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1. Introduction

Thomas Hobbes's materialism was famous in the seventeenth century, and is still well known today. The materialists who followed Hobbes are less well known. In this paper I discuss the materialist views of one of them, Margaret Cavendish, focusing on the relationship between Cavendish's materialism and the views of her contemporaries Hobbes and Henry More¹. The relationship between Cavendish's views and Hobbes's is the better documented. Hobbes worked for the Cavendish family – though Margaret Cavendish reported having almost no interaction with him about philosophical matters – and both Hobbes and Cavendish were materialists, albeit of different sorts.²

There were not the same personal connections between Cavendish and More that there were between her and Hobbes, but Cavendish came to think of More as an important figure with whom she needed to engage. In the *Blazing World*, Cavendish names as the six 'most famous modern writers' 'Galileo, Gassendus, Descartes, Helmont, Hobbes, H. More' (Cavendish 1994, 181). And the discussion of 'that learned *Author Dr. Moor*' is a significant part of the *Philosophical*

¹ Cavendish's philosophy has been more discussed in recent years than previously, as historians of philosophy have paid more attention to the work of early modern women. Some of this discussion has taken the form of introductions and overviews, but attention has increasingly been given to exploring the details of Cavendish's views. The line between the two sorts of work is obviously somewhat vague. But for works that are more like overviews, see (Broad 2002, 36-64), Cuning (2009), James (1999), and O'Neill (2001). For more detailed engagements with particular aspects of Cavendish's philosophy, see Detlefsen (2006; 2007), Hutton (1997; 2003), Michaelian (2009), and Sarasohn (2010).

² For the limited philosophical conversation, see Cavendish (1655, 'An Epilog to my Philosophical Opinions'). In her *Life* of William Cavendish, her husband, Cavendish reports two conversations involving him and Hobbes: one about whether it would be possible for men to fly, the other about witches (Cavendish 1667, 143-5). In general, Cavendish was often in an environment in which philosophy was discussed, even if she was rarely an active participant herself. See also Whitaker (2002).

Letters (PL 137).³ Cavendish's discussion of More there pays a good deal of attention to his 1659 *Immortality of the Soul*, which itself spends a good deal of time discussing Hobbes's materialism. Thus we find More talking about Hobbes, Cavendish talking about Hobbes, and Cavendish talking about More talking about Hobbes.⁴ There is at the very least an interesting and well-documented debate here. The rest of this paper focuses on that debate. I argue for two main claims.⁵

The first is that Cavendish's views sit, often rather neatly, between those of Hobbes and More. For example, while remaining a materialist, Cavendish saw the attraction of the considerations that lead More to believe in a spirit of nature, an incorporeal substance guiding the workings of the world. Cavendish, however, held on to materialism, but adopted a non-Hobbesian picture of matter.⁶ This is just one instance of how she ended up agreeing with

³ I use several abbreviations in giving references in this paper. CSM = René Descartes, *Philosophical Works of Descartes*, edited by Cottingham, Stoothof, and Murdoch (Cambridge: Cambridge University Press, 1984); EL = Thomas Hobbes, *Elements of Law*, edited by J.C. Gaskin (Oxford: Oxford University Press, 1990); EW = Thomas Hobbes, *English Works*, edited by Molesworth (London: Bohn, 1839-45); IS = Henry More, *The Immortality of the Soul* (London, 1659); L = Thomas Hobbes, *Leviathan*, edited by Edwin Curley (Indianapolis: Hackett, 1994); OEP = Margaret Cavendish, *Observations on Experimental Philosophy*, edited by Eileen O'Neill (Cambridge: Cambridge University Press, 2001); PL = Margaret Cavendish, *Philosophical Letters* (London, 1664).

⁴ Hutton (1997) explores the connection between Cavendish's views and Hobbes's, bringing out the Hobbes-Cavendish connection, and arguing that Cavendish was genuinely contributing to philosophical debates of her time. I agree with Hutton about that, but something important is added if we see Cavendish's materialism in relation to More's view as well as Hobbes's. Hutton (2003) argues that 'Cavendish's philosophical position is very much the obverse of More's' (190) though she does acknowledge 'some uncanny parallels between Cavendish's Nature and More's Spirit of Nature' (191).

⁵ For a rather different approach to Cavendish's discussion of More in the *Philosophical Letters*, see Sarasohn (2010), who argues that 'Cavendish's attack on Henry More was about sex and power' (Sarasohn 2010, 136).

⁶ In thinking about Cavendish's view in this way, I do not make claims about the origins of Cavendish's views. When she wrote her first works in the early 1650s, she claimed to have read only Hobbes's *De Cive* (Hobbes 1651b) and half of Descartes's *Passions of the Soul* (Descartes 1650). It is reasonably clear that her basic philosophical views were not formed by extensive engagement with the books of her contemporaries (Cavendish 1655, 'An Epilog to my Philosophical Opinions'). That engagement came later, and resulted in two books of the mid-1660s: *Philosophical Letters*, with its long discussions of Descartes, Hobbes, More, and van Helmont (and shorter discussions of others including Galileo and Charleton) and *Observations upon Experimental Philosophy*, which focuses on Hooke, Power, and Glanville.

Hobbes on some issues and More on others, while carving out a distinctive alternative view.⁷

The second main claim is that this debate illustrates a more general puzzle about just what divided materialists from their opponents. The terms of the debate were not stable. Individual participants had their own views of what the corporeal and the incorporeal were. So seemingly straightforward disagreements about whether incorporeal substances exist turn out to be more complex ones in which the nature of those things is being disputed at the same time as their existence.

Each of the next five sections considers an important issue in the exchange between Hobbes, More, and Cavendish. Section 2 looks at accounts of perception, and possible connections between materialist accounts of perception and panpsychism. Section 3 considers answers to the central question, whether there are incorporeal substances. Section 4 then looks at the related issue of whether there are created intelligences that control the regular workings of the material world. Finally, sections 5 and 6 consider two sorts of argument for materialism. The first focuses on the alleged inconceivability of incorporeal substance, and the second on arguments related to supernatural things such as visions, ghosts, and witches. In each of these five sections I look at the views of Hobbes, More, and Cavendish, typically in that order, to see their reactions to and criticisms of one another.

