

# Du Châtelet's First Cosmological Argument

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In 1765, towards the end of his life, Voltaire had occasion to give a speech in London on the topic of atheism.<sup>1</sup> In it, mounts an impassioned defense of a version of the cosmological argument. The argument itself is short and sweet: “I exist; therefore some thing exists from all eternity.”<sup>2</sup> This is a mirror of a somewhat more worked-out argument given over thirty years earlier, in his *Traité de Métaphysique* (1734). There, he claimed that there were only two possible ways of proving the existence of God, via teleological and a cosmological arguments. The cosmological argument proceeds thus:

I exist; therefore something exists. If something exists, something has therefore existed from all eternity, since that which is, either exists through itself, or has received its being from another. If it exists through itself, it necessarily exists, it has always necessarily existed, and it is God. If it has received its being from another, and that second from a third, the one from which this last has received its being must necessarily be God.<sup>3</sup>

While in both works Voltaire defends the existence of God against atheism, he also, as befits a deist, in the *Traité* expresses a certain amount of skepticism as to our knowledge of God's nature, actions, and intentions. Has God created the world freely or out of necessity? Both options, according to him, lead to contradictions.<sup>4</sup> Has God made the world from nothing, or from his own nature? Ditto.<sup>5</sup> And, in one of the objections most associated with his thought, he objects that our examination of the world suggests that its Creator has made a world where “each species [of animal] has an irresistible instinct which forces

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1. In publication, it was designated a homily; one struggles to imagine Voltaire behind a pulpit.

2. Voltaire (1968-) 62.427. Translation from the French my own throughout.

3. Voltaire (1968-) 14.427

4. Voltaire (1968-) 14.430

5. Voltaire (1968-) 14.429

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it to destroy another species.”<sup>6</sup> Rather than an “infinitely wise and infinitely good” God, this instead reveals a “barbarian [être barbare]”.<sup>7</sup>

Though they had close intellectual commerce, Emile Du Châtelet does not agree with the conclusions that Voltaire draws about the nature of God. Indeed she argues that God is free, infinitely wise, infinitely good, and – horror of horrors to the author of *Candide* – that this is the best of all possible worlds. And while Voltaire offers, at best, an argument sketch, Du Châtelet fills in the gaps in ways that neither he nor her antecedents had, ways that are both interesting and apparently novel. This chapter examines her antecedents and her arguments, and argues that her argument represents a significant improvement over the ones offered by John Locke and Christian Wolff specifically. First, we’ll take a look at the arguments given by Locke and Wolff.

### **Section I. Her antecedents**

Cosmological arguments, being arguments *a posteriori*, generally begin with some purported fact about our experience and reason from that fact to the existence of God. In antiquity, that fact was often some fact about things being in motion. In book X of the *Laws*, Plato begins his argument thus:

Now when I’m under interrogation on this sort of topic, and such questions as the following are put to me, the safest replies seem to be these. Suppose someone asks “Sir, do all things stand still, and does nothing move? Or is precisely the opposite true? Or do some things move, while others are motionless?” My reply will be “I suppose some move and others remain at rest.”<sup>8</sup>

Aristotle does much the same, by observing that “[s]ensible substance is changeable,”<sup>9</sup> and that “something persists.”<sup>10</sup> Thomas Aquinas follows them in this, noting in the First Way that “[i]t is certain, and evident to our senses, that in the world some things are in motion.”<sup>11</sup> Aquinas also says, in the Third Way, that “[w]e find in nature things that are possible to be and not to be.”<sup>12</sup> All three of the figures we will

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6. Voltaire (1968-) 14.431

7. Voltaire (1968-) 14.430

8. 893b-c (cited using Stephanus pagination from Plato (1997))

9. 1069b6-1689 (cited using the Bekker pagination from Aristotle (1984))

10. 1069b24-1689

11. ST I q2 a3. I cite using the typical conventions for citing the *Summa Theologiae* (ST [part] [question] [article]) from Aquinas (1947).

12. ST I q2 a3

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examine here also begin their arguments from facts about experience. But while Leibniz follows Aquinas' Third Way in identifying facts about contingency as the relevant bit of experience, both Locke and Wolff (and, as we saw above, Voltaire) use the fact of the *cogito* as the basis of their arguments.

**Subsection 1.1. Locke.** Locke's cosmological argument in the *Essay Concerning Human Understanding* begins at *Essay* IV.x.2.<sup>13</sup> He begins thus:

I think it is beyond Question, that *Man has a clear Perception of his own Being*; he knows certainly, that he exists, and that he is something.<sup>14</sup>

He proceeds:

In the next place, Man knows by an intuitive Certainty, that bare *nothing can no more produce any real Being, than it can be equal to two right Angles*...If therefore we know that there is some real Being, and that Non-entity cannot produce any real Being, it is an evident demonstration, that from Eternity there has been something; Since what was not from Eternity, had a beginning; and what had a beginning, must be produced by something else.<sup>15</sup>

Lascano (2011) renders the argument so far like so (I have made only cosmetic changes):

(L1) I exist.

