

## Toland, Leibniz, and Active Matter<sup>1</sup>

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In the early years of the eighteenth century Leibniz had several interactions with John Toland. These included, from 1702 to 1704, discussions of materialism. Those discussions culminated with the consideration of Toland's 1704 *Letters to Serena*.<sup>2</sup> In the fourth letter, Toland argued that Spinoza could not account for the presence of motion in the world. In the fifth letter, Toland argued that matter is necessarily active. Leibniz read relevant parts of Toland's book, and commented on these two arguments.

Toland's active matter view – like Cudworth's belief in plastic natures – placed him intriguingly between Hobbes and Leibniz. For Toland was clearly attracted to something like Hobbesian materialism. But Toland also claimed, in a somewhat Leibnizian way, that the minimal Hobbesian picture is inadequate, and there must be more basic structure in the world. In particular, he thought, we need to acknowledge that matter is not only necessarily extended and solid, but also necessarily active. Toland nevertheless stopped short of adopting a full-blown Leibnizian metaphysic, such as one involving the rehabilitated substantial forms of Leibniz's "New System", "*primitive forces, which contain ... an original activity*" (AG 139).<sup>3</sup>

In this paper I argue for two main theses about this exchange and its consequences for our wider understanding. The first is that, despite many claims that Toland was at the time of *Letters to Serena* a Spinozist, we can make better sense of him as a sort of Hobbesian

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<sup>1</sup> [Acknowledgements. Removed for review.]

<sup>2</sup> John Toland, *Letters to Serena* (London: Bernard Lintot, 1704). I give references to this using the abbreviation 'LTS' followed by letter and section numbers.

<sup>3</sup> 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); 'GP' for Gerhardt's *Die philosophischen Schriften von Gottfried Wilhelm Leibniz*; 'KS' for the *Correspondence de Leibniz avec la princesse électorale Sophie de Brunswick-Lunebourg*, edited by Onno Klopp (Hannover: Klindworth, 1874), a three volume edition of the Leibniz-Sophie correspondence that corresponds to volumes 7-9 of Klopp's larger edition of Leibniz's correspondence; 'L' for Loemker's *Philosophical Papers and Letters* collection, second edition (Dordrecht: Kluwer, 1989); and 'WFNS' for Woolhouse and Francks's *Leibniz's 'New System' and Associated Contemporary Texts* (Oxford: Clarendon, 1997).

materialist. Here one might helpfully contrast the ways in which Hobbesian materialists responded to Leibniz's criticisms of their materialism. Hobbes didn't have a chance to respond himself.<sup>4</sup> Damaris Masham had only a short correspondence with Leibniz, and seemed to persist in her view.<sup>5</sup> Toland, however, adapted his materialism in a way that attempted to respond to Leibniz, but without changing the fundamental character of his approach.

The second main point concerns reasons for materialism, and in particular a story Locke tells in the *Essay* about materialists' motives. Locke sees materialists as motivated by the alleged inconceivability of an immaterial mind. Locke's comments suggest an interesting historical narrative about the reasons of early modern materialists. And if we look at the arguments of Hobbes and Toland, we see that they both used arguments involving conceivability considerations to support their materialism, but neither did so in anything like the straightforward way that Locke suggests. Hobbes is concerned more with criticizing dualists' misuses of conceivability arguments than with promoting his own. Toland defends his materialism by arguing that matter is active, and argues that matter is active by using a conceivability argument. But this is not the crude conceivability argument that Locke suggests motivates materialists. Thinking about the *Letters to Serena* thus suggests that there is a useful story we might tell about the use of conceivability considerations in support of early modern materialism, but it is not the simple story that Locke tells.<sup>6</sup>

This paper is divided into four main sections. The first introduces the Leibniz-Toland exchanges of 1702-4. The second looks in particular at the fourth and fifth of Toland's

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<sup>4</sup> Leibniz did write two letters to Hobbes. However, it's not clear that Hobbes received them. Indeed, the second letter begins as if Hobbes had never been aware of the first, and it's not known whether the second was ever sent. Moreover, they focus on political philosophy and on physics, rather than the truth or otherwise of materialism. See Thomas Hobbes, *The Correspondence of Thomas Hobbes*, edited by Noel Malcolm (Oxford: Clarendon, 1994), 713-22 and 731-5.

<sup>5</sup> [Removed for review]

<sup>6</sup> These two theses, taken together, give us a picture of both what Toland was arguing for and how he was arguing for it. They also suggest important broader claims: negatively, a certain question about just how widespread Spinozism was as a philosophical phenomenon, and positively, an interesting narrative about motives and reasons for materialism in early modern philosophy. Neither of these broader claims can be fully defended here. But they can be motivated, and do suggest a further value to looking at Toland, beyond those of understanding his work and his exchanges with Leibniz.

*Letters to Serena*. The third tackles the issue of Toland's alleged Spinozism, and how that relates to a materialism that Leibniz describes as Hobbesian. And the fourth looks at the argument of the fifth letter in the broader context of the use of conceivability considerations in arguing for materialism in the early modern period.

### 1. Leibniz's exchanges with Toland

Leibniz's interactions with Toland extended over several years. Leibniz had become aware of Toland while reading Locke's response to Stillingfleet, in which Locke is at pains to distinguish his view from Toland's.<sup>7</sup> Leibniz later wrote comments on Toland's *Christianity not Mysterious*, the relevant text of Toland's.<sup>8</sup> The discussions on which I focus in this paper then took place in 1702 and 1704. And Leibniz and Toland continued to interact, albeit more sporadically, for several more years.<sup>9</sup>

Toland traveled to the court in Berlin, where Sophie Charlotte was queen, and to the court in Hanover, home of the Electress Sophie.<sup>10</sup> While around, Toland managed to provoke, debate, and generally arouse negative opinion. At one point he argued that there were no cannibals in North America – that those stories had just been made up by the Spanish to cover their cruelty to the inhabitants. Leibniz objected, giving some reasons for believing there to be cannibals. Sophie, on hearing of Toland's view, suggested that the cannibals might at least be useful friends for Toland to have: "I'm not surprised that Toland takes the cannibals' side, because they might one day be his protectors – for he, unfortunate man, has all of Christianity against him" (KS 2.376).

One of the debates that Toland provoked was his extended exchange with Leibniz about materialism and related issues. This exchange falls into three reasonably distinct parts.

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<sup>7</sup> See chapter 10 of M.R. Antognazza, *Leibniz on the Trinity and the Incarnation* (New Haven: Yale University Press, 2007).

<sup>8</sup> Leibniz, "Annotatiunculæ subitaneæ ad librum de Christianismo Mysteriis carente: Conscriptæ 8 Augusti 1701", in *A Collection of Several Pieces of Mr John Toland* (London, 1726). The text is on pages 60-76 of the appendices in volume 2.

<sup>9</sup> Thus, for instance, Toland, *A Collection* (2.400-2) contains a letter written by Leibniz to Toland from Hannover dated 1 March 1710. And as late as 1716 Leibniz commented on Toland's comments on one of Leibniz's replies to Bayle (AG 225-30).

<sup>10</sup> Toland wrote a book about his travels, *An Account of the Courts of Prussia and Hannover* (London, 1714).

### 1.1 Sophie Charlotte letters

The first part is in an exchange of letters arranged by Sophie Charlotte. In Berlin, Toland presented his materialist views to Sophie Charlotte. She then arranged a discussion between Toland and Leibniz about the issue, conducted by letters that she sent back and forth. The exchange seems to have begun with a letter from Toland, which no longer exists. Leibniz describes his first letter as a response to “the letter that was sent some time ago from Paris to Osnabruck, which I recently read, at your command, in Hannover” (AG 186). Toland then wrote a further letter in response to Leibniz’s, and Leibniz responded to that one too.<sup>11</sup>

Most of Leibniz’s first letter is devoted to discussing the extent to which thought depends on the senses. The discussion is complex. But Leibniz sums up his position as follows.

