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### Louis de La Forge and the 'Non-Transfer Argument' for Occasionalism

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## ARTICLE

# LOUIS DE LA FORGE AND THE ‘NON-TRANSFER ARGUMENT’ FOR OCCASIONALISM<sup>1</sup>

Andrea Sangiacomo

In this paper, I investigate Louis de La Forge’s argument against body–body causation. His general strategy exploits the impossibility of bodies communicating their movement by transfer of motion. I call this the ‘non-transfer’ argument (NT). NT allows La Forge both to reinterpret continuous creation in an occasionalistic fashion and to support his non-occasionalistic view concerning mind–body union. First, I present how NT emerges in Descartes’ own texts. Second, I show how La Forge recasts it to draw an occasionalistic account of body–body interactions, and I discuss how La Forge supports NT with continuous creation. Third, I conclude by suggesting that this further step of his argument does not undermine his non-occasionalistic account of mind–body union.

**KEYWORDS:** continuous creation; occasionalism; mind–body interactionism; Descartes; La Forge

I am not nothing in the sense of emptiness, but I am the creative nothing, the nothing out of which I myself as creator create everything.

(Max Stirner, *The Ego and Its Own*, 7)

## THE MONSTROUS HYPOTHESIS

In his *Letters to Serena*, John Toland claims that his own account of active matter is the best way to contrast the ‘monstrous hypothesis’ proposed by several Cartesians to avoid certain difficulties in physics:

<sup>1</sup>I thank Antonella Del Prete, Lisa Downing, Daniel Garber, Adam Jaffee, Delphine Kolesnik-Antoine, Martin Lenz, Steven Nadler, Lodi Nauta, Tad Schamltz, Emanuela Scribano, Anna Wilks and some anonymous referees for their important suggestions and helpful discussions concerning different aspects of this paper. I also thank Ohad Nachtomy for having provided me with the opportunity to give a first presentation of this paper at the New York City Workshop in Early Modern Philosophy (Fordham University, February 2013).

there was no end of Absurditys from false or precarious Systems; Absurditys so monstrous, that they have driven several of the Cartesians (to name no others) to as monstrous Hypotheses, when not knowing wherein consisted the moving Force, and for avoiding the Transition of Accidents from one Subject to another, they are not asham'd to say, that God takes the Motion from one Bowl that is running forward (for example) and communicates it to the other against which it rubs [ ... ]. Is this to explain any thing?<sup>2</sup>

(Toland, *Letters to Serena*, Letter V, §30, 236)

Arguably, the target here is occasionalism, which is the account of causality according to which a certain cause *c* can produce the effect *e* only through a direct intervention of God in producing *e*.<sup>3</sup> Thus, *c* is just an 'occasional' cause of God's production of *e*. However, Toland envisages a kind of occasionalism that subordinates the appeal for God's intervention to the need to avoid the transition of accidents from one subject to another. Accordingly, in Toland's view the theological claim concerning God's involvement in the physical world results from the need to resolve a difficulty concerning the communication of motion, which is a physical problem.

Toland's reaction suggests that this way of establishing occasionalism was not unusual in his time. Indeed, in 1694 Antoine Le Grand published his *An Entire Body of Philosophy According to the Principles of the Famous Renate Des Cartes*, in which he expressly used the same argument to ground God's continuous intervention in physics:

tho' *Motion*, as being only the *Mode* of a *Body*, cannot remove from one *Subject* to another, which *Regius* unwarily asserts; yet the agitating force, being no *Mode* of a *Body*, may by removing shew it self sometimes in this, sometimes in the other *Body*. Whensoever therefore *DES CARTES* speaks of the Communication of *Motion*, he is to be understood of that *Power*, which preserves *Natural Things* in the same condition wherein they were constituted at first, and all effects order'd according to the *Laws* appointed for them, and suiting to their *Natures*.<sup>4</sup>

(Le Grand, *Entire Body of Philosophy*, IV, ch. 15, 117)

Therefore, when Toland presents the monstrous hypothesis forged by Cartesians, he is referring to an argument that was well integrated in Cartesian

<sup>2</sup>See also Letter IV, §15, 156–7.

<sup>3</sup>It should be noted that in Letters IV and V, in addition to the Occasionalistic position recalled here, Toland has also two further targets. The first is Descartes himself, who allowed that God is the first and original cause of motion but left the variety of bodies and motion unexplained. The second is Spinoza, who does not acknowledge that God gave being to motion, and shows no cause of motion whatsoever. Concerning Toland's reading of Spinoza and how it is influenced by the problem raised by occasionalism, see Sangiacomo, 'Dall'origine della superstizione all'origine del movimento'.