2. Sense, reaction, and panpsychism

In *De Corpore* 25, among other places, Hobbes explains his model of perception. Perception, like the other subjects of physics, is to be explained in terms of matter in motion. Hobbes's story about visual perception, for instance, involves motions in the medium causing motions in the eye, which cause motions in the nerves, which themselves push towards the heart, where there is

⁷ The argument of Detlefsen (2007, 181-3) that Cavendish's theory of freedom sits between Hobbes's and Bramhall's is parallel to my argument about Cavendish, Hobbes, and More. Meanwhile, on More's views in relation to Hobbes's and Descartes's, see Pasnau (2007).

a reactive motion that pushes back outwards. When there is this reactive motion there is appearance and representation.

However, if sense is identified with reaction, there will apparently be sense throughout the world, in many unexpected places. Pushing my finger into an inflated balloon and feeling the pressure back against my finger, I am creating the same sort of system that Hobbes describes as sensing. So it seems that according to Hobbes's basic account the balloon and finger system has sense in it. But it also seems that balloons and fingers, and many other systems involving action and reaction, do not sense anything. Hobbes notices the problem, and wonders how to respond.

But though all sense, as I have said, be made by reaction, nevertheless it is not necessary that every thing that reacteth should have sense. I know there have been philosophers, and those learned men, who have maintained that all bodies are endued with sense. Nor do I see how they can be refuted, if the nature of sense be placed in reaction only. And, though by the reaction of bodies inanimate a phantasm might be made, it would nevertheless cease, as soon as ever the object were removed. For unless those bodies had organs, as living creatures have, fit for the retaining of such motion as is made in them, their sense would be such, as that they should never remember the same. And therefore this hath nothing to do with that sense which is the subject of my discourse. For by sense, we commonly understand the judgment we make of objects by their phantasms; namely, by comparing and distinguishing those phantasms; which we could never do, if that motion in the organ, by which the phantasm is made, did not remain there for some time, and make the same phantasm return. Wherefore sense, as I here understand it, and which is commonly so called, hath necessarily some memory adhering to it, by which former and later phantasms may be compared together, and distinguished from one another (EW 1.393).

Here we see three possible responses to the problem: say that there is sense throughout the world, everywhere there is motion and reaction; distinguish the sense involved in these cases of simple reaction from the sense that is in us; or provide a further necessary condition for sense. Hobbes hopes to reject the first, makes some use of the second, and relies mainly on the third.

Hobbes acknowledges that respectable figures have thought that there is sense throughout the world. A plausible figure for him to have in mind here is Tommaso Campanella (Leijenhorst 2002, 99-100). We might also take note of an intriguing passage in Francis Bacon's *Sylva Sylvarum*, in which Bacon claims that it 'is certaine that all bodies whatsoever, though they have no *Sense*, yet they have *Perception*'.⁸ Bacon notes the sensitivity of this 'perception', and goes on to give several examples, many of which are examples of things that are signs of the weather. However, Bacon is clear in wanting to attribute perception, not just to regard these as cases of unthinking signs. But he also distinguishes between perception and sense. Thus we see someone saying there might be different sorts of perception in the world, not all of which are like our perception, but all of which are deserving of the name 'perception', rather than merely, say, 'effect'.

Illustrious antecedents notwithstanding, Hobbes resists the conclusion that there is sense throughout the world. He adds an extra condition to his analysis of sense to address the problem. At least, he adds it to his analysis of sense 'as I here understand it, and which is commonly so called'. Such qualifications leave open the possibility that there is sense in another sense: sense which is just reaction, and is all around us. So though the main thrust of Hobbes's response is to say that sense is not just reaction, he does leave open the possibility of saying that the new analysis describes sense in one sense, while there is sense in another, weaker sense all around us in the world.

⁸ Bacon (1627, 211). This is at the beginning of the ninth of the ten Centuries into which Bacon's book is divided. See Skrbina (2005, 82-3). This is intriguing in part because of the persistent question of the relation between Bacon's views and those of his onetime secretary Hobbes.

Hobbes's main manoeuvre, though, is to add a further condition to his analysis of sense, so sense involves memory as well as reaction. If we had no memory, he argues, we could not make sensory judgments. This is clearest in the case of judgments about whether something's features have changed: even over a very short period of time, some memory will be required to make the judgment. Indeed, memory seems required for the judgment that an object has any stable features at all, rather than constantly fluctuating ones. So sense ultimately for Hobbes requires both reaction and memory.

More argued that Hobbes's solution to his problem about panpsychism would not work. For all that Hobbes has said, there will be memory too in many systems we think of as lacking perception.

As for Example, in the ringing of a Bell, from every stroak there continues a *tremor* in the Bell, which decaying, must according to his Philosophie be *Imagination*, and referring to the stroak past must be *Memory*; and if a stroak overtake it within the compass of this Memory, what hinders but *Discrimination* or *Judgment* may follow? (IS 125).

More plays here on Hobbes's view that imagination and memory are decaying sense. The central problem is that memory, like the basic sense which is just reaction, or indeed like judgment, must be characterized in terms of a certain sort of motion. But whatever abstractly characterized sorts of motions are said to be memory, those same sorts of motions will almost certainly be found elsewhere in the world, and certainly could be. Hobbes cannot respond by saying that this sort of motion gives rise to memory in brains, but not in bells, because they are made of different stuff. Given his overall position, he needs to explain that difference in terms of different motions, a different mechanism, and he was not in a position to do that.⁹

⁹ This sort of objection to Hobbes's attempt to avoid the panpsychist consequences of his theory of perception has been popular in recent literature on Hobbes. See Sorell (1986, 74), Leijenhorst (2002, 98), and Skrbina (2005, 84-5).

Cavendish, in her *Philosophical Letters*, commented on both the above discussions.