Yet I agree that, in the present state, the external senses are necessary for our thinking, and that if we did not have any, we would not think. But that which is necessary for something does not, for all that, constitute its essence. Air is necessary for our life, but our life is something other than air. The senses provide us material for reasoning, and we never have thoughts so abstract that something from the senses is not intermixed with them; but reasoning requires something else besides that which is sensible (AG 191).

Leibniz turns then to a second question, “whether there are *immaterial substances*” (L 551). He thinks there are such things. Perhaps they are always united to bodies, but that wouldn’t be to give up on immaterial substances. Going further, Leibniz does argue that there is a substance separate from matter. But this is God, not some finite created substance. In addition, Leibniz argues – or rather says – that there can be no mechanical explanation of perception.

Toland responded to Leibniz in a letter of his own to Sophie Charlotte. Toland’s main strategy is to agree with much of what Leibniz says, but deny that this shows “that there is something in our thoughts that does not come from our senses” (GP 5.509). Toland also draws attention to ways in which the development of thought parallels the development of

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<sup>11</sup> Leibniz’s first letter, on what is independent of sense and of matter, is printed at GP 6.499-508, and translated at L 547-553, and at AG 186-92. Toland’s letter is at GP 6.508-14, and Leibniz’s response at 6.514-9.

the body, and argues that “*we have room to conclude from this common progress of the soul and the body that the soul is what it is, thinks what it thinks, and does what it does because of the body and corporeal things*” (GP 5.511).

Leibniz’s response to that came in another letter to Sophie Charlotte. In large part Leibniz spells out material that’s familiar from the “New System”. He also notes that “I see nowhere where he [Toland] directly attacks the immateriality of the soul” (GP 5.517), which seems right. In this exchange, at least as it survives, Toland focuses solely on the dependence of thought on the senses, and says nothing directly about materialism. Perhaps both Leibniz and Toland are assuming some close connection between Toland’s sort of empiricism and materialism, but that too is unstated.

### 1.2 Bayle letters

The second part of the 1702 exchange between Leibniz and Toland about materialism involved discussions between them and Pierre Bayle. In Note C of the entry “Dicaearchus” in his *Dictionary*, Bayle argues against the view “that the soul is not distinct from the body”.<sup>12</sup> Bayle argues that, if you say that bodies have the power of thought, you have to say they always have this. Thus you must say “either that the substance that thinks is distinct from the body, or that all bodies are substances that think” (Bayle 1991, 65). Toland wrote to Bayle, criticizing this argument.<sup>13</sup>

Toland’s objection is reported by Bayle at the beginning of his response to Toland in Note L. Toland’s idea is that one can say that some but not all bodies think, if one says that thought arises from the “mechanical disposition of several parts of matter” (Bayle 1991, 68). That is, matter doesn’t think just because it’s matter, but because it’s matter with its parts put together in the right way. And this view, Toland argues, hasn’t really been engaged by Bayle. Faced with this mechanistic version of the view that matter can think, Bayle responds that it

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<sup>12</sup> Pierre Bayle, *Historical and Critical Dictionary: Selections*, edited and translated by Richard H. Popkin (Indianapolis: Hackett, 1991), 65. For discussion of some of the arguments against materialism in “Dicaearchus”, see Todd Ryan, “Bayle’s Critique of Lockean Superaddition”, *Canadian Journal of Philosophy* 36 (2006) 511-34.

<sup>13</sup> Toland’s letter to Bayle seems not to exist. Thus Elisabeth Labrousse, in discussing this exchange, refers only to Leibniz’s letter to Bayle. She also confirms the thought that it’s Toland’s letter to which Bayle is responding in note L to “Dicaearchus”. Elisabeth Labrousse, *Pierre Bayle* (Paris: Alin Michel, 1996, first published 1994), 238n.

does not really change the situation. Rearranging mechanical parts, argues Bayle, cannot produce thought. What it can do is change the amount of motion in the system. But it could not produce thought, “if each organ before being put in its place was not actually endowed with the ability to think” (Bayle 1991, 70).

Leibniz’s involvement in this exchange consists in a letter to Bayle. Fundamentally, Leibniz agreed with Bayle. For he thought that “when it is appropriately organized, matter can become suitable for allowing clear thoughts, but not for giving rise to thoughts where there were none” (WFNS 131). In an earlier draft of the letter, Leibniz added a further argument.<sup>14</sup> This is a version of his famous mill argument (which, when it occurs in its most famous location in the ‘Monadology’, is in a section after one that mentions Bayle).<sup>15</sup>

### 1.3 Letters to Serena

The third part of the exchange centers on Toland’s *Letters to Serena*, which was published in 1704. This book, which consists of a preface and five letters, is closely connected to the 1702 debates. The first three letters, on “The Origin and Force of Prejudices”, “The History of the Soul’s Immortality among the Heathens”, and “The Origin of Idolatry, and Reasons of Heathenism”, are all addressed to the woman who Toland calls, in his title and preface, Serena. Serena is usually and plausibly thought to be Queen Sophie Charlotte. These may well be versions of work that Toland wrote for Sophie Charlotte when in Berlin in 1702.

The preface (which itself is a letter), and the fourth and fifth letters, each appear to be addressed to a different man. The fourth letter, which presents arguments against Spinoza, is addressed to an anonymous “Gentleman in Holland”. The fifth letter argues that matter is necessarily active. Its early passages make clear that it was addressed to someone other than the addressee of the fourth letter, who’s referred to as “our worthy Friend” (LTS 5.1, 164). The unnamed addressee of this fifth letter may well have been Jakob Heinrich von

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<sup>14</sup> For the evidence that this is an earlier version, see WFNS 126, n130.

<sup>15</sup> Toland also appears to have written a set of “Critical Remarks” on Leibniz’s system, which are dated 1703 but were not published until 1716. These respond to part of Leibniz’s debate with Bayle (specifically, Leibniz’s response to the comments Bayle made in the second edition of the *Dictionary*). R.S. Woolhouse, “John Toland and ‘Remarques Critiques sur le Système de Monsr. Leibnitz de l’Harmonie préétablie’”, *Leibniz Society Review* 8 (1998), 80-7 argues convincingly for Toland’s authorship of the remarks. Leibniz responded to these remarks in 1716 (AG 225-30).

Flemming, who probably met Toland in Berlin in 1702.<sup>16</sup> The preface is titled as “a Letter to a Gentleman in London, sent together with the following Dissertations”. The addressee of this letter may well have been Pierre Desmaizeaux.<sup>17</sup>

The fourth and fifth letters connect closely to the 1702 debates about materialism. Leibniz saw proofs of much of the relevant text: the end of the third letter, the fourth, and the start of the fifth (LTS 5.1-16). He commented on these passages in a letter.<sup>18</sup> Leibniz saw Toland as having taken a step in the right direction. Toland was right in particular, Leibniz thought, to distinguish local motion from motive force, for only by doing so can one avoid introducing the problematic miracles of occasionalism. Nevertheless, Leibniz disagreed with Toland’s view of matter as necessarily active, if only because Leibniz wanted to distinguish matter from body (*corps*) and corporeal substance (*substance corporelle*). This was perhaps the central point of disagreement between Leibniz and Toland. In broad terms, it was that Toland, though he had adopted the Leibnizian notion of widespread and underlying activity, was far from having adopted the full Leibnizian metaphysical scheme.<sup>19</sup>

## 2. Toland’s position in the fourth and fifth *Letters to Serena*

### 2.1 Toland’s materialism

Leibniz clearly thought that Toland was a materialist, thinking first that he was an atomist materialist, then that he was a plenist materialist like Hobbes. These descriptions of Toland’s view occur in Leibniz’s 1702 reports to Sophie of what Toland had said to Sophie Charlotte.

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<sup>16</sup> See S. Brown, “Two Papers by John Toland: His ‘Remarques Critiques sur le Systême de M. Leibnitz...’ and the last of his *Letters to Serena*”, *Rivista I Castelli di Yale* 4 (1999), 55-79. Brown assembles (58-9) the case for Flemming being Toland’s correspondent.