<sup>4</sup>See also Le Grand, *Entire Body of Philosophy*, IV, ch. 16, 119 and V, ch. 7, 143.

textbooks of the period.<sup>5</sup> Now, the arguments used in the seventeenth century to support occasionalism are often associated with Malebranche. Accordingly, other authors who seemed to endorse occasionalism are treated in terms of sources or reception to Malebranche's thought (e.g. Fredoso 'God's General Concurrence with Secondary Causes'; Yakira, *La causalité de Galilée à Kant*; Clatterbaugh 'Cartesian Causality'; Ott, *Causation and Laws of Nature in Early Modern Philosophy*). However, the argument attacked by Toland and presented by Le Grand was *not* among Malebranche's arguments.<sup>6</sup> Rather, Louis de La Forge was the first philosopher to explicitly centre his occasionalistic account of causation on the impossibility of the transfer of motion, and he attempted to show that such an argument could be found in Descartes' own works.

In this paper, I would like to focus on La Forge's treatment of this 'non-transfer' argument (NT) for occasionalism. This argument has received relatively little attention in the literature devoted to occasionalism. Nonetheless, I suggest the reasons that warrant a serious investigation of how this argument works are twofold. First, such an inquiry illuminates an initial step of the history I have just sketched out. Even if this history cannot be treated within a single paper, I consider particularly important the fact that it suggests a more refined picture concerning the shaping of occasionalism in the seventeenth century. I would not deny Malebranche's role in advancing and spreading occasionalism; however, I would contest the idea that there was actually *one* occasionalism. More precisely, it seems feasible that multiple authors developed different argumentative strategies. I suggest that their distinct strategies modified the kind of occasionalism developed by each author. A more precise appreciation of La Forge's use of NT is a first important step to explore these alternative paths.

Second, by focusing on La Forge's commitment to NT, my treatment of La Forge will differ from the standard way to discuss his position. For instance, I will not deal, unless incidentally, with La Forge's possible influence on Malebranche. Rather, I will focus mainly on La Forge's account of body-body causation. Moreover, even if the argument concerning continuous creation is usually considered as the most important proposed by him, I will argue that La Forge's appeal to continuous creation is rather a consequence of his general strategy grounded in NT.

Daniel Garber was among the first to stress the importance of La Forge's use of continuous creation, although he discussed La Forge's argument without mentioning any possible connection to NT (see Garber, 'How

<sup>5</sup>Before Le Grand, Pierre-Sylvain Régis, another author of Cartesian textbooks, also invoked this argument in a similar way in his *Cours entier de philosophie, ou Systeme general selon les principes de M. Descartes*. See Régis, *Cours entier de philosophie, ou Systeme general selon les principes de M. Descartes*, book 1, *Physique*, II, ii, ch. 4, 303–6.

<sup>6</sup>Malebranche used it only incidentally in his *Entretiens* (1688), probably to counter Fontenelle's objections (1686), on which see Schamltz, 'Occasionalism and Mechanism'.

God Causes Motion' and Garber, *Descartes' Metaphysical Physics*, 297–301).<sup>7</sup> Following Garber's suggestion, several other scholars considered La Forge's formulation of continuous creation as his main – and arguably only – argument for occasionalism (cf. Bardout, 'Occasionalism', 145; Nadler, *Occasionalism*, 127–30; Eaton and Higginson, 'Causation and the Cartesian Reduction of Motion'). On the contrary, I will argue that such a reading unduly isolates La Forge's use of continuous creation from its context. Indeed, I will show that La Forge does not use continuous creation as an independent argument, but rather to support his main discussion grounded in NT. Moreover, I will contend that a better understanding of the connection between NT and continuous creation can provide a more consistent reading of La Forge's own position concerning mind–body interactionism.

Indeed, Steven Nadler has claimed that La Forge, *prima facie*, embraced occasionalism only concerning body–body interactions, while proposing an interactionist account for mind–body union. According to Nadler, in La Forge's view minds remain truly active and endowed with a real power to operate through their will. In this sense, La Forge's occasionalism would be only partial.<sup>8</sup> However, Nadler also stresses that the argument La Forge used to undermine body–body interactions, i.e. continuous creation, is doomed to push La Forge towards full-blown occasionalism because it is difficult to conceive of why this argument should not apply to minds as well.<sup>9</sup>

<sup>7</sup>This reading seems strongly influenced by the fact that Malebranche repeats in his *Entretiens* (VII, §6) an argument actually very close to that of La Forge except for the fact that Malebranche mentions *just* continuous creation and eliminates any reference to NT. Pessin, 'Does Continuous Creation Entail Occasionalism? Malebranche (and Descartes)' already argued, concerning Malebranche, that continuous creation does not entail occasionalism and that, to establish it, further arguments are needed (no-necessary-connection argument, for instance, which is not present in La Forge). I will prove that this conclusion can be held also concerning La Forge's use of continuous creation.

