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‘Archetypes without Patterns’: Locke on Relations and Mixed Modes

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Abstract: John Locke’s claims about relations (such as cause and effect) and mixed modes (such as beauty and murder) have been controversial since the publication of the *Essay*. His earliest critics read him as a thoroughgoing anti-realist who denies that such things exist. More charitable readers have sought to read Locke’s claims away. Against both, I argue that Locke is making ontological claims, but that his views do not have the absurd consequences his defenders fear. By examining Locke’s texts, as well as the intellectual context in which they were written, I show that Locke’s position is at once radical and thoroughly traditional.

1 Introduction

Of all the startling and *prima facie* implausible claims Locke makes in his *Essay Concerning Human Understanding*,¹ surely his position on relations and mixed modes should stand out. Ideas of mixed modes are combinations of simple ideas that are ‘scattered and independent [...]and] not looked upon to be the characteristic Marks of any real Beings that have a steady existence’.² Among mixed modes are acts or events such as ‘*Sacrilege, or Murther*’,³ as well as characteristics such as ‘*Beauty*’.⁴ Similarly, Locke tells us that relations are ‘not contained

1 References to Locke’s *Essay* are to the 1975 edition of P.H. Nidditch, and in the following form: Book.chapter.section, page number.

2 II.xxii.1, 288. There is a substantial literature on Locke’s view of mixed modes that is largely orthogonal to my interests here. As Hill 2004, 179, notes, much of the literature focuses on Locke’s claim that the real and nominal essences of mixed modes are identical. See, e. g. Ayers 1991, vol. 2, 57 f., Mackie 1976, 88–93, Jolley 1999, 155–161, and Woolhouse 1983, 119–130.

3 II.xxii.3, 289.

4 II.xii.5, 165. In this paper, I shall set aside the question of simple modes and their connection with Locke’s philosophy of mathematics. Carson 2005, 23 f., persuasively argues that geometrical ideas, such as the idea of a triangle, are in fact simple modes, in Locke’s scheme.

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in the real existence of Things'.⁵ Among relations, Locke counts everything from similarity to fatherhood to cause and effect. Most importantly, perhaps, powers are relations.⁶ And yet ideas of all such things are 'Archetypes without Patterns':⁷ they are not, nor are they intended to be, reflections of the way the world really is.

One of Locke's earliest critics, John Sergeant, seizes on these passages to show the costs of treading the perfidious 'way of ideas'. As Sergeant reads him, Locke confesses that ideas of relations and mixed modes are but '*Whimsical Fancies*, without *any Reality at all*'. Such ideas put us 'never the nearer to the Knowing of *Things* by them'.⁸ And yet it is hard to believe that Sergeant's reading of Locke is correct. Can Locke really be claiming that there are, in the mind-independent world, no murders and thefts, no causes and powers?⁹

I shall argue that Locke's position, while hardly immune from criticism, is far from entailing the absurd consequences Sergeant and others imagine. In fact, when seen in its proper context, Locke's position emerges as thoroughly traditional. The arguments he presents are compressed, partly for that very reason: his readers would have found them utterly familiar.

I begin with Locke's arguments against the reality of relations. It is here that the intellectual context becomes an indispensable guide to Locke's thought. Hence in this section we shall also examine Locke's replies to John Sergeant, who defends a fairly standard, if by then moribund, Aristotelian position. But the Aristotelian view is hardly monolithic and I argue that Locke is best read as defending one hyper-nominalist faction against another, more ontologically permissive one.

Next, I turn to Locke's arguments against the reality of mixed modes. Unlike substances, mixed modes do not persist over time, have no mind-independent principle of unity, and are the 'creatures' and 'workmanship' of the understanding. Like nominal essences, ideas of mixed modes are made voluntarily.

All of this leaves us with our original puzzle: if Locke is not to embrace a manifestly false and self-undermining ontology, there must be *some* sense in which mixed modes and relations can be called 'real'. In fact, at times Locke talks as if

5 II.xv.8, 322.

6 For textual evidence that Lockean powers are relations, consider that Locke says that '*Powers are Relations*' (II.xxi.19, 243); that the powers of gold are 'nothing else but so many relations' (II. xiii.37, 317); and that most of the ideas that go into our ideas of substances are ideas of powers, which are '*Relations to other Substances*' (II.xxxi.8, 381).

7 '[*Mixed Modes and Relations*, being Archetypes without Patterns, and so having nothing to represent but themselves, cannot but be adequate, every thing being so to it self' (II.xxxi.3, 377; see also IV.iv.5, 564).

8 Sergeant 1984/1697, 343).

9 See Odegard 1969, 148, for another catalogue of dire consequences.

mixed modes in particular *were* real. I argue in section three that the best solution to this seeming paradox is to distinguish different senses of ‘real’. I claim that, for Locke, an idea of a mixed mode can be real in that it can ‘conform’ (to use Locke’s word) to mind-independent states of affairs. At the same time, there is nothing in the mind-independent world answering to the unity that characterizes the idea of such a mode.

Hence Locke’s discussion not only permits but requires us to distinguish between the content of these ideas and the truthmakers of propositions that involve them.¹⁰ There is an important difference between what the idea presents to the mind and the features of the world that justify our asserting a proposition that includes that idea. It is this peculiar fact that deprives mixed modes of mind-independent reality.

If this distinction stands, we can use it to bring Locke’s ontology more closely into line with the rest of his view. In section three, I argue that Locke’s position on relations allows us to say that the truthmakers for propositions about relations are, in fact, mind-independently real, even though there are no relations apart from the mind’s activity. While this no doubt sounds counter-intuitive to us, it fits perfectly with Locke’s theory of truth. That theory has unfortunately been neglected in discussions of Locke’s position on relations. But once one sees that *no* proposition is true, for Locke, unless there is a mind there to think it, it becomes much less difficult to recognize his claim that no things are related unless there is a mind there to relate them.

In sum, the distinction between content and truthmaker lets us understand how Locke can at once banish relations and mixed modes from his ontology and at the same time go on speaking happily as if the universe contained mind-independent causes, powers, dances, murders, and all the rest.

10 According to Armstrong 1993, 186, Martin originally formulated the notion of a truthmaker, though it is implicit in many prior discussions. While not of course explicit in Locke’s text, I find the notion useful in understanding it. In my view, John Heil is quite right when he says that “[f]or millennia, philosophers operated with an implicit conception of truthmaking, a conception that remained unarticulated only because it was part of the very fabric of philosophy” (2012, 139).

2 Locke's Arguments

First, we need to get clear on just what it means to say that something is real or not. For Locke uses 'real' and related terms in at least two different ways. He introduces a technical sense of the term in II.xxx, which stipulates that an idea is real just in case it conforms to its archetype.¹¹ Note that only ideas can be real in this sense. Elsewhere, Locke uses 'real' in its more ordinary sense. In clarifying that quotidian sense of the term, we have the benefit of an uncontroversial text.¹²

*General and Universal, belong not to the real existence of Things; but are the Inventions and Creatures of the Understanding, made by it for its own use, and concern only Signs, whether Words, or Ideas.*¹³

Here Locke intertwines two thoughts: a rejection of universals and a replacement for them. The latter helps to clarify the former. If universals are nothing but the 'Creatures of the Understanding', they can have no place in the 'real existence of Things'. Although Locke never uses this contemporary language, he clearly means to say that universals have no mind-independent existence. If one were making a list of the furniture of the world outside the mind, one would never need to enter 'dogness' or 'humanity'. This is precisely what Locke means to say about mixed modes and relations. They no more belong to 'the real existence of Things' than do universals.