**So:** (L2) There exists some real being. (from (Locke1))

(L3) Non-entity cannot produce real being (*ex nihilo nihil fit*).

**So:** (L4) Something must have existed at all times from eternity. (from (Locke2), (Locke3))<sup>16</sup>

What are the presuppositions of the argument so far? Lascano's reconstruction lays one bare, viz., the good old causal principle. The text itself indicates that Locke also thinks that the premise that whatever begins to exist has a cause of its existence is doing some argumentative work here (although it is evidentially otiose for the purposes of Lascano's Locke, and I am inclined to agree).

13. I quote throughout from Nidditch's critical edition, Locke (1975). I cite as *Essay* [book].[chapter].[section]

14. *Essay* IV.x.2

15. *Essay* IV.x.3

16. Lascano (2011, 745)

Lascano maintains that so far, the argument is logically valid.<sup>17</sup> But note that (L<sub>4</sub>) is ambiguous. One could read it as saying:

(L<sub>4</sub>') Some particular thing must have existed at all times from eternity.

On the other hand, one could read it as saying:

(L<sub>4</sub>'') There has been some, but not necessarily the same thing, existing at all times from all eternity.

To see how (L<sub>4</sub>') and (L<sub>4</sub>'') differ, consider a Great Chain of Beings, extending infinitely into the past, fulfilling the following conditions:

- Being  $b_1$  exists from  $t_{-1}$  to  $t_1$
- Being  $b_2$  exists from  $t_{-2}$  to  $t_0$
- ...
- Being  $b_n$  exists from  $t_{-n}$  to  $t_{2-n}$
- ...
- Being  $b_n$  brings being  $b_{n-1}$  into existence

Here, it is clear that (L<sub>4</sub>') is false but (L<sub>4</sub>'') is true. Lascano puts it this way: “We cannot validly conclude from the proposition that *something exists at every time*, that *there is some particular thing that exists at every time*.”<sup>18</sup> So if we read Locke as making the argument given above, he has walked himself into a clear paralogism. And, indeed, this is the natural reading. Locke might perhaps want to invoke some argument for the impossibility of an infinite causal series – as that would block the model we have laid out above – but I can in no place find him doing so. So it appears as though Lascano’s judgment is accurate in taking Locke to commit an argumentative fallacy here.

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17. Lascano (2011, 745)

18. Lascano (2011, 746)

Were he, however, to have a way of blocking the possibility of an infinite regress of beings such as I have laid out above, the argument might be patched up to exclude the reading of (L<sub>4</sub>) given by (L<sub>4</sub>'). But this too doesn't quite get Locke what he wants. Recall that what he wants is that "from Eternity there has been something." If one were to rule out infinite causal chains like the one described above, then one could perhaps come to a first cause. But that does not itself establish that the first cause has existed from all eternity without some significant intermediate steps – steps which, it should be noted, Locke shows no evidence of taking. Nonetheless, this shows one way of making the argument stronger, and, as we shall see, du Châtelet is aware of this concern.

I should make a brief point before going on: It is not totally clear that Locke has in mind by "demonstration" what we would call a deductively valid argument. For him, "demonstration" is simply an exhibition of the (perhaps necessary) agreement of ideas. For instance, he writes in *Essay* IV.i.2 that

[w]hen we possess ourselves with the utmost security of the Demonstration, that *the three Angles of a Triangle are equal to two right ones*, what do we more but perceive, that Equality to two right ones, does necessarily agree to, and is inseparable from the three Angles of a Triangle?

Later on, he writes that

[t]hose intervening *Ideas*, which serve to shew the Agreement of any two others, are called *Proofs*; and where the Agreement or Disagreement is by this means plainly and clearly perceived, it is called *Demonstration*.<sup>19</sup>

And a little further down he writes that "in Demonstration, the Mind does at last perceive the Agreement or Disagreement of the *Ideas* it considers."<sup>20</sup> A demonstration, on this view, need not be deductively valid; it only need show the agreement or disagreement of the relevant ideas. So we may be searching for, in Locke's argument for the existence of God, something which he does not intend to offer.

Would du Châtelet have been familiar with this argument? It seems almost certain. Her knowledge of Locke is well-documented. According to Voltaire remarked that she knew Locke better than he himself

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19. *Essay* IV.ii.3

20. *Essay* IV.ii.4

did.<sup>21</sup> Given that his version of the cosmological argument is extremely close to Locke's, it seems reasonable to assume that he was familiar with the passage. And if he was, it also seems likely that du Châtelet was as well.

**Subsection 1.2. Wolff.** Christian Wolff's argument bears a significant resemblance to Locke's. It uses the knowledge of one's own existence as a starting point, as does Locke.<sup>22</sup> The main source for his cosmological argument is often taken to be his *Theologiae Naturalis*:

§24. A necessary being exists.