<sup>8</sup>The distinction between partial and full occasionalism has already been drawn by Radner, 'Occasionalism', Garber 'How God Causes Motion', Clarke, 'Causal Powers and Occasionalism from Descartes to Malebranche', Bardout, 'Occasionalism', Kolesnik-Antoine, 'Les occasionalismes en France à l'âge classique. Le « cas » arnaldien'. However, 'partial' occasionalism is often considered instable (e.g. by Clarke, 'Causal Powers and Occasionalism from Descartes to Malebranche', or Bardout, 'Occasionalism') if not inconsistent (Nadler, *Occasionalism*, 141).

<sup>9</sup>Historically, Jacob Gousset was the first who argued that La Forge *should* defend a full-blown occasionalism. Gousset considered La Forge as the main source for Malebranche and even for Régis. However, Gousset contrasted a supposed colloquium he asserted to have had with La Forge in 1658 and the published *Treatise*. In this colloquium, Gousset reported that La Forge's argument was intended to show that God directly produces *every* change in the created world, even and more importantly within the mind (Gousset, *Causarum Primae et Secundarum realis operatio rationibus confirmatur, et ab abjectionibus defenditur*, §7, 6–7). Accordingly, the mind could not produce any idea without God's support. However, Gousset recognized that in the published *Treatise* La Forge never envisaged such an argument but, on the contrary, he appeared to support an interactionist account of mind-body union (cf. Gousset, *Causarum Primae et Secundarum realis operatio rationibus confirmatur, et ab*

According to Nadler, thus, La Forge's partial occasionalism turns out to be inconsistent. On the contrary, I will suggest that this inconsistency vanishes if we reconstruct La Forge's view by considering NT (rather than continuous creation) as his main argument against body-body interaction. Before discussing this issue (§4), I will present in turn how NT emerges in Descartes (§2) and how La Forge recast it (§3).

## MOTION AS A MODIFICATION OF BODIES

Great efforts have been made to determine whether Descartes himself was the first early modern occasionalist,<sup>10</sup> but I am not interested here in dealing with this thorny problem. Rather, it seems much more interesting to stress the ambiguities of Descartes' own position. This is not, of course, to demonstrate how *useless and uncertain* Descartes' philosophy was – as Pascal claimed – but to evaluate how the different elements embedded in Descartes' texts may be reconciled or erased by different interpretations of his thought.<sup>11</sup> Occasionalism was one of those interpretations. Even if it appeared – or rather was proclaimed to be – the reading closest to Descartes' own position, it might be fruitful to understand the hermeneutic choices occasionalists had to make.

In dealing with Descartes' alleged occasionalism, scholars have focused on articles 36–37 of the second part of the *Principles*, in which God is introduced as the first cause of movement. Concerning the communication of movement, however, the most relevant text appears a few articles later as a commentary on the third law of nature. Particularly, according to the second part of this law, when a moving body collides with another body,

*abjectionibus defenditur*, §20, 31). Then, Gousset accused La Forge of masking his real views just to avoid scandals. According to Gousset, La Forge's account of mind-body union allows only a union *per accidens*, and La Forge could not avoid considering God as the only true cause of anything (Gousset, *Causarum Primae et Secundarum realis operatio rationibus confirmatur, et ab abjectionibus defenditur*, §§21–28, 32–43). Rather paradoxically, Malebranche would have exploited the principle that Gousset attributed to La Forge in their private colloquium (Gousset, *Causarum Primae et Secundarum realis operatio rationibus confirmatur, et ab abjectionibus defenditur*, §36, 50: 'nec sola illa quae in Libro Forgius repetierat, sed et id quod mihi in Colloquio dixerat, docet Malebranchius, nempe mentem non habere potentiam novae cogitationis in se formandae'). Despite Gousset's critique, Ruardus Andala (*Cartesius versus spinozismi eversor*, Franequerae, 1719, 133) plainly recognized La Forge as a true mind-body interactionist (see, on this point, Scribano, *Da Descartes a Spinoza*, 72).

<sup>10</sup>Generally, I subscribe to the view according to which Descartes was *not* an Occasionalist. On such a position see, for instance, Schmaltz, *Descartes on Causation*, Kolesnik-Antoine, *L'homme certésien*, Machamer and McGuire, *Descartes's Changing Mind*. Platt, 'Divine Activity and Motive Power in Descartes's Physics', has nicely outlined the *status questionis* of the current debate, further supporting the *non*-occasionalistic reading of Descartes.