<sup>17</sup> For the case that the addressee is Desmaizeaux, see Woolhouse (1998, 83).

<sup>18</sup> This letter is published in G. Tognon, “Leibniz et Toland: Una letter inédite à propos de *Letters to Serena*” in *Leibniz: Werk und Wirkung. IV. Internationaler Leibniz-Kongress* (Hannover: G.W. Leibniz-Gesellschaft, 1983) 784-93. It is also reprinted in G. Tognon, “Leibniz, Toland, et Spinoza: Una letter inédite à propos de *Letters to Serena*”, *Bulletin de l’association des amis de Spinoza* 12 (1984) 2-11. I cite the 1983 publication.

<sup>19</sup> Stuart Brown argues that Leibniz himself reacted to Toland, particularly by becoming more clearly opposed to belief in separated souls. Stuart Brown, “The Leibniz-Toland Debates on Materialism and the Soul at the Court of the Queen of Prussia”, in H. Poser (ed.), *Nihil Sine Ratione: Mensch, Natur, und Technik im Wirken von G. W. Leibniz, VII. Internationaler Leibniz-Kongress* (Berlin: G.W. Leibniz Gesellschaft, 2002), 1.147-54, in particular 1.151-4.

The first relevant letter here is one written by Leibniz to Sophie on 9 September 1702.

Mr Toland [...] read a discourse to the Queen about the soul, which depended on, roughly, Lucretius's view, that is on the concurrence [*concoure*] of corpuscles. But Toland doesn't say why matter has motion and order, nor why there is sense in the world (KS 2.362).

In responding to Leibniz four days later, Sophie agreed that Toland needed to explain those things indicated by Leibniz (KS 2.363-4). That is, Leibniz and Sophie agree that Toland needs to say why there's motion and order in matter, and why there is sense in the world. So far, they think, his materialism fails to do that. By the time of another letter to Sophie, later in September, Leibniz had changed his characterization of Toland's view a little.

The view is Hobbes's view that there's nothing in nature but shapes and movements. This was also the view of Epicurus and Lucretius, except that they admitted the vacuum and atoms or hard particles, but Hobbes thought that everything is full and fluid, which is also my view. But I think that we ought to look for the origin of action, perception, and order underneath matter, that is, underneath that which is purely passive and indifferent to movement (KS 2.364).

Leibniz had come to think of Toland as a Hobbesian rather than a Lucretian materialist – that is, as a materialist believer in a plenum rather than a materialist believer in atoms in the void.

However, in the surviving texts of the three discussions described above (the one conducted via Sophie Charlotte, the one involving Bayle, and the one centred on *Letters to Serena*) Toland's position is somewhat elusive. In the first set of discussions, Toland focuses on the dependence of thought on the body and senses. Nothing he says seems incompatible with materialism, but nothing he says really asserts it either. Something similar goes on in the discussions involving Bayle. Again we see Leibniz saying that Toland is a materialist, but not Toland saying it himself. Bayle is careful indeed to note that Toland is not arguing for the materialist position, just objecting to the argument against it that Bayle had given.<sup>20</sup> The

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<sup>20</sup> “He only wanted to show that I was wrong in accusing Dicaearchus of inconsistency, and that the system does not fall part just because this philosopher has not admitted sensation and



same sort of thing seems to be true about the discussion of *Letters to Serena*: Toland approaches materialism, but doesn't state it.

There was a significant change in Toland's view of the material world during this period. In the fourth and fifth *Letters to Serena* Toland thought of matter as necessarily active, but there is no sign of that view in the earlier exchanges.<sup>21</sup> In the *Letters to Serena* Toland wanted to change our picture of matter. And we may well speculate that he wanted to do that in order to make materialism more appealing. But the statements of and arguments for materialism that one would expect are absent.

It is nevertheless plausible that Toland was a materialist throughout this period, at least about the natural world. We have Leibniz's reports. And though Toland does not come out and assert materialism, he does not deny it, and his various arguments (for the dependence of the mind on the senses, against Bayle's objections to thinking matter, and even for active matter) are compatible with a plenist materialist picture of the world. If you began with a Hobbesian conviction that the natural world contains only extended material things, added a Lockean conviction that all matter is solid, and then the distinctive view that matter is necessarily active, you would end up, it seems, with more or less Toland's view in *Letters to Serena*. Without the addition of the view that matter is active – an addition that comes only in *Letters to Serena* – we have, as Leibniz says, something very much like Hobbes's materialism.

## 2.2 Active matter

The main view advocated in letter five, which Toland expresses in various ways, is that matter is necessarily active. Toland believes that things can have necessary or essential features: features they always have, and which are part of their definition. Thus he says that "*Matter is necessarily active as well as extended*" (LTS 5.1, 164), that "*Activity ought to enter into the Definition of Matter, [and] it ought likewise to express the Essence thereof*" (LTS 5.2, 165), and speaks of "matter being defin'd active as well as extended (to which you may add Solidity, with the incomparable Mr. LOCK)" (LTS 5.2, 166).

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imperishable life to be in bodies that have once been alive" (Bayle 1991, 69).

<sup>21</sup> Brown (2002, 149) describes Toland's view in the 1702 discussions as seeming to be "a kind of materialistic Lockeanism".

In talking about the activity of matter, Toland often talks about local motion, change of place. Indeed, he emphasizes the extent to which we can observe motion throughout the world, at all scales and places (LTS 15-6, 186-92). One might suspect, reading this, that Toland thinks that matter is always in motion. But Toland also insists on a distinction between motion and an underlying activity, “between the internal Energy, Autokinesy, or essential Action of all Matter, without which it cou’d be capable of no particular Alteration or Division; and the external local Motion or Changes of Place, which are but the various Modifications of the essential Action as their Subject” (LTS 5.17, 193-4).<sup>22</sup> It’s not altogether clear just what this underlying activity or energy is, and how it relates to motion. Particular motions of an object must be closely related both to the motions of some other object, their cause, and to the internal essential activity of the object itself. It is clear however that Toland’s considered view is that this underlying activity is what’s necessarily present, not the local motion itself.

The view that matter is necessarily active, curious though it may seem, does have various precedents in early modern philosophy.

Leibniz’s own views serve as some sort of precedent. Consider the “New System”, with its talk of rehabilitated substantial forms called “*primitive forces*, which contain ... an original *activity*” (AG 139). Those expressions of Leibniz’s do suggest that underlying the material world is force, something active – which is roughly Toland’s view. Consider also Leibniz’s various anti-Cartesian suggestions (most famously perhaps in the ‘Discourse on Metaphysics’) that we need to think of the world as containing not just extension but also force, which is something metaphysical. The use of ‘metaphysical’ suggests the force is on a different level than the extension, in a way Toland’s view doesn’t acknowledge. But one could nevertheless see Leibniz, in very rough outline, as taking the Cartesian extended world, or the Hobbesian world of matter in motion, and adding underlying active force to it. And one could see Toland as doing, at that level of abstraction, pretty much the same thing.

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<sup>22</sup> ‘Autokinesy’ is a word used by Cudworth in his *True Intellectual System* (159, 668), and I presume that Toland took the word from there. (The *OED* records no earlier, indeed no other, uses than Cudworth’s, though Henry More had used ‘autokinetical’ in his 1647 *Philosophicall Poems*.) ‘Autokinesy’ appears to have been constructed by Cudworth from Greek. ‘Autokinesis’, perhaps the most obvious Greek word for Cudworth to have used as a source, is a somewhat unusual word, in a way that suggests Cudworth may have taken it from Plotinus.

Leibniz is not the only one to have a view somewhat resembling Toland's. One might see Spinoza's view of extension (in particular, his view that motion and rest is the infinite immediate mode of extension) as another. Thus Bennett, for instance, talks of how Spinoza "thinks of the world as somehow self-moving, perhaps like an animal".<sup>23</sup> I discuss the relation of this view to Toland's in section 3.1 below.