Cavendish was at this point in time a sort of materialist. Indeed she was a materialist who agreed with Hobbes in believing in a plenum, rather than atoms in the void.¹⁰ But Cavendish was also a panpsychist. Above we saw a possible route from materialism to panpsychism, via an account of sense in terms of reaction (or some other abstractly characterized motion). That sort of materialist panpsychism is a possible view, and More discussed it later in his *Immortality of the Soul* (IS 85). It is not the sort of materialist panpsychism that Cavendish advocated though, as is illustrated by her responses here. Commenting on *De Corpore* chapter 25 she says that

Whereof my opinion is, that the sensitive and rational parts of Matter are the living and knowing parts of Nature, and no part of nature can challenge them onely to it self, nor no creature can be sure, that sense is onely in Animal-kind, and reason in Man-kind; for can any one think or believe that Nature is ignorant and dead in all her other parts besides Animals? Truly this is a very unreasonable opinion; for no man, as wise as he thinks himself, nay were all Man-kind joynd into one body, yet they are not able to know it, unless there were no variety of parts in nature, but onely one whole and individeable body, for other Creatures may know and perceive as much as Animals, although they have not the same Sensitive Organs, nor the same manner or way of Perception (PL 59).

One clear claim here is that perception is not just done by humans, but also by other animals, and indeed by other creatures that are not animals. Cavendish does distinguish this perception from the perception of humans – it may not be the same ‘manner or way’ of perception – but it does count as perception.¹¹ Also present in this passage, though not explained in detail, is

¹⁰ In her earliest publications Cavendish was a sort of atomist. This is true at least of Cavendish (1653a), and perhaps also of Cavendish (1653b). But she had rejected the view by Cavendish (1655). On the early atomism, see Sarasohn (2010, 34-53). On Cavendish’s later opposition to atomism, see Detlefsen (2006).

¹¹ How much does something have to be able to do, to count as sensing or reasoning? Detlefsen suggests, relatively little: ‘To have reason, for example, is to have the immanent capacity to

Cavendish's view about the different degrees, as she calls them, of matter.¹² Matter comes in two basic degrees, animate and inanimate. The animate matter itself has two degrees, sensitive and rational. All of these are thoroughly blended together so that in any part of matter, no matter how small, there is matter of each of the three degrees.¹³

These views are at work again in Cavendish's comments on More's discussion of *De Corpore* 25. Commenting on More's pointing out that a bell and other apparently non-sensing things will have sense if Hobbes's basic view that sense is reaction is right, Cavendish argues as follows.

It is true, if reaction made sense; but reaction doth not make sense, but sense makes reaction; and though the Bell hath not an animal knowledg, yet it may have a mineral life and knowledg, and the Bow, and the Jack-in-a-box a vegetable knowledg; for the shape and form of the Bell, Bow, and Jack-in-a-box, is artificial; nevertheless each in its own kind may have as much knowledg as an animal in his kind; onely they are different according to the different proprieties of their Figures: And who can prove the contrary that they have not? For

behave in a regular and orderly manner' (Detlefsen 2007, 159). But it is not clear that Cavendish takes possession of that capacity to be all there is to having reason. In the passage that Detlefsen quotes in support of her reading, Cavendish uses regularity as evidence for reason's presence, because reason is the only thing that could causally explain the regularity: 'that every part has not only sensitive, but also rational matter, is evidenced ... by the regular, harmonious, and well-ordered actions of nature, which clearly demonstrates, that there must need be reason as well as sense, in every part and particle of nature; for there can be no order, method, or harmony, especially such as appears in the actions of nature, without there be reason to cause that order and harmony' (OEP 207). There reason is the cause of orderly behaviour, which suggests it is distinct from it.

¹² Cavendish says that 'there is but one onely matter, and one kind of matter, although of several degrees' (Cavendish 1664, 111). The point, I take it, is to emphasize that there are not multiple kinds of stuff, of which one is unthinking matter and another is something else, not matter, which thinks. Rather there are different varieties of one kind of thing, matter. Cavendish emphasizes that by saying these varieties differ only in degree. However she also says there are exactly three varieties, and it is not clear how to reconcile these two claims.

¹³ More (1659) discusses something like Cavendish's view, when he considers a materialist who holds that matter is self-moving. However, the view he considers has the self-moving matter moving with a 'blind impetus' (IS 85). So the view involves self-moving matter, but not self-moving matter that has the irreducible property of thought.

certainly Man cannot prove what he cannot know; but Mans nature is so, that knowing but little of other Creatures, he presently judges there is no more knowledg in Nature, then what Man, at least Animals, have; and confines all sense onely to Animal sense, and all knowledg to Animal knowledge (PL 168-9).

Again it is clear that Cavendish holds a materialism that is often unlike Hobbes's. Sense is found throughout the world, in all sorts of things. They may well have sense of different sorts, so the bell has mineral knowledge, not animal knowledge. But even the bell's sense is not to be explained mechanically, in terms of the motions of the parts of the bell. Sense is an irreducible feature of the corporeal world, and is spread throughout it. There are materialism and panpsychism in this view, but not panpsychism derived from materialism.

Questions of materialism and panpsychism thus intersect in several ways in this debate about perception. More opposed both materialism and panpsychism. Hobbes and Cavendish connected materialist accounts of perception to panpsychism, but in very different ways. Hobbes saw a sort of panpsychism as a possible consequence of his account of perception, and strove to avoid it. Cavendish meanwhile accepted materialism, but rejected Hobbes's version of it, and embraced panpsychism, but for reasons utterly unlike the ones Hobbes worried about.