<sup>11</sup>I follow here the line of research developed by Bardout, 'Occasionalism', Schamlitz, 'Occasionalism and Mechanism', Nadler, *Occasionalism* and Kolesnik-Antoine, 'Les voies du corps. Schuyt, Clerselier, et La Forge lecteurs de L'Homme de Descartes'.



if the force of the first body to continue is greater than the resistance of the second, the first one carries the other along with it, and loses as much motion as it gives to the second body. To prove this claim, Descartes argues:

from the fact that all places are full of bodies and that, nevertheless, the movement of each of these bodies tends in a straight line; it is obvious that when God first created the world, He not only moved its parts in various ways, but also simultaneously *caused some of the parts to push others and to transfer their motion to these others*. So in now maintaining the world by the same action and with the same laws with which He created it, He conserves motion; *not always contained in the same parts of matter, but transferred from some parts to others* depending on the ways in which they come in contact.

(PP2, 42; AT VIII, 66; transl. in Descartes, *Principles of Philosophy*, 62, emphasis added)

For present purposes, what is noteworthy is Descartes' plain admission of a true transfer of motion between colliding bodies. Picot's 1647 French translation even reinforces this impression by glossing the passage 'motum, non iisdem materiae partibus semper infixum, sed ex unis in alias prout sibi mutuo occurrunt transeuntem, conservet' with the corresponding

il conserve maintenant en elles toutes le mouvement qu'il y a mis dès lors avec *la propriété qu'il a donné à ce mouvement, de ne demeurer pas toujours attaché aux mêmes parties de la matière, et de passer des unes aux autres, selon leurs diverses rencontres*.

(AT IX-2, 88, emphasis added)

Here, the simple *fact* that the movement can be transferred from one body to another becomes a *property* of movement itself, which is continuously (re) created by God, together with its quantity.

Descartes states expressly in PP2, 25 that motion is just a modification of a body. Indeed, after having presented his definition of movement in terms of a translation from contiguous bodies to other contiguous bodies, he explains:

I also say that it is a *transference*, not the force or action which transfers, in order to show that this motion is always in the moving body and not in the thing which moves it (because it is not usual to distinguish between these two with sufficient care); and in order to show that it is only a mode [of the moving body], and not a substance, just as shape is a mode of the thing shaped, and rest, of the thing which is at rest.

(PP2, 25; AT VIII, 54; transl. in Descartes, *Principles of Philosophy*, 51)

Descartes' careful use of language seems to suggest that he has reasons for making clear that motion in bodies should be viewed as a modification of them. The most evident reason is probably Descartes' need to consider motion as something quantifiable. However, provided that 'there is no real

difference between quantity and the extended substance' (PP2, 8; AT VIII, 44, transl. in Descartes, *Principles of Philosophy*, 42), in order to make movement quantifiable it should be granted that movement participates in extension. The simplest way to grant this point would be to acknowledge that extension implies movement. Nevertheless, this is exactly what Descartes ought to avoid, to prevent the well-known materialistic and atheistic conclusions that such a claim would imply. On the contrary, granting that movement is just a modification of an extended thing, Descartes can hold both that extension *does not* imply movement – because a body without movement is still a body – and that movement participates in quantity, and is therefore quantifiable. Because it is quantifiable, Descartes can treat movement as something that can be divided or redistributed between different bodies according to the third law of nature and the rules of impact.

So far so good. But what does it mean exactly that a modification can be transferred from one body to the other? Henry More posed this question to Descartes in a letter dated the 23 July 1649 (AT V, 382). Descartes' reply – dated August 1649 – was the following:

you observe correctly that 'motion, being a mode of body, cannot pass from one body to another'. But that is not what I wrote; indeed I think that motion, considered as such a mode, continually changes. For there is one mode in the first point of a body A in that it is separated from the first point of a body B; and another mode in that it is separated from the second point; and another mode in that it is separated from the third point; and so on. But when I said that the same amount of motion always remains in matter, I meant this about the force which impels its parts, which is applied at different times to different parts of matter in accordance with the laws set out in articles 45 and following of Part Two.

(AT V, 404–5, transl. in Descartes, *The Philosophical Writings*, 382)

This answer is puzzling. We have just read, in PP2, 42, that '*motum, [...] ex unis in alias prout sibi mutuo occurrunt transeuntem*'. Therefore, if we decide to take seriously Descartes' answer to More, we have to interpret PP2, 42 and related passages by taking the 'transfer' of motion as a reconfiguration of the force of movement without real transfer. We will see that, following this suggestion, La Forge attempts to provide a coherent interpretation of Descartes' physics which actually gives up any communication of movement between bodies. This is, indeed, the occasionalistic reading.

