Leibniz's on Hobbes's Materialism

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It is well known that Leibniz was, early in his philosophical career, interested in Hobbes's work. Was everal texts from the period 1669-1674 attest to Leibniz's interest in and engagement with Hobbes's views. Much less attention has been paid, however, to Leibniz's later thoughts about Hobbes's work. Although Leibniz did not continue to focus on Hobbes's work in the same way, he retained an interest in it. That interest, though certainly critical, was respectful and not wholly negative. Indeed, as late as 1712 Leibniz was willing to say that "there is something really good in all of Hobbes's works, except perhaps the geometrical ones". In this paper I consider Leibniz's later engagement with Hobbes's materialism. This is notable in the *New Essays*, and in related texts in which Leibniz engaged with the work of Locke, Masham, and Cudworth. Leibniz offers an interpretation of Hobbes – including an answer to the puzzling question of Hobbes's reasons for materialism – and a series of criticisms. These come from the perspective of someone who took Hobbes's work seriously, and had studied it closely.

1. Leibniz's reading of Hobbes in "On Nature Itself"

In the period 1698-1705 Leibniz several times considered "the wicked doctrine of those who, following Epicurus and Hobbes, believe that the soul is material" (GP 4.559, WFNS 112). "Hobbes" said Leibniz "reduces everything to body, and explains feeling by reaction, like that of an inflated balloon" (GP 3.68, WFNS 128-9). In considering Hobbes's materialism,

Leibniz faced a puzzle that many readers have faced. It is clear that Hobbes was some sort of materialist, but it is much less clear why he held that view. Facing that puzzle, Leibniz tried to construct an argument from other Hobbesian claims to Hobbes's materialism.

Leibniz suggests that one can construct a Hobbesian argument for materialism that uses as premises (1) Hobbes's views about ideas and cognitive faculties and (2) a principle about denying the existence of inconceivable things. (1) will support the claim that immaterial things are inconceivable, and (2) will then license the conclusion that they do not exist. The story goes like this. Hobbes thinks that all ideas are images. However exactly those images represent things (perhaps by resemblance) there are certain things they cannot represent. In particular, they cannot represent anything that is immaterial and unextended. So alleged immaterial things are unimaginable and (because there is in Hobbes's philosophy of mind no other faculty with which to conceive of things) inconceivable. The most mysterious move in the story is, perhaps, the next one: the move from inconceivability to non-existence. That is supposed, in Leibniz's story about Hobbes, to be licensed by some principle that tells us to deny the existence of inconceivable things.

We can see Leibniz suggesting that reading of Hobbes in the seventh section of "On Nature Itself". In that work Leibniz considers the views of Johann Christoph Sturm. Leibniz says in section 6 that if "the law God decreed has in fact left some trace of itself impressed upon things ... then it must be admitted that things have been given a certain ability, a form or force (such as we usually call a 'nature')" (GP 4.508, WFNS 213). Section 7 continues the discussion of Sturm, and in particular with a request he made for "an 'imaginable' explanation". However, in this discussion Leibniz briefly digresses and considers Hobbesian materialism.

This inherent force can certainly be distinctly understood, but it cannot be explained through the imagination; and it should not be explained in that way, any more than should the nature of the soul. For force is one of those things which are grasped, not by the imagination, but by the understanding. So when this learned gentleman (in ch.4, sect.6, of his 'Defence') asks for an 'imaginable' explanation of how an inherent law works in bodies which are ignorant of that law, I take him to be wanting it explained – for he certainly would not ask us to picture sounds, or to hear colours. And, moreover, if difficulty in explaining things were sufficient grounds for rejecting them, then he would be involved in something he complains is unfairly attributed to him (ch.1, sect.2), namely, preferring to hold that nothing is moved except by divine agency rather than accept something called a nature, the nature of which he does not know. Indeed this way of thinking can equally well support Hobbes and others, who make everything corporeal because they have convinced themselves that nothing except body can be explained distinctly through the imagination. But they are thoroughly refuted by the fact that there is a power of action in things, which is not derived from anything that can be imagined. And simply to trace this back to a command by God, issued once and for all at some point in the past, and not affecting things in any way or leaving behind any effect, is so far from making the matter more explicable that it is more like abandoning the role of the philosopher, and cutting the Gordian knot with a sword. A more distinct and more accurate explanation of active force than has so far been given may be drawn from my dynamics,

which gives an account of the laws of nature and of motion which is true and in accordance with the facts (GP 4.507-8, WF 213-4).

There is a lot going on there. Some key claims are: (i) that some things (for example force and the soul) can explained or grasped by using the understanding, but not by using the imagination; (ii) that Sturm could appeal to a principle that allows us to reject the existence of things because they are difficult to explain, a principle that could also be used to support Hobbes's materialism; (iii) Hobbes is wrong; (iv) Sturm is wrong too; and (v) the reason why Leibniz is right and Hobbes and Sturm are wrong has to do with active force. Here I want to focus on an argument that Leibniz suggests Hobbes could give for materialism.

- 1. "[N]othing except body can be explained distinctly through the imagination".
- 2. There is no other way to explain things than through the imagination.
- 3. "[D]ifficulty in explaining things [is] sufficient grounds for rejecting them".
- So 4. There is nothing except body.

Getting to that from the quoted text does require the addition of premise 2. But premise 2 is an uncontroversially Hobbesian one, and required to make the argument work, so the addition is relatively unproblematic.⁵

Premise 3 as it stands appears unsustainable, or at least in need of clarification. I cannot explain tides, but this ignorance gives me no reason to doubt that there are such things. However, maybe 'difficulty' means something stronger than that. Indeed, maybe here it really means 'impossibility'. After all, there is on Hobbes's view (as Leibniz understands it) a certain sort of impossibility of our explaining things of which we cannot form mental images: impossibility, given the limitations of our cognitive faculties. Understood in this

way, premise 3 becomes a principle telling us to reject the existence of any alleged entities that we could not possibly, given the nature of our minds, understand.

Note that Leibniz thinks that this argument is Hobbes's, not just one that someone with some views such as Hobbes's might give. At least, he thinks the move from the claim about what we can imagine to materialism is made by Hobbes, and that this principle, if it were any good, would support that move. He has gone beyond reading views off the surface of Hobbes's text, to trying to explain how Hobbes could have got from one to the other. But he is still in the business of interpreting Hobbes, not just coming up with 'Hobbesian' positions.⁶

Moreover, at least one passage in Hobbes's work suggests that the above argument is Hobbes's argument. That passage comes from Hobbes's Objections to Descartes's *Meditations*. There Hobbes says that

We cannot conceive of jumping without a jumper, or of knowing without a knower, or of thinking without a thinker.