3. Is there incorporeal substance in the world?

The most basic question about materialism is whether there are incorporeal things in the world. Roughly speaking, Hobbes thought there were no such things, More thought there were, and Cavendish thought that there were none in nature, but that there were supernatural incorporeal substances.¹⁴

¹⁴ There is some difference between authors as to whether the relevant distinction is between the corporeal and the incorporeal, or the material and the immaterial. Hobbes, at least in EL and L, prefers the corporeal/incorporeal terminology. More however uses both 'incorporeal' and 'immaterial', and Cavendish switches freely back and forth between the two sets of terminology. In general I use the corporeal/incorporeal terminology in this paper, but I do call the view that

Hobbes's materialism became stronger over the course of his philosophical career, though even early versions were recognizably materialist. In his 1641 *Objections to Descartes's Meditations*, Hobbes argued that the human mind (*mens*) was corporeal. However, he did not claim to know that everything was corporeal, claiming instead that there are certain things whose natures we do not know, in particular God and the human soul (*anima*), the thing that gives us life. Hobbes's materialism was stronger in the 1651 English *Leviathan*, though he appears still to have thought there that God had an unknown nature. By the 1660s Hobbes thought that everything, including God, was corporeal, describing God as a 'corporeal spirit' (EW 4.306), by which he meant at least that God is extended.¹⁵ Despite these developments, Hobbes's view was a sort of materialism throughout his philosophical career. Indeed, when More in the *Immortality of the Soul* discussed arguments for materialism to discuss, he devoted considerable attention to arguments from Hobbes's work.

More believed that there were incorporeal substances in the world, but did not draw the distinction between the corporeal and the incorporeal where Hobbes did. Hobbes believed that extension was a distinctive mark of the corporeal. More thought incorporeal substances were extended too, and distinguished the corporeal and the incorporeal in terms of divisibility and penetrability. More characterizes body as '*A Substance impenetrable and discernible*' and spirit as '*A Substance penetrable and indiscernible*' (IS 17). So we have two contrasts between the two sorts of substance.¹⁶ Spirit is penetrable, while body is not. That is, it is a fact we know, but cannot explain, that body 'does so certainly and irresistibly keep one part of it self from penetrating another' (IS 12). Also, body is discernible, while spirit is not. 'Discernible' is More's term for a sort of divisibility. Body is discernible, meaning it can be divided, but only up to a point.

there are no incorporeal substances materialism, rather than corporealism, because of the familiarity of the term.

¹⁵ [Removed for review]

¹⁶ This categorization suggests the possibility of two other sorts of substance: impenetrable and indiscernible, and penetrable and discernible. More argues that there are in fact no such substances (IS 18-9).

Eventually division brings us to a stage at which no more actual division is possible, though we can conceive of parts of the remaining thing. Thus ‘Matter consists of parts indiscerpible, understanding by indiscerpible parts, particles that have indeed real extension, but so little, that they cannot have less and be any thing at all, and therefore cannot be actually divided’ (IS Preface, section 3). Body can be divided down to these parts, the smallest physically possible things, but no further.¹⁷ Spirit however cannot be divided at all, though spirits unlike bodies are penetrable.

This alternative view about how to divide the corporeal and the incorporeal relates to More’s response to Hobbes’s materialism. As I discuss below, one of the central reasons More saw Hobbes giving against incorporeal substance was that it was inconceivable. But More believed that incorporeal substance, spirit, was perfectly well conceivable. What is important is to try to conceive of it correctly, in the way More spells out.

Cavendish denied the existence of incorporeal substances in nature, and thus is called a materialist. She was a materialist about the natural world. However, she clearly thought there to be incorporeal substances, which are all supernatural substances. Among those supernatural substances is God: ‘God is a Spirit, and not a bodily substance, [and] Nature is a Body, and not a Spirit’ (PL 8). However, because we are finite, we cannot know the essence of God (PL 139-40). Leaving aside the question of why knowing that God is a spirit is not a matter of knowing his essence, we might observe that exempting God from one’s materialism is not terribly surprising: even Hobbes was often inclined to do so. Cavendish however went further, and asserted that human beings have an incorporeal divine soul, which is distinct from their corporeal natural soul, and is a supernatural being (PL 49, 111, 209-10). But discussion of this supernatural soul is a thing to be left to the church, and we should take care not to mix discussion of divinity and natural philosophy. Mixing these up has indeed led, in Cavendish’s opinion, to difficulties about just this case, that of the human soul:

¹⁷ Though More avoids the term here, this is a sort of atomism.

witness the doctrine of the Soul of Man, whereof are so many different opinions: The onely cause, in my opinion, is, that men do not conceive the difference between the Divine, and Natural material Soul of Man, making them both as one, and mixing or confounding their faculties and proprieties, which yet are quite different; thus they make a Hodg-podg, Bisk or Olio of both; proving Divinity by Nature, and Faith by Reason; and bringing Arguments for Articles of Faith, and sacred Mysteries out of Natural Arts and Sciences; whereas yet Faith and Reason are two contrary things, and cannot consist together (PL 210).

Hobbes had, early in his philosophical career, claimed that we did not know that the soul is corporeal, meaning the soul that gives us life.¹⁸ Cavendish here addresses not that soul, which is part of the natural world, but the divine soul. She is quite clear that that is not corporeal. But it also, despite being a finite created thing, is not a natural thing. Thus its incorporeality is not, Cavendish thinks, problematic for her materialism about the natural world. In presenting this view, Cavendish appears to treat the natural/supernatural distinction as extensionally equivalent to two others: the corporeal/incorporeal distinction, and the distinction between things that are not known by faith, and those that are. So it appears that for her, these two further distinctions describe the metaphysics and the epistemology of the natural supernatural distinction.

Supernatural things are incorporeal and known by faith alone, but natural things are corporeal and can be known by means other than faith.

Hobbes strengthened his materialism over time, but the basic theme remained – an opposition to incorporeal substances, characterized as substances without extension. More opposed Hobbes’s materialism, and argued for incorporeal substances. But he characterized the

¹⁸ He says in his *Objections to Descartes’s Meditations* that ‘We rationally infer that there is something within the human body which gives it the animal motion by means of which it has sensations and moves; and we call this ‘something’ a soul, without having an idea of it’ (Descartes 1984, 129). We know this thing exists, but can’t positively conceive of it: all we know is that there is something in us that causes life, and the only way we can think of this thing is relationally.

corporeal/incorporeal distinction differently, and so agreed with Hobbes that there are no unextended substances. Cavendish then, despite her materialism about the natural world, argued that there are unextended incorporeal substances, including a human divine soul, but that these are not part of nature. The simple question, are there incorporeal substances, was not so simply answered.