## FROM NT TO CONTINUOUS CREATION

NT appears as the positive statement of what More asked Descartes in the summer of 1649. In Chapter 16 of his *Traité de l'esprit de l'Homme*, La Forge presents the first explicit attempt to exploit NT in order to support

occasionalism. In this section, I will focus on La Forge's treatment of NT, and I will address how this discussion supports mind-body interactionism in the next section.

In Chapter 16, La Forge presents two main arguments. The first expressly uses NT to show that the force of movement cannot be inherent to bodies. The second focuses on the fact that only God can produce the force of movement. I will discuss them in turn.

Concerning the first argument, La Forge begins by invoking the Cartesian distinction between movement and force of movement.<sup>12</sup> The core of his demonstration consists in showing why force of movement cannot be something corporeal. The proof runs as follows:

motion is only a mode which is not distinct from the body to which it belongs and which can no more pass from one subject to another than the other modes of matter, nor can it belong to a spiritual substance. But the motive force, i.e. the force which transports a body from one vicinity to another and which applies it successively to different parts of the bodies which it leaves behind [ ... ], is not only distinct from this application but also from the body which it applies and moves [ ... ]. *Now if the force which moves is distinct from the thing which is moved and if bodies alone can be moved, it follows clearly that no body can have the power of self-movement in itself. For if that were the case this force would not be distinct from the body, because no attribute or property is distinct from the thing to which it belongs.* If a body cannot move itself, it is obvious in my opinion that it cannot move another body. Therefore every body which is motion must be pushed by something which is not itself a body and which is completely distinct from it.

(La Forge, *Treatise on the Human Mind*, 145, emphasis added)

Because movement is only modally distinguished from the body, it cannot be separated from the moved body and it cannot be transferred from one body to another. However, because the force of movement can be separated from a body, it should be really distinguished from the body. Now, because the force of movement is really distinguished from the moved body, this force is not corporeal and does not pertain to such a body. Therefore, a body cannot have the force to move itself and, thus, it cannot have the force to move another body.

The reason to distinguish between movement and force of movement lies in the fact that movement is just a modification of the body and no modification can be transferred from a subject to another (NT). On the contrary, it is necessary to think that the same force of movement, which causes the motion

<sup>12</sup>However, it should be remembered that in PP2, 43, Descartes does not draw any sharp distinction between force and movement. There he describes the force of movement in terms of the force to persevere in its own state, which seems something very close to the quantity of movement.

of a body, applies differently to different bodies, and thus it must be really distinguished from them.

The fact that the force of movement can be applied to different bodies appears as the crucial point in La Forge's argument. However, it might be asked why we should grant that the force is separable from the body and can be transferred. In the end, what prevents us from claiming that even the force is a modification of the body and thus cannot be separated from it? La Forge seems well aware of this problem and proposes a *reductio ad absurdum* to support this point:

I may be told that I assume without argument that the force which moves must be distinct from the thing which is moved. [...] But let us assume, if you wish, that this force is a mode of a body; *it could not then be distinguished from it and consequently it could not pass from one body to another*. If you conceive it in the same way as real qualities are conceived in the Schools and if you think it is definitely an accident of a body, even if it is distinct from it, then you would have to conceive that it subdivides itself when one body moves another and that it gives part of its movement to the other body and is therefore itself a body, at the same time as you assume that it is distinct from corporeal nature; for anything which is divisible and which has parts which can exist independently is a body; or you would have to say that it does not subdivide but that the body in which it is present produces a similar property in the body it touches when it pushes it. You thereby give to bodies the power of creation.

(La Forge, *Treatise on the Human Mind*, 145–6 emphasis added)

Under the hypothesis that the force of movement is a modification of the body, NT prevents any transfer of such a force from one body to another. However, La Forge assumes as factual that impact implies a redistribution of quantity of motion. Provided that the total amount of motion is conserved, this redistribution can be explained by redistribution either of the movement itself or of the force of movement. But if movement is a modification of the bodies, NT prevents its transfer. Thus, it must be the force of movement that is redistributed among the colliding bodies. This implies that the force of movement would be simultaneously *non*-distinguished from bodies (which was the hypothesis) and actually distinguished from them (because of the fact that it is redistributed). Unfortunately, this conclusion leads to absurdities. Indeed, either the force of movement is something like a real quality, which La Forge considers a contradictory entity, or we should accept that bodies have the power to create accidents in other bodies, which is taken as another absurdity.<sup>13</sup> Thus, the force of movement cannot be a modification of a body, and the hypothesis must be rejected.

<sup>13</sup>Here, La Forge is arguably rejecting Hobbes's account, according to which bodies actually create and destroy accidents in causal interactions (see *De Corpore*, 8, 21).