Looking beyond these names that are often associated with Toland, we find other precedents for the belief in the activity of matter. Indeed Hobbes at one time (the 1660s) believed that God was an extended corporeal thing, but one with powers unlike most corporeal things.<sup>24</sup> God, said Hobbes, "is corporeal and infinite", "a most pure, and most simple corporeal spirit".<sup>25</sup> Though Hobbes shied away from saying definitely how this spirit works on other corporeal things, the one analogy he did offer (involving the mixing of liquids) suggests that it is an active material thing. Thus he said that "[i]f then such gross bodies have so great activity, what shall we think of spirits, whose kinds be as many as there be kinds of liquor, and activity greater? Can it then be doubted, but that God, who is an infinitely fine Spirit, and withal intelligent, can make and change all species and kinds of body as he pleaseth?" (EW 4.309-10).

Gassendi provides a further example. For he seems to have believed that atoms possess a *vis motrix*, "the natural and internal faculty or force by which atoms move and go".<sup>26</sup> For Gassendi, "atoms are mobile and active because of a force of moving and acting that God gave them in his creation of them".<sup>27</sup> Though Gassendi here is talking about atoms rather than larger bodies, again we have the suggestion, from another rather prominent modern philosopher, that material things do not have purely passive natures.

One might also suggest that the "hylozoic" or "Stratonic" atheism discussed by Cudworth in his *True Intellectual System* is close to Toland's view. "Hylozoism" says

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<sup>23</sup> Jonathan Bennett, *A Study of Spinoza's Ethics* (Indianapolis: Hackett, 1984), 107. I should note that Bennett goes on to say that "[a]lthough he [Spinoza] attached importance to this, I can't make it yield interesting philosophy".

<sup>24</sup> [Removed for review]

<sup>25</sup> Thomas Hobbes, *The English Works of Thomas Hobbes*, edited by W. Molesworth (London: John Bohn, 1839-40) 4.306.

<sup>26</sup> Gassendi, *Syntagma*, at *Opera* 1.273a, quoting the translation of Antonia LoLordo, *Pierre Gassendi and the Birth of Early Modern Philosophy* (Cambridge: Cambridge University Press, 2007) 140.

<sup>27</sup> Gassendi, *Syntagma*, at *Opera* 1.280a, quoting the translation of LoLordo (2007, 143).

Cudworth “makes all Body, as such . . . to have *Life* Essentially belonging to it (Natural Perception, and Appetite), though without any *Animal Sense* or *Reflexive Knowledge*” (TIS 105).<sup>28</sup> However, though that has certain similarities to Toland’s active matter view, it is also importantly different, attributing more to matter than Toland does. This is most clearly shown by the fact that Toland actually attacks this view, where he criticizes philosophers who have “taught that all Matter is animated” (LTS 5.23, 209). Like Cudworth, Toland calls this view hylozoic, and associates it with with Strato.<sup>29</sup> Indeed, Toland goes on in this section to criticize Cudworth’s own view that the world contains plastic natures, suggesting that Cudworth’s view differs from hylozoism “only about words” (LTS 5.23, 211).<sup>30</sup>

Nevertheless, though we might think that the standard early modern view was that matter was passive, and thus that Toland had a strange and idiosyncratic conception of it, there are in fact several precedents for his view. None of them are exactly his view, and none of this is to say that his view wasn’t still somewhat out of the ordinary. But it was not just the weird opinion of one isolated man either.

### 2.3 Conceivability argument

Toland’s central argument for the active matter view in the fifth letter is a conceivability argument. Toland argues that “*Matter cannot as much as be conceiv’d without an Action of its own, or under some Effect of such an Action*” (LTS 5.4, 168). He moves pretty quickly from this to the conclusion that matter is necessarily active. I suggest that the following structure captures what Toland is saying.

1. “*Matter cannot as much as be conceiv’d without an Action of its own, or under some Effect of such an Action*” (LTS 5.4, 168).
2. An implicit premise about the sort of conceivability used above being a good guide to possibility.

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<sup>28</sup> Ralph Cudworth, *The True Intellectual System of the Universe* (London: Richard Royston, 1678), facsimile reproduction (Stuttgart-Bad Cannstatt: Friedrich Frommann Verlag (Günther Holzboog), 1964).

<sup>29</sup> Thus I disagree with the suggestion of Tognon (1983, 785) that LTS 5.23 is an attack on Leibniz.

<sup>30</sup> This discussion of Cudworth’s does suggest that one might also look for ancient precedents for Toland’s claims. That would take me too far from the central topic here. But see LoLordo (2007, 142-3) on Gassendi on the motion of ancient atoms.

3. “Matter is necessarily active” (LTS 5.1, 164).

Toland supports his first premise by working through a series of examples of matter’s features, and arguing that each of them is or is the result of some action, in particular some motion. One might think that this is a terribly unpromising strategy. Surely, you might suggest, one can conceive of an object at rest as easily as an object in motion. However, Toland argues, there’s a wide variety of qualities that we conceive of objects as having which are so tightly tied to motion that we cannot conceive of the object having the quality without conceiving of the object as having motion. Thus Toland says, for instance, that “matter without Action ... must be something depriv’d ... of all Sensible Qualities ... since all these depend immediately on Motion” (LTS 5.4, 168). So to conceive of an object as green, for instance, is to conceive of it as a thing possessing motion, because motions (say, the motions of light and the motions of parts on the surface, and indeed the motions that created the texture of the surface) are responsible for the object’s being green. The same story is told about heat, taste, etc, and indeed about divisibility (because division is done by motion).

Note two things about this argument. First, note that Toland is relying on a strong sort of conceivability, which involves a good deal of understanding, in saying that we cannot conceive of inactive matter. Presumably he thinks that the weaker sense, in which one can conceive of inactive matter, is not a real guide to possibility. Second, note that we have to get from inconceivability without local motion to the essential presence, not of local motion, but of the underlying activity. Some of Toland’s language suggests that he thinks matter is inconceivable without the underlying activity, but then his examples are of motions, and it’s not even really clear how to conceive of the underlying activity.

I will not here explore these criticisms in depth, or look much at ways in which one might defend the argument. But note that, in responding to the first criticism, one might begin by arguing that weaker sorts of conceivability appear to be poor guides to possibility. Thus I might initially think I can conceive of an ant the size of an adult human, and thus think it to be possible. I might draw a picture of an enormous ant to support my claim. But then, thinking more about ants, I might well conclude that no ant could really be that size, as it would collapse under its own weight. It’s not obvious that such a thing is possible after all. This narrower sense of possibility, in which giant ants are impossible, requires a stronger sort of conceivability as a guide to it – more or less the sort of conceivability that Toland relies

on. In responding to the second criticism, one might try to separate things more strictly than Toland tends to – have first a argument that matter is necessarily in local motion, then second an argument that that local motion must be supported by an inner activity.

### 3. Toland's alleged Spinozism

#### 3.1 Israel's interpretation

So far I have just been referring to Toland as a materialist. Several authors have, however, argued that Toland is in *Letters to Serena* advocating a sort of Spinozism, despite his apparent objection to Spinoza in the fourth letter. Thus Jonathan Israel says that “all Toland is doing in his discussion of motion in matter is restating Spinoza's thesis that motion is inherent in matter while pretending to criticize him for not expounding that very position”.<sup>31</sup> Spinoza says that motion and rest is the infinite immediate mode of extension.<sup>32</sup> While that latter position is not obviously exactly the same as Toland's view that matter is necessarily active, it is close enough that this interpretation needs to be taken seriously.<sup>33</sup>

Discussion of this interpretation does need some account of what counts as Spinozism, as opposed to materialism, atheism, or radicalism, all of which are associated with Spinoza, but presumably none of which is enough in itself to make a view count as Spinozism. I'll take it, for working purposes, that just some closer connection is required, leaving it open just what that is. In one case it might be having Spinoza's one substance view. In another it might be being a materialist because of one's reading of Spinoza. There need not really be a fixed set of conditions.