Consider a typical pronouncement of Locke's:

[...] *Mixed Modes and Relations*, having no other *reality*, but what they have in the Minds of Men, there is nothing required to those kind of *Ideas*, to make them *real*, but that they be so framed, that there be a possibility of existing conformable to them. These *Ideas*, being themselves Archetypes, cannot differ from their Archetypes, and so *cannot be chimerical*, unless any one will jumble together in them inconsistent *Ideas*.¹⁴

Unlike ideas of substances, ideas of relations and mixed modes are not intended to be copies of things in the world. And they are not intended to be copies because there are no relations and mixed modes out there in the world to copy. Mixed modes and relations 'have no other *reality*' – no reality in *any* sense – 'but what they have in the Minds of Men'.

Similarly, in the chapter devoted to relations, Locke writes,

¹¹ See II.xxx.1, 372, discussed below.

¹² See Stuart 2013, 28.

¹³ III.iii.11, 414.

¹⁴ II.xxx.4, 373. The ellipsis is here because I have omitted the opening word of the passage, namely, 'Secondly,' as I do with the quotation from II.xxv.8, 322 below.

[...] This farther may be considered concerning *Relation*, That though it be not contained in the real existence of Things, but something extraneous, and superinduced: yet the *Ideas* which relative Words stand for, are often clearer and more distinct than of those Substances to which they do belong.¹⁵

Some commentators think that charity requires us to read away such claims by draining them of metaphysical significance¹⁶ or softening them to allow at least mixed modes to exist.¹⁷ In my view, we should not allow charity to distort our

15 II.xxv.8: 322. This sentence has been especially fruitful in generating incompatible readings. Rae Langton reads it as a statement of hyper-realism about relations: they are not reducible to their relata and so have to be extra elements in Locke's ontology. See Langton 2000 and my 2009, 160 f., for discussion and criticism. Jonathan Bennett takes the opposite lesson: relations are reducible. See Bennett 1971, 253 n. 4. Note that Locke's sentence makes its pronouncement almost in passing. The main point Locke is making is that one can sometimes grasp the idea of a relation more easily than that of the relata. This casual attitude is one sign that he expects his readers to be familiar with the position he takes.

16 Someone might claim that II.xxx.4 and similar texts are only making claims about ideas of mixed modes and relations, not about mixed modes and relations themselves. (Matthew Stuart 2013, 21, adopts this reading with regard to II.xxx.4's claim about mixed modes.) On this deflationary reading, Locke is merely saying that ideas of relations and mixed modes exist only in the mind. Note that that claim holds, trivially, for every idea whatsoever, not just ideas of mixed modes and relations. But Locke clearly means to be drawing a *distinction* between ideas of relations and mixed modes, on the one hand, and ideas of other things, such as substances, on the other. So he cannot be saying something that is trivially true of all ideas. Locke's claim is indeed a claim about ideas; but that hardly entails that it is exclusively so. Second, the deflationary reading makes Locke's argument incoherent. Locke argues that reality (in his technical sense) accrues to ideas of relations and mixed modes automatically, provided they pass the consistency test. Why should we believe that these ideas always conform to their archetypes? Only because there are no such things as mixed modes and relations outside the mind for them to conform to or not. In short, Locke cannot substantiate his claim that these ideas are 'real' (in the technical sense) while retaining the claim that their objects exist. In any case, even if the deflationary reading of such passages were somehow right, it would not affect the basic arguments of the rest of this paper. If those arguments succeed, they show that we can in fact extract a coherent metaphysics from the texts I consider below. (I am indebted for this point to an anonymous referee.)

17 See Stuart 2013. Stuart is well aware that Locke often lumps relations and mixed modes together, and even claims that "what has been said here of mixed Modes, is with very little difference applicable also to Relations" (III.v.16, 437). But charity, Stuart suggests, requires us to ignore or re-interpret this pronouncement, since denying the existence of mixed modes like parricide and drunkenness would be "strange and implausible" (2013, 19). There are two problems here. First, denying the reality of relations seems no more or less plausible than denying that of relations. After all, causation is a relation (II.xxvi), and denying that fire burns paper seems on a par with denying that there are murders. Second, relations and mixed modes are inter-dependent. In II.xxv.4 Locke says that what ultimately makes "father" applicable to a given subject is the act by which the man contributed to the generation of a human being. Surely that act is itself a

vision of historical figures. Philosophers of all eras sometimes hold radical positions that would be unpopular today. To apply charity is to make those positions disappear. But I shall argue that in any case, such charity would be misplaced. Once Locke's true position comes into focus, the impetus for hermeneutical contortions will vanish. The best way to discover that position is by examining the arguments for it.

Locke's audience would have been familiar with those arguments, so familiar, in fact, as to obviate the need for Locke to make them in any detailed or rigorous way. One way to unearth them is to sketch the going Aristotelian version of realism about relations before discussing Locke's arguments against it. Happily, Locke found a representative of Aristotelian realism in John Sergeant, whose *Solid Philosophy Asserted against the Fancies of the Ideists*, an exhaustive critique of the *Essay*, prompted Locke to make marginal notes in his own copy.

Although 'relation' appears in Aristotle's list of categories, it was always in an awkward, third-rate position. If the basic constituents of reality are substances, with their essences and accidents running a close second and third, it is hard to know what to make of relations. In the *Physics*, as we shall see, Aristotle produces an argument, repeated by many of the medievals and by Locke, that seems to suggest that relations are not real. In fact, almost no one in the medieval period is happy with relations as an extra element in his ontology, as a sort of unsaturated multi-place trope.¹⁸ The most common realist view, which appears in Aquinas and Suárez, replaces relations with relational properties in the following sense: when a proposition of the form aRb is true, its truthmaker is Ra and $R'b$. R and R' are relational properties in that they are directed at or point to other properties or objects. So we get by with monadic properties after all, although some of them exhibit a *prima facie* odd feature the scholastics call 'esse-ad' or 'being-toward'.

John Sergeant defends just this sort of view in *Solid Philosophy*. Keenly aware that relations are odd-man-out in a substance/accident ontology, Sergeant does his best to squash them into accidents. Reacting to II.xxv, Sergeant writes,

Relation is not here taken for our *Act* of relating, (for then it would belong to another common Head of Notions, call'd *Action*) but for the *Thing* as it is referred by our Comparative Power to another; Wherefore, there must be some *Ground* in the Thing for our thus referring [...].

mixed mode. Conversely, many of the mixed modes will involve relations. A murder, for example, is partly constituted by the relations between the killer and the victim. Hence mixed modes and relations share the same fate.

¹⁸ As Pasnau 2011, 523, puts it, "even the most scholastic of authors wanted to treat [relations] reductively."

Locke might well agree with the last point: he says that in relations, there must always be “two *Ideas*, or Things, either in themselves really separate, or considered as distinct, and then a ground or occasion for their comparison.”¹⁹ Anything besides substances must fall into the categories of “Modes or Relations ultimately terminated in Substances.”²⁰ A relation like ‘has more mass than’ presupposes at least two substances to flank it.

But the agreement between Locke and Sergeant is superficial. What Locke accepts is that, if aRb is true, then a and b must each have some feature, property, or ‘respect’ in which they are compared. If a fire truck is redder than blood, both the fire truck and the blood must have some property in virtue of which that claim is true. I develop this reading below. For now, it is important to note how different it is from Sergeant’s view. Sergeant does not merely mean that a and b must have intrinsic properties that justify the comparison made by the mind; he thinks those intrinsic properties are different in kind from things such as shape or color and so on. To see this, consider the rest of Sergeant’s sentence:

[...] and, consequently, if the Relation be *new*, or such a one as before was *not*, there must be some *Novelty* in the Thing it self to *ground* it.²¹

Here is where Locke’s agreement with Sergeant runs out. Suppose aRb becomes true at t . At $t-1$, Sergeant claims, neither a nor b had the relevant relational properties, R and R' . At t , each acquires the appropriate relational property as a new, monadic feature, and it is in virtue of this fact that aRb obtains at t . In his marginal notes on *Solid Philosophy*, Locke asks, ‘What change does the father in the Indies suffer when his son is born in England?’²²

The same thought is present in the *Essay* itself. Locke begins section three of II.xxv by announcing that “[t]he *Nature* therefore of *Relation*, consists in the referring, or comparing two things, one to another; from which comparison, one or both comes to be denominated.” In support of this, he makes what might seem an off-hand remark: “*Cajus*, whom I consider to day as a Father, ceases to be so tomorrow, only by the death of his Son, without any alteration made in himself.”²³

In Locke’s time, this argument would have been so familiar as to be trite. It had been deployed, in one version or another, against nearly every isotope of realism about relations. The argument is a *reductio*: if relations had any kind

¹⁹ II.xxv.6, 321.