La Forge presents his use of NT as nothing but a faithful reading of Descartes. Not surprisingly, he quotes at length Descartes' answer to More, suggesting it as the true interpretation of Descartes' physics.<sup>14</sup> Nevertheless, up to this point, La Forge has only proved that force of movement is not something corporeal. This implies that all physical movements are always brought about by immaterial causes, which allows (as we will see in §4) that in some cases, immaterial substances like human minds can cause some physical movements, i.e. voluntary motions, through the laws of their union with the body. However, La Forge clearly would not assert that finite immaterial substances, such as angels or intermediate kinds of beings, produce every physical movement.<sup>15</sup> Therefore, La Forge still needs a further argument to refute this kind of inference and show that, generally speaking, God himself directly moves physical bodies. This is the reason why continuous creation enters into La Forge's argument.

Indeed, just after the previous quote, La Forge introduces a further part of his discussion, which clarifies his point. La Forge reminds us that movement produces every difference we observe in the physical world. Thus, if God would eliminate movement, the world would remain an inert mass of matter whose parts would be indistinguishable. Accordingly, La Forge focuses on the conditions in which God must introduce movement in such a mass to make a single body move.

[1] I also claim that there is no creature, spiritual or corporeal, which can cause change in [matter] or in any of its parts, in the second moment of their creation, if the Creator does not do so himself. Since it was He who produced this part of matter in place *A*, for example, not only must he continue to produce it if he wishes it to continue to exist but also, since he cannot create it everywhere or nowhere, he must put it in place *B* himself if he wishes it to be there. *For if he put it anywhere else there is no force capable of removing it from that location.*

[2] Let us even consider that if God gave this particular body *A* all the motive force which he uses at present to move the whole of nature, it would not be enough even with all that to change its location, both because it would not be able to overcome the resistance of the rest of matter which we assume is at rest, and because in order to make body *A* capable of leaving its place to enter that of another body, the other body which it replaces would also have to move at the same moment that body *A* begins to move, since it is impossible for the first body to take the place of the second unless, at the same time as it tries to do so, the second body leaves that place and enters that of a third body and the third enters that of a fourth, and so on. That is

<sup>14</sup>This strategy has a clear polemical target, namely, Regius and his doctrine of the *impetus*, conceived of as an *impressed quality*, which passes from one body to the other (see La Forge, *Treatise on the Human Mind*, 148; cf. Regius, *Philosophia Naturalis*, 11–12).

<sup>15</sup>On the contrary, La Forge criticized Campanella for having supported a similar view: see La Forge, *Treatise on the Human Mind*, ch. 5, 51.

how it could happen when everything is at rest. *Therefore no matter what force God gives to body A to move itself, it would be ineffective.* That is why when God decided to move matter in various ways he had to apply the force that he chose to put into matter to many of its parts at the same time, so that they could give up their places to each other at the same instant without which no motion could have been produced.

(La Forge, *Treatise on the Human Mind*, 147, emphasis added. Numbers in brackets added to help discussion)

Scholars used to consider the appeal to continuous creation (point 1) as an independent argument. However, contrary to this established view, I suggest that this reading cannot work. Indeed, without the further development provided by the discussion at point 2, what is stated at point 1 remains unproved. *Why* should it be God himself that has to recreate a moving body in a certain place? *Why* is there no creature, spiritual or corporeal, which can cause change in the position of a body? As La Forge says, ‘for if he put it anywhere else there is no force capable of removing it from that location’. But this is a mere assertion, which is proved only at point 2. Evidently, *if* God has to recreate a body in each of its positions, then nothing can work against God’s force.<sup>16</sup> However, without establishing *why* God has to do so, the mere appeal to his continuous creation begs the question.

Rather, La Forge’s argument suggests that he aims at proving *why* the nature of force is such that God has not only to continuously recreate a moving body, but also must place that body in each of the different positions that the body undergoes throughout its movement. The reason for this

<sup>16</sup>Perhaps it might be supposed that La Forge here is equating God’s *force* with God’s *will*, and this is the reason why nothing can resist God’s act of placing a body in a certain position. But this supposition has no textual support, because La Forge *never* proposes such an equation, which was extensively used by Malebranche. Before Malebranche, Clerselier seems the first to have *objected* such a claim to La Forge. In the third volume of Descartes’ correspondence, published in 1667, Clerselier included a letter of his own to La Forge (dated on 4 December 1660), in which he complains ‘ie voy fort peu de difference entre ce que vous pensez de la façon dont l’Ame et le corps agissent l’un sur l’autre, et ce que ie vous ay fait voir que ie pensois là dessus’ (Descartes, *Lettres de M. Descartes, où sont traitées les plus belles questions de la morale, de la physique, de la médecine et des mathématiques*, 641). Indeed, Clerselier presents an argument to prove that *force of movement* should be incorporeal and that the mind has a real power to move the body. However, he never mentions NT and he demonstrates that God is the true origin of motion because an infinite power is needed to create movement *ex nihilo* into matter (see Descartes, *Lettres de M. Descartes, où sont traitées les plus belles questions de la morale, de la physique, de la médecine et des mathématiques*, 642). It should be remarked that this argument is actually different from that presented by La Forge, who does not equate God’s force and God’s will and does not invoke metaphysical considerations concerning the power to bring about things or modes from nothing. This implies that, even in the case that Clerselier actually wrote this letter to La Forge in 1660, La Forge *does not* endorse the *same* argument of Clerselier. This means that La Forge *was aware* of the possibility to use this argument, but he evidently *did not* embrace it. Therefore, it follows *a fortiori* that we have not to project Clerselier’s argument (which we suppose La Forge knew) onto La Forge’s.