It seems to follow from this that a thinking thing is something corporeal. For it seems that the subject of any act can be understood only in terms of something corporeal or in terms of matter (AT 7.173, CSM 2.122).

Whatever actually is going on in that passage, it would not be bizarre to take it as an argument from a claim about the limits of our ability to conceive of and explain things to a materialist conclusion. And if you took it that way, it then would not be bizarre to suppose that Hobbes has something such as premise 3 in mind to justify the move. So there is in this passage some evidence for taking the argument Leibniz sketches to be Hobbes's argument, not just an argument that contains some Hobbesian claims.

That, then, is Leibniz's suggestion as to why Hobbes was a materialist. But Leibniz does not just have a story about what Hobbes is doing, he also has a story, indeed a series of stories, about why those views and arguments are wrong.

Leibniz thinks there is more in the world (the physical, natural world) than Hobbes does. In "On Nature Itself", Leibniz objects to Hobbes's materialism. The objection centres on the notion of active force. We learn that the Hobbesians "are thoroughly refuted by the fact that there is a power of action in things, which is not derived from anything that can be imagined" (WF 214). And section 3 of the work, although not explicitly directed at Hobbes, fills out the thought.

I have already more than once expressed the view (which I think should be useful in preventing mechanical explanations of material things from being carried too far, and to the detriment of piety – as if matter could stand by itself and mechanism needed no intelligence or spiritual substance) that mechanism itself has its authority not merely in a material principle or in mathematical reasons, but in some higher and, so to speak, metaphysical source (GP 4.505, WF 211).

Leibniz worries that some people might take mechanical explanation too far and try to give a purely material explanation of the natural world. But matter cannot "stand by itself" in this way. A proper explanation will have to acknowledge and involve something that is "higher" and "metaphysical". In section 4 Leibniz connects this to his arguments against Cartesian conservation laws. Force, thinks Leibniz, has an important physical and metaphysical role, one that was ignored by earlier mechanists. Leibniz's most prominent statements of this argument are directed at Cartesians, as in sections 17 and 18 of the

Discourse on Metaphysics. But Leibniz thinks that Hobbes's view has the same problem: both views push minimal mechanical explanation too far, omitting the role of force.⁸

2. Criticisms of the underlying theory of ideas

In "On Nature Itself", Leibniz both criticized Hobbes's materialism itself and offered an interpretation of why Hobbes was a materialist. In later work he returned to the issues raised by his reading of Hobbes, and criticized the argument for materialism. Perhaps not coincidentally, he returned to the Hobbesian argument when he engaged with the work of British philosophers who came after Hobbes. These philosophers, much as they disagreed with Hobbes, were well aware of his positions and took account of them.

Some of this criticism is given in the *New Essays*, in response to Locke's discussion of materialist and immaterialist views of the nature of the mind in *Essay* IV.iii.6. There Locke observes that, when people look at one view about the nature of the mind (the materialist or immaterialist one) they often find a "difficulty to conceive" it, and are thus pushed towards the other option. But one should not accept the other opinion too quickly, as it turns out to be just as obscure. Nevertheless, there is

An unfair way which some Men take with themselves: who, because of the unconceivableness of something they find in one, throw themselves violently into the contrary Hypothesis, though altogether as unintelligible to an unbiased Understanding (*Essay* IV.iii.6).

We ought, Locke thinks, to acknowledge that both options are puzzling to us. But there are those – who remain un-named, but should right now sound rather familiar – who "allow no existence to what is not material" because they do not understand the immaterial (*Essay*

IV.iii.6). Their mistake lies in not acknowledging that we do not understand the notion of a material mind either.⁹

Commenting on that discussion, Leibniz says that

The residual problem exists only for those who want to imagine something which can only be thought, like wanting to see sounds or hear colours. These are the people who "deny existence to whatever is not extended", which commits them to denying it to God himself, i.e. to relinquishing causes, and to relinquishing reasons for changes in general and for these changes in particular. That is because these reasons cannot come from extension and from purely passive natures, nor even in their entirety from particular lower active natures without the pure and universal activity of the supreme substance (NE 380-1).

Leibniz's targets here are Locke's targets: those who "deny existence to whatever is not extended". It is plausible that this passage is indeed directed at Hobbes, or at least at the sort of Hobbesians discussed in "On Nature Itself". They are materialists, and support their materialism with an imagistic theory of ideas, claiming that we can think about nothing of which we have no mental image. They find many things they cannot explain, because they demand that explanations involve only things that can be imagined. And they argue from this inconceivability and inexplicability to the non-existence of the inconceivable things.

One of Leibniz's criticisms is involved in his labeling of his opponents as those who "want to imagine something which can only be thought, like wanting to see sounds or hear colours". That is, their theory of cognition is too limited: there are things that can be thought that cannot be imagined (that is, cannot be thought about using a mental image). This

criticism echoes a comment Leibniz made in his criticisms of Sturm. Moreover, it is in effect an attack on premise 2 of the argument attributed to Hobbes. It may well be that some things cannot be explained, or even thought about at all, using the imagination. However, those things can, Leibniz thinks, be thought about and indeed explained using other cognitive faculties. So even if you can argue from inexplicability or inconceivability to nonexistence, you cannot do nearly as much of that as Hobbes's theory of ideas would lead you to suspect.

That criticism is repeated in Leibniz's correspondence with Masham. As Leibniz studied and wrote about Locke's *Essay*, he attempted to contact Locke, first via Thomas Burnett and then by corresponding with Damaris Masham. Masham was Cudworth's daughter, and indeed she sent Leibniz a copy of Cudworth's *True Intellectual System*. At the time Leibniz wrote to Masham, Locke was staying with Masham and her husband at their house in Essex. Though Leibniz seems to have been attempting to engage with Locke through Masham, little such indirect communication occurred. Instead they debated Leibniz's "New System" and some ideas of Cudworth's. Along the way, Masham defends an argument for materialism very much like one that Leibniz had earlier attributed to Hobbes. ¹⁰ This discussion begins in Masham's letter of 3 June 1704. Here Masham draws no negative conclusion from inconceivability, though later she will. For now she says only that

'Force', I presume, cannot be the essence of any substance, but is the attribute of what you call a 'form', 'soul', or 'atome de substance' [atom of substance], of the essence whereof I find no positive idea, and your negation of their having any dimensions makes their existence, I confess, inconceivable to me, as not being able to conceive an existence of that which is nowhere (Masham to Leibniz, 3 June 1704, WFNS 209, GP 3.350).