4. Controlling intelligences

One way in which More departs from materialism is in his belief that the apparently corporeal world is not purely corporeal, but involves and is guided by a controlling intelligence, the spirit of nature. Similarly, his Cambridge colleague Cudworth thought that the corporeal world was controlled by plastic natures, non-conscious incorporeal substances that guided the workings of corporeal things. It might seem that belief in such controlling intelligences in the world is a sign of an anti-materialist view. Hobbes, the staunch materialist, believed there were no such things. More, determined in his opposition to materialism, was partly motivated in that opposition by his belief in a controlling intelligence, the spirit of nature. Once more Cavendish's view upsets the neat division, because she both maintained her materialism and believed in a controlling intelligence in the natural, corporeal world, namely the active, and in particular the rational, matter.

More defines the spirit of nature as '*A substance incorporeal, but without Sense and Animadversion, pervading the whole Matter of the Universe, and exercising a plastical power therein according to the sundry predispositions and occasions in the parts it works upon, raising such Phaenomena in the World, by directing the parts of the Matter and their Motion, as cannot be resolved into meer Mechanical powers*' (IS 450).

More goes on to give reasons to believe in such a spirit, by giving a variety of examples of phenomena that cannot, he thinks, be explained purely mechanically – cannot be explained without reference to the spirit of nature. There is for instance a discussion of the loadstone in chapter 12. More acknowledges Descartes's efforts to give a mechanical explanation of

magnetism, but argues that the spirit of nature must nevertheless be part of the explanation.¹⁹ Chapter 12 also gives several other examples supposed to point in the same direction. The list of ‘Experiments that argue its [the spirit of nature’s] real Existence’ includes ‘two strings tuned Unisons ... Sympathetick Cures and Tortures ... The Sympathy betwixt the Earthly and Astral Body ... Monstrous Births ... The Attraction of the Loadstone and Roundness of the Sun and Stars’ (IS 449). And chapter 13 argues that gravity and the descent of heavy bodies cannot be explained mechanically, only by the existence of such a spirit.

In her *Observations upon Experimental Philosophy* Cavendish endorses an argument like More’s.²⁰

But to return to knowledge and perception: I say, they are general and fundamental actions of nature; it being not probable that the infinite parts of nature should move so variously, nay, so orderly and methodically as they do, without knowing what they do, or why, and whether they move (OEP 139).

The presence of knowledge throughout nature – and thus Cavendish’s view about sensitive and rational matter – is argued for as needed to explain the complex and regular behavior of the natural, corporeal world.²¹ Like More’s spirit of nature, animate matter is invoked as necessary to give explanations that Hobbesian mere mechanism cannot give. The view arrived at is different, as Cavendish holds on firmly to her materialism. She does that by having a radically non-Hobbesian (and for that matter non-Cartesian and non-Morean) picture of what matter is.

¹⁹ More refers here to his letters to Descartes. That reference points to an important issue, that this sort of argument was not new in *The Immortality of the Soul*, but had persisted throughout More’s career (Gabbey 1990).

²⁰ There seems to be no exactly equivalent passage in the *Philosophical Letters*, but various passages express closely related thoughts (PL 161, 481, 517).

²¹ Others have of course noticed this before (Detlefsen 2007, James 1999, O’Neill 2001). But I suggest it is part of a larger pattern of Cavendish’s view lying between Hobbes’s and More’s, and thus a point of interest, not just a standard observation. The similarities and contrasts with the Cambridge Platonist approach – the belief in plastic natures or the spirit of nature – do add something here.

The philosophers I am discussing have significantly different views about what the corporeal is, and what distinguishes it from the incorporeal. For Hobbes, the corporeal is extended, and the incorporeal would have to be unextended. For More, the corporeal and the incorporeal are extended, but the corporeal is distinguished by being discernible and impenetrable. Cavendish then offers a radically different picture, on which some of the corporeal is fundamentally and irreducibly sensitive and rational, something neither Hobbes or More considers, never mind believes.

This disagreement about what the corporeal is, and what distinguishes it from the incorporeal, complicates debates about materialism considerably. The nature of the corporeal is being debated at the very same time as the question whether the corporeal is all there is. That leads to the question of what distinguishes materialists from their opponents. Hobbes thought that the incorporeal, if it existed, would not be extended. More disagreed. All created substances in More's picture are extended. Thus there's a sense in which they are all, by Hobbes's standards, corporeal, though More did not think of his view as materialist.²² Meanwhile, both Hobbes and More thought that small disorganized bits of matter lacked the power of thought, but Cavendish disagreed, thinking that all matter contained fundamentally thinking parts. Cavendish was a materialist, but had fundamentally thinking things in her view, which are a sign of not being a materialist. So where is the key dividing line? It is not as if, for example, a Cartesian conception of thinking substance was fixed, and the disagreement was simply over whether such things existed. There was also considerable disagreement over what the corporeal and the incorporeal were, or would be if they existed.

An obvious marker of materialism is saying there are no incorporeal substances, however you conceive of them. This, fundamentally, is why Cavendish and Hobbes are called materialists and More is not. Perhaps this is all there is to the distinction. That account does not explain

²² Here see more generally Henry's suggestion that if More 'was not a materialist, he was the next best thing' (Henry 1986, 195).

everything though. For instance, it does not explain why Cavendish seems an odd sort of materialist.