derives from the conditions of motion in a plenum. La Forge's argument has two premises. First, the force of rest of an indefinite mass of bodies at rest is even greater than the infinite force of movement of just one single body.<sup>17</sup> Second, to allow just one single body to move, it is necessary that all other bodies move too. It follows that, in such a condition, even if a single body had an infinite force of movement, it would not move unless other bodies also moved. Hence, because in order to move a body from one place to another, it is necessary that all other bodies move, it follows that the force that moves the body is the same that moves all the other bodies, namely, the same force that introduces motion in matter, i.e. God's force. Accordingly, the only force able to move a body away from a certain position is the same force that simultaneously moves all the other bodies, i.e. God's force. Because motion is nothing but the passage from one position to another, God himself not only recreates the moving body but recreates it in each of its positions.

What follows is the remarkable conclusion that God's continuous creation as such does not entail occasionalism. Rather, only insofar as we acknowledge the difficulties raised by specific physical concepts, such as the nature of force and bodies, an occasionalistic reading of God's continuous creation appears the best solution to face those problems.

If we realize that La Forge introduces his reinterpretation of continuous creation only to complement NT, we can also stress that La Forge's treatment of this argument does not suggest any kind of generalization concerning the way in which God's continuous creation should be conceived concerning thinking substances. The reason why God has to recreate not only bodies, but also bodies in specific places, that is, bodies and their modifications, is grounded in the nature of bodies and in the conditions for a movement in a plenum. But a thinking substance neither moves nor exists in a plenum. Therefore, God's *modus operandi* cannot be the same.<sup>18</sup> This is the reason why La Forge presents these arguments exposed in Chapter 16 of his *Traité* as strong support for his interactionist account of mind–body union.

<sup>17</sup>Concerning this point, Arnold Geulincx proposed an argument close to La Forge's in his *Physical Disputations* (1663): see *Disputationes Physicae*, III, §§6–7 in Land2, 502. The same argument is reproduced, with some changes, in Geulincx's *Metaphysica vera*, III, 5 (Land2, 191). However, Geulincx's *Metaphysics* will be published posthumously only in 1691. For the present discussion, it is noteworthy that this kind of argument is used exactly to support God's direct intervention starting from physics.

<sup>18</sup>This remark does not imply that God's continuous creation does not apply to minds. La Forge states clearly in chapter 12 (La Forge, *Treatise on the Human Mind*, 113) that the *duration* of a mind depends on God's continuous creation. But he infers this conclusion from the Cartesian assumption that finite substance cannot have duration without being conserved by God, and he does not suggest in any way that God's support exceeds the mere maintenance of the actual existence of the mind.

## LA FORGE'S PARTIAL OCCASIONALISM

The main task of La Forge's *Traité de l'esprit de l'Homme* consists in providing an account of human mind and mind–body union following the principles of Descartes. Despite appearances, La Forge's position on this topic is *not* a kind of occasionalism:

we should say likewise that a body and mind are united when some movements of the first depend on thoughts of the second and, reciprocally, some thoughts of the second depend on movements of the first, whether the cause of this dependence comes from the will of the mind which is united or derives from another will which is superior to its own.

(La Forge, *Treatise on the Human Mind*, ch. 13, 121)

La Forge makes clear that this mutual dependence of mind and body needs to be conceived of in terms of causation, even if it is a kind of equivocal causation (cf. La Forge, *Treatise on the Human Mind*, ch. 13, 124).<sup>19</sup> Chapter 15 explicitly states that God's involvement in mind–body causation consists only in establishing the general laws under which these two substances can operate upon each other (La Forge, *Treatise on the Human Mind*, ch. 15, 134). La Forge, therefore, claims that God's will is only the general cause of the mind–body union while corporeal dispositions and will are the two specific causes of all that happens in the mind–body compound (La Forge, *Treatise on the Human Mind*, ch. 15, 135–6). Moreover, he often repeats that the mind is an active substance, endowed with true causal power to produce effects, mainly through its will.<sup>20</sup>

For instance, according to La Forge, even in the case of non-voluntary ideas, such as sensory ideas, the mind remains active although external objects, through the union, oblige the power of thinking to produce ideas corresponding to corporeal species impressed upon the pineal gland.