Masham later goes so far as to say that "my own belief that there is no substance whatever unextended is ... grounded upon this that I have no conception of such a thing" (Masham to Leibniz, 8 August 1704, WFNS 216-7, GP 3.359). She had earlier in the same letter conceded to Leibniz that "we ought not to reject truths because they are not imaginable by us (where there is ground to admit them)". However, she continued, "*truth* being but the attributing certain affections conceived to belong to the subject in question, I can by no means attribute anything to a subject whereof I have no conception at all, as I am conscious to myself I have not of unextended substance" (Masham to Leibniz, 8 August 1704, WFNS 216-7, GP 3.359).

In response to Masham's arguments from inconceivability Leibniz gives a series of examples against the underlying theory of ideas: the example of incommensurables (Leibniz to Masham, June 1704, WFNS 215, GP 3.356-7), which we can know about but cannot imagine; the claim that we can have a notion of an unextended substance though we cannot have an image of one (Leibniz to Masham, September 1704, WFNS 219, GP 3.362); and a story about how to construct that notion from others you already have, "some notion of substance and also of a non-extended thing (for example, a point)" (Leibniz to Masham (draft), September 1704, WFNS 219, GP3.362-3).

However, the Hobbesian has resources with which to reply to Leibniz's examples. Though certain facts about incommensurable lines cannot be discerned merely from looking at the lines, the lines themselves are perfectly well imaginable (Masham to Leibniz, 8 August 1704, WFNS 216-7, GP 3.359). There is no unimaginability here in the sense being discussed. Leibniz's other example, which involves the alleged possibility of constructing a mental item by which to think about unextended substance, may also not strike us as terribly

likely to persuade the holder of the imagistic theory. One might, in Hobbesian fashion, argue that one can think about a point using images by considering a thing that has dimensions (a small dot) as if it had no dimensions. And one might also worry about what notion if any we have of substance. Indeed, Hobbes himself denies we have an idea of substance in the Third Objections (CSM 2.130). In general it is open to the imagistic theorist, when faced with such alleged counterexamples to the imagistic theory, either to tell us how we can in fact think about the item concerned using images, or to push for the conclusion that we cannot really think about it, and are merely confused if we think we can. There may well be examples that cannot be handled in either way, but it is not clear that Leibniz has found them.

Before moving on to other criticisms that Leibniz has of Hobbes's materialism, one should note that Leibniz used something like this criticism against Cartesians too in this time period. That might seem surprising, since Descartes and his followers rejected Hobbes's imagistic theory of ideas. However, Leibniz suggested, they were influenced by the theory despite their rejection of it. So with this second criticism as with the one about active force, Leibniz thinks that the errors of Hobbes are closely related to those of the Cartesians. But with his third set of criticisms, which we'll see below, Leibniz picks out some places in which the Hobbesians go wrong in a manner all their own. Leibniz thinks that both Hobbes's materialism itself, and the distinctive argument that Leibniz believes he gives for it, push him towards atheism. It's not that Leibniz thinks that Hobbes is an atheist; he thinks with some justification that Hobbes believes in a corporeal God. Rather Leibniz thinks that Hobbes ought to be an atheist, given his commitments to other views.

3. Criticisms related to what one says about God

3.1 In the New Essays

Turning back to the passage from the *New Essays* discussed at the start of section 2, notice another objection, which is a sort of *reductio*: "These are the people who 'deny existence to whatever is not extended', which commits them to denying it to God himself'. If your argument runs from inconceivability to the nonexistence of immaterial things, then you have to commit also to the nonexistence of God. There are two ways this could be thought to go. Either, quite directly, you argue that we have no idea of God, and that we should deny the existence of inconceivable things. Or, somewhat less directly, you reason that there are no unextended things, see that God if he exists is unextended, and conclude that God does not exist

It might seem that Hobbes could escape at least the second, less direct version of this alleged *reductio* by saying that God is extended. And Hobbes does seem to hold that view in some of his later work, as when he says that God is "a most pure, simple, invisible spirit corporeal. By corporeal I mean a substance that has magnitude" (EW 3.313). Leibniz claims that is an unworkable conception of God. In a letter roughly contemporary to the *New Essays*, Leibniz, commenting on William Coward's *Grand Essay, or a vindication of reason and religion against impostures of philosophy*, says that "it seems that the author wishes [to say], as does Mr Hobbes, that God himself is material, even though it seems manifest that such a God is impossible" (Leibniz to Thomas Burnett, 2 August 1704, GP 3.298).

However exactly the *reductio* is to be run, Leibniz will take its conclusion to be bad, and enough to show that the underlying argument from inconceivability to the nonexistence of immaterial things should also be rejected. The conclusion will seem bad to him, not just because he thinks it is false and harmful to religion, but also because an atheistic system of

the world will give inadequate explanations. It will involve, he says "relinquishing reasons for changes", changes which could be explained by "the pure and universal activity of the supreme substance".

Note though that in many works, such as the Third Objections and the English *Leviathan*, Hobbes was quite happy to relinquish those explanations while not denying the existence of God. There he held that we know that God exists, but know of God only as the cause of the universe. Thus Hobbes says for example we can know of God as "a first and eternal cause of all things" (*Leviathan* 12.6), but that further apparent descriptions of God are really just acts of praise, for we have no idea of God that would allow us to make such descriptions. Given that Hobbesian story about God, we cannot give reasons (for anything beyond the mere existence of the universe) based on reasoning about God, because we know effectively nothing about God. Of course Leibniz will not be happy with the response, because he will think it is "relinquishing reasons". But Hobbes thinks there are no reasons we can give, given our lack of an idea of God. Thus we are pushed back to discussion of the previous objection, and thus to discussion of Hobbes's imagistic theory of ideas, which is what grounds his claim that we have no idea of God.

3.2 The great principle of physics

In an essay on plastic natures, Leibniz provides a further argument against Hobbesian materialism, distinct from those in "On Nature Itself", the *New Essays*, and Leibniz's correspondence with Masham.¹³ That argument is cryptically expressed in the following passage.

This system [i.e., Leibniz's system of pre-established harmony] also has the advantage of conserving, in its full rigor and generality, the great principle of physics that a body never receives a change in motion except through another body in motion which pushes it: corpus non moveri nisi impulsum a corpore contiguo et moto This law has until now been violated by all those who accept souls or other immaterial principles, including here even all of the Cartesians. The Democriteans, Hobbes, and certain other outright materialists who have rejected every immaterial substance have heretofore been alone in preserving this law and think they have found a ground for abusing other philosophers, whom they believe to hold an unreasonable opinion in this. But the ground of their triumph is only apparent and ad hominem; far from serving their own view, this law serves to embarrass them. Now that their error is discovered and their assumed advantage turned against them, it can be said, it seems, that for the first time the preferable philosophy is also shown to be the more consistent with reason and there is nothing left with which to oppose it. Though this general principle excludes particular prime movers, since it denies this quality to souls or created immaterial principles, it leaves us all the more certain about the universal prime mover from whom come alike both the sequence and the correspondence of perceptions (L 587-8, GP 6.541-2).