One reason why Cavendish's materialism seems odd, I suspect, is that we expect a material explanation of the world to involve something close to a mechanistic picture of matter. At the very least, we expect a picture of matter on which it is not fundamentally and irreducibly thinking. That is part, at least, of why Cavendish's view seems so odd, considered as a sort of materialism. The same is true now: materialists or physicalists who are panpsychists and think matter is fundamentally thinking come across as a rather odd sort of materialists.²³

We might consider other possible markers of being a materialist, having to do with relationships to other philosophers. So someone might suggest that sympathy with Descartes is a possible marker of immaterialism, at least in the seventeenth century. After all, More was clearly sympathetic to Descartes's approach, much as he clearly didn't agree with all of it. Similarly, Cudworth's plastic natures seem to be modeled on Cartesian thinking substances. However, it is not clear that this will work as a marker of immaterialism. There are several issues on which Hobbes agrees with Descartes, but one would not call Hobbes an immaterialist or dualist for this reason. One might say that these are the wrong views to pay attention to. But the basic reason why they are the wrong ones is that they do not include the assertion of the existence of incorporeal substance. It appears very difficult to identify the right sort of sympathy with Descartes without reducing this view to the view that the marker of denying materialism is saying that there are incorporeal substances.²⁴

5. Arguments for materialism (1): conceivability and signification

Chapter IX of More's *Immortality of the Soul* lists eight of Hobbes's arguments against incorporeal substances. In some of the cited places, Hobbes tries to show such things as that incorporeal

²³ See Strawson (2006) and the responses to it in Freeman (2006).

²⁴ One might also try to make the distinction using sympathy with Platonism, rather than sympathy with Descartes, as the key feature. The same sorts of problems will arise.

substance is inconceivable, that ‘incorporeal substance’ is an insignificant name, and that there can be no substance that has no place. These are arguments which would be recognizable as relevant arguments about materialism by philosophers today. Other arguments have a more distinctively seventeenth-century flavor. Hobbes offers a deflationary account of visions and apparitions as naturalistically explicable dreams, and More finds it important to defend the existence of ghosts and witches.

More’s discussion of the first sort of argument relies mostly on passages from *Leviathan*, but also refers to the earlier *Elements of Law*. There Hobbes says that ‘spirits supernatural commonly signify some substance without dimension; which two words do flatly contradict one another’ (EL 11.4). All substance, Hobbes thinks, must have dimensions. But alleged incorporeal substances are claimed not to have any dimensions. So those alleged substances are impossible. Hobbes offers a related argument in chapter 46 of *Leviathan*.

The world (I mean not the earth only, that denominates the lovers of it *worldly men*, but the *universe*, that is, the whole mass of all things that are) is corporeal (that is to say, body) and hath the dimensions of magnitude (namely, length, breadth, and depth). Also, every part of body is likewise body, and hath the like dimensions. And consequently every part of the universe is body, and that which is not body is no part of the universe. And because the universe is all, that which is no part of it, is nothing (and consequently, nowhere) (L 46.15).

Similarly, in chapter 12 Hobbes claims that ‘*spirit*’ and ‘*incorporeal*’ are words of ‘contradictory signification’ (L 12.7). These arguments of Hobbes’s provide More with the perfect opportunity to remind us that on his view, incorporeal substances are extended, so the difficulty disappears (IS 67-71).

There are other, perhaps related, arguments in *Leviathan*. Thus chapter 34 contains the argument that ‘substance’ and ‘body’ signify the same thing, so ‘*substance incorporeal*’ are words which, when they are joined together, destroy one another, as if a man should say an *incorporeal*

body' (L 34.2). Here More notes, rather reasonably, that this seems to assume the conclusion.

Why think that 'substance' and 'body' have the same signification, unless you already believe that bodies are the only substances? The argument about substances having to have dimensions, discussed above, at least has the merit of providing a reason that might persuade the previously unconvinced.²⁵

Turning to the work of Margaret Cavendish, we find her saying that incorporeal substance is, if not inconceivable, certainly something of which it is hard to conceive clearly: 'Neither can, in my opinion, Incorporeal Creatures be clearly conceived by Corporeals' (PL 226); 'I never understood, nor cannot as yet apprehend Immaterial Spirits ... I cannot conceive the nature of Immaterial Spirits, and what they are' (PL 233); 'as long as [man] is material, and composed of natural Matter, he might as well pretend to know the Essence of God, as of an Incorporeal Spirit ... I was never able to conceive a substance abstracted from all Matter' (PL 300).

There is some affinity between Cavendish's view and Hobbes's on this issue. Hobbes does repeatedly allow that there is a way in which we can think about God as the cause of the world, though we can strictly speaking have no idea of God. We can, Hobbes says, think of God in a relational way as the cause of everything around us. This he illustrates with the example of a blind man who has no idea of fire, because he cannot see it, but can think about it as the cause of the heat that he feels.²⁶ However, all that this mechanism can get us is thought of God as a cause, not thought of God as an incorporeal substance. That latter thought is on Hobbes's view not possible. Thus Hobbes argues in his *Objections to Descartes's Meditations* that we have no idea of God, because ideas are images and we have no image of God (CSM 2.127).

There appears to be a difference between Hobbes's view and Cavendish's here. Cavendish, unlike Hobbes, believes that there are incorporeal substances. In order to form that

²⁵ [Removed for review]

²⁶ See for example CSM 2.127 and L 11.25.

belief, one needs to be able to think about incorporeal substances, and to think that they are incorporeal. Moreover, to talk about that belief one needs to be able to use ‘incorporeal substance’ and related phrases in a significant or meaningful way. Hobbes denies we can form those thoughts, and that we can speak significantly here. So it appears there must be something in Cavendish’s view that allows for more thoughts about incorporeal substances than Hobbes allows for.

What part of Cavendish’s psychology allows for that? Hobbes’s view is supported by a psychological explanation: we usually think using ideas, which are images, but can also think about things in a relational way, as the cause of something else. Cavendish makes a variety of claims about thoughts of incorporeal substances. Her central claim is that we can conceive them, but cannot clearly conceive them, or conceive their nature or essence. But does she have a worked out story about how that is the case?