²⁰ II.xxvii.2, 329.

²¹ Sergeant 1984/1697, 253.

²² In Sergeant 1984/1697, 254.

²³ II.xxv.5, 321.

of mind-independent reality (even the minimal kind Sergeant envisions), there would be action at a distance. The basic insight can be traced back to Aristotle himself,²⁴ and very similar arguments are to be found in William of Ockham and Peter Auriol. Ockham, for example, claims that “if a relation were a distinct thing, then when it first accrued to an object that object would have some new thing inhering in it; and consequently, it would actually be changed. But this is contrary to what the Philosopher says in the *Physics*.²⁵ More than 250 years later, Francisco Suárez tells us that “a particular relative designation that comes anew to something, does not change that thing nor in reality make it be other than before, for, as Aristotle says in Book 5 of the *Physics*, Text 10, a relation comes without the change of a thing. Therefore, a relation puts nothing in such a thing. The consequence is evident: because it is impossible to understand that something real is newly added to some subject and that this [subject] not be really different than it was before.”²⁶

By using this argument, Locke is placing himself in the company of nominalist metaphysicians who aim to reject the mind-independent reality of relations. The intellectual context shows us that what seems like an off-hand remark is in fact a compressed statement of an argument that would have been familiar to Locke’s audience. Even if one rejects this historical claim, the fact remains that Locke does indeed make the argument, both in the *Essay* and in his reply to Sergeant.

There are signs even in the *Essay* that Locke has Sergeant’s kind of view in his sights, as the best version of realism about relations going. Section II.xxv.8 speaks of relations as being ‘extraneous and superinduced’. ‘Superinduced’ occurs only twice in the *Essay*, both times in II.xxv. Pierre Coste, who translated the *Essay* with Locke’s help, renders both as ‘ajouté’, plain old ‘added’. Consider II.xxv.4, which uses the same term:

This further may be observed, That the *Ideas* of Relation, may be the same in Men, who have far different *Ideas* of the things that are related, or that are thus compared: v. g. those who have far different *Ideas* of a *Man*, may yet agree in the notion of a *Father*; which is a notion superinduced to the Substance, or Man, and refers only to an act of that thing called Man; whereby he contributed to the Generation of one of his own kind, let Man be what it will.²⁷

²⁴ Aristotle writes that there can be no motion in respect of relation, “for it may happen that when one correlative changes, the other, although this does itself not change, may be true or not true, so that in these cases the motion is accidental” (*Physics* 5.2 225^b10–13 in Aristotle 1984).

²⁵ Ockham 1974/1323, 160. For Auriol’s use of the argument, see esp. Mark Henninger 1989, 156.

²⁶ Metaphysical Disputation 47, Section 1, in Suárez 2006/1597, 41.

²⁷ II.xxv.4, 320 f.

It seems clear that by “superinduced to the Substance, or Man” Locke means to draw our attention to the fact that it is not merely *qua* Man that one is a father. Instead, ‘father’ “refers only to an act of that thing called Man”. To say that a relation is superinduced or *ajoûté* is, as far as this passage goes, just to say that it does not consist in any intrinsic feature(s) of the things related. That suggests that Locke means to reject the view that takes a relation to consist precisely in the monadic properties of the things related, where such properties exhibit *esse-ad*.

One can discern the outline of a second argument in the *Essay*, one that would have been equally familiar to his readers. A traditional worry about reifying relations is ontological excess: from Peter Auriol to Robert Boyle, philosophers have argued that imbuing relations with mind-independent reality would bloat one’s ontology.²⁸ As Locke puts it, “there is *no one thing*, whether simple *Idea*, Substance, Mode, or Relation, or Name of either of them, *which is not capable of an almost infinite number of Considerations*, in reference to other things.”²⁹ If relations were real, they would be ubiquitous. Now, Locke does not take the final step and object to this ubiquity. He does, however, say that his own view does *not* overpopulate the world with new entities to correspond to every comparison anyone might make, “[f]or, as I [Locke] said, *Relation* is a way of comparing, or considering two things together”.³⁰ Although Locke does not explicitly object to the reality of relations on the grounds of parsimony, he does explicitly advertise his own view as not entailing that there is an “*almost infinite*” number of new entities, popping into existence to act as truthmakers for any comparison one makes. In my view, it is a short step indeed from this advertisement to the accusation of ontological profligacy, a step his readers would have readily taken.

Now, it is quite true that the medievals who offered these arguments draw slightly different conclusions, since they are operating within a hylomorphist ontology Locke rejects. For example, Peter Auriol concludes that “without apprehension, there is not a greater conformity in act between two whitenesses than between a whiteness and a blackness”.³¹ One cannot subtract the apprehension (the act of a mind) and retain the ‘conformity in act’ between a whiteness and a blackness. Auriol’s conclusion is not stated in terms that would be acceptable to

28 For Auriol, see esp. the passages quoted and discussed in Henninger 1989, 156. As Boyle puts it: ‘Unless we admit the doctrine I have been proposing, we must admit that a body may have an almost infinite number of new real entities accruing to it without the intervention of any physical change in the body itself’ (1991/1666, 24).

29 II.xxv.7, 321.

30 II.xxv.7, 322.

31 Quoted in Henninger 1989, 168.

Locke. I do not see, however, that this blocks us from acknowledging the influence these arguments against relations had on Locke.

Matters are rather different when we turn to Locke's discussion of mixed modes. Unlike relations, which had been an explicit topic of debate for centuries, mixed modes are a novel category introduced by Locke.³² The intellectual context is hence slightly less useful here. But it is worth noting that, both before and after Locke, there is a tradition of using the word 'notion' to signify a mental state that is at least partly constituted by an act. Ralph Cudworth is a case in point. Although it is difficult to know the precise degree to which Locke was aware of Cudworth's views, it is reasonable to suppose that he was at least familiar with them through his association with Cudworth's daughter, Damaris Masham.³³

Cudworth distinguishes between ideas of sense, which are received passively, and what he calls 'notions'. A notion is a construction of the mind, not (or not just) a reflection of the objects around us. Cudworth calls relative ideas "*mere Notions of the Mind or modes of conceiving*".³⁴ Since such ideas "are not stamped or imprinted on the mind from the Sensible Objects without", they "therefore must needs arise from the Innate Activity and Vigor of the Mind it self".³⁵

The two chapters that are explicitly devoted to mixed modes in the *Essay* – namely, II.xxii and III.v – both speak of ideas of mixed modes as notions, and both signal that they do so in deference to a common way of speaking.³⁶ Ideas of mixed modes consist "of several Combinations of simple *Ideas* of different kinds".³⁷ Whatever unity these ideas possess results from "an Act of the Mind combining those several simple *Ideas* together".³⁸ It is because of the presence in these ideas of the act of the mind "that these *Ideas* are called *Notions*: as if they had their Original, and constant Existence, more in the Thoughts of Men, than in the reality of things".³⁹ A plausible hypothesis, then, is that Locke is using the

32 As some of these features of mixed modes have been noted by others, particularly Michael Ayers, my discussion here will be brief. See esp. Ayers 1991, vol. 2, 93–109, for a taxonomy of mixed modes.