The principle that "a body never receives a change in motion except through another body in motion which pushes it" is key here. Anyone who thinks that immaterial things can cause changes in the motions of bodies has to deny that principle. Because of that, Hobbes and other materialists seem to be better off here. However, Leibniz argues, Hobbesians may

be better off than Cartesians here, but Hobbesians still have a problem: "this law serves to embarrass them". Leibniz appears to be thinking that the principle about changes in motion provides reason to think that Hobbes is wrong and Leibniz is right. But why is Leibniz thinking this? From the above passage, it is just not clear. He appears just to state the conclusion, as if the argument were obvious, and just move on. But the argument is not obvious from the text.¹⁴

However, there is further explanation in Leibniz's "Eclaircissement sur les natures plastiques", an early version of the "Considerations sur les principes de vie, et sur les natures plastiques". In this early version Leibniz explains his objection to Hobbes's view in a little more detail. The passage that more or less parallels the one quoted above is as follows.

It is therefore the system of pre-established harmony that truly has the advantage that M. Bayle demands, since it conserves mechanism everywhere in the operations of bodies and preserves equally well the ancient axiom that movement can only be naturally given to a body by a contiguous external material mover that moves it. All philosophers before me who were not complete materialists have abandoned this axiom in certain respects, because of their immaterial substances, which renders those substances suspect.

Moreover, that axiom, far from being favourable to the enemies of immaterial substances (who cherish it without seeing its consequences) obliges us to look to a universal substance beyond the nature of particular things to find the origin of movement: it leads us to the first mover and makes God alone the author of movement.¹⁵

Again we are told that materialists seem to have an advantage, with respect to a principle about changes in motion, over believers in immaterial substances. And again we are told that the principle is not really favourable to the materialists. But here we are also told why: the principle leads us to conclude that there is a first mover, distinct from particular things, which is the cause of all motion.

With this clearer explanation in front of us, we can look back and see the same argument in the background of the final version, though not spelled out. There Leibniz just says that (i) Hobbes is wrong because of the principle, *and* (ii) the principle shows us that God exists. Here, in the draft, Leibniz explains that he is thinking that (i) Hobbes is wrong because of the principle, *because* (ii) the principle shows us that God exists.

How does the principle give us an argument for the existence of God? Leibniz seems to have something like this in mind: "Nothing in the physical system can be the ultimate cause of motion, because physical things only pass on, rather than create, motion. So there must be something else outside the physical system ultimately that caused all the motion. It does not intervene in particular interactions, which would violate the principle. Rather, it creates the whole system with its motions". ¹⁶

In what way is that supposed to be objectionable to Hobbes? Leibniz is not generally one to suppose that Hobbes denies God's existence, so presumably Leibniz is not thinking that the argument shows Hobbes to be wrong just because it shows that God exists. True, Leibniz argues in the *New Essays* that Hobbes's argument should push its proponents to atheism, but Leibniz does not claim that Hobbes had actually drawn the conclusion, or even that Hobbes had seen that his commitments should push him in that direction.

Perhaps Leibniz's objection to Hobbes here arises instead from these two thoughts:

(iii) the principle about motion shows there is a God outside the material system (see the argument sketched above), and (iv) Hobbes believes in a God who is part of the material system. Here Leibniz's comment to Burnett about William Coward's *Grand Essay* is again relevant, for it shows that Leibniz at this stage takes Hobbes to believe God to be material. "it seems", says Leibniz, "that the author wishes [to say], as does Mr Hobbes, that God himself is material, even though it seems manifest that such a God is impossible" (GP 3.298).

Leibniz's objection, then, is plausibly that the principle about changes of motion shows that there is a first mover outside the material system, a God beyond the material God (somehow within the material system of the world) in whose existence Hobbes believed.

A Hobbesian has some resources for reply here though. Although Hobbes believed in a material God in the 1660s, in earlier works he had a different view on which God was not known to be either material or immaterial, just to be the cause of the world. That view of God is at least initially sustainable in the face of Leibniz's objection.

4. The "Hobbes-Leibniz scheme"

As shown above, Leibniz repeatedly objected to Hobbesian materialism and an argument for it in the early-1700s, around the time he was thinking about Locke's *Essay* and writing the *New Essays*. In this section I continue my discussion of Leibniz's attitude to materialism at that point by looking at Catherine Wilson's suggestion that there is a distinctive Hobbesian, materialist strain in the *New Essays*.¹⁷

Wilson begins by looking at Leibniz's reaction to Locke's theory of perception, in particular Locke's claim that perceptions are arbitrarily correlated with motions. Leibniz

responds that "there is a relation of similitude between motion and pain, or motion and colour. Pain is not similar to the motion of the pin going into our flesh, but it is similar to the minute motions aroused in our body by the pin going into our flesh". Leibniz disagrees with Locke about whether perceptions (of certain qualities) resemble anything in the causal processes that produce them. The key point for Wilson is that Leibniz here seems to advance a causal theory of mind-body interaction. There are minds, there are bodies, and they interact causally. That causal interaction is explained by minute perceptions. This appears to contradict two prominent Leibnizian views: monadic idealism and the denial of intersubstantial causation.

Wilson sees Leibniz's story about minute perceptions as a key part of the causal theory of perception that Leibniz gives in his response to Locke. Moreover, she sees this story as having a definite Hobbesian heritage, which she highlights with three pairs of passages. In each of the three following examples, she pairs a passage from Hobbes with one from Leibniz to show the similarities.

The first example concerns the sound of the roar of the sea. First Hobbes:

he, which standeth upon the sea-shore, cannot hear the collision of the two nearest waves, yet nevertheless he hears the roaring of the whole sea (EW 1.488)

Then Leibniz:

To give a clearer idea of these minute perceptions which we are unable to pick out from the crowd, I like to use the example of the roaring noise of the sea ...

To hear this noise as we do, we must hear the parts which make up this whole,

that is the noise of each wave, although each of these little noises makes itself known only when combined confusedly with all the others (NE 54).

The second example involves what Wilson calls the propagation of effects to infinity. Thus Hobbes:

the propagation of endeavor, from one part of full space to another, proceeds infinitely ... Nor makes it any matter, that endeavor, by proceeding grows weaker and weaker, til at last it can no longer be perceived by sense; for motion may be insensible, and I do not here examine things by sense and experience, but by reason (EW 216-7).

