substance's substratum is identical to its real essence and its microscopic primary qualities. And the same goes for non-bodily substances, *mutatis mutandis*. Thus, what I asserted about substances' possession or lack of explanatorily basic solid microscopic parts in section 3 (with P3) applies to their real essences and substrata, too: namely, that substances divide into fundamentally different schema-independent natural kinds on the basis of the solidity of their real essences and substrata, which, in turn, can be inferred from whether they are macroscopically solid.⁵² Locke can maintain this position, even if it is true that dividing substances on the basis of more fine-grained distinctions is beyond our ken.⁵³ To this latter topic I now turn.

5. The power of relative ideas

In this section, I will buttress the preceding argumentation with a closer inspection of Locke's theory of ideas. The concern is that the numerous instances where Locke questions or outright denies the clarity, distinctness, perfection, or adequacy of our ideas of substances undermine an attribution of general substance dualism to Locke.⁵⁴ If our ideas are inferior in these ways, then how can we divide substances into fundamental categories, whether or not they are broad ones like material and immaterial?

Indeed, in some of the passages where Locke makes these claims, he seems to argue that we have no ideas of the substrata or real essences of substances at all.⁵⁵ And yet, in what appears to many commentators as a classic case of Lockean inconsistency, Locke repeatedly affirms what we saw in section 4—namely that the substrata or real essences of bodily substances do in fact have parts possessed of the primary qualities—in the very same passages where he denies that we have ideas of them.⁵⁶

⁵¹ The failure to make these distinctions makes McCann (2007, 189-90) draw odd conclusions from this very passage.

⁵² Given the argumentation in section 2, the net result is a position similar, in broad terms, to that described by Jones (2018) as follows: "In other words, one might argue, if real essences cause the observable qualities of bodies, and we sort things into species based on observable similarities, then if we assume that similarities among the real essences always results in similar observable qualities, and similar observable qualities are always caused by similar real essences, there is reason to think that Locke assumed that our nominal essences track, at least to some degree, real kinds in nature."

⁵³ In this connection, see Locke's letter to Molyneux from January 20, 1692-1693 (9:305-306), as well as passages like III.vi.8 where Locke's point is about those fine-grained distinctions *only*.

⁵⁴ See, e.g., II.xxiii.12, II.xxxi.3, II.xxxi.8, IV.iii.11, IV.iii.25, IV.vi.12, 4:8, 4:18, 4:21, 4:27, 4:29, 4:78, 4:236, 4:241, 4:345, 4:450.

⁵⁵ See, e.g., II.xxiii.12, II.xxxi.6, IV.iii.23, 4:26, 4:28, 4:77-9, 4:82.

⁵⁶ See, e.g., II.xxiii.8, II.xxiii.12, IV.vi.12.

There is a good explanation of this, however, and I will argue that Locke is *not* being inconsistent. The explanation turns on the fact that Locke holds that our ideas of substrata and real essences are "relative" ideas.⁵⁷ In these cases, relative ideas are inferior to positive ideas, which are those ideas that we use to represent, for instance, the macroscopic primary qualities of bodily substances. From Locke's usage throughout his corpus, it is clear that a positive idea is an idea that represents whatever it represents as having at least one determinate, non-trivial, non-relational property, like being solid.⁵⁸ When Locke asserts that we do not have any idea of substances at all, Locke means that we have no *positive* idea of them—a clarification that, in fact, he *explicitly* makes at several junctures.⁵⁹ At one point, in II.xiii.19, Locke draws the distinction between positive and relative ideas as a distinction between ideas of what something *is* and ideas of what something *does*.

Locke uses the term 'relative idea' only once in the entire *Essay*, although he refers to relative ideas at various other times.⁶⁰ The one occasion that he uses it (II.xxiii.3) is when he refers to the kind of idea that our idea of substrata in general is. Locke refers to this one usage of the term in his correspondence with Stillingfleet, and he uses the term six times in the correspondence.⁶¹ Except when he is writing about relative ideas more generally (4:11, 4:71), these are cases where Locke is referring either to our idea of substrata in general, our ideas of the substrata of bodies, or our ideas of the substrata of spirits. This makes clear that relative ideas are central to his understanding of how we think about substances and their substrata.