33 For Locke's reading of Cudworth, see esp. Hutton 2008, 144 f.

34 Cudworth 1731, xxv. (This work was published posthumously.)

35 Cudworth 1731, 148. Cudworth's view is in many ways similar to Locke's own. For Cudworth tells us that relations "exist nowhere but in Minds," while at the same time are not "figments of the mind", for then there would be no fact of the matter and "every Opinion or Cogitation would alike be true" (Cudworth 1731, 269).

36 See II.xxii.2, II.xxii.4, and III.v.12.

37 II.xxii.1, 288.

38 II.xxiii.4, 289.

39 II.xxii.2, 288.

term ‘notion’ in this context for the same reason Cudworth is: ‘notion’ emphasizes the activity of the mind. (George Berkeley will go on to make this point explicitly.)⁴⁰

Now, other ideas, of course, have to be created by the mind rather than passively received, and yet there is no suggestion that the objects of these ideas exist more in the mind than in the world. Most famously (and controversially), Locke thinks that we posit some ‘*Substratum*’ in which the simple qualities of bodies exist.⁴¹ In ideas of both substances and mixed modes one finds a unifying act of the mind.⁴² What, then, is the difference between these ideas?

Locke draws the distinction between the two explicitly, right at the start of II.xxii:

These mixed Modes being also such Combinations of simple *Ideas*, as are not looked upon to be the characteristic Marks of any real Beings that have a steady existence, but scattered and independent *Ideas*, put together by the Mind, are thereby distinguished from the complex *Ideas* of Substances.⁴³

Locke’s claim is that we do not think of mixed modes as things that have a ‘steady existence’. One reflection of this is that we do not suppose that there is a substratum, in whatever sense you like, that brings together the qualities collected in the idea of the mixed mode. Substances, by contrast, *are* thought by us to have a unity quite independent of our mental acts. One might object that the substratum Locke mentions in II.xxiii.1 is unobservable, and hence that we could never tell when we were dealing with a mixed mode or substance. This epistemic issue is,

40 As Berkeley puts it in the *Principles of Human Knowledge*, Part I, Section 142: “It is also to be remarked that, all relations including an act of the mind, we cannot so properly be said to have an idea, but rather a notion of the relations or habitudes between things” (Berkeley 1949–1958, vol. 2). For commentary, see Flage 1987. Bracken 1974 connects Berkeley’s doctrine of notions with Sergeant’s. That raises the possibility that Locke might be using the term in Sergeant’s sense. For Sergeant, a notion is an ordinary extra-mental object existing in the understanding (Sergeant 1697/1984, 38). But I take it that Locke’s vociferous attacks on Sergeant’s view in his marginal notes makes it unlikely that he is using ‘notion’ in anything like Sergeant’s sense.

41 See II.xxiii.1, 295. This passage is highly controversial. Commentators offer widely differing accounts of the substratum, which at a minimum is the mind-independent source of the unity of the qualities we experience. For some philosophers, such as Michael Ayers, a substance’s substratum just is its real essence (see Ayers 1991, vol. 2, 31f.). For criticism, see Lowe 1995, 76. For a different reading, see Martin 1980, discussed in Lowe 2000.

42 Locke is particularly insistent on the mind-independent reality of substance in his exchange with Stillingfleet; see “A Letter to the Right Reverend Edward, Lord Bishop of Worcester” in Locke 1823, vol. 4, 5.

43 II.xxii.1, 288.

however, orthogonal to our concerns. What counts is that we in fact *do* suppose that there is a mind-independent fact of the matter about which qualities are united in which bodies. We do not make this supposition about mixed modes. This is why the activity of the mind in forming these ideas, and not ideas of substances, earns them the title 'notions': *all there is* to their unity is what is provided by the mind.⁴⁴

Locke sometimes emphasizes the degree to which ideas of mixed modes are "made *very arbitrarily*, made without Patterns, or reference to any real existence".⁴⁵ He uses this point to draw a second contrast with ideas of substances. The mind, by its "free choice, gives a connexion to a certain number of *Ideas*, which in Nature have no more union with one another, than the others it leaves out".⁴⁶ At the same time, it is not as if Locke thinks we unify our distinct simple ideas at random. At times, experience prompts us to create the ideas we do. Someone might form the idea of a mixed mode like hypocrisy either by observing a set of qualities in a person or by having the term explained to him.⁴⁷ The point is that there is nothing in the nature of things that compels the mind to form precisely the ideas of mixed modes that it does.

This leads us to a further reason why mixed modes are unreal: they are the "Creatures of the Understanding, rather than the Works of Nature".⁴⁸ Just as much as the essences of kinds, they are the "Workmanship of the Understanding".⁴⁹ We can rightly be said to have 'notions' of mixed modes because the mind must invent, rather than discover, them.

We have, then, three tightly inter-woven reasons why mixed modes do not exist outside the mind: their unity is provided by the mind and is not mirrored in the world; the world imposes no constraints on their production; and they are the workmanship of the understanding. A final argument applies only to ideas of events, rather than mixed modes generally. An event like a triumph necessarily unfolds over time. Its parts then can "never exist altogether anywhere in the

⁴⁴ I am speaking here of the unity contained in the idea at a time when it occurs in a given mind. At III.v.10, 434, Locke tells us that the only thing that preserves the unity of the ideas collected in a mixed mode is the word chosen for it.

⁴⁵ III.v.3, 429. The following sentence reads thus: "Wherein they differ from those of Substances, which carry with them the Supposition of some real Being, from which they are taken, and to which they are conformable."

⁴⁶ III.v.6, 431.

⁴⁷ II.xxii.2, 289.

⁴⁸ III.v.12, 435.

⁴⁹ III.v.13, 436. On the claim that natural kinds are the workmanship of the understanding, and on the putative origin of this claim in the work of Robert Boyle, see esp. Jones 2005.

things themselves”.⁵⁰ By contrast, substances, for Locke, are supposed to endure over time. As Michael Ayers puts it, Locke seems to have thought it “peculiarly evident that processes are mind-dependent”.⁵¹ Other mixed modes, such as beauty, do not unfold over time. Hence their unreality must be argued for on the basis of the other considerations Locke adduces.

If I am right, Locke not only holds that mixed modes and relations are not “real Beings”,⁵² he offers arguments for his conclusions. In the case of relations, those arguments are thoroughly traditional and would have been well known to Locke’s readers. In the case of mixed modes, Locke’s treatment is in many ways parallel to his treatment of nominal essences, emphasizing the liberty of the mind in selecting which simple ideas to bring together under a single heading.

None of the results I have argued for so far amounts to an interpretation of Locke’s positive view. Nor do they block the counter-intuitive conclusions critics like Sergeant draw from it. We can now turn to these tasks.

3 Locke’s Positive View: Mixed Modes

A natural starting point is Locke’s own reply to Sergeant in his marginal notes on *Solid Philosophy*. Sergeant claims that Locke’s ideas of mixed modes are mere ‘Fancies’,

[f]or, he [Locke] expressly says, these Complex *Ideas* are *made by the Mind*, and *not taken from the Thing*, nor *like* it: And, whatever is neither the *Res*, nor so much as *like* it, can neither have *Reality*, nor *Shew* of reality; and, therefore, must be a *mere Fancy*.⁵³

In the margin, Locke adds a cross after ‘says’, and writes, “where does he say soe?” Had he been able to reply, Sergeant might have pointed at chapters xxx–xxxii of Book II. Locke clearly does say that these ideas are made by the mind (they are “voluntary Collections of simple *Ideas*”).⁵⁴ And he also insists that these ideas are not “taken from the Thing”, in the sense that they are not made with “reference to any real Archetypes, or standing Patterns”.⁵⁵

⁵⁰ II.xxii.8, 291.

⁵¹ Ayers 1991, vol. 2, 103.