And Leibniz

A substance which is in action at some time will be so forever after, for all the impressions linger on, merely being mixed with new ones. When one strikes a body one causes or rather induces an infinity of swirls, as in a liquid – for fundamentally every solid is in some degree liquid, every liquid in some degree solid – and there is no way of ever entirely stopping this internal turbulence (NE 111).¹⁹

The third example involves a comparison between corpuscles, small parts of physical things, and the small parts of perceptions. Again, first Hobbes:

what is acute in sound, the same is subtle in matter; and both of them ... consist of very small parts, that of time, and this of matter itself (EW 1.488)

And Leibniz:

Insensible perceptions are as important to pneumatology as insensible corpuscles are to natural science (NE 56).

Even granted that there are the parallels that Wilson claims between Leibniz's passages and Hobbes's, it is not clear how much these parallels show. Is Leibniz using these examples to make Hobbesian points? That is, is it the case that the "New Essays effectively plays Hobbesian metaphysical psychology against Locke's psychological atomism"?²⁰

Note that Leibniz uses the example of the roar of the sea example elsewhere, in section 33 of the 1686 "Discourse on Metaphysics", where there is much less suggestion that his project is Hobbesian or materialist.

We can also see that the perceptions of our senses, even when clear, must necessarily contain some confused feeling. For since all bodies in the universe are in sympathy, ours receives the impressions of all the others, and although our senses bear relations to everything, it is not possible for our soul to attend to everything in all of its particulars. Thus our confused feelings are the result of a variety of perceptions which is indeed infinite – very like the confused murmur a person hears when approaching the sea-shore, which comes from the putting together of the reverberations of innumerable waves. For if several perceptions do not come together to make one, and there is no one which stands out above all others, and if they all make impressions which are more or less equally strong and equally capable of catching it attention, the soul can only perceive them confusedly (WF 85-6).

So it is not simply the case that Leibniz started using these examples in the *New Essays*, thus signaling a turn to a Hobbesian view he used against Locke.²¹ But without such a background story, it is not clear that the presence of the passage parallel to Hobbes's in the *New Essays* shows us very much, other than that there are passages parallel to Hobbes in the *New*

Essays. ²² Leibniz was, it seems, fond of the example of the roar of the sea, which perhaps he had taken from Hobbes. And no doubt he shared some other views with Hobbes. But nothing seen above really suggests that Leibniz was a Hobbesian materialist, or even making much substantive use of Hobbesian materialism, in the *New Essays*.

5. 'Every soul is always united with a body'

Leibniz takes a clear stand against materialism about the human mind. This is evident from his arguments against Hobbes's materialism, and also from his mill argument against a mechanical explanation of the mind. However, when he argues against materialism in such texts as his correspondence with Masham, and denies that human minds are identical to human bodies, Leibniz does allow that that there is a close relation between minds and bodies, arguing that every created mind is associated with a body. This is not terribly close to Hobbes's view, given Leibniz's understanding of what bodies are, but it is as close as he comes.

Thus Leibniz says to Masham that "I believe that all created substance is accompanied by extension, and I do not recognize any which is entirely separate from matter ... This is a way of avoiding a thousand difficulties" (Leibniz to Masham, September 1704, GP 3.362 WFNS 219). And he says in the Preface to the *New Essays* that

I agree with most of the ancients that every Spirit, every soul, every created simple substance is always united with a body and that no soul is ever entirely without one. I have *a priori* reasons for this doctrine, but it will be found to have the further merit of solving all the philosophical difficulties about the

state of souls, their perpetual preservation, their immortality, and their mode of operation (NE 58).

The core of this is the following thesis, which I will call (T):

(T) 'every soul is always united with a body'.

Leibniz has three arguments for (T). The first, sketched in the above passage, is that accepting (T) allows you to solve various philosophical difficulties. Leibniz gives two other arguments for (T) in his correspondence with Masham, which we might plausibly identify as the *a priori* arguments referred to above. The first of these, which I will call the uniformity argument, argues from our having bodies associated with our minds and a principle of the uniformity of nature to the conclusion (T), that all minds have associated bodies. I will call the second of these *a priori* arguments the incompleteness argument. Leibniz argues that a soul without a body would be incomplete in an important way, a way in which it could not be incomplete. So a soul must always be appropriately associated with a body.

Understanding (T) and Leibniz's argument for it will not only help us understand his discussion of materialism with Masham. It is also helpful for understanding Leibniz's more general views about substance, in particular corporeal substance. For example, committing to (T) seems to require committing to the view that the aggregates that are the bodies of corporeal substances are aggregates of corporeal substances, not of minds or monads, for otherwise there would be minds with no bodies.²³

Leibniz's first argument for (T), the one given in the Preface to the *New Essays*, is that it solves many "philosophical difficulties". He draws particular attention to problems about souls, their preservation, and immortality. Here Leibniz appears to be referring to

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something like an argument he gives in the "New System". After introducing some aspects of his view of souls, and rejecting the possibility of metempsychosis, Leibniz says that

there still remained the even bigger question as to what becomes of these souls or forms on the death of the animal or the destruction of the individual organized substance. This question is all the more difficult, because it seems hardly reasonable that souls should remain, useless, in a chaos of confused matter. This led me to decide in the end that there is only one view that can reasonably be taken, which is that not only is the soul conserved, but so also is the animal itself and its organic mechanism; although the destruction of its cruder parts has made it so small as to be as little perceptible to our senses as it was before its birth (NE 147).

Faced with the question of how indestructible substantial souls persist in the world after the death of the body, Leibniz comes to the conclusion that they must in fact still have bodies.

Thesis (T) is at the heart of the solution here. The rest, such as the story about the very small, less crude bodies that things have after death, is filling out the details.

Leibniz's second argument for (T) is based on a principle of the uniformity of nature. In fact Leibniz gives two arguments based on this principle of uniformity to Masham in a letter of May 1704. The first is an argument that there are everywhere in nature things that are somewhat like human minds.

- 1. "[T]here is in us a simple being endowed with action and perception".
- 2. "[N]ature would show little consistency if this particle of matter which makes up the human body were the only thing endowed with something which would make it infinitely different from everything else (even in the physical

world) and altogether heterogeneous as compared with all other known bodies".

So 3. "there are such active beings everywhere in matter, and that they differ only in the manner of their perception" (Leibniz to Masham, beginning of May 1704, GP 3.339, WFNS 204).