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<sup>31</sup> Jonathan Israel, *Enlightenment Contested* (Oxford: Oxford University Press, 2006), 184. Israel is not the only person to think of Hobbes as a Spinozist. Ann Thomson, “Informal Networks”, in Knud Haakonssen (ed.) *The Cambridge History of Eighteenth-Century Philosophy* (Cambridge: Cambridge University Press, 2006), 121-36, says that Toland's *Letters to Serena* “present Spinoza's ideas and claim to criticize them by insisting that motion is essential to matter” (130). Rosalie Colie, “Hobbes and the Early English Deists”, *Journal of the History of Ideas* 20 (1959), 23-46 says that Toland was a “Spinozist in many of his views” (45) and seems to agree with Toland's contemporary critic William Wotton that Toland's criticism of Spinoza in the fourth letter, though genuine, is just a means to the end of a revised and improved Spinozism.

<sup>32</sup> Spinoza, *The Letters*, trans. Samuel Shirley (Indianapolis: Hackett, 1995), Ep64.

<sup>33</sup> John Yolton, meanwhile, suggests that Toland's active matter view might “be an indication of some awareness on his part of the doctrine of forces in Newton's account”. John Yolton, *Thinking Matter* (Minneapolis: University of Minnesota Press, 1984), 101.

Some aspects of *Letters to Serena*, and of closely associated texts, do lend support to the Spinozist reading, but the evidence is far from overwhelming.<sup>34</sup>

1. Consider the central view that matter is necessarily active, which Israel points to. This is plausibly a view of Spinoza's, though various objections made at the time suggest that not everyone saw it as Spinoza's view (see point 4 below). The view that matter is active is indeed Toland's view in *Letters to Serena*. But as we've seen, this has precedents other than the Spinozistic one. So this observation alone is not enough to lead us to conclude that Toland is a Spinozist.

Now one might suggest that it's a combination of views including the active matter one that indicate Toland's Spinozism. If Toland is an atheist materialist who believes in active matter, one might well say, the connection is rather closer. Then the world, in Toland's view, contains just one thing (the matter), which is active. And that's not so far from Spinoza's one substance view. However, it's not so clear Toland is an atheist. For towards the end of the fifth letter he states his belief in God's existence, and defends his active matter view against the objection that it implies the non-existence of God (LTS 5.30). Of course, this could be dissimulation too. But we need some evidence for that, aside from the observation that it must be the case if the claim that Toland was a Spinozist is to be maintained.<sup>35</sup>

2. Think about the way that letters four and five fit together. Toland's overall message might be summarized as 'Spinoza cannot explain the presence of motion in the world, but I can'. That's a somewhat odd thing to say unless you look seriously at other views, such as views which invoke a God distinct from the world, or you hold some variant of Spinoza's

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<sup>34</sup> I should emphasize here that I'm just talking about the text and views of *Letters to Serena* (and to a lesser extent the 1702 exchanges with Leibniz). It's another question what to make of some of Toland's later views, in such works as his *Pantheisticon*.

<sup>35</sup> Brown (1999, 66) points to some passages from Toland's 1703 "Critical Remarks" that seem to suggest materialism. But the passages don't terribly clearly say that there is no God – they might well just be proposing materialism about the natural world, which is perfectly compatible with what's said in *Letters to Serena*. Brown (1999, 71) also suggests that Leibniz's 1702 paper on an universal spirit (L 554-60) provides evidence that Toland was a pantheist at this point. But the relevance of that paper to Leibniz's thought about Toland is highly questionable, Toland not appearing to be a believer in a soul of the world. Note too that Leibniz seems not to think – or at least to say – that Toland is a Spinozist. And goodness knows Leibniz was willing to say negative things about Toland.

view yourself. Toland doesn't do the former, suggesting he was in fact presupposing a sort of one-substance materialism: not exactly Spinoza's view, but something recognizably like it. However, there's another way to understand the relationship between the two letters. In a letter, which later became letter four, Toland said 'I think Spinoza is wrong about this topic'. Then Flemming asked what Toland himself thought about the same topic. And in response, in what became letter five, Toland told him. If, as seems most likely, these letters really did start out as letters – their presentation as letters is not just a literary device – this is at least as plausible a story about the connection of the two letters as the one above.

3. Consider the way in which Toland distinguishes “between the internal Energy, Autokinesy, or essential Action of all Matter, without which it cou'd be capable of no particular Alteration or Division; and the external local Motion or Changes of Place, which are but the various Modifications of the essential Action as their Subject” (LTS 5.17, 193-4). That language, in particular the talk of modifications, suggests Toland is taking the option which he notes Spinoza doesn't take, saying that motion is an attribute of the one substance. However, Toland's descriptions of the world do not in general suggest the adoption of the substance-attribute-mode framework that Spinoza adapts from Descartes. So Toland's active matter view is not really the sort of modified Spinozism that Toland suggests Spinoza might have held.

Spinoza himself does not take over that entire framework from Descartes. Whatever other changes one might think he makes, we can at least agree that Spinoza thinks that a substance can have more than one attribute, contrary to Descartes's view that a substance has exactly one principal attribute. But the basic language, and something of the picture of the metaphysical structure of substances, is the same. Toland does not share this picture. He does think that matter has some essential features, features it always has to some degree or another. But he does not think that all of matter's other features are modes of these essential features. A book's being green is for Toland the result of the extension, solidity, and motion of its parts. But none of those three essential features is for him an attribute of which being green is a mode.

That there are echoes of Cartesian metaphysical language such as this is unsurprising, just given the time in which Toland was writing, and his wide range of influences. But the systematic approach appears to be absent. Moreover, even if it were present, that would be a



rather weak connection to Spinoza. Certainly, for instance, one could adopt that framework and still believe in the existence of a God distinct from the world, the existence of multiple substances in the world, and even that thinking substances are distinct from extended substances. On its own, it's just not a good indicator of adherence to Spinozism. And even when combined with some sort of materialism, it still leaves the question of Toland's Spinozism open.

4. A further thing that might shed some light on Toland's alleged Spinozism is his criticism of Spinoza. Toland's main idea is that Spinoza cannot explain why there is motion in the world. Toland explicitly connects this criticism to one that Tschirnhaus made in letters to Spinoza, a criticism that Spinoza was somewhat elusive in answering. That connection to Tschirnhaus's criticisms is one reason to think that Toland was no Spinozist in *Letters to Serena*. Tschirnhaus was not supporting Spinoza by making this criticism – how is Toland supposed to be? Well, Toland might be repeating Tschirnhaus's criticism, but all the while thinking there's a Spinozistic answer (which he Toland has). But some more detailed investigation of this issue is necessary.

Toland knew Tschirnhaus as the author of various letters in Spinoza's *Opera Posthuma*. Tschirnhaus's criticisms of Spinoza on motion, to which Toland refers, occur in some of those letters.<sup>36</sup> The issue first arose in two letters of January 1675. Tschirnhaus asked for “the true definition of motion, together with its explanation” (Ep 59). Spinoza basically refused to answer the question, saying that his views were “not yet written out in due order” (Ep 60). The issue came up again in letters of May-July 1676. Tschirnhaus told Spinoza that he was puzzled about “how the existence of bodies having motion and figure can be demonstrated a priori, since there is nothing of this kind to be found in Extension, taken in the absolute sense” (Ep 80). Here, as indeed in his earlier letters, Tschirnhaus's question came together with a similar question about how Spinozistic extension can explain the variety of bodies in the world. Spinoza responded that the solution lies in having the correct conception of extension. For “from extension as conceived by Descartes, to wit, an inert mass, it is not only difficult, as you say, but quite impossible to demonstrate the

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<sup>36</sup> Tschirnhaus's letters are Ep 59, 80, and 82, and Spinoza's replies Ep 60, 81, and 83. Toland refers in the fourth letter to all of these letters, using the numbering system of the *Opera Posthuma*, on which they are letters 63, 64, 69, 70, and 71.

existence of bodies. For matter at rest, as far as in it lies, will continue to be at rest, and will not be set in motion except by a more powerful external cause” (Ep 81). The answer must then presumably lie in having a different conception of the nature of extension, though Spinoza did not explicitly say here what that conception is. The matter is pursued a little more in the next two letters, though without the basic situation changing: Spinoza thinks that Descartes’s conception of extension is wrong, but doesn’t have a fully written out explanation of how variety and motion of bodies follow from his own conception of extension.