⁵² III.v.3, 429, plural added.

⁵³ Sergeant 1984/1697, 343 f.

⁵⁴ II.xxxi.3, 376.

⁵⁵ II.xxxi.3, 376.

On what point, then, does Locke think Sergeant has misread him? Locke can legitimately reject only the last of the three claims Sergeant attributes to him, namely, that ideas of mixed modes do not resemble anything in the world.⁵⁶ Nothing Locke says entails that such ideas do not represent or resemble real things.⁵⁷

That resemblance or representation is at issue is suggested by another of Locke's marginal notes, on the very same page. Locke writes: "May not colours put together in figures as phansys the painter make a picture which shall have noe reference to any real being?" It is not clear just what Locke is reacting to here, but the painting analogy is useful. A painter might, from her own imagination, conjure an image of a physical object that does not then exist. And yet such an object might come to exist, and a resemblance relation obtain, even if the painting was not designed to resemble anything at all.

Similarly, the fact that an idea of a mixed mode is its own archetype does not prevent it from representing things in the world.⁵⁸ Indeed, what makes ideas of mixed modes 'real' in Locke's technical sense is the fact that there is "a possibility of existing conformable to them".⁵⁹ An idea of a mixed mode would be unreal if it were internally inconsistent; in such a state of affairs, nothing could exist 'conformable' to it. And when and if it obtains, this conformity just is resemblance or representation. The nub of Locke's reply to Sergeant, then, is that an idea can be created at will, without being intended to resemble anything in the mind-independent world, and end up representing something out there anyway.

56 In the *Essay*, Locke does say that ideas of mixed modes "have nothing to represent but themselves" (II.xxxi.3, 377). The context, however, makes clear that he is elaborating on the second point Sergeant lists, that is, the claim that ideas of mixed modes, unlike those of substances, need not be designed or created to represent anything outside of themselves.

57 The connection, if any, between representation and resemblance in Locke is a vexed matter I do not have space to investigate here. Locke's marginal notes here suggest that resemblance is at least one way in which representation can happen. I argue for this claim in detail in Ott 2012. For a different view, see esp. Bolton 2004 and 2008, who argues that causation, not resemblance, is the real source of representation for Locke. I should note that, although this is not my position, one might accept Bolton's claim with regard to simple ideas of sensation and yet reject it in the context of complex ideas.

58 Someone might object that, in making this claim, I lay myself open to the same objection I considered with regard to II.xxx.4, namely, that if there *were* mixed modes, Locke would have no guarantee that our ideas conformed to them (see note 16 above). But note that on the view I am defending, the fact that ideas of mixed modes sometimes 'conform' to the extra-mental world does not make the objects or qualities in the world the archetype of the idea. Again, the idea includes more than (representations of) those objects or qualities and therefore is its own archetype.

59 II.xxx.4, 373. 'Real' ideas are those "such as have a Foundation in Nature; such as have a Conformity with the real Being, and Existence of Things, or with their Archetypes" (II.xxx.1, 372).

And yet it remains the case that, even when something exists that conforms to the idea of the mixed mode, that mode lacks mind-independent existence. If so, we need to distinguish between a state of affairs in which something exists that is ‘conformable’ to a mixed mode and one in which the mixed mode exists outside of the mind.

To see this distinction at work in the *Essay*, consider a puzzle Perry raised in 1969. In Book III, Locke claims that, in some cases, mixed modes ‘really exist’. Locke is considering a case in which legislators invent the idea of a mixed mode (say, adultery) before any act corresponding to it is ever committed. “Whereby it is plain, how much *the sorts of mixed Modes are the Creatures of the Understanding*, where they have a being as subservient to all the ends of real Truth and Knowledge, as when they really exist”.⁶⁰ Locke asserts that mixed modes both do and do not ‘really exist’. Perry concludes that Locke has contradicted himself.⁶¹

It is far more likely, however, that Locke has in mind two senses of ‘really exist’. Locke tells us that mixed modes are “such Combinations of simple *Ideas*, as are not looked upon to be the characteristic Marks of any real Beings that have a steady existence, but scattered and independent *Ideas*, that put together by the Mind, are thereby distinguished from the complex *Ideas* of substances”.⁶² So the ideas (or the qualities they represent) that are getting mixed are scattered across multiple substances. What is getting united is real, in the strongest sense. What is missing is a principle of unity *in the thing*. In substances, this principle of unity is the substratum. There is nothing but the mind’s activity to unite the ideas that go into a mixed mode.⁶³

In constructing an idea of a mixed mode, the mind is not making “any new *Idea*, but putting together those which the Mind had before”.⁶⁴ The precise number and combination of ideas is arbitrary. It is in this sense that the mixed mode does not exist outside the mind. Locke is *not* claiming that nothing conforms to the ideas so united (although that can certainly happen).

Let me suggest an analogy. The Pleiades is a constellation of seven stars; in Japan, almost the same cluster of stars is known as Subaru, but it has only six members. Are the Japanese wrong, and the ancient Greeks right? Or the other way around? Obviously this is a silly question, since the notion of a constellation

60 III.v.5, 430.

61 Perry writes, “[t]here is simply a contradiction between Locke’s denial of the external reality of mixed modes and his admission that some mixed modes have real existence” (1969, 225).

62 II.xxii.1, 288.

63 Aronson/Lewis 1970, 195, also point to this feature.

64 III.v.4, 429.

is not intended to carve the night sky at its joints. It is just a handy way of talking about a set of things, and dividing that set off from others.⁶⁵ It is the carving, not the members of the set, that is not intended to correspond to anything in the world. So ideas of mixed modes can be said to 'really exist' (in the technical sense) when the qualities or substances they concern exist, even though such modes do not 'really exist' (in the ordinary sense).

Someone might object that there is indeed a kind of unity to some mixed modes. Consider events that require a single persisting subject to participate in them. The idea of a simple three-move dance might 'conform' to the world only when each move is performed by the same human being.⁶⁶ What, on Locke's view, makes something the same over time – the truthmaker for statements of the form 'a is the same at time t as at t' – is controversial. Yet however one settles that issue, the requirement that a single subject perform the dance is consistent with the denial of extra-mental unity. Suppose that Bob performs move a at t, b at t', and c at t''. Nothing requires or justifies our grouping moves a and b, or b and c, or, for that matter, a and c.

Matters are different when it comes to substances. First, we notice that a number of qualities go together; then we think of them as united in a substance. If we later discover that one of those qualities does not always accompany the others, we revise the idea. By contrast, if something has some but not all features of a murder, we decide it was not a murder after all. We do not declare our idea of murder defective.⁶⁷ It is this disanalogy that Locke is trying to capture. This difference does not bar the world from 'conforming to' our ideas of mixed modes. Someone might ask, if things exist that conform to our ideas of mixed modes, doesn't this entail that mixed modes exist after all? But note that, when it comes

⁶⁵ Cp. III.v.6, 431, where Locke writes, "the Mind, by its free choice, gives a connexion to a certain number of *Ideas*; which in Nature have no more union with one another, than others that it leaves out". Here we see Locke's tendency to write 'idea' when he means 'quality': the 'idea' in nature is, I take it, just the quality the idea represents, as stipulated by II.viii.8, 134.

⁶⁶ I am indebted to an anonymous referee for this point.

⁶⁷ I am indebted to LoLordo 2012, 78 f., for this way of drawing the contrast. In fact, Hume uses much the same method in the *Treatise* to distinguish between ideas of substances and (mixed) modes. If we were to discover that the qualities of things we call gold are also conjoined with a new quality, we can absorb the new quality into the idea of gold "as much as if it had from the beginning made a part of the compound one". By contrast, ideas of modes like beauty or a dance "cannot receive any new idea, without changing the name". In the case of beauty, "the uniting principle is not regarded as the foundation of the idea" (*A Treatise of Human Nature* 1.1.6.2f., in Hume 2000/1739–40, 16).

to the world outside the mind, nothing corresponds to the unity among the qualities or substances provided by the idea of the mixed mode.