Note that this suggests that the 'souls', every one of which is associated with a body, are minds in general, not some special subset, say the minds which can apperceive. All minds are associated with bodies, no matter what the manner of their perception.

Leibniz then goes on to argue that each of those minds has a body associated with it. Thus he makes various statements that express (T): "these souls or entelechies all have with them some kind of organic body appropriate to their perceptions"; "there are no minds entirely separate from matter (except the first and sovereign being), and that spirits (*genies*), however marvelous they may be, are always accompanied by appropriate bodies" (Leibniz to Masham, beginning of May 1704, GP 3.340, WFNS 205).

The argument for (T) from uniformity mirrors the argument above, and relies on the claim that "things are everywhere and always just as they are in us now". ²⁴

- 1. Human minds are associated with bodies;
- 2. "things are everywhere and always just as they are in us now";
- So 3. There is a body associated with every mind in the world.

Though it is reasonably clear what Leibniz wants to achieve by using these uniformity arguments, it is not so clear that he can do so. For one thing, perhaps the principle of uniformity points to rather different conclusions than Leibniz wants. One might for instance, extending the first argument, take the principle of uniformity to show that there are

conscious, rational minds such as ours elsewhere, even everywhere, in the universe.²⁵ Moreover, Leibniz also wants to endorse a principle of variety, which may come into conflict with his principle of uniformity. We see the principle of variety in an argument against atoms that he gives to Masham:

if we suppose that there is nothing careless or crude in God's works, then atoms, for example, can have no place in them, for there is no variety or embellishment about them, a lack which is incompatible with the divine architecture (Leibniz to Masham, September 1704, GP 3. 362, WFNS 218-9).

The principle of variety that drives this argument might be used to block the uniformity arguments above. Might some minds having bodies and others not simply be a matter of the "variety and embellishment" of nature? Alternatively, might a claim that nature should show "consistency" not lead one to favour the view that the physical world is made of atoms?

It is clear enough that Leibniz wants to reconcile the principles of uniformity and variety, and that this reconciliation is a matter of having the right sort of variety, the right sort of uniformity. Sometimes the appropriate balance between simplicity and complexity is described as involving simple means to complex ends. ²⁶ For instance, an atomic system would seem to achieve complex ends by simple means, but that way of balancing of simplicity and complexity produces a result exactly opposite to the one that Leibniz wants to achieve. It is thus not so clear that Leibniz can defend the particular versions of the principles of uniformity and variety that he needs for his conclusions without presupposing that those are the right conclusions to reach.

Leibniz explained the third argument for (T) in a letter to Masham of 8 August 1704.

As for complete substance which have no extension, I believe with you, madam, that there are none among created things, for souls or forms without a body would be something incomplete, especially as in my view, the soul is never without an animal or something analogous (Leibniz to Masham, 8 August 1704, GP 3.357, WFNS 215).

Masham was puzzled by this argument and in a draft (though not the final version) of a letter sent in September 1704, Leibniz re-presented the argument.

The soul never lacks a body, for the same reason that there is neither void nor atoms. An atom would be an incomplete substantial thing, and so would souls without bodies, or a body without a soul; and extension without solidity would be the same. It would be like number without things numbered, or like duration without enduring things. These are all philosophers' incomplete notions (Leibniz to Masham (draft), September 1704, GP 3.363, WFNS 219-20).

The argument of those passages seems to have the following structure.

- 1. A mind without an appropriately associated body would be incomplete.
- 2. There cannot be such an incomplete thing.
- So 3. A mind always has an appropriately associated body.

An obvious and important question is what sort of incompleteness is at stake here.

There are at least two initially plausible readings here. One option is to connect this argument to Leibniz's arguments against abstractions and incomplete notions in the *New Essays*. The other is to take the incompleteness to be the incompleteness of a form without matter.

Martha Bolton discusses Leibniz's rejection of certain entities such as atoms "because they are abstract". ²⁷ That thought might seem to be what's behind Leibniz's third argument here. Leibniz says that "The soul never lacks a body, for the same reason that there is neither void nor atoms". And in the *New Essays*, where Leibniz criticizes a similar list of things, he gives the argument that Bolton discusses, which she calls the "nominalist argument".

This *tabula rasa* of which one hears so much is a fiction, in my view, which nature does not allow and which arises solely from the incomplete notions of philosophers – such as vacuum, atoms, the state of rest (whether absolute, or of two parts of a whole relative to one another), or such as that prime matter which is conceived without any form. Things which are uniform, containing no variety, are always mere abstractions: for instance time, space, and other entities of pure mathematics. There is no body whose parts are at rest, and no substance which does not have something that distinguishes it from every other. Human souls differ not only from other souls but also from one another, though the latter differences are not of that sort we call specific (NE 109-10).

However, there is reason to think that the nominalist argument of the *New Essays* is not the same as the incompleteness argument of the Masham correspondence. The reasons given in the nominalist argument do not apply to minds without bodies, even if the reasons given against minds without bodies perhaps also apply against some of the targets of the nominalist argument. Minds without bodies would not be uniform or indiscernible in the way that Leibniz worries that abstract entities would be.²⁸ Nor would they have properties without proper foundations.²⁹ So it is hard to see how the principle behind the argument against

atoms could also drive an argument against souls without bodies. For what is said to be wrong with atoms is that they are uniform, but human souls do not seem to be uniform in the same way. Atoms would perhaps not differ in intrinsic features, but human minds do, because they have different thoughts ("Human souls differ ... from one another"). So whatever is objectionable about souls without bodies, it is not that they lack differentiating features.

There is, however, another candidate for the sort of incompleteness involved in Leibniz's incompleteness argument against souls without bodies: the incompleteness of a form without matter. That is, we could assimilate this incompleteness argument to Leibniz's discussions of hylomorphic corporeal substances. The general idea behind Leibniz's discussions of corporeal substances is that they are something very much like form-matter composites. Such composite substances seem to occur repeatedly throughout Leibniz's middle and late period discussions.³⁰

Why should we think that the incompleteness involved in the argument for (T) is the incompleteness of a form without matter? One reason is Leibniz's more general attachment to form-matter composites. Moreover, when Leibniz gives his incompleteness argument, he says that "souls *or forms* without a body would be something incomplete" (WFNS 215, my italics). With that phrase, Leibniz suggests that it is the incompleteness of forms without matter, rather than the incompleteness of things such as atoms, that he is objecting to here.