The human soul exists (§21. *Psychol. empir.*), or equivalently [*seu*], we exist. (§14 *Psychol. empir.*). Since nothing is without a sufficient reason why it is rather than is not (§70 *Ontol.*), it is necessary that there should be<sup>23</sup> a reason why our soul exists, or equivalently [*seu*], why we exist.<sup>24</sup> This reason is contained either in ourselves [*nobismetipsis*], or in some other being distinct from us (§53 *Ontol.*). If you were to suppose our reason of existing to be had [*habere*] in a being which has its reason of existing in another, you would not attain the sufficient reason, unless you were at last to come to an end in another being that has in itself its own reason of existing. Therefore, either we ourselves are necessary beings<sup>25</sup>, or else there is some necessary being distinct from us (§309 *Ontol.*). Consequently a necessary being exists.<sup>26</sup>

Wolff goes on to prove other properties of the necessary being in subsequent sections; we will examine these later. For now, let's try and get a schematic version of the argument on the page:

(W<sub>1</sub>) I exist. (premise)

(W<sub>2</sub>) Everything has a sufficient reason why it is rather than is not. (premise)

**So:** (W<sub>3</sub>) There is a sufficient reason for why I exist. (from (W<sub>1</sub>), (W<sub>2</sub>))

21. Zinsser (2006, 78)

22. Wolff's knowledge of and engagement with Locke is well-known. By his own account, Wolff had read some Locke as early as 1705 (see Leibniz and Wolff (1860, 23)). He reviewed Locke's *opera posthuma* in *Acta Eruditorum* in 1708 (see J. B. Mencke (1708, 40)).

23. Translating "*detur*" as "should be" rather than "should be given"; this reflects common usage of the verb at the time.

24. I am rendering the subjunctives "*existat*" and "*existamus*" as simple indicatives, since that streamlines the English and, I hope, doesn't lose much of the philosophical sense.

25. Emending "*ens necessarium*" as plural so as to agree with "*sumus*".

26. NT §26 / WW 7 1 25-6. I cite Wolff (1962-) as WW [series] [volume] [page]. Translation my own.

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(W<sub>4</sub>) A necessary being has its sufficient reason inside itself. (premise, supplied)

(W<sub>5</sub>) Either the sufficient reason for my existence is in me, or in something else. (premise)

**So:** (W<sub>6</sub>) If the sufficient reason for my existence is in me, then a necessary being exists. (from (W<sub>4</sub>))

(W<sub>7</sub>) If the sufficient reason for my existence is not in me, then it must be in something else. (premise)

(W<sub>8</sub>) There cannot be an infinite regress of sufficient reason-havers that don't contain their sufficient reason in themselves. (premise, supplied)

**So:** (W<sub>9</sub>) If the sufficient reason for my existence is not in me, then it must (ultimately) lie in some necessary being. (from (W<sub>8</sub>))

**So:** (W<sub>10</sub>) A necessary being exists. (from (W<sub>5</sub>), (W<sub>6</sub>), (W<sub>9</sub>))

Here it must be said that Wolff is departing from his teacher, Leibniz. Whereas Leibniz, as we'll see later, grants for the sake of the argument that there may be an infinite chain of beings, each of which is the sufficient reason for the next, Wolff implicitly denies this.

Would du Châtelet have been aware of the argument of *Theologiae Naturalis*? It is difficult to say, but the balance of the evidence suggests that it is less than likely that she had direct knowledge. She quotes Wolff's *Elementa Mathesos Universae* in one of her letters<sup>27</sup>, and in the preface to the *Institutions* she left a note indicating that she was drawing from his *Ontologia*<sup>28</sup>, but we have no direct evidence that she had seen *Theologiae Naturalis*. We do know, however, that she likely had access to some French translations of some other works by Wolff, sent to Voltaire at Cirey by Frederick the Great. Among these was a version of Wolff's work *Vernünfftige Gedanken von Gott, der Welt und der Seele des Menschen, auch allen Dingen überhaupt* ("Rational Thoughts on God, the World and the Soul of Man, and on All Things in General").<sup>29</sup> There we can find an argument which is in many ways similar to that of the larger work.

The relevant passage is this:

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27. See Barber (1967, 209)

28. All quotations from the *Institutions de Physique* are my own translations (from the first edition, Du Châtelet (1740), abbreviated IdP), by page number; and all quotations from the *Institutions Physiques* are my own translations (from the second edition, Du Châtelet (1742), abbreviated IP), are my own translations as well. Both are cited as IdP [page number] / IP [page number] when a passage appears more or less unchanged in both editions. When some passage occurs in one edition or not the other, the citation will be IdP [page number] or IP [page number]. This footnote, for instance, occurs in only the first edition, and so it is cited IdP 13n\*. When there are textual variations between the two editions, I will note them in the citation footnote. In general, my translation will prefer the second edition.