While ideas of substances and ideas of mixed modes differ in this way, there is an important similarity between ideas of *kinds* of substances and ideas of mixed modes. As I noted above, Locke takes both mixed modes and nominal essences to be the workmanship of the understanding. Nothing in the mind-independent world compels one and only one grouping of objects into kinds. In a sense, there is no such thing as gold; there are just individual things exhibiting the properties we have chosen to include in the idea of gold.⁶⁸

To sum up: Locke's text forces us to distinguish two senses of 'really exist', on pain of ascribing a contradiction to him. My claim is that mixed modes do not really exist, if that means that the unity found in our idea of them answers to a mind-independent unity in the world. That is so regardless of how and why the idea is formed. At the same time, mixed modes can be said to exist, if that means that the individual substances and/or qualities represented by the constituent ideas of the mixed mode themselves exist.

4 Locke's Positive View: Relations

The distinction between an idea's 'conforming to' the world and its content existing independently of the mind is, I have argued, forced on us by Locke's discussion of mixed modes. It also provides us with an important clue in understanding Locke's theory of relations.

On my reading, there are ideas of relations and mixed modes, but no relations and mixed modes. Like ideas of mixed modes, ideas of relations do not capture or reflect anything mind-independently real beyond the features of the things thought about. In the case of relations, those features – here, intrinsic, non-relational properties – serve as the 'ground' or 'occasion' of the mind's comparison. Such a view has much in common with those of scholastic figures such as Ockham⁶⁹ and Peter Auriol.⁷⁰ We might call Locke's view 'foundational con-

⁶⁸ I owe this point to an anonymous referee.

⁶⁹ Summing up Ockham's view, McCord Adams writes: "[S]tatements of the form '*aRb*' assert no more than that *a* and *b* exist in a certain way, without implying the existence of a relation in any way distinct from the *relata*" (1987, vol. 1, 252).

⁷⁰ I am not the first to make the connection between Auriol and Locke: see Mark Henninger (1989, 168). A similar view, also from the thirteenth century, is offered by Peter John Olivi, as Pasnau 2011 reports. Olivi writes that "[i]t does not seem that a relation adds anything real to

ceptualism', to register the fact that relations and mixed modes are concepts that nevertheless can have a foundation in reality. On its face, the view sounds very odd. In this section and the next, I argue that it is far more plausible than it might at first appear.

To see the appeal of foundational conceptualism, consider internal relations (that is, relations that obtain solely in virtue of the intrinsic properties of the relata). Philosophers from Suárez to Armstrong argue that we do not need to postulate an extra something, over and above the intrinsic features of the relata, to justify the claim that such a relation obtains among them.⁷¹ In generating our mythical catalogue-of-all-that-exists, we would not need to mention 'has more mass than', in addition to listing the masses of all the things in the universe. If we did, our catalogue would be hopelessly bloated.

While interpreting Suárez's own final position on relations is difficult, some aspects of the relevant *Metaphysical Disputation* are quite clear.⁷² Suárez explains the attraction of foundational conceptualism by considering a paradigmatic example of an internal relation, namely, similarity. "A relation", Suárez writes, "as a relation is nothing apart from what is absolute".⁷³ Hence, "if we posit, for example, two real white things, they, by virtue of the absolute qualities that they have, are similar between themselves".⁷⁴ When someone (truly) asserts that two things are alike in respect of color, what makes that true is simply the intrinsic properties of the relata.⁷⁵ Nevertheless, the relation includes more than just the ideas of the two white objects: it includes a comparison in respect of color.

It is important to be clear on the difference between an act of comparing and the ideas of the things compared. At times, Locke seemingly identifies an idea of a relation with a comparing: "*Relation* is a way of comparing, or considering two

that on which it is founded, but only makes for (*dicit*) another real aspect belonging to the same thing" (trans. and quoted in Pasnau 2011, 236).

71 See Armstrong 1980, 86 f. The same point is made by Peter Auriol in the thirteenth century, as reported in Henninger 1987 and Pasnau 2011, respectively.

72 For a nuanced reading of Suárez on relations, see esp. Secada 2012. One source of difficulty is the challenge the reader faces in sorting out precisely which aspects of the other views Suárez considers are ones he himself endorses.

73 Again, at this stage in the *Disputation*, Suárez is exhibiting a view for inspection, not necessarily endorsing it. Later in the *Disputation*, however, he does appear to do so; see esp. section 2 of *Disputation* 47, paragraph 22 (in Suárez 2006/1597, 74; see also Doyle's introduction, 26).

74 *Disputation* 47, section 1, paragraph 3 (in Suárez 2006/1597, 41).

75 Strictly speaking, no such claim will hold on many, perhaps including Locke's, ontologies of color. But nothing turns on the details of this example. The reader is invited to substitute a more respectable property such as shape to see the point.

things together”.⁷⁶ Taken this way, the idea is a comparing, rather than having a comparing as a constituent. But at other times, when Locke acknowledges that there have to be ideas that are compared, he seems to take the comparing just to be one part of the (complex) idea of the relation: “There must always be in relation two *Ideas*, or Things, either in themselves really separate, or considered as distinct, and then a ground or occasion for their comparison”.⁷⁷ The entire idea of a relation presupposes two things or at least ideas of two things, plus an act of comparing.

Here we see, in the realm of relations, the crucial distinction we drew with regard to mixed modes. Above, we had to distinguish between two senses in which mixed modes might ‘really exist’: an objectionable sense in which, independently of any activity of the mind, spatially or temporally scattered qualities are united, and an unobjectionable sense in which the world contains the substances and qualities included in the mixed mode. Relations are like mixed modes in that they can unite qualities that belong to distinct substances. In this sense, nothing like them exists outside of the mind. But once one has a relation or mode in mind, whether anything conforming to it is to be found in the world will be a perfectly objective matter. Hence the dire consequences envisioned by Locke’s detractors and defenders alike are blocked. We can say, with justification, that there are causes, murders, and beauty after all; it is just that only the ingredients, as it were, of the complex ideas of these things are mind-independently real. The unity of the mixed mode, and the connection between one *relatum* and another, are equally mind-dependent. Put differently, relations and mixed modes exhibit the same duality: there are mind-independent truthmakers for propositions involving them, and yet these truthmakers include something less than is present in the ideas. The something less is the act of comparing (relations) or unifying (mixed modes).

5 Objections and Replies

Even if one is persuaded by the historical and textual evidence I have brought out, one might still wonder just what turns on attributing foundational conceptualism to Locke. Matthew Stuart, for example, remarks that it is hard to see how foundational conceptualism amounts to anything but “a notational variant of the

⁷⁶ II.xxv.7, 322.

⁷⁷ II.xxv.6, 321.

view that Locke does away with relations".⁷⁸ But there is an important difference between Locke's foundational conceptualism and outright elimination.

We can make this difference evident by distinguishing two questions, which lead to a third:

- (i) Are there any xs?
- (ii) In true statements that mention xs, what, if anything, is their truthmaker?
- (iii) If there is such a truthmaker, must it be the referent of 'x'?

Consider the average taxpayer. If we plug that in for x above, the clear answers are the following: no, the behavior of millions of individual persons, and no. Anti-realism about average taxpayers is neither troubling nor difficult to motivate. Similarly, on my view, Locke's answers, where relations are concerned, are the following: no, the intrinsic properties of things, and partly, since the idea of a relation always includes the ideas of the relata. By contrast, the sort of view Stuart rejects, where mixed modes are concerned, says no, nothing, and no. Now that really would be a repugnant conclusion: it would mean that there is no truth value to statements about mixed modes, since there is nothing that could make those statements true or false.