One relevant argument is that corporeal substances have corporeal ideas, and so cannot think about the essence of incorporeal substances.²⁷

If man were an Incorporeal Spirit himself, he might, perhaps, sooner conceive the essence of a Spirit, as being of the same Nature; but as long as he is material, and composed of Natural Matter, he might as well pretend to know the Essence of God, as of an Incorporeal Spirit. Truly, I must confess, I have had some fancies oftentimes of such pure and subtil substances, purer and subtiler then the Sky or Aethereal substance is, whereof I have spoken in my Poetical Works; but these substances, which I conceived within my fancy, were material, and had bodies, though never so small and subtil; for I was never able to conceive a substance abstracted from all Matter, for even Fancy it self is material, and all Thoughts and Conceptions are made by the rational Matter, and so are those

²⁷ Gassendi, in his *Objections to Descartes’s Meditations*, raises a parallel problem about the difficulty of seeing how an incorporeal thing could represent corporeal ones (Descartes CS< 2.204).

which Philosophers call Animal Spirits, but a material Fancy cannot produce immaterial effects, that is, Ideas of Incorporeal Spirits (PL 300-1).

Cavendish's argument appears to be that (1) corporeal things cannot produce incorporeal things, (2) ideas of incorporeal spirits are themselves incorporeal things, so (3) corporeal minds cannot produce ideas of incorporeal things. This is not terribly illuminating. One wants at least to know the sense in which ideas of incorporeal things are themselves incorporeal things. Why could they not be corporeal things that represent incorporeal ones? It is not generally true that things of one sort cannot represent things of another: things in my head can represent things outside it, and animate matter can represent inanimate matter. Clearly Cavendish takes the gulf between the corporeal and the incorporeal to be harder to bridge in this way. But just why it is so hard to bridge is not particularly clear here. Moreover, if it is as hard to bridge as she says, it becomes unclear how we can think about incorporeal things at all, let alone think about them as incorporeal things.²⁸

There is a further argument for Cavendish's view that we cannot conceive of incorporeal things in her *Observations upon Experimental Philosophy*, where she argues for her view that 'as for the idea of God, it is impossible to have a corporeal idea of an infinite incorporeal being' (OEP 88). Cavendish is largely concerned to explain why we cannot have an idea of an infinite thing, and in doing so states that 'I take an idea to be the picture of some object, and there can be no picture without a perfect form' (OEP 88). That then allows an argument against ideas of incorporeal things: 'neither can I conceive how an immaterial can have a form, not having a body; wherefore it is more impossible for nature to make a picture of the infinite God, than for man, which is but a part of nature, to make a picture of infinite nature' (OEP 88). The argument

²⁸ The brief second letter of Cavendish's discussion of More addresses the issue of thought about God (PL 139-40). The particular puzzle is about how, and the extent to which, we can think about God. It is not about how we know that God is incorporeal: that will be a matter of faith. But it is, among other things, about how we can represent God as incorporeal. Here as elsewhere, however, Cavendish's answers are rather reminiscent of Hobbes's view. We are said by Cavendish to know God's existence but not his essence, and to have no idea of God. Again we see Cavendish's view that corporeal things cannot conceive of incorporeal ones.

seems to run as follows: (1) corporeal beings have ideas that are images; (2) it is impossible to have an image of an incorporeal thing; so (3) it's impossible for corporeal beings to have ideas of incorporeal ones. That is a comprehensible argument, and also a very Hobbesian one, familiar from the Third Objections. Cavendish's giving that argument makes it yet harder to see how she thinks we can think about incorporeal things as incorporeal.

Nevertheless, though the detailed theory may be lacking, Cavendish's general position is clear. There are incorporeal substances, which are not part of nature. Thus she has a different view from Hobbes about what exists. She also has a different view about the possibilities of thought about incorporeal things. She holds that we can think about them, but not clearly. However, her view about how we think of them is not entirely persuasively developed. Her arguments appear close to Hobbes's, and so apparently tend towards the conclusion that we cannot think of incorporeal things as incorporeal.

6. Arguments for materialism (2): ghosts and witches

One set of arguments for materialism that More identified in Hobbes's work concern the possibility of genuine thought and significant talk about incorporeal substances. Another set concern ghosts, witches, and apparitions. Hobbes took a deflationary view of such phenomena. He says, 'as for witches, I think not that their witchcraft is any real power' (L 2.8). The belief that there are witches, like beliefs in fairies and ghosts, Hobbes diagnoses as resulting from the confusion of dreams and imaginings with sense perception: there are phenomena which people describe as involving these supernatural creatures, but they all have naturalistic explanations.

More singles out this view for criticism. Four of the eight Hobbesian arguments for materialism that More points to in chapter IX of *The Immortality of the Soul* are of this sort.²⁹ The most detailed discussion is about *De Corpore* 25.9. The relevant text is the final paragraph of that section.

²⁹ He cites a variety of passages: EL 11.5, L 12.7, L 45.2, and *De Corpore* 5.4 and 25.9.

But it is here to be observed, that certain dreams, especially such as some men have when they are between sleeping and waking, and such as happen to those that have no knowledge of the nature of dreams and are withal superstitious, were not heretofore nor are now accounted dreams. For the apparitions men thought they saw, and the voices they thought they heard in sleep, were not believed to be phantasms, but things subsisting of themselves, and objects without those that dreamed. For to some men, as well sleeping as waking, but especially to guilty men, and in the night, and in hallowed places, fear alone, helped a little with the stories of such apparitions, hath raised in their minds terrible phantasms, which have been and are still deceitfully received for things really true, under the names of *ghosts and incorporeal substances* (EW 1.402).

Hobbes appears to be explaining how some beliefs in ghosts and incorporeal substances arise. Dreams had on the verge of waking have been taken for sense perceptions, a process which has been helped along at times by guilt and fear. Thus at least some beliefs in ghosts, and in incorporeal substances more generally, are the result of a mistaken understanding of the appearances.