29. Barber (1967, 205)

We exist (§1). Everything that exists has its sufficient ground why it exists rather than does not exist (§30) and, therefore, we must have a sufficient ground why we exist. If we have a sufficient ground why we exist, that ground must be found either within us or external to us. If it is to be found within us, then we exist necessarily (§32), but if it is to be found in something else, then that something else must have in itself its ground why it exists and thus exists necessarily. Accordingly, there is a necessary being. Whoever might object that the ground for our existence could be found in something that does not have in itself the ground for its existence does not understand what a sufficient ground is. For one must in turn ask further of such a thing what has the ground for its existence, and one must ultimately arrive at something that needs no external ground for its existence.<sup>30</sup>

The similarities between this argument and the argument we have just examined above are fairly evident. The starting point – our knowledge of ourselves – is the same. The invocation of the principle of sufficient reason is likewise the same, as is both the peculiar conclusion of the argument (some necessary being exists, whether that’s us or something else) and the claim that there must be a stopping-point to any chain of sufficient reasons in a necessary being. If du Châtelet is drawing on some version of the cosmological argument in Wolff, therefore, it is likely that this is it – and, as we shall soon see by an examination of her argument, it seems likely that she was.

## **Section 2. The Arguments of *Institutions de Physique* Chapter 2**

Chapter 2 of the *Institutions de Physique*, entitled “On The Existence of God,” begins with the following exhortation:

The study of nature raises us to the knowledge [connaissance] of the supreme Being.<sup>31</sup>

This great truth is more necessary, if it is possible, to good physics than to morals, and it must be the foundation and the conclusion of all our researches.<sup>32</sup>

In order to do good physics, then, we don’t just need the principles that she laid down in chapter 1. We must also begin with knowledge of God. She therefore goes on to offer “a précis of proofs of that

30. Wolff ((1720) 2009, §928,51)

31. IdP has “d’un Être suprême”; see IdP 38.

32. IdP 38 / IP40. IP reads “elle doit être le fondement & la conclusion de toutes nos recherches,” rather than “elle doit être le fondement & la conclusion de toutes les recherches que nous faisons dans cette science.”



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important proof, through which you may be able<sup>33</sup> to make a judgment [*juger*] for yourself about its evidence.”<sup>34</sup>

The text immediately after is divided up into subsections, each of which contains a premise of her argument and the sub-argument for that premise. The entire passage is too long to reproduce in its entirety. Instead, we can collect the premises as follows:

(DC<sub>1</sub>) “Something exists.” (IdP 39 / IP 41)

(DC<sub>2</sub>) “Since something exists, it is necessary that something has existed from all eternity.” (IdP 39 / IP 41)

(DC<sub>3</sub>) “The Being which has existed from all eternity must exist necessarily, and not have its existence from any cause.” (IdP 39 / IP 41)

(DC<sub>4</sub>) “There is nothing...but contingency in all the Beings which surround us.” (IdP 40 / IP 42)

(DC<sub>5</sub>) “Everything that exists has a sufficient reason for its existence.” (IdP 40 / IP 42)

(DC<sub>6</sub>) “[I]t is necessary that a Being’s sufficient reason be either in it or outside it.” (IdP 40 / IP 42)

(DC<sub>7</sub>) “This sufficient reason cannot be found in another contingent Being, nor in a sequence of these Beings.” (IdP 40 / IP 42)

**So:** (DC<sub>8</sub>) “It is necessary to come from this to [*en venir à*] a necessary Being which contains [*contienne*]<sup>35</sup> the sufficient reason of the existence of all the contingent Beings, and of his own [*la sienne*].” (IdP 40 / IP 43)

Technically I’ve made two editorial decisions here. First, rather than simply take each subsection to express one premise, I’ve taken subsection 4 to contain both (DC<sub>1.5</sub>) and (DC<sub>1.6</sub>). This is because, while (DC<sub>1.5</sub>) is just an expression of the PSR, it is important to make all the moving parts of the argument as clear as possible. Second, I’ve derived both (DC<sub>1.7</sub>) and (DC<sub>1.8</sub>) from subsection 6, since the conclusion is not contained in its own subsection.

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33. IdP reads “*pourrez*,” whereas IP reads “*puissiez*.”

34. IdP 38 / IP 40

35. Since the French is a present subjunctive prefixed with a main clause in present tense, I’ve translated it simply in the present tense.

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There are two substantive points here. The first is that (DC2.2) has the same shortcoming that we identified in Locke's argument. It's equivocal between the reading on which some *particular* thing has existed from all eternity and the reading on which some particular thing or other, but no *single* thing, has existed from all eternity. And it is clearly the first reading which Du Châtelet needs.

The second point is that there are technically *two* arguments here. The first runs from (DC1.1) to (DC1.3). The second one runs from (DC1.4) to (DC1.8). The first is essentially the Lockean argument. Indeed, as we'll see, it bears a great deal more resemblance to the Lockean argument than to the Wolffian one. The second is much more like the Leibnizian argument we saw reconstructed in the last section than like the Wolffian argument. Let's separate these out and reconstruct them, filling in some logical gaps:

**Argument One:**

(DC1.1) Something exists. (premise)

(DC1.2) If something exists, then something must<sup>36</sup> have existed from all eternity. (premise)

**So:** (DC1.3) Something (S) must have existed from all eternity. (from (DC1.1), (DC1.2))

**So:** (DC1.4) S has existed from all eternity. (from (DC1.3))

(DC1.5) If something has existed from all eternity, it is uncaused and exists necessarily. (premise)