That lack of an explicit explanation leaves considerable room for interpretive work here. And because this issue is tightly connected to the general issue of how Spinoza thinks attributes relate to infinite and finite modes, how one understands this issue depends very much on how one understands Spinoza’s overall metaphysical picture. Nevertheless, though the details of Spinoza’s ultimate positive answer are not obvious, the content of the question – namely, how Spinoza can explain the presence of motion in the world – is clear. There is a similar question that Spinoza has an answer for, about the cause of any particular motion. That will be some other particular motion. But the question of why there is motion at all in the world, which presumably ought to be ultimately given in terms of the attribute of extension, remains.

With that background in mind, look now at the main argument of the fourth of Toland’s *Letters to Serena*. It runs as follows.<sup>37</sup>

1. Spinoza must explain why there is motion in the world.
2. There are two possible explanations he might have given: God (actually this itself can be split up, for we have first push explanations and occasionalist ones); matter as an attribute.
3. Spinoza can’t give the first sort of explanation, for he denies there’s a God distinct from the world.
4. But he also denies the second option. So
5. Spinoza cannot explain why there is motion.

Toland is fundamentally worried about the same issue as Tschirnhaus, namely how Spinoza can explain why there is motion in the world. Indeed, Toland himself makes the

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<sup>37</sup> See LTS 4.10-5, in particular 4.12.

connection between the two objections later in the fourth letter (LTS 4.13, 148-53). Along the way, Toland notes how “tho his system is at best but an ingenious Philosophical Romance” (LTS 4.13, 152), Descartes did at least answer this question, by invoking God. That may not be a good answer, but Spinoza, Toland argues, doesn’t have any answer at all. Perhaps, Toland speculates, Spinoza was somehow misled by his geometric manner of presentation (LTS 4.13, 153). Earlier, Toland suggests that Spinoza dodged Tschirnhaus’s objection because “he cou’d not bear to part with his System, nor to lose the hopes of heading a new Sect” (LTS 4.12, 148). Throughout, Toland is clear that he thinks of his and Tschirnhaus’s objection as the same objection.

In his letter about *Letters to Serena*, Leibniz comments on Tschirnhaus’s criticism.<sup>38</sup> Leibniz says that “Spinoza’s correspondent who urged him to say how motion and the variety of things come from extension was an acquaintance of mine, and someone of real merit. This person thought that Spinoza could have said more on the topic” (Tognon 1983, 792). That is to say, I suppose, that Tschirnhaus disagreed with Toland’s suggestion that Spinoza could not answer Tschirnhaus’s question. What exactly we should think about Leibniz’s views here is hard to say – a full story would involve some thoughts about what Leibniz in 1704 thought about how his younger self had reacted to the thoughts of Tschirnhaus and Spinoza.<sup>39</sup> But Leibniz does seem at least to be registering some suspicion about whether Spinoza’s situation is really as bad as Toland makes it out to be.

Roger Woolhouse, while granting that it “has always been obscure to his readers” how Spinoza thought that motion follows from extended substance, suggests that Toland’s difficulties might come in part from misunderstanding Spinoza.<sup>40</sup> “Like Clarke, Toland gets off on the wrong foot by supposing that Spinoza’s God is simply the material world”.<sup>41</sup>

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<sup>38</sup> “He [Toland] objects that Spinoza never properly answered the question of his friend (and mine) [Tschirnhaus], who asked Spinoza how extension could give rise to motion in bodies, and [Toland also remarks] that Spinoza caused his friend [Tschirnhaus] to hope for an solution of this problem, but appears never to have kept this promise, for there is no such answer in his posthumous works” (Tognon 1983, 791, my translation).

<sup>39</sup> For discussion of that earlier encounter, see for instance Mark Kulstad, “Leibniz, Spinoza and Tschirnhaus: Metaphysics à Trois” in Olli Koistinen and John Biro (ed.), *Spinoza: Metaphysical Themes* (Oxford: Oxford University Press, 2002), 221-40.

<sup>40</sup> Roger Woolhouse, *Descartes, Spinoza, Leibniz: the Concept of Substance in Seventeenth-Century Metaphysics* (London: Routledge, 1993)

<sup>41</sup> Woolhouse 1993, 94.

Clarke, seeing similar problems, had found only the explanation of particular motions by other particular motions as an answer, and rightly found that not completely satisfactory. What he (and Toland) had not seen was the story about motion and rest being an immediate infinite mode.

Toland indeed doesn't talk about the infinite mode. But aside from the issue of whether the understanding of Spinoza's one substance as the material world really is wrong, it's not so clear that attending to what Spinoza says about the infinite mode helps much in answering Toland's objection. Presumably this infinite mode, which Spinoza named in a letter, has some role to play in the explanation of why there is motion in the world. But what that role is is mysterious: perhaps not exactly absent, but certainly puzzling enough to question. Thus, whether or not Toland misunderstood Spinoza's overall picture, he does seem to have latched onto a perfectly fair criticism.<sup>42</sup>

Of course, a supporter of Israel's reading might say that Toland has only latched on to that criticism as a sort of cover. To attend only to the criticism, they might say, is to miss the overall point, that Toland is in fact arguing in the fifth letter for the very sort of view he criticizes in the fourth. That the fourth letter's objection closely resembles Tschirnhaus's just acts as extra camouflage, nothing more.

This is a judgment of overall intent, and one of a sort that's quite hard to refute. However, we have seen a variety of pieces of evidence both for and against Toland's advocating a concealed Spinozism in *Letters to Serena*, and the evidence is far from overwhelming. There seem indeed to be a variety of notable differences between their views.

Those differences – such as Toland's not adopting the substance-attribute-mode framework, let alone the details of the system such as the infinite immediate mode of extension, motion and rest – might seem, however, to be of a rather narrow and technical sort. Indeed, Israel argues,

while stipulating that no one should be called a 'Spinozist' unless they replicate his whole system accurately may make sense as a philosophical exercise it is scarcely relevant in the context of a broad, deep-seated cultural

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<sup>42</sup> Further complicating the issue about how the explanation might go, there's good reason to think that 'motion' in the name of the infinite mode doesn't mean the same thing as 'motion', the name for the state of individual bodies. See Bennett 1984, 106.

phenomenon ... [some radical authors] do not, of course, embrace Spinoza's system in every respect; often indeed, they only partly understood it. Nevertheless, what these writers stood for was a broad cultural phenomenon called 'Spinozism' (Israel 2006, 184).

Certainly there are different things one might call 'Spinozism'. And indeed it makes little sense, if you're interested in the spread of radical ideas somewhat like Spinoza's, to look only at those people who believed all that Spinoza believed. On the other hand, one could make too much into Spinozism. Even in the study of broad cultural phenomena, there's some interest in distinguishing, say, Spinozism from Hobbism, to the extent that this is possible.<sup>43</sup>

Taking this all into account, we might say that Toland's view in *Letters to Serena* is Spinozist in a weak and broadly applicable sense of that term, but not in a stronger one. Toland is a materialist about the natural world, and if Spinozism broadly speaking is just atheist materialism, Toland is part of the way there. On the other hand, as we've seen, it's not at all clear that Toland at this point denied the existence of a God distinct from the world. And if we just think of Toland as a materialist, we might better call him a Hobbesian than a Spinozist. Indeed, he seems to have had a broadly Hobbesian view in 1702, and added the active matter view only later as a way of modifying this view to defend the main ideas (non-atomist materialism about the natural world) against Leibniz's criticisms (see 4.2 below).<sup>44</sup>

This exercise might seem a rather pointless one, a silly game of putting people in boxes. But discussing this interpretive issue does reveal ways in which Toland's materialism is like, and ways in which it's not like, the views of Spinoza and Hobbes. More of those connections come out if we think about the ways in which Toland argues for materialism. That also sheds some light on a broader issue, the use of conceivability considerations by early modern materialists in their arguments for materialism.