In his correspondence with Stillingfleet, Locke sheds light on the nature of these relative ideas in his discussion of our ideas of a given bodily substance like a cherry. It becomes clear that Locke holds that our relative idea of a cherry's substratum is an inferior version of an idea of a relation (more on the precise nature of this inferiority below). This relative idea has positive ideas of the macroscopic primary qualities of that particular cherry as one relatum, the relation of support as its relation, and an idea of something we-know-not-what as its other relatum.⁶² (The parallel for an immaterial substance would have positive ideas of the faculties of "perceiving, thinking, reasoning, knowing, &c." as the first relatum.) Below is the passage:

To explain myself, and clear my meaning in this matter: all the ideas of all the sensible qualities of a cherry come into my mind by sensation; the ideas of perceiving, thinking, reasoning, knowing, &c. come into my mind by reflection: the ideas of these qualities and actions, or powers, are perceived by the mind to be by themselves inconsistent with existence; or, as your lordship well expresses it, "we find that we can have no true conception of any modes or accidents, but we must conceive a substratum or subject, wherein they are;" *i. e.* that they cannot exist or subsist of themselves. Hence the mind perceives their necessary connexion with inherence or being supported; which being a relative idea superadded to the red colour in a cherry, or to thinking in a man, the mind

⁵⁷ For discussions of relative ideas in the Lockean context, see Flage 1981, Newman 2000, Duncan ms.

⁵⁸ See, in particular, II.viii and II.xvii.

⁵⁹ I.iv.18, II.xxiii.15, IV.iii.23, 4:28.

⁶⁰ E.g., I.iii.6, II.xxvi.4, II.xxix.16.

⁶¹ 4:11, 4:21, 4:22, 4:42, 4:71, 4:445.

⁶² C.f. II.xxiii.15-18, 4:42, and 4:450-3.

frames the correlative idea of a support. For I never denied, that the mind could frame to itself ideas of relation, but have showed the quite contrary in my chapters about relation. But because a relation cannot be founded in nothing, or be the relation of nothing, and the thing here related as a supporter or support is not represented to the mind by any clear and distinct idea; therefore the obscure, indistinct, vague idea of thing or something, is all that is left to be the positive idea, which has the relation of a support or substratum to modes or accidents; and that general indetermined idea of something, is, by the abstraction of the mind, derived also from the simple ideas of sensation and reflection: and thus the mind, from the positive, simple ideas got by sensation or reflection, comes to the general relative idea of substance; which, without the positive simple ideas, it would never have. (4:21-22)

As Locke explains here, the relative idea we have a particular bodily substance, like a cherry, can be abstracted from to create all sorts of relative ideas about substances, including a "general relative idea of substance". This latter idea is a relative idea of something-we-know-not-what that supports macroscopic qualities (or faculties) of substances in general.⁶³ Before abstracting to such a degree, though, there are intermediate stages that the mind might reach, like our relative ideas of non-exhaustive kinds of substances. In the case of bodily substances, there are relative ideas of something-we-know-not-what that has primary qualities and that supports macroscopic primary qualities of bodily substances in general.

But what exactly does it mean for an idea to be 'obscure', 'confused', 'imperfect', or 'inadequate'? For Locke, each of these terms has a corresponding contrast term: 'clear', 'distinct', 'perfect', and 'adequate'. Locke asserts that "our *simple Ideas* are *clear*, when they are such as the Objects themselves, from whence they were taken, did or might, in a well-ordered Sensation or Perception, present them" (II.xxix.2). Our complex ideas are clear when their component simple ideas are clear and when the "Number and Order" of those simple ideas is determinate and certain. Those ideas that are not clear are obscure. As for distinct ideas, Locke argues that "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). Finally, adequate ideas "perfectly represent those Archetypes, which the Mind supposes them taken from; which it intends them to stand for, and to which it refers them", while inadequate ideas are "but a partial, or incomplete representation of those Archetypes to which they are referred" (II.xxxi.1). It seems that 'perfect' is a synonym for 'adequate' (and 'imperfect' a synonym for 'inadequate').

This conforms with Locke's general views concerning relations and the varied nature of our ideas of them. In the chapter of the *Essay* dedicated to the topic, Locke argues that a positive idea of something is an idea of what is "in" that thing, while an idea of a relation "arises from the respect the Mind finds in it, to something distinct from it, with which it considers it" (II.xxv.2). Locke

⁶³ Some direct evidence for spirits like God having substrata is found in the texts where Locke discusses spirits more generally. There Locke argues that just as we cannot conceive of the primary qualities except as inherent in or as supported by substrata, so too can we not conceive of the faculties of spirits (the "Modes of Thinking"; see II.xix) existing in isolation (II.xxiii.5). Just as is the case with material substances and the primary qualities, spiritual substances are in part constituted by substrata that provide support for their faculties. And our ideas of spirits—including those of our selves—represent this fact (II.xxiii.15).

discusses how often the relata of a relation are often not "perfect," "clear," or distinct (II.xxv.8), even if the relation between them is. Depending on the context, this is sufficient to have a clear conception of what one seeks to represent. In the case of two birds, Locke says that, "having the Notion, that one laid the Egg, out of which the other was hatched, I have a clear *Idea* of the Relation of *Dam* and *Chick*, between the two Cassiowaries in St. *James's* Park; though, perhaps, I have but a very obscure and imperfect *Idea* of those Birds themselves" (II.xxv.8).