**So:** (DC1.6) S is uncaused and exists necessarily. (from (DC1.4), (DC1.5))

**Argument Two:**

(DC2.1) Everything in the world (The Cosmos) is contingent. (premise)

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36. There is some difficulty with the "must" here. I think there are two distinct classes of modal concepts in the *Institutions*. First, there is *logical* modality, the impossible and the possible, which are defined as that which implies a contradiction and that which doesn't, respectively. (IdP 19 / IP 20) Second, there is what we might call *worldly* modality, the necessary and contingent. This is a little trickier. Necessary truths are those "which are determinable in only one way," whereas contingent ones are those where "it is possible that a thing exists in [*de*] different ways, and that none of their determinations is any more necessary than another." (IdP 21 / IP 23) So necessity is defined in terms of logical possibility.

The "must" here translates "il faut que." So which class of modal concepts is involved? I think, as we will presently see when we get to the argument that Du Châtelet gives for this premise, what is involved is logical necessity. She says (as we'll see later, again) that if the contrary is assumed, we reach a contradiction.

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(DC2.2) If a thing is contingent, then its sufficient reason is neither a contingent being nor any collection of contingent beings. (premise)

**So:** (DC2.3) Neither a contingent being nor any collection of contingent beings is the sufficient reason for The Cosmos. (from (DC2.1), (DC2.2))

(DC2.4) Everything that exists has a sufficient reason. (premise)

(DC2.5) Everything is either contingent or necessary. (premise)

**So:** (DC2.6) The sufficient reason for The Cosmos is a necessary being. (from (DC2.3), (DC2.4), (DC2.5))

Argument Two is in many respects similar to the argument from contingency given, perhaps most notably, by Gottfried Leibniz. As an astute reader of Locke, Leibniz makes the same remarks as to Locke's arguments as we did above. In the *New Essays*, he writes, of Locke's argument, that

I find an ambiguity [in (L<sub>4</sub>)]. If it means that *There has never been a time when nothing existed*, then I agree with it, and it really does follow with entirely mathematical rigour from the preceding propositions...But you go straight on in a way which shows that when you say that something has existed from all eternity you mean an eternal thing. But from what you have asserted it does not follow that if there has always been something then *one certain thing* [emphasis mine] has always been, i.e. that there is an eternal being.<sup>37</sup>

He of course gives his own version of an argument from contingency in various places. For instance, in the *Monadology* he writes the following:

36. But there must also be a *sufficient reason* in *contingent truths*, or *truths of fact*, that is, in the series of things distributed throughout the universe of creatures, where the resolution into particular reasons could proceed into unlimited detail...

37. And since all this *detail* involves nothing but other prior or more detailed contingents, each of which needs a similar analysis in order to give its reason, we do not make

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37. A VI 6 436 / G V 417. I cite Leibniz (1926-) using the convention A [series] [volume] [page]. I cite Leibniz (1965) using the convention G [volume] [page]. English quotations from the *New Essays* are from Leibniz (1996), which uses only the Akademie pagination for the text proper.

progress in this way. It must be the case that the sufficient or ultimate reason is outside the sequence or *series* of this multiplicity of contingencies, however infinite it may be.

38. And that is why the ultimate reason of things must be in a necessary substance in which the diversity of changes is only eminent, as in its source. This is what we call *God*.<sup>38</sup>

And in “On The Ultimate Origination of Things,” we have a very similar argument:

I certainly grant that you can imagine that the world is eternal. However, since you assume only a succession of states, and since no reason for the world can be found in any one of them whatsoever...it is obvious that the reason must be found elsewhere. For in eternal things, even if there is no cause, we must still understand there to be a reason. In things that persist, the reason is the nature or essence itself, and in a series of changeable things..., the reason would be the superior strength of certain inclinations, as we shall soon see, where the reasons don't necessitate...but incline. From this it follows that even if we assume the eternity of the world, we cannot escape the ultimate and extramundane reason for things, God.<sup>39</sup>

Was du Châtelet aware of either of these arguments? It is difficult to say for certain. Zinsser (2006, 326n46) notes that in her letters she makes reference to the *Théodicée*, some of Leibniz's papers in *Acta Eruditorum* from 1686-7, and to a French version of the Leibniz-Clarke correspondence.<sup>40</sup> A survey of both the Leibniz-Clarke correspondence and Leibniz's articles in the indicated years shows no version of the cosmological argument, at least not that I can find.<sup>41</sup> Only the *Théodicée* contains something resembling the cosmological argument given elsewhere. It seems likely, therefore, that if Leibniz is one of her

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38. AG 217-18. I follow the usual convention of citing from Leibniz (1989) as AG [page].

39. AG 149-50 / G VII 302-3

40. In some other letters she indicates receipt of copies of the correspondence between Leibniz and Johann Bernoulli (see

41. Details about the composition of du Châtelet's library are scant, but there are some indications. The French version of the correspondence that du Châtelet had access to would likely have been Des Maizeaux (1720); see Brown and Kølving (2008, 118). For Leibniz's papers in the *Acta Eruditorum* of 1686, see O. Mencke (1686, 161, 289, 292). He has no papers in the 1687 volume that I can find.