Just exactly why minds without bodies would be incomplete depends on just exactly how we understand Leibnizian corporeal substances to be structured. We can, following Adams, distinguish one-substance and two-substance conceptions of corporeal substance.³¹ On a one-substance conception, only a properly unified complex of form (mind) and matter

counts as a substance, neither the form nor the matter alone being a substance. On a two-substance conception, that properly unified entity is a substance, but the mind alone also counts as a substance. The incompleteness of mind without matter is most easily seen on a one-substance understanding of corporeal substance. A mind is, on this conception, fundamentally an incomplete thing, one that is only completed by the addition of appropriate matter. Moreover, we can also make sense of a certain sort of incompleteness of mind without matter on a two-substance conception. For on that reading there must still be some sense in which the mind is incomplete (because it can go on to form part of a compound substance) even thought there must also be a sense in which it is complete (because it is a substance).

Because the argument works either way, these texts are not going to be decisive for debates about how exactly to understand Leibniz's theory of corporeal substance.³² On the other hand, the fact that this argument is plausible on either conception of corporeal substance means that disagreements as to how to understand the theory of corporeal substance should not stop us seeing that it is the incompleteness of form without matter that is involved in the incompleteness argument for (T).³³

6. Conclusion

Leibniz engaged repeatedly with Hobbesian materialism in the period 1695-1705. He thought that Hobbes's materialism was based on an argument from his theory of ideas as images, which relied upon a view about rejecting the existence of that which one cannot understand.

Though Leibniz admired Hobbes as a philosopher, he was thoroughly opposed to this argument, and the materialism to which it pointed. The closest that Leibniz seems to have

come to materialism in the *New Essays* and related texts is the view that every mind is always associated with a body, which he argued for both in the Preface to the *New Essays* and, in two further ways, in his letters to Masham. Again though, this is not terribly close to Hobbes's view, given Leibniz's understanding of what bodies are, but it is as close as he comes.

As well as objecting to Hobbes's materialism itself, Leibniz also objected several times to the argument for materialism that he attributed to Hobbes. These objections fall into two main groups: objections to the underlying theory of ideas, and objections to the further consequences of arguing in this way. Leibniz thought that Hobbes was just wrong to think that all ideas are images. Moreover, he thought that the argument he attributed to Hobbes tended to lead to atheism, perhaps via an untenable view of a corporeal God. Hobbes did state the corporeal God view in some of his later work. However, in earlier work Hobbes maintained that God was completely mysterious to us, and that view seems to give the Hobbesian some resources with which to respond to Leibniz's criticisms.

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¹ I use various abbreviations for editions and translation of Leibniz's work: 'A' for the Academy edition of Leibniz's *Sämtliche Schriften und Briefe*; 'AG' for Ariew and Garber's *Philosophical Essays* collection (Indianapolis: Hackett, 1989); 'DSR' for Parkinson's Yale Leibniz edition of *De summa rerum* (New Haven: Yale University Press, 1992); 'G' for Gerhardt's *Die philosophischen Schriften von Gottfried Wilhelm Leibniz* collection; 'GM' for Gerhardt's *Leibnizens mathematische Schriften* collection; 'L' for Loemker's *Philosophical Papers and Letters* collection, second edition (Dordrecht: Kluwer, 1989); 'NE' for Remnant and Bennett's translation of the *New Essays* (Cambridge: Cambridge University Press, 1997); 'WF' for Woolhouse and Francks's *Philosophical Texts* collection (Oxford: Oxford

University Press, 1998); and 'WFNS' for Woolhouse and Francks's *Leibniz's 'New System'* and *Associated Contemporary Texts* (Oxford: Clarendon, 1997). In addition I use 'EW' and 'OL' to refer to Hobbes's *English Works* and *Opera latina*, 'AT' to refer to the Adam and Tannery edition of Descartes's works, and 'CSM' to refer to the translation of *The Philosophical Writings of Descartes* by Cottingham, Stoothoff and Murdoch.

² For discussions of these interactions see for instance Howard Bernstein, "Conatus, Hobbes, and the Young Leibniz", Studies in History and Philosophy of Science 11 (1980): 25-37; Martha Brandt Bolton, "Leibniz and Hobbes on Arbitrary Truth", Philosophy Research Archives 3 (1977), 242-73; Douglas Jesseph, "Leibniz on the Foundations of the Calculus: The Question of the Reality of Infinitesimal Magnitudes", Perspectives on Science 6 (1998) 6-40; Konrad Moll, Der junge Leibniz III (Stuttgart-Bad Cannstatt: fromann-holzboog, 1996), 103-36; and Catherine Wilson, Leibniz's Metaphysics (Princeton: Princeton University Press, 1989), 51-7.

³ "Il y a quelque chose de fort bon dans tous les ouvrages de M. Hobbes, excepté peutetre les geometriques" (GP 3.422).

⁴ I do not here attempt to address all of Leibniz's arguments about materialism. For instance, I do not here discuss his famous mill argument. Nor do I discuss Leibniz's exchanges with Toland, Sophie, and Sophie Charlotte in 1702-4, in which materialism figured prominently. For the mill argument see section 17 of the "Monadology", and one of Leibniz's letters to Bayle (GP 3.65-9, WFNS 126-30). For discussion see for example M.D. Wilson, *Ideas and Mechanism* (Princeton: Princeton University Press, 1999) 388-406. See GP 499-519 for key parts of the 1702 exchange between Toland and Leibniz, and Toland's 1704 *Letters to Serena* for later developments. Discussions include F.H. Heinemann, "Toland and Leibniz"

Philosophical Review 54 (1945) 437-57 and chapter 10 of M.R. Antognazza, *Leibniz on the Trinity and the Incarnation* (New Haven: Yale University Press, 2007).

⁵ For a Hobbesian source, see for instance chapters 1 to 5 of *Leviathan*.

⁶ Cudworth, like Leibniz, thought that Hobbes derived substantive metaphysical conclusions from his theory of ideas. [Removed for review.]