One of the reasons Locke gives for why our ideas of particular substances are inadequate is that we lack information about all of the "simple *Ideas*, which are really in any Substance" (II.xxv.8). Another reason, more germane to my purposes, is that we lack any information about the specific qualities of their substrata or real essences to represent them as they are in themselves. Although Locke is not as explicit about why our ideas of substances are confused and obscure, he does indicate that one common way in which complex ideas are confused and obscure is when they are "*very clear and distinct in one part, and very obscure and confused in another*" (II.xxix.13), as the bird case illustrates. This is the case with our ideas of substances since we have clear ideas of their macroscopic qualities, but we lack *any* sensation or perception of their real essences and so, by definition, lack clear ideas of them. (At II.xxix.16, Locke notes this and muses that it is the extreme smallness of the parts of bodies that is the cause of this issue.) As for distinctness, since we cannot differentiate one real essence from another, except by circumstances foreign to the real essences themselves, like which primary qualities they support, we lack distinct ideas of them.

Since, per the preceding sections, Locke thinks there is reason to believe that—it is probable that—the substrata and real essences of bodily substances are solid, we can in fact say something further about the unknown relatum of Locke's relative idea of the substratum of the cherry: it is an idea of something solid, whatever else it is like. And the opposite goes for the unknown relata of Locke's ideas of immaterial substances: they are ideas of things that are *not* solid, whatever else they are like. In this way, Locke has set conditions on our ideas of bodily and non-bodily substrata that preclude the same thing from satisfying them both, hence his denial of substance monism.⁶⁴ Thus the obscurity, confusedness, imperfection, and inadequacy of our ideas of substrata is no obstacle to principled claims about the ultimate nature of substrata. After all, if, as Locke holds, even God "cannot make a substance to be solid and not solid at the same time" (4:465), then it is enough to be confident that one substance has a solid substratum and another has a non-solid one to be confident that they belong to two fundamentally different kinds.⁶⁵

This is why, in the *Essay*, Locke describes substance monism as "a very harsh Doctrine" (II.xiii.18). A similar sentiment is conveyed to Stillingfleet, who Locke instructs not to be misled by the generality of our "general idea of substance":

That which your lordship seems to me principally to drive at, in this and the foregoing paragraph, is, to assert, that the general substance of man, and so of any other species, is

⁶⁴ II.xiii.18, 4:26-7.

⁶⁵ So, although my view is, as Stuart (2013, 221-23) puts it, "a dualist version of [Ayers'] Mysterious Stuff reading—a Mysterious *Stuffs* reading", I maintain that Locke is sufficiently confident to distinguish the non-solid substrata from the solid substrata. The stuffs are mysterious, but they can still be divided into two fundamental kinds. For discussion of what might be the relevant sort of confidence, see IV.xvi (especially IV.xvi.12).

that which makes the real being of that species abstractly from the individuals of that species. By general substance here, I suppose, your lordship means the general idea of substance: and that which induces me to take the liberty to suppose so, is, that I think your lordship is here discoursing of the idea of substance, and how we come by it. And if your lordship should mean otherwise, I must take the liberty to deny there is any such thing in *rerum natura*, as a general substance that exists itself, or makes any thing. (4:26-27)

6. Conclusion

In this paper, I have argued that minimal commitments about the primary/secondary quality distinction—namely, (A)-(D)—allow us to infer substantive interpretative conclusions about Locke's views on substrata and real essences. These conclusions include that Locke is a substance dualist in the general sense, in that he holds that there are, independent of our classificatory schema, two distinct kinds of substances: wholly material ones and wholly immaterial ones. For this reason, Locke differs from his contemporaries who do not divide the material from the immaterial on the basis of solidity. These interpretative conclusions also include some key features of the "internal constitution" version of the "real essence" interpretation, which identifies the substratum and real essence of a bodily substance with its microscopic parts. I have buttressed these metaphysical upshots with an analysis of the relevant parts of Locke's epistemology of relative ideas. This analysis shows that defenders of the "real essence" interpretation can grant Locke's humility about natural kinds without conceding significant interpretative conclusions about them and their nature.