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sources for the cosmological argument, the argument in the *Théodicée* is where we should look. Here is the relevant passage:

God is the first reason of things, because those things which are limited [*bornées*], like all that which we see and experience, are contingent, and have nothing in them which renders their existence necessary, it being manifest that time, space, and matter, united and uniform in themselves, and indifferent to everying, were able [*pouvoient*] to receive other movements and figures, and in another order. It is necessary, therefore, to seek the reason of the existence of the world, which is the whole assembly of contingent things; and it is necessary to seek it in the substance which bears the reason of its existence in itself, and which is consequently necessary and eternal.<sup>42</sup>

This is an enthymeme par excellence, and it must be said that it bears much more of a resemblance to the argument of the *Monadology* than to the argument of “Origination”. Nonetheless, it does bear at least one point similarity to the latter argument – instead of arguing about the grounds of contingent *truths*, it points to a problem about the grounds of contingent *things*.<sup>43</sup>

There are many similarities between Argument Two and Leibniz’s argument, so much so that one might well conclude that Du Châtelet derived much inspiration from it. Therefore, since the argument from contingency has received much attention, what I want to do instead is focus on Argument One. I’ll argue, in the next section, that it represents a significant and interesting improvement on the arguments given by Locke and Wolff.

### Section 3. Examining the First Argument

**Subsection 3.1. Justifying the premises.** Let’s take each justification in turn. (DC1.1) is justified pretty simply – it’s just the fact of the *cogito*. In this Du Châtelet follows Locke and Wolff, and arguably Descartes as well. The cosmological argument for the existence of God that he offers in the Third Meditation can’t get off the ground without the certainty of his own existence which he established in the

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42. G VI 106; translation my own.

43. For more on the argument in the *Théodicée* see Lodge (2020). For more on Leibniz’s cosmological arguments generally see for instance Blumenfield (1995) and Craig (1980, Chapter 8).

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Second Meditation. And, by my reckoning, what he offers *is* a cosmological argument. It begins with a fact about experience (that I have the idea of an infinite being), employs a causal principle, and works its way from there to the existence of a creator God.

How about (DC1.1)? Here is her justification:

[W]ithout [a being that has existed from all eternity] it would be necessary that nothing, which is but a negation, would have produced all that which exists, which is a contradiction in terms. For it is to say that a thing has been produced, and at the same time not to recognize any cause of its existence. (IdP 39 / IP 41)

There are many suppressed premises here, I think. The first is that I (as the thing that we know exists) have not existed from all eternity. One might then think that what Du Châtelet is doing is precisely what Locke did, and what Leibniz criticized him for doing. But I do not think that this is quite the case. Note that she says that nothing would have produced *all* that which exists [*tout ce qui existe*]. It's not just that *some* thing would come into existence from nothing. It's that *everything* would have.

But this still doesn't quite evade the issue with Locke's argument. Why does everything have to be produced from nothing? Sure, if we acknowledged that everything has a sufficient reason and then claimed that everything taken together doesn't, we might be engaged in a contradiction. But that's not what we need to claim, as we saw in §1.1. We might well claim that everything in the world has a sufficient reason, but that in every case that sufficient reason is something contingent *in the world*. So this reasoning still doesn't solve the problem Locke's argument had.

But I think we get something like a solution in her argument for (DC1.5). Here it is:

[I]f [the being that has existed from all eternity] were to have received its existence from another Being, it would be necessary that that other Being existed through itself, and then either it is of that being that I speak, and it is God, or else it would again have had its existence from another. One sees easily that in thus going back to infinity, one must either arrive at a necessary Being who exists through itself, or else admit an infinite chain

of beings, which taken all together will have no external cause of their existence (since all beings enter into that infinite chain), and which, each in particular, will have no internal cause, since each does not exist through itself, and that they have their existence the one from the other in a gradation to infinity. Thus, this is to suppose a chain of beings which separately have been produced by one<sup>44</sup> cause, and which all together have been produced by nothing, which is a contradiction in terms. (IdP 39 / IP 41)

Here we have an expansion of Wolff's attempted motivation for (W8). Recall that in *Theologiae Naturalis* he simply asserted that in order to get at the sufficient reason for the human soul, you needed something that contained its sufficient reason within itself. And in *Rational Thoughts*, he asserted, again, that if you think that every contingent thing has a sufficient reason in some other contingent thing you just don't understand what a sufficient reason is. This seems to me like mere table-banging.<sup>45</sup>

But now Du Châtelet gives us just such a reason. In order to maintain that there is no necessary being and hold on to the PSR, one may introduce an infinite series of contingent beings similar to the one we considered in §1.1. Each member of the series is indeed contingent, and each has a contingent cause, which in turn has a contingent cause, and so on to infinity. But then, all together, the chain has no cause. And this, she says, is a contradiction. (If you think this is too quick, hold on just a moment; we'll get to that.)