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<sup>43</sup> See Noel Malcolm, "Hobbes and the European Republic of Letters", in *Aspects of Hobbes* (Oxford: Clarendon, 2002), 457-545, especially 535-7.

<sup>44</sup> One might also start to wonder more broadly about just how much Spinozism (as opposed to Hobbism among other things) there was exactly. For discussion of another questionable claim of partially concealed Spinozism, see Paul Lodge, "Burchard de Volder: Crypto-Spinozist or Disenchanted Cartesian?" in Tad Schmaltz (ed.), *Receptions of Descartes: Cartesianism and Anti-Cartesianism in Early Modern Europe* (London: Routledge, 2005), 128-46.

## 4. Conceivability and Materialism

### 4.1 Locke's suggestion

One puzzle about early modern philosophy is why the few materialist philosophers were materialists. Locke provides a story about this in his *Essay*, where he sketches two parallel arguments: one for dualism from the inconceivability of materialism, and one for materialism from the inconceivability of dualism. For instance, Locke characterizes an argument on each side in *Essay* IV.iii.6, describing the arguments as coming from those “over zealous for, or against the Immateriality of the Soul”.

Who, either on the one side, indulging too much their Thoughts altogether in matter, can allow no existence to what is not material; Or who, on the other side, finding not *Cogitation* within the natural Powers of Matter, examined over and over again, by the utmost intention of Mind, have the confidence to conclude, that Omnipotency it self, cannot give Perception and Thought to a substance, which has the Modification of Solidity.<sup>45</sup>

That gives us arguments for dualism and materialism. Most relevantly, here's the one for materialism.

1. An immaterial thinking thing is inconceivable
- So 2. An immaterial thinking thing is impossible
- So 3. The human mind is material

Obviously Locke has his comments to make about these arguments, both of which he rejects. Both arguments seem crude, and open to obvious objections. For one thing, neither shows awareness of an idea that Locke is especially concerned to point out – that the limits of conceivability to us might not be the actual limits of possibility.

Despite that, there is something to Locke's suggestion that this is a motivation for materialism. Leibniz at least agreed that it was. For he attributed to Hobbes an argument from the inconceivability of immaterial things (given Hobbes's theory of ideas) to materialism. Moreover, when he corresponded with Damaris Masham (around the time he was discussing materialism with Toland) Leibniz was confronted with someone arguing for

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<sup>45</sup> John Locke, *An Essay Concerning Human Understanding*, edited by P.H. Nidditch (Oxford: Oxford University Press, 1975) IV.iii.6.

materialism in just that way. Masham at one point told Leibniz that “my own belief that there is no substance whatever unextended is ... grounded upon this that I have no conception of such a thing”.<sup>46</sup>

I should emphasize that I’m not interested in evaluating Locke’s view precisely as he had it in mind, however exactly he did. For one thing, I’m interested in what Toland said in 1704, a few years after Locke wrote. But Locke provides us with an interesting suggestion as to how to understand the motives and arguments of the materialists of the time. Does anything like this story stand up under examination?

Here I look at only two cases: that of Hobbes, about which Locke knew to some extent, and that of Toland. There is, I argue, some truth in the suggestion that conceivability considerations play an important role in their arguments. The story is not nearly so simple, however, as one might think just from reading Locke’s suggestion. On the one hand, we actually find Hobbes arguing against the use of conceivability arguments, albeit conceivability arguments he thinks are used to support belief in immaterial beings. And on the other, though Toland does make use of a conceivability argument, it’s far from the one that Locke suggests. There is a story to tell about the use of conceivability considerations by early modern materialists, but it’s more complex than the one Locke tells. Neither Hobbes nor Toland is averse to arguing for materialism by using conceivability considerations, but neither does it in the straightforward way that Locke discusses and Masham endorses.

#### 4.2 Hobbes’s critique of conceivability arguments

Even if Leibniz is right in his reading of Hobbes, we have to note that we can also find Hobbes arguing in *De Corpore* against others’ misuse of conceivability arguments. The key mistake he attributes to them lies in moving from the observations that we can talk about ‘A’ and ‘B’, and can think about A without thinking about B, to the conclusion that A can exist without B existing. Hobbes gives at least three examples of this alleged error: thinking there can be thought without a body; thinking there can be accidents (e.g., quantity and heat) without body; and thinking there are such things as “separated essences”.<sup>47</sup> Hobbes seems to

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<sup>46</sup> Masham to Leibniz, 8 August 1704, WFNS 216-7, GP 3.359. On the arguments discussed in this paragraph, see note 5 above.

<sup>47</sup> *De Corpore*, chapter 3, section 4. Thomas Hobbes, *Part I of De Corpore*, translated by

think that the view that there are “separated essences” is a view of both Aristotle and the later scholastic tradition.<sup>48</sup> The view that certain accidents can exist apart from body is plausibly also a view of many members of that tradition. And the view that thought can exist without body is a view both of members of that tradition and of Descartes. Let me think a little about this, with particular reference to views about the mind.

The Latin edition of *Leviathan* gives us more detail about what Hobbes thought Aristotle thought.<sup>49</sup> Aristotle’s first mistake in this realm, Hobbes claims, was to think that there are certain things, essences, that correspond to the word ‘is’. Even if we grant that there are essences though, Aristotle still seems to have gone wrong, because he thought, Hobbes claims, that some essences could exist apart from beings of which they are the essences. Hobbes gives two examples. The first sort of separated essences discussed are *heavenly* separated essences, which “are present to the spheres of the heavens and drive them in a circular motion”.<sup>50</sup> Hobbes’s second example of an allegedly separated essence is the human soul. One possible source for this claim in Aristotle’s work is *De Anima* 1.1, which suggests, at least conditionally, the independent existence of the soul: “If there is any way of acting or being acted upon proper to soul, soul will be capable of separate existence”.<sup>51</sup> Another possible textual basis for Hobbes’s claim is *De Anima* 3.5: a mysterious passage, but one that might be taken to claim that thought is in some sense a form, and that it is in some sense separable.<sup>52</sup> Indeed, this seems to have been a key text for those who tried to form a coherent whole from Christian theology and Aristotelian philosophy, for it offered an opportunity to

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A.P. Martinich (New York: Abaris Books, 1981), 231.

<sup>48</sup> There’s often some ambiguity whether Hobbes’s target is a view of Aristotle’s, or a view that later scholastics developed from an Aristotelian base. Often his approach is to criticize both a core view he attributes to Aristotle, and related uses of the view by later Aristotelians. For a further example, see Thomas Hobbes, *Behemoth; or, The Long Parliament*, edited by F. Tönnies (Chicago: University of Chicago Press, 1990) 41-2.

<sup>49</sup> *Leviathan*, Latin edition 46.17.

<sup>50</sup> Hobbes’s textual basis for this claim may include *Metaphysics* 12.8. This is Curley’s speculation in his edition of *Leviathan*, p474, n10. Further technical classification, distinguishing these forms from the more usual sort, grew up in the area. See Dennis Des Chene, *Life’s Form: Late Aristotelian Conceptions of the Soul* (Ithaca: Cornell University Press, 2000), 77.

<sup>51</sup> 403a10-1. For Aristotle, I use the translations of *The Complete Works of Aristotle: The Revised Oxford Translation*, edited by Jonathan Barnes (Princeton: Princeton University Press, 1984).