One benefit of this methodology is that those who seek to establish Locke as a substance dualist with respect to human minds can be free to focus on the peculiarities of the human case, like his comments about the possibility of superaddition. After all, substance dualism about human minds entails general substance dualism, so, unless the latter can be established as Locke's position, the former cannot either.⁶⁶

⁶⁶ For feedback on earlier drafts of this paper, I would like to thank Samuel Newlands, Patrick Connolly, Michael Rauschenbach, Ruth Boeker, Tobias Flattery, Sam Murray, Aaron Wells, John Hanson, Monica Solomon, Sara Bernstein, Paul Trần-Hoàng, Liz Jackson, Jack Himelright, Raphael Mary Salzillo, and the attendees of my presentation of it at the 2021 John Locke Conference, as well as two anonymous reviewers at and the editors of the *Journal of Modern Philosophy* (Antonia LoLordo and Aaron Garrett). Some of the research conducted in this publication was funded by the Irish Research Council under grant number GOIPD/2021/413.

Bibliography

- Aaron, R. (1937). *John Locke*. Oxford University Press.
- Alexander, P. (1974). "Boyle and Locke on Primary and Secondary Qualities," *Ratio*, 16, pp. 51-67.
- Alexander, P. (1980). "Locke on Substance-in-General [I]," *Ratio*, 22, pp. 91-105.
- Alexander, P. (1981). "Locke on Substance-in-General [II]," *Ratio*, 23, pp. 1-19.
- Alexander, P. (1985). *Ideas, Qualities and Corpuscles: Locke and Boyle on the External World*. Cambridge University Press.
- Anstey, P.R. (2015). "John Locke and the Philosophy of Mind," *Journal of the History of Philosophy*, 54:2, pp. 221-44.
- Atherton, M. (1984a). "Knowledge of Substance and Knowledge of Science in Locke's Essay," *History of Philosophy Quarterly*, 1:4, pp. 413-428.
- Atherton, M. (1984b). "The Inessentiality of Lockean Essences," *Canadian Journal of Philosophy*, 14:2, pp. 277-293.
- Atherton, M. (1991). "Corpuscles, Mechanism, and Essentialism in Berkeley and Locke," *Journal of the History of Philosophy*, 29:1, pp. 47-67.
- Ayers, M. (1975). "The Ideas of Power and Substance in Locke's Philosophy," *Philosophical Quarterly*, 25, pp. 1-27.
- Ayers, M. (1991a). *Locke, Volume I: Epistemology*. Routledge.
- Ayers, M. (1991b). *Locke, Volume II: Ontology*. Routledge.
- Bennett, J. (1971). *Locke, Berkeley, Hume: Central Themes*. Oxford University Press.
- Bennett, J. (1987). "Substratum," *History of Philosophy Quarterly*, 4, pp. 197-215.
- Bennett, J. (2001). *Learning from Six Philosophers, Volume 2*. Oxford University Press.
- Bermúdez, J.L. (1996). "Locke, metaphysical dualism and property dualism," *British Journal for the History of Philosophy*, 4:2, pp. 223-45.
- Bolton, M.B. (1976). "Substances, Substrata, and Names of Substances in Locke's Essay," *Philosophical Review*, 85:4, pp. 488-513.
- Cummins, R. (1975). "Two Troublesome Claims about Qualities in Locke's Essay," *The*

Philosophical Review, 84:3, pp. 401-418.