I think that the argument given here can be used to support (DC1.2). It's supposed to establish that the being which has existed from all eternity was the cause of all the things that haven't. But it can be modified so as to show that you can't have a chain of contingent beings stretching back to infinity (by the reasoning we saw above), since the whole chain would need an explanation. And, hence, something must have existed from all eternity to cause the whole shebang.

**Subsection 3.2. Objections and responses.** Above, Du Châtelet argued that there must be a sufficient reason for the hypothetical infinite chain of contingent causes and effects. This turned on the assumption that for *each* element of the chain to have a cause but there to be no cause for the chain as a

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44. The French is "*une cause*," which is strictly speaking ambiguous between the numeral reading "one cause" and the indefinite article reading "a cause." Zinnsner (Du Châtelet (2009, 139)) opts for the numeral reading, and I agree, since otherwise the argument seems obviously fallacious.

45. Though one might here make reference to what some medieval thinkers called an essentially ordered causal series; see e.g. Thomas Aquinas in ST I q46 a2 ad7.

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whole is a contradiction in terms. But perhaps this is unconvincing. Recall a familiar objection to the cosmological argument (probably that of Samuel Clarke) given by David Hume in Part IX of the *Dialogues Concerning Natural Religion*. There, Hume claims that the whole series of things needs no explanation once each element is explained:

In such a chain too, or succession of objects, each part is caused by that which preceded it, and causes that which succeeds it. Where then is the difficulty? But the WHOLE, you say, wants a cause. I answer, that the uniting of these parts into a whole, like the uniting of several distinct countries into one kingdom, or several distinct members into one body is performed merely by an arbitrary act of the mind, and has no influence on the nature of things. Did I show you the particular causes of each individual in a collection of twenty particles of matter, I should think it very unreasonable, should you afterwards ask me, what was the cause of the whole twenty. This is sufficiently explained in explaining the cause of the parts.<sup>46</sup>

Hume's objection presupposes what we might call

**Hume's Thesis:** The whole is nothing but all its parts.

This has a distinguished pedigree. Some versions run back at least to Plato, who in the *Theatetus* puts the following in the mouth of Socrates: “[W]hen a thing has parts, the thing is necessarily all the parts.”<sup>47</sup> The idea is that what we call the whole is not something extra we need to get once we've got all the parts in hand – it's not “a single form arising out of the parts, yet different from the parts.”<sup>48</sup>

Now if Hume's Thesis is correct, then it seems that Du Châtelet has reasoned incorrectly. Recall that her argument moved from granting that each element in the series of contingent beings had a sufficient reason to the position that the series as a whole did. But if the whole *just is* all its parts, then there's

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46. Hume (2007b, 65–6)

47. 204a. I take no position as to whether Plato means actually to endorse this thesis.

48. 204a



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nothing left to explain. Once you've answered the "why" question for every member of the contingent series, you've turned your spade, to use Wittgenstein's phrase.

But I think this is too quick, for at least two reasons.

The first reason runs as follows. Recall that each of the beings in the series was supposed to be *contingent*. That is, it was possible for it not to exist, or its non-existence involved no contradiction. And so, if it possible for one of the links in the chain not to exist, why not another? It was supposed to be contingent as well. And, if that's so, how about another not existing along with the other two? And another? And another? The shape of the argument should be clear: If ever being in the chain is contingent, then every link can fail to exist. And if we assume that there are no necessary connections between distinct existences, then if each one can fail to exist, so can the whole of them.

And indeed, Hume himself *does* assume this, in his argument against the principle that everything which begins to exist has a cause in the *Treatise of Human Nature*:

[It is] easy for us to conceive any object to be non-existent this moment, and existent the next, without conjoining to it the distinct idea of a cause or productive principle. The separation, therefore, of the idea of a cause from that of a beginning of existence, is plainly possible for the imagination; and consequently the actual separation of these objects is so far possible, that it implies no contradiction nor absurdity.<sup>49</sup>

So if Hume is right in this passage, then what's sometimes called free recombination of contingent beings is possible: We can cut and paste contingent entities however we like. So the line of reasoning we just carried out above is something someone like Hume should accept. If on the other hand there *are* necessary connections between distinct existences, then matters are even better for Du Châtelet. Supposing any contingent being not to exist means supposing its cause doesn't exist, that its cause's cause doesn't exist, and so on to infinity. In either case, it seems like, since all these beings are contingent, all of them can fail to exist together.

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49. I cite from Hume's *Treatise* as T [book].[part].[section].[paragraph], all from Hume (2007a). Thus this passage is cited as T 1.3.3.3.