If I am right, Locke aims for a view that provides truth conditions for propositions involving ideas of relations and mixed modes, conditions that do not require new elements in the extra-mental world beyond substances and their monadic properties. And here we can see why foundational conceptualism is not elimination. It enables us to say that claims involving relations can be true, and that they can have mind-independent truthmakers. Stuart's Locke, who tosses out relations altogether, is not entitled to this claim, unless, of course, he simply co-opts it, at which point the disagreement becomes merely verbal.

Stuart presses a second objection, this time from common sense. If relations are comparisons, they become mind-dependent in a distressing way. If there is no one there making the comparison, then it is no longer true that London is north of Lisbon, or that Stuart is taller than his mother.

However odd it sounds to us, this is one conclusion Locke embraces. And it is not peculiar to claims about relations or mixed modes; it applies to all claims about anything. *All* truths are like this: without a thinker to think or say that p, it is not true that p. Here is Locke's official definition of truth:

⁷⁸ Stuart 2013, 30.

*Truth then seems to me, in the proper import of the Word, to signify nothing but the joining or separating of Signs, as the Things signified by them, do agree or disagree with one another.*⁷⁹

Even if relations and mixed modes were as real as cats and dogs, truths about them would hold only when someone is thinking of them. None of this entails that Locke endorses a kind of Berkeleyan idealism, even where relations or mixed modes are concerned. For, again, the truthmakers for claims about such things *are* mind-independent. As Locke says to Sergeant, “Things are truly what they are whether we have any Idea of them or noe. But they cannot belong to any ones specific name, unlesse they agree to his specific Idea”.⁸⁰

Although Locke does not seem much concerned to square his view with common sense (or at least twenty-first century common sense), he does say something useful in connection with habitual (i. e. non-occurrent) knowledge. How can the mathematician be sure that some general proposition will hold true, when he is not currently remembering the demonstration of it? Locke thinks the mathematician has to appeal to a hidden premise, namely, that where things related are the same, they will continue to be a foundation for the same relations in the future. As Locke puts it, “If then the Perception that the same *Ideas* will eternally have the same Habitudes and Relations be not a sufficient ground of Knowledge, there could be no knowledge of general Propositions in Mathematicks, for no mathematical Demonstration would be any other than particular”.⁸¹ Similarly, Locke might claim that, so long as the objects and qualities remain, they will be appropriately thought of by means of the same ideas.

6 Conclusion

What has made for all the trouble about Locke’s treatment of relations and mixed modes is, I think, an understandable failure to draw the distinction latent in his discussion. In these cases, Locke implicitly distinguishes between the content of an idea on one hand and what makes a proposition involving it true on the other. Locke tells us that an idea of a mixed mode can ‘conform’ to the world outside the mind. For example, the idea of a constellation that ‘unifies’ (in Locke’s sense) seven stars conforms to the world just in case those seven stars exist. I have

⁷⁹ IV.v.2, 575.

⁸⁰ In Sergeant 1984/1697, 343.

⁸¹ IV.i.9, 592.

gone slightly beyond Locke's terminology to capture this point by distinguishing between the content of the idea (which includes a kind of unity) and the truth-maker of the (true) propositions that involve that idea. When someone says: "The Pleiades includes as many stars as Orion", she is saying something true. What makes it true, on the side of the world, is not the existence of these constellations as unities, but only the stars themselves. We found ourselves compelled to draw this distinction to understand how Locke can both assert and deny (as he does) that mixed modes 'really exist'. The same distinction helps take the sting out of Locke's position on relations.

The unifying or comparing that ties the constituent simple ideas into complex ideas of mixed modes and relations, respectively, corresponds to nothing in the world outside the mind. Disparate qualities are not really united, any more than the stars divide themselves into constellations for our benefit. Yet their objects do or can exist, insofar as the qualities and substances represented by them exist. These distinctions are already, I have argued, implicit in the work of Locke's forebears. In this respect, as well as others, Locke's position on these issues is a fairly traditional one.

At the same time, Locke's position is radical. The world as it is in itself, apart from human acts of comparison and collection, is made up of nothing but individual substances and their monadic, non-relational properties. The chief problem for Locke's view concerns external relations, that is, relations that obtain, if at all, in virtue of something else besides the intrinsic properties of the relata. Spatial location is a paradigm case of such a relation. Here it seems Locke's fund of truth-makers runs short, for nothing about an individual substance and the space it occupies will make it the case that it is where it is, or that it is to the left of something else.

If Locke were able to account for spatial and temporal relations, I suspect all other *prima facie* external relations would fall into place.⁸² Locke's accounts of space and time are notoriously slippery.⁸³ In what follows, I focus solely on the prospects for an account of spatial relations. By the time he writes the *Essay*, Locke has abandoned his earlier relational theories of space for a Newtonian container theory. In a proto-Kantian vein, he argues that

82 The exception might be causation. Even there, I believe Locke's rejection of Cartesian laws of nature in favor of a suitably sanitized ontology of powers can be marshaled to his defense. Making this case is a further project.

83 For a good recent discussion of Locke's views, especially in relation to Newton's, see Gorham/Slowik 2014.

'Tis true, we can easily in our Thoughts come to the end of solid Extension; the extremity and bounds of all Body, we have no difficulty to arrive at: But when the Mind is there, it finds nothing to hinder its progress into this endless Expansion; of that it can neither find nor conceive any end.⁸⁴

Space itself, then, cannot be a matter of the relations among objects, since empty space ('Expansion') is possible. To all appearances, the *Essay* is entirely in the grip of this container model of space and bodies. Bodies move about within space in the way that game pieces move about a chess board. If this is Locke's view, then I cannot see how he can account for spatial relations. Nothing intrinsic to a body or the space it occupies can serve as a truthmaker for the claim 'body *a* is in space *s*.'

That suggests that the problem might lie with Locke's views on space, rather than with his theory of relations.⁸⁵ It is intriguing that Locke briefly flirts with a theory of space and of objects that would, I think, provide him with truthmakers for claims about spatial relations.

The proposal comes in the course of a discussion of God's creation of matter. How can God create material substances *ex nihilo*? Locke merely hints at a possible solution, which would require us "to emancipate our selves from vulgar Notions".⁸⁶ Pierre Coste was able to learn the truth from Newton, who explained that he had suggested to Locke a way to understand the creation of matter.

One could (he said) in some fashion form an idea of the creation of matter by supposing that God could through his power prevent everything from entering a certain portion of pure space, space being by its nature penetrable, eternal, necessary, infinite; for thereafter that portion of space would possess impenetrability, which is one of the essential qualities of matter. And as pure space is absolutely uniform, we have only to suppose God to have communicated this kind of impenetrability to another similar portion of space, and that would give us some sort of idea of the mobility of matter, another quality which is also utterly essential to it.⁸⁷

To the question of how God creates material *substance*, our proposal answers that he doesn't. Instead, God changes the qualities of space itself. For an object to move is simply for space to take on new properties in place of old ones. An object then is not a material substance but a property or affection of space. The truth-

⁸⁴ II.xv.2, 197.

⁸⁵ I owe this point to an anonymous referee.

⁸⁶ IV.x.18, 628. In the *Nouveaux Essais*, Leibniz c.1705/1996, 442, takes a guess at Locke's meaning and gets it right.

⁸⁷ In Locke 1729, 523. Trans. Bennett/Remnant 1978, 4.

makers for claims about bodies are, in the end, space and its properties.⁸⁸ John Heil, who defends a thoroughly Lockean view of relations, appeals to just this kind of 'thickening' account of bodies.⁸⁹

I should point out that nowhere in the *Essay* does Locke endorse this suggestion, nor, of course, does he so much as bother to tell the reader what it is. And it would do violence not just to 'vulgar Notions' but to the rest of Locke's own ontology of body. For these reasons, the 'thickening' account must be taken as a tantalizing proposal Locke entertains, rather than Locke's own secret doctrine.