- Downing, L. (2007). "Locke's Ontology," L. Newman (ed.): *The Cambridge Companion to Locke's 'Essay Concerning Human Understanding'*. Cambridge University Press, pp. 352-80.
- Duncan, S. (ms). "Locke, relative ideas, and substance in general."
- Duncan, S. (2021). "Locke, God, and Materialism," D. Rutherford (ed.): *Oxford Studies in Early Modern Philosophy, volume X*, pp. 101-131.
- Flage, D. (1981). "Locke's relative ideas," *Theoria*, 47:3, pp. 142-159.
- Forrai, G. (2010). "Locke on Substance in General," *Locke Studies*, 10, pp. 27-59.
- Goodin, S. (1998). "Why knowledge of the internal constitution is not the same as knowledge of the real essence and why this matters," *Southwest Philosophy Review*, 14:1, pp. 149-155.
- Gorham, G. (2020). "Locke on Space, Time, and God," *Ergo*, 7:7, pp. 219-240.
- Jacovides, M. (1999). "Locke's Resemblance Theses," *The Philosophical Review*, 108:4, pp. 461-496.
- Jacovides, M. (2017). *Locke's Image of the World*. Oxford University Press.
- Jolley, N. (1999). *Locke: His Philosophical Thought*. Oxford University Press.
- Jolley, N. (2015). *Locke's Touchy Subjects: Materialism and Immortality*. Oxford University Press.
- Jones, J. (2018). "Locke on Real Essence," Edward N. Zalta (ed.): *The Stanford Encyclopedia of Philosophy*, <<https://plato.stanford.edu/entries/real-essence/>>.
- Kaufman, D. (2007). "Locke on Individuation and the Corpuscular Basis of Kinds," *Philosophy and Phenomenological Research*, 75:3, pp. 499-534.
- Kim, H. (2010). "What kind of philosopher was Locke on mind and body?," *Pacific Philosophical Quarterly*, 91, pp. 180-207.
- Kim, H. (2014). "Lockean Humility," *Philosophy*, 89:4, pp. 537-58.
- Kim, H. (2015). "The Supposed but Unknown: A Functionalist Account of Locke's Substratum," P. Lodge & T. Stoneham (eds.): *Locke and Leibniz on Substance*. Routledge, pp. 28-44.
- Kim, H. (2019). *Locke's Ideas of Mind and Body*, Routledge.
- Kim, H. (2022). "Locke on substance," J. Gordon-Roth & S. Weinberg (eds.): *The Lockean*

- Mind*, Routledge, pp. 226-236.
- Kochiras, H. (2020). "Locke's Philosophy of Science," Edward N. Zalta (ed.): *The Stanford Encyclopedia of Philosophy*, <<https://plato.stanford.edu/archives/spr2020/entries/locke-philosophy-science/>>.
- Korman, D.Z. (2010). "Locke on substratum: a deflationary interpretation," *Locke Review*, 10, pp. 61-84.
- Kuklok, A. (2021). "The Univocity of Real Essence in Locke," D. Rutherford (ed.): *Oxford Studies in Early Modern Philosophy*, volume X, pp. 61-99.
- Kuklok, A. (2022), "Locke on essences," J. Gordon-Roth & S. Weinberg (eds.): *The Lockean Mind*, Routledge, pp. 309-320.
- Locke, J. (1975). P. H. Nidditch (ed.): *An Essay Concerning Human Understanding*, Clarendon Press.
- Locke, J. (1823). *The Works of John Locke*. Printed for T. Tegg (10 volumes).
- Mandelbaum, M. (1964). *Philosophy, Science, and Sense Perception: Historical and Critical Studies*. The Johns Hopkins Press.
- Martin, C. B. (1980). "Substance substantiated," *Australasian Journal of Philosophy*, 58:1, pp. 3-10.
- McCann, E. (1994). "Locke's philosophy of body," V. C. Chappell (ed.): *The Cambridge Companion to Locke*, Cambridge University Press.
- McCann, E. (2001). "Locke's Theory of Substance under Attack!," *Philosophical Studies*, 106:1/2, pp. 87-105.
- McCann, E. (2007). "Locke on Substance," L. Newman (ed.): *The Cambridge Companion to Locke's 'Essay Concerning Human Understanding'*, Cambridge University Press, pp. 157-191.
- Millican, P. (2015). "Locke on Substance and Our Ideas of Substances," P. Lodge & T. Stoneham (eds.): *Locke and Leibniz on Substance*. Routledge, pp. 8-27.
- Newlands, S. (2016). "Backing into Spinozism," *Philosophy and Phenomenological Research*, 94:3, pp. 511-537.
- Newman, L. (2000). "Locke on the Idea of Substratum," *Pacific Philosophical Quarterly*, 81, pp. 291-324.
- Owen, D. (1991). "Locke on Real Essence," *History of Philosophy Quarterly*, 8:2, pp. 105-18.

- Pasnau, R. (2011). *Metaphysical Themes: 1274-1671*. Oxford University Press.
- Rozemond, M, & Yaffe, G. (2004). "Peach Trees, Gravity and God: Mechanism in Locke," *British Journal for the History of Philosophy*, 12:3, pp. 387-412.
- Shapiro, L. (1999). "Toward 'Perfect Collections of Properties': Locke on the Constitution of Substantial Sorts," *Canadian Journal of Philosophy*, 29:4, pp. 551-93.
- Stuart, M. (2013). *Locke's Metaphysics*. Oxford University Press.
- Vienne, J. (1993). "Locke on Real Essence and Internal Constitution," *Proceedings of the Aristotelian Society*, 93, pp. 139-53.
- Yolton, J. W. (1970). *Locke and the Compass of Human Understanding*, Cambridge University Press.