⁷ [Removed for review]

⁸ Leibniz, then, criticizes Hobbes for not having a notion of active force in his view. However, one might suspect that Hobbes's notion of conatus or endeavour is just such a notion, i.e. a notion of something other than motion that explains the presence of motion and change. Moreover, as discussed above, Leibniz was aware of Hobbes's talk about conatus, and some of Leibniz's early work on motion makes extensive use of Hobbesian ideas and phrases about conatus. So why does Leibniz not credit Hobbes with having a sort of active force in his view? Leibniz makes it clear that he thinks conatus is not force in his 'Specimen Dynamicum' of 1695. There Leibniz talks about "a small book, called A Physical Hypothesis, in which I presented a theory of both abstract and concrete motion" (WF 161, GM 6.240). Leibniz's summary of the contents of that book repeatedly employs the notion of conatus: e.g., "given this conception of body, an impacting body will give its conatus to whatever body it collides with" (WF 161, GM 6.240). However, Leibniz reports, "I realized that my earlier theory as to the nature of body was incomplete. By means of this and other arguments I was able to establish that something other than size and impenetrability must be taken to be in bodies, something which gives rise to considerations of force" (WF 162, GM 6.241). The earlier theory was full of talk of conatus. But that is not enough: one also needs to talk about force. So even if the notion of conatus in the earlier work is a thoroughly

Hobbesian notion, that is not enough to show that Hobbes did have a notion of force somewhat like Leibniz's but with a different name. For, says Leibniz, he himself had to move beyond the (possibly) Hobbesian notion to get to force. Conatus, though it might seem like active force, does not play the right metaphysical role, being on the wrong side of the force/motion divide. And for all that conatus seems like force, this is not entirely surprising, for 'conatus' is after all defined by Hobbes as "motion made in less space and time than can be given" (EW 1.206, OL 1.177).

⁹ In addition, a move from our difficulty in understanding to conclusions about the rest of the world would be rather un-Lockean, so Locke may well have found a second problem with this move, even if the lack of understanding had been only on one side.

For more on the Leibniz-Masham correspondence see P. Phemister, "All the time and everywhere everything's the same as here: The Principle of Uniformity in the Correspondence between Leibniz and Lady Masham", in P. Lodge (ed.) *Leibniz and his Correspondents* (Cambridge: Cambridge University Press, 2004), and R. Sleigh, "Reflections on the Leibniz-Masham correspondence" in C. Mercer and E O'Neill (ed.) *Early Modern Philosophy: Mind, Matter, and Metaphysics* (Oxford: Oxford University Press, 2005). For more on Masham's philosophy both in this exchange and elsewhere, see S. Hutton, "Damaris Cudworth, Lady Masham: Between Platonism and Enlightenment" *British Journal for the History of Philosophy* 1 (1993) 29-54, and J. Broad, *Women Philosophers of the Seventeenth Century* (Cambridge: Cambridge University Press, 2003) 114-40.

See Leibniz's letters to De Volder. For instance, from 1699, see GP 2.178 and GP 2.194 (L522). Thanks to Larry Carlin for drawing these closely related arguments to my attention.

¹² [Removed for review]

lan le Clerc had translated extracts from Cudworth's *True Intellectual System* in his (le Clerc's) *Bibliotheque choisie* in 1703 and 1704. Those translations gave rise to a debate between le Clerc and Bayle about Cudworth's plastic natures. Leibniz was asked by le Clerc to contribute to the discussion, and Leibniz's "Considerations sur les principes de vie, et sur les natures plastiques" (L 586-91; G 6.539-46), was published in the *Histoire des ouvrages des savants* of May 1705. For a recent discussion of Cudworth's plastic natures, see David Cunning, "Systematic Divergences in Malebranche and Cudworth', *Journal of the History of Philosophy* 41 (2003) 343-63, which touches on the Bayle-le Clerc debate at 348. On Nehemiah Grew, who had views similar to Cudworth's in this area, and whose views were also involved in this debate, see Brian Garrett, "Vitalism and teleology in the natural philosophy of Nehemiah Grew (1641-1712)", *British Journal for the History of Science* 36 (2003) 63-81, which touches on the Bayle-le Clerc debate at 80.

¹⁴ Moll (1996, 106-7) discusses the young Leibniz's apparent adoption of this and related ideas from Hobbes. Moll also notes the recurrence of this principle in Leibniz's discussions of plastic natures.

¹⁵ GP 6.552-3, my translation.

¹⁶ In this paper I focus on Leibniz's later arguments about Hobbes's materialism, and do not try to discuss the relation of these arguments to earlier ones, but it is worth noting that this argument, and also the 'relinquishing reasons' argument of the *New Essays*, resemble arguments made by Leibniz in the 1669 'Confession of nature against atheists' (GP 4.105-10, L 109-12).

¹⁷ C. Wilson, "Motion, Sensation, and the Infinite: the Lasting Influence of Hobbes on Leibniz", *British Journal for the History of Philosophy* 5 (1997) 339–351.

¹⁸ Wilson 1997, 346.

¹⁹ In this case and the one below, the translations used by Wilson are not exactly the same as those in NE, but the differences do not affect the point made.

²⁰ Wilson 1997, 346.

²¹ Indeed, a similar idea seems to be present much earlier in Leibniz's career in *De summa rerum*: "there is some effect of all impressions occurring in a body, which proceeds to infinity; that minds will for a while be withdrawn within themselves and will perhaps at some time return to a sensation of external things" (A 6.3.509-10, DSR 61).

²² Wilson also argues more generally that, Leibniz's various claims and bits of systems do not fit together into one coherent system. I am not here objecting to that general claim.

²³ See R. M. Adams, *Leibniz: Determinist, Theist, Idealist* (Oxford: Oxford University Press, 1994), 241-4.

²⁴ "So you see, madam, that all this is only to suppose that *things are everywhere and always just as they are in us now* (leaving the supernatural aside) except for varying degrees of perfection; and I leave it to you to decide whether any more intelligible, or at least any simpler, theory could be devised" (Leibniz to Masham, beginning of May 1704, GP 3.340, WFNS 205-6). Leibniz repeats this line of thought to Sophie Charlotte when he describes to her what he said to Masham (Leibniz to Sophie Charlotte, 8 May 1704, G 3.343, WFNS 220-1).

²⁵ Phemister 2004, 210-4.

²⁶ See section 5 of Leibniz's "Discourse on Metaphysics".

²⁷ M. B. Bolton, "The Nominalist Argument of the *New Essays*", *Leibniz Society Review* 6 (1996) 1–24, p2.

²⁸ Bolton 1996, 3-4.

²⁹ Bolton 1996, 5-7.

³⁰ There's a large recent literature on Leibniz on corporeal substances. For discussion of just this point, that there are repeated mentions in later as well as earlier texts, see G. A. Hartz, "Why Corporeal Substances Keep Popping up in Leibniz's Later Philosophy", *British Journal for the History of Philosophy* 6 (1998) 193-207.

³¹ Adams 1994, 267.

³² Note however that Adams (1994, 270) argues that that, thought Leibniz's comments to Masham seem at first to express a one-substance conception of corporeal substance, some things he wrote to De Volder on the same day show that Leibniz did this time hold a two-substance conception.

³³ Note that Thesis (T) gives us reason to believe that the aggregates that corporeal substances (at this point, in these texts) have as their bodies are aggregates of corporeal substances, not of monads. For if there were monads in there that were not also the minds of corporeal substances, then there would be minds without bodies.