Whether or not Locke's stand on relations and mixed modes is in the end tenable, it is worth noting just how odd the universe looks from the other point of view. If the truthmakers of claims involving relations must include relations, then there is a novel element in the universe corresponding to *every* relation that in fact obtains. That should give pause even to philosophers who don't aspire to the sparsest possible ontologies. In my view, Locke's ontology is radical now only because most of us, for whatever reason, have lost our ability to see the oddity of relational realism.^{90,91}

88 As Bennett/Remnant 1978 argue, the proposal as it stands is viciously circular. Regions of space are said to become impenetrable; but impenetrable to what? If 'to other bodies', then the account has not explained bodies. As Lisa Downing suggests, the most charitable way to read Newton's proposal is as a condensed version of the view he suggested in *De Gravitatione*. On that view, bodies have other qualities, such as the ability to cause sensations in observers, beyond their impenetrability. See Downing 2014.

89 See Heil 2012, 147. I regret that I didn't discover Heil's book until after I had written the draft of the present paper.

90 One part of the problem, I suspect, is just that the metaphysics of relations generally has been neglected in the last 80 years or so. Heil 2012, chapter 7, makes some intriguing suggestions on this score. At least part of the story, I think, is the way the debate over universals played out: monadic properties took center stage, and philosophers gradually began to assume that whatever story you told about one-place universals could be unproblematically transferred to many-place universals. Finally, there might be a sociological reason. In the early twentieth century, relations were discussed chiefly in terms of the debate over British idealism. As that view fell out of favor, so too did explicit discussions of relations in their own right. There are notable exceptions to both of these trends, of course, especially Armstrong, Martin, and Heil himself.

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- Aristotle. 1984. *The Complete Works of Aristotle*. 2 vols. Ed. J. Barnes. Princeton, NJ.
- Armstrong, D. M. 1980. *A Theory of Universals. Volume 2: Universals and Scientific Realism*. Cambridge.
- . 1993. “Reply to Martin”. In *Ontology, Causality, and Mind*. Ed. J. Bacon/K. Campbell/L. Reinhardt. Cambridge.
- Aronson, C./Lewis, D. 1970. “Locke on Mixed Modes, Knowledge, and Substances”. *Journal of the History of Philosophy* 8(2), 193–199.
- Ayers, M. 1991. *Locke*. 2 vols; repr. in 1. London.
- Bennett, J. 1971. *Locke, Berkeley, Hume: Central Themes*. Oxford.
- . 2005. “God and Matter in Locke: an Exposition of *Essay IV.10*”. In *Early Modern Philosophy: Mind, Matter, and Metaphysics*. Eds. E. O’Neill/C. Mercer. Oxford.
- . /Remnant, P. 1978. “How Matter Might at First Be Made”. *Canadian Journal of Philosophy, Supplementary Volume* 4(1), 1–11.
- Berkeley, G. 1949–58. *The Works of George Berkeley*. Ed. A. A. Luce/T. E. Jessop. 8 vols. London.
- Bolton, M. 2004. “Locke on the Semantic and Epistemic Roles of Simple Ideas of Sensation”. *Pacific Philosophical Quarterly* 85(3:), 301–21.
- . 2008. “Berkeley and Mental Representation: Why not a Lockean Theory of Ideas?”. In *New Interpretations of Berkeley’s Thought*. Ed. S. H. Daniel. Amherst, NY.
- Boyle, R. 1991/1666. “The Origin of Forms and Qualities according to the Corpuscular Philosophy”. In *Selected Philosophical Papers of Robert Boyle*. Ed. M. A. Stewart. Indianapolis.
- Bracken, H. 1974. *Berkeley*. London.
- Carson, E. 2005. “Locke on Simple and Mixed Modes”. *Locke Studies* 5, 19–38.
- Cudworth, R. 1731. *A Treatise concerning Eternal and Immutable Morality*. London.
- Downing, L. 2014. “Locke’s Metaphysics and Newtonian Metaphysics”. In *Newton and Empiricism*. Ed. Z. Biener/E. Schliesser. Oxford.
- Flage, D. E. 1987. *Berkeley’s Doctrine of Notions*. London.
- Gorham, G./Slowik, E. 2014. “Locke and Newton on Space and Time and their Sensible Measures”. In *Newton and Empiricism*. Ed. Z. Biener/E. Schliesser. Oxford.
- Heil, J. 2012. *The Universe as We Find It*. Oxford.
- Henninger, M. 1989. *Relations: Medieval Theories 1250–1325*. Oxford.
- Hill, B. 2004. “Locke’s Modes”. *Southwest Philosophy Review* 20(1), 172–183.
- Hume, David. 2000. *A Treatise of Human Nature*. Eds. D. F. Norton/M. Norton. Oxford.
- Hutton, S. 2008. “Some Thoughts Concerning Ralph Cudworth”. In *Studies on Locke: Sources, Contemporaries, and Legacy: In Honour of G. A. J. Rogers*. Ed. S. Hutton/P. Schuurman. Dordrecht.
- Jolley, N. 1999. *Locke: His Philosophical Thought*. Oxford.
- Jones, J.-E. 2005. “Boyle, Classification, and the Workmanship of the Understanding Thesis”. *Journal of the History of Philosophy* 43(2), 171–183.
- Langton, R. 2000. “Locke’s Relations and God’s Good Pleasure”. *Proceedings of the Aristotelian Society* 100, 75–91.
- Leibniz, G. W. c. 1705/1996. *New Essays on Human Understanding*. Cambridge.
- Locke, J. 1975/1689. *An Essay Concerning Human Understanding*. Ed. P. H. Nidditch. Oxford.
- . 1700. *Essai philosophique concernant l’entendement humain*. Trans. P. Coste. Amsterdam.
- . 1823. *The Works of John Locke*. 10 vols. London.
- LoLordo, A. 2012. *Locke’s Moral Man*. Oxford.

- Lowe, E. J. 1995. *Locke on Human Understanding*. London.
- . 2000. "Locke, Martin, and Substance". *The Philosophy Quarterly* 50(201), 499–514.
- Mackie, J. L. 1976. *Problems from Locke*. Oxford.
- Martin, C. B. 1980. "Substance Substantiated". *Australasian Journal of Philosophy* 58(1), 3–10.
- McCord Adams, M. 1987. *William Ockham*. 2 vols. Notre Dame.
- Ockham, W. of. 1974/1323. *Ockham's Theory of Terms: Part I of the Summa Logicae*. Trans. M. Loux. Notre Dame.
- Odegard, D. 1969. "Locke and the Unreality of Relations". *Theoria* 35(2), 147–152.
- Ott, W. 2009. *Causation and Laws of Nature in Early Modern Philosophy*. Oxford.
- . 2012. "What is Locke's Theory of Representation?" *British Journal for the History of Philosophy* 20(6), 1077–1095.
- Pasnau, R. 2011. *Metaphysical Themes 1274–1671*. Oxford.
- Perry, D. L. 1967. "Locke on Mixed Modes, Relations and Knowledge". *Journal of the History of Philosophy* 5(3), 219–235.
- Secada, J. 2012. "Suárez on the Ontology of Relations". In *Interpreting Suárez: Critical Essays*. Ed. D. Schwartz. Cambridge.
- Sergeant, J. 1984/1697. *Solid Philosophy Asserted against the Fancies of the Ideists*. New York.
- Stuart, M. 2003. "Locke's Colors". *Philosophical Review* 112(1), 57–96.
- . 2013. *Locke's Metaphysics*. Oxford.
- Suárez, F. 2006/1597. *On Real Relation* (Disputatio Metaphysica XLVII). Trans. John P. Doyle. Milwaukee.
- Woolhouse, R. S. 1983. *Locke*. Minneapolis.