This is important because of a method of argument called “particularization.” It featured especially heavily in medieval Islamic discussions of the eternity of the world. Herbert Davidson puts it like this:

The particularization mode of argument searches for instances in the universe where, it understands, a given alternative has been selected over other, equally possible alternatives; and it submits that the arbitrary selection it discovers implies a particularizing agent or a particularizing factor.<sup>50</sup>

Al-Ghazali states a version of this principle in his work *Moderation of Belief*:

[F]or a nonexistent whose nonexistence continues, its nonexistence would not change into existence unless something comes along that gives preponderance to the side of existence over the continuation of nonexistence.<sup>51</sup>

So the basic idea is this. If one of any number of equally possible states of affairs is actualized, there must be an answer as to why *this* one was actualized and not *that* one. And since we’ve seen that, on Humean assumptions, the whole supposed infinite series is contingent and could just as well exist as not, it seems fine to ask what *did*, in fact, tip the scales.

This line of response is open to Du Châtelet for two reasons. First, as a general matter, she endorses the PSR. Accordingly, any fact, including the one that this particular world rather than any other exists, must have a sufficient reason. Second, she employs this kind of particularization argument elsewhere in the *Institutions*. For instance, in her discussion of the law of continuity, she writes that:

The principle of sufficient reason proves easily this truth [the law of continuity], since each state in which a being finds itself must have its sufficient reason, why that being

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50. Davidson (1987, 159–60)

51. Al-Ghazali (2013, 29)

finds itself in that state rather than in any other[.]<sup>52</sup>.

And, when moving from a discussion of necessary truths to one of contingent truths, she writes the following:

[W]hen it is possible that a thing finds itself in different states, I cannot ensure that it finds itself in one such state rather than another, unless I put forward [*à moins que je n'allègue*] a reason for that which I affirm. Thus, for example, I am able to be seated, lying down, or upright [*de bout*], all these determinations of my situation are equally possible, but when I am upright it is necessary that there be a sufficient reason, why I am upright, and not seated, or lying down.<sup>53</sup>

In each of these cases what needs explaining is the state that a being is in, not the being itself. But it's not at all hard to see how this reasoning extends to beings in general, provided they are contingent.

That's reason one. Reason two is a bit more speculative, and relies on what Du Châtelet argued when supporting (CSr.5). Recall there that Du Châtelet concluded that for there to be no necessary, eternally existing being which created the (perhaps infinite) series of contingent things involves a contradiction. And it might not be immediately obvious why it is that she thinks this. Let me try and bring out what I think may be going on by looking at how this response might deal with Hume's problem.

Let's assume that Hume's Thesis is correct, and that the parts exhaust the whole such that when all the parts are explained, the whole is thereby explained. If we ask "what explains this series," then, the correct answer is just to give all the causes of the individual things in the series. Thence the whole is explained.

Now, as Du Châtelet reasons, these assumptions mean the following are true. First, each particular thing has an external cause, by assumption. Second, no particular thing has an internal cause, since each was supposed to be contingent. And third, the whole has an explanation – this is just the conjunction or collection or whatever of explanations of the parts.

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52. IdP 30 / IP 32

53. IdP 25 / IP 26

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We may ask: Is the explanation of the whole internal to the whole, or external to it? Well, she tells us that the entire chain taken together doesn't have an external cause, "since all beings enter into that infinite chain." So the explanation (which we've been assured it has) must be internal to the whole.

But there can't be an internal explanation to the whole, since otherwise some part of the chain would explain itself. Here's how we see this. Remember our Great Chain of Beings. If some being  $b_n$  internal to the series explains the whole series, then it must explain each of the parts, either directly or distally – that's just what it is, according to Hume's Thesis, to explain the whole. And so if it explains each link in the Great Chain, it explains itself. But this would contradict our assumption that these are all contingent beings, where "each does not exist through itself, and ...they all have their existence the one from the other in a gradation to infinity."

What conclusion do we draw from the foregoing? Just this: The whole is at once explained (by the conjunction/sum/collection/whatever) and not explained (since it can have neither internal nor external explanation). This, as Du Châtelet rightly notes, "is to suppose a chain of beings which separately have been produced by one cause, and which all together which have been produced by nothing" – which is of course "a contradiction in terms."

Now the most obvious way that Hume or the Humean might answer this objection is simply to deny the PSR. Perhaps he might do so by claiming that the whole series is not apt for explanation, thus going back on Hume's original position. So it would then be left to Du Châtelet to argue directly for the PSR – a task which she indeed undertakes.<sup>54</sup> But in any case, in giving the argument that I have read her as giving, she has shifted the dialectic away from her cosmological argument and onto the ground of fundamental metaphysical principles.

#### **Section 4. Conclusion**

And thus Du Châtelet has answered both possible objections to Lockean-style arguments. First, she has given a reason to think that, even in the case of a Great Chain of Beings, one must still arrive at a necessary cause of all contingent reality. And second, while Wolff merely stipulated that the concept of a sufficient reason means such a chain must end in a necessary being, Du Châtelet gives a reason why this is so. To suppose otherwise, on her view, is a contradiction in terms. Whether the argument from

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<sup>54</sup>. For a look at one of her arguments see for instance Amijee ([forthcoming](#)).

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contingency she gives is better than that of Leibniz is not something I'll address here. But in the case of Argument One, I conclude that her argument surpasses those of both her distinguished predecessors.

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