More however takes Hobbes's argument to be more than just an explanation of how some beliefs in supernatural beings originate – he takes it to be a general argument against the existence of incorporeal substances (IS 65-7). This argument is not just a slippery slope from denying the existence of ghosts to denying the existence of other incorporeal things, such as human souls and God. On More's reading, Hobbes's argument runs as follows: (1) if the only causes of our belief in something are dreams, fears, and superstitious fancies, then that thing is not real; (2) the only causes of our belief in ghosts, and incorporeal substances more generally,

are dreams, fears, and superstitious fancies; so (3) ghosts, and incorporeal substances more generally, are not real.³⁰

Premise (2) is false, More thinks, for there are other ways to know about the existence of incorporeal substances. We can infer the existence of some incorporeal being from the presence of more order in the world than could possibly be explained by the mere chaotic movements of matter. That is More's argument for the existence of a spirit of nature. Moreover, the existence of apparitions is attested by many reliable witnesses, not just the melancholic and superstitious. Hobbes's story might indeed explain the beliefs of the melancholic and superstitious, but is far from explaining all belief in incorporeal substances.

In the explicit discussions of Hobbes in *The Immortality of the Soul*, More has little to say about witches, focusing on what he sees as general arguments for materialism. But elsewhere in the book, More is happy to appeal to views about witches in the course of his argument (IS 278-9, 285, 411-2, 514). More generally, More believed in the existence of witches, and thought this belief well supported by the empirical evidence. This approach is perhaps more famously associated with Glanvill, but More did share it.³¹

The contrast between Hobbes and More on this issue is clear. Hobbes believed that there are no ghosts or witches, and that belief in them is caused by a misinterpretation of natural appearances. More believed that there are indeed ghosts and witches, and more generally that there are good reasons for believing in the existence of incorporeal substances.

³⁰ Strictly speaking More sees two ways that the argument might go, depending on whether 'whether you understand it of the reall Originall of these Substances, or of the Principles of our knowledge That they are'. I have taken it in the second way. The other argument, involving the thought that that ghosts and incorporeal substances are only caused to exist by dreams etc., is not going to be any more persuasive than the one about knowledge, and probably less.

³¹ Glanvill published various ever-longer versions of a book about witches under different titles (Glanvill 1666, 1667, 1668). After Glanvill's death in 1680, More was responsible for the 1681 version, *Sadducismus Triumphatus* (Glanvill 1681) – to give it its full title, *Saducismus triumphatus, or, Full and plain evidence concerning witches and apparitions in two parts: the first treating of their possibility, the second of their real existence / by Joseph Glanvil. With a letter of Dr. Henry More on the same subject and an authentick but wonderful story of certain Swedish witches done into English by Anth. Horneck*. On the approach of More and Glanvill to this issue, see Jesseph (2005). On Cavendish's later correspondence with Glanvill about witches, see Broad (2007).

Here, perhaps more clearly than with regard to other issues, Cavendish is on Hobbes's side of the debate: 'IF you desire my opinion concerning Witches, whereof your Learned *Author* [i.e., More] hath many Discourses and Stories: I will tell you really, that in my sense and reason, I do not believe any, except it be the witch of *Endor*, which the Scripture makes mention of' (PL 227). The story of the witch of Endor is told at 1 Samuel 28. The witch apparently causes Samuel, who has died, to appear to Saul. This is an interesting case, both because it led Cavendish to acknowledge the existence of one witch in the world, and because Hobbes also discussed it.

Prophecy is not an art, nor (when it is taken for prediction) a constant vocation, but an extraordinary and temporary employment from God, most often of good men, but sometimes also of the wicked. The woman of Endor, who is said to have had a familiar spirit, and thereby to have raised a phantasm of Samuel, and foretold Saul his death, was not therefore a prophetess; for neither had she any science, whereby she could raise such a phantasm; nor does it appear that God commanded the raising of it; but only guided that imposture to be a means of Saul's terror and discouragement; and by consequent, of the discomfiture by which he fell (L 36.8).³²

The woman of Endor was not a prophet, on Hobbes's account, because no-one is really a prophet: no-one has a sustained ability to prophecy (L 36.8). And Saul's spirit was not really raised: that was only an 'imposture', though one that God 'guided'. The absence of sustained special powers implies that the woman was not in any strong sense a witch. We have here a story about the natural way the world works (no sustained prophetic powers) with the allowance of some temporary intervention by God (temporary prophetic ability). So there are some things in Hobbes's story without naturalistic explanations, but there is no supernatural witchcraft.

³² She is mentioned again later in Hobbes's chapter: 'God sometimes speaketh by prophets, whose persons he hath not accepted; as he did by Baalam; and as he foretold Saul of his death, by the Witch of Endor' (L 36.20).

Cavendish could have taken Hobbes's line here, or offered a completely naturalistic explanation of the episode. But she rejected both options, and seemingly put knowledge of the existence of one witch in the realm of things known by faith. So the witch of Endor might well, on Cavendish's view, have had genuine powers of witchcraft (and not merely temporary ones either). Overall though, Cavendish takes something quite like Hobbes's approach to the issue of witches' existence. She denies More's view that there is good empirical evidence to believe in the existence of witches. So in this case, Cavendish's position is only a small step towards More's from Hobbes's, though it is indeed different from Hobbes's.

Working through this and the other issues above, from accounts of perception to discussions of the nature of ghosts, shows us a good deal about Cavendish's materialism. The basis for calling Cavendish a materialist is her belief that all natural substances are material. And it is reasonable to call her a materialist for that reason. But there are a good many ways in which she departed from Hobbes's view, which is something of a paradigm of seventeenth-century materialism. She believed that human beings have incorporeal supernatural souls, and that the corporeal world works in an orderly way because of the workings of irreducibly thinking things. This moved her in the direction of More's view, but not to the point of accepting it. More generally, examining these debates teaches us about the complexity of seventeenth-century debates about materialism. Hobbes, More, and Cavendish all had different understandings of the corporeal, and of what divided it from the incorporeal. They debated those understandings at the same time as they debated whether there are incorporeal substances. In general, the seventeenth-century debate about materialism is more complex and fluid than a simple disagreement over an agreed question.

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