<sup>52</sup> 430a10-26.



connect Aristotle's ideas to claims about immortality.<sup>53</sup> As a claim about Aristotle, what Hobbes says may seem dubious. As a claim about what others constructed out of Aristotelian and other materials, it's not so strange. Thus Aquinas, for instance thought both that the soul was a form, naturally united to body, and that it could exist apart from a body to which it was united.<sup>54</sup>

Hobbes's remarks appear then to have both Aristotle and Aristotelians as targets. But they are not his only targets. Hobbes is also attacking Descartes. When Hobbes talks about the "gross errors of certain metaphysicians" one of his examples is of philosophers who "from the fact that it is possible to consider thinking without considering body ... infer that there is no need for a thinking body".<sup>55</sup> That appears to pick out, among other things, Descartes's Sixth Meditation argument for a real distinction between mind and body. There Descartes claims that "the fact that I can clearly and distinctly understand one thing apart from another is enough to make me certain that the two things are distinct".<sup>56</sup> Descartes argues, via that claim, from his ability to clearly and distinctly conceive of mind apart from body and vice versa, to the conclusion that mind and body are really distinct. Abstracting away from the details, this is an argument from the conceivability of mind without body to the conclusion that the mind is not physical, which is one of the arguments targeted in the "gross errors" passage.

Descartes, though, did not endorse the claim that *if I can conceive of A's existing without B's existing, then A can exist without B existing*, but the weaker claim that (given certain other views, particularly about God) *if I can clearly and distinctly conceive of A's existing without B existing, then B can exist without A existing*. A special sort of conceivability, clear and distinct conceivability, is involved here. And only conceivability of this sort can, for Descartes, license the move to possibility. Hobbes's objection appears to ignore this important aspect of Descartes's argument.

Whatever the merits of Hobbes's arguments, they add up to his making a case for

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<sup>53</sup> See Hugh Lawson-Tancred's discussion in his introduction to his translation of Aristotle's *De Anima* (London: Penguin, 1986), 90-100.

<sup>54</sup> For discussion of Aquinas's view, see Stump, *Aquinas* (London: Routledge, 2003) 191-216.

<sup>55</sup> *De Corpore*, chapter 3, section 4. Hobbes 1981, 231.

<sup>56</sup> René Descartes, *The Philosophical Writings of Descartes*, translated by Cottingham, Stoothof, and Murdoch (Cambridge: Cambridge University Press, 1984), 2.54.

materialism by invoking conceivability considerations to argue against the immaterialism of the two most prominent sorts of opponents. So he does in a sense use conceivability to argue for materialism. But his approach doesn't fit Locke's story. What Hobbes is doing is more like Locke's criticism of an argument for dualism than it is like Locke's description of an argument for materialism. Conceivability is at work in Hobbes's argument, but not in the same way it's said in *Essay* IV.iii.6 to motivate materialism. Indeed, in almost exactly the opposite way. So though – perhaps because we agree with Leibniz's reading of Hobbes, or because we note Masham's argument – we might think there's something to Locke's comment, it's far from being the whole story.

#### 4.3 Toland's use of conceivability

Toland was writing after Locke, so Locke could hardly have had him in mind. But if we think in general about the role that conceivability plays in Toland's defence of materialism, what do we see? We see, I think, a complex use of conceivability considerations to defend materialism. Toland is not entirely adverse to arguing in this way. But his employment of conceivability considerations is far from the crude one that Locke sketches in the *Essay*.

To see this, look at how Toland apparently adopted the active matter view as a way of making his view more Leibnizian, and in response to Leibniz's criticisms.<sup>57</sup> There's little explicit and direct evidence here. However, this is a plausible way to reconstruct the evolution of Toland's position into the active matter view of *Letters to Serena*.

In their 1702 exchanges, Leibniz thought Toland was a Hobbesian materialist, and there was no sign of the active matter view. Leibniz thought, however, that this materialism was inadequate. As he put the point to Sophie on 9 September 1702, "Toland doesn't say why matter has motion and order, nor why there is sense in the world". Moreover, in his next letter to Sophie Leibniz saw the solution as lying in an underlying activity: "I think that we ought to look for the origin of action, perception, and order underneath matter, that is, underneath that which is purely passive and indifferent to movement".<sup>58</sup> And indeed, we can see the active matter view as a response to just this criticism of Leibniz's. At the very least, it

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<sup>57</sup> The classic version of such a reading is F. H. Heinemann, "Toland and Leibniz", *Philosophical Review* 54 (1945) 437-57.

<sup>58</sup> These are the two letters from which I quoted longer passages in the section on Toland's materialism.

gives Toland a way to explain why there is motion in the world.

Moreover, Leibniz himself claimed to see Toland moving in his direction as their debate went on. In the last letter of the series transmitted via Sophie Charlotte, Leibniz says this.

I see nowhere where he directly attacks the immateriality of the soul. He recognizes apparently that the features [*notions*] of matter, size and impenetrability, are purely passive and can't give a principle of action, and that the modifications of these material features [*notions*], figures and movements, the machine, can produce neither perception nor thought (GP 6.517).

That is, Leibniz writes as if Toland has already moved in some way towards Leibniz's position. For previously Leibniz had objected to Toland on such points, and now he finds that Toland "recognizes" the issue. Personally, I find that hard to discern from the letter to which Leibniz is replying. But it is a small piece of evidence in favour of the idea that Toland didn't just change his view, but changed his view in response to Leibniz's criticisms.

Another sign of Toland moving in Leibniz's direction, this one from 1704, comes from Leibniz's letter on *Letters to Serena*. There Leibniz praises Toland's distinguishing between local motion and motive force (Tognon 1983, 791). So again Leibniz thinks of Toland as having changed his position in the right, Leibnizian, direction. Admittedly, neither of these texts exactly addresses Toland's modification of his materialism (by adopting the active matter view) in response to Leibniz's criticisms. But they do support the relevant, more general thought, that Toland was to some extent persuaded by Leibniz, and was willing to modify his position in response to Leibnizian criticism.

One might worry that Leibniz only makes the most relevant criticism – the one to which I'm saying Toland was responding – in letters to Sophie, rather than in letters to Toland. There's nothing exactly parallel in those letters to Toland via Sophie Charlotte. There is a lack of very direct and explicit evidence. Mind you, there are also obvious gaps in our record of the exchange, so we can hardly say with any certainty that Toland did not hear of this Leibnizian criticism. And notice what happened. Leibniz saw Toland's view, points out a problem, and suggests a solution. Two years later, Toland published a modified view, adopting just that solution. It would almost be remarkable if Leibniz didn't have something

to do with this change.

If we understand the evolution of Toland's views in that way, then we can see his conceivability argument for active matter as a complex use of conceivability considerations to defend materialism. This is not the rather crude conceivability argument for materialism envisaged and criticized by Locke. Rather it is the use of conceivability to support the evolution of a more complex form of materialism. This, like Hobbes's invoking conceivability to argue against Aristotelian and Cartesian immaterialism, gives us a small insight into the complex issue of how seventeenth- and early-eighteenth-century materialists supported their unpopular positions. Locke's story is far too simple – perhaps obviously so. But when we look at some of the details, we do see conceivability arguments at work. It's just that they're not all working in the way Locke's comments suggest they would be.

We end up, then, with a picture of Toland as a materialist rather more like Hobbes than Spinoza. Indeed in 1702 Toland seems to have been arguing for Hobbesian materialism against Leibniz. This exchange led him to change his views in response to Leibniz's criticisms. In some ways his view did get closer to Leibniz's. But he became a Hobbesian who believed that matter was active rather than passive, not a Leibnizian or a Spinozist. To defend this new materialism against Leibniz, Toland used a conceivability argument. That lends support to Locke's thought that materialists were motivated by conceivability. But the conceivability argument used by Toland is far from the crude one pointed to by Locke. This (together with reflecting on some of Hobbes's arguments) suggests that we might well tell a Lockean story about reasons for early modern materialism, but not Locke's story.