<sup>19</sup>Cf. also Nadler, *Occasionalism*, 109. Nadler, *Occasionalism*, 114 also stressed that La Forge's account of mind–body interaction is not actually different from that pointed out by Descartes himself against Regius.

<sup>20</sup>La Forge, *Treatise on the Human Mind*, ch. 11, 97–8:

the essence of this faculty [i.e. the will] consists firstly in the fact that it is the active principle of all the mind's actions which chooses from itself and by itself and determines itself to accept or reject what the understanding perceives or remain suspended when something is not yet perceived clearly enough. [...] It is so free that it would involve a contradiction to say that any external agent could so violate its freedom as to make it will something despite itself. The source of this freedom derives, firstly, from the fact that it is the mind which determines itself on its own.



Indeed, while the corporeal species remain only the remote cause, the mind–body union is still the principal cause of those ideas, which are produced by the power of thinking of the mind itself (proximate cause) (see La Forge, *Treatise on the Human Mind*, ch. 10, 93–4). Moreover, La Forge seems to conflate the power of thinking with will, suggesting that every idea is actually a voluntary idea, at least *qua* idea.<sup>21</sup>

However, La Forge plainly acknowledges that this account may appear unintelligible because it allows causal interactions between something corporeal and something non-corporeal. This brings us back to Chapter 16, which contains La Forge's arguments for occasionalism. The way in which we ought to interpret these arguments is stated at the very beginning of the chapter:

I think most people would not believe me if I said that it is no more difficult to conceive how the human mind, without being extended, can move the body and how the body without being a spiritual thing can act on the mind, than to conceive how a body has the power to move itself and to communicate its motion to another body. Yet there is nothing more true.<sup>22</sup>

(La Forge, *Treatise on the Human Mind*, ch. 16, 143)

<sup>21</sup>Cf. La Forge, *Treatise on the Human Mind*, ch. 10, 94:

although our thoughts follow one another and although it is the external objects or the first thoughts which provide an occasion for the will to determine itself and form the idea of subsequent thoughts, that does not imply that one should not say that it is the will which is the principal and proximate cause of the idea. Otherwise one would have to say that it is the external objects which produce the ideas that we have of them and not the mind, since it is their presence which provides an occasion for the mind to think about them.

Note that the impossibility for external objects to *produce* ideas clearly does not refer to the fact that external objects offer the *content* of ideas, but to the possibility that they *directly produce* the ideas *qua* ideas, that is as a modification of a thinking substance. According to La Forge, external objects are not the *proximate* but the *remote* cause of our ideas of them. In so doing, La Forge once again follows closely Descartes' strategy against Regius, as it results from the *Notae in programma quoddam* (AT VIII-2, 359). It might be noted that this claim is very close also to that used by Marin Cureau de La Chambre in his *Quelle est la connoissances des bêtes et jusques où elle peut aller* (appendix of *Les caractères des passions*, vol. 2, Paris, 1645) against Pierre Chanet. On the importance of that episode for the history of occasionalism, see Scribano, 'Introduzione'.

<sup>22</sup>Cf. also a few lines below, where La Forge says

it is necessary [ . . . ] to remove from many people's minds the unfortunate tendency to believe that unless their soul were corporeal, it would not have the power to move the body because, they say, it could not do so without touching it.

Evidently, thus, La Forge aims at ruling out body–body causation to ground mind–body interactions, that is, to allow interaction between immaterial minds and bodies.

Evidently, Chapter 16 serves two functions in La Forge's *Treatise*. First, it is intended to show that body–body causation is no easier to conceive than mind–body causation. Second, because only a non-corporeal force can move a body, there is no reason to rule out mind–body interactions. In that view, La Forge exploits an occasionalistic position concerning body–body causation to ground mind–body interactionism.<sup>23</sup>

Steven Nadler rejects this solution, claiming that God's continuous creation should apply also to minds, and thus La Forge's claim concerning the mind's activity would be inconsistent:

La Forge could hold that while, with respect to bodies, God's conserving causal activity is identical with God's modal causal activity, in the case of minds it is not. [...] This suggestion, while it would rescue La Forge's account from the problem I discuss, seems very strange. It is awkward, to say the least, to claim that God's sustaining activity differs in character depending on the kind of substance – mind or body – that he is sustaining. This would be, in effect, to claim that there are two kinds of divine conservation: one for material beings (which, at the same time and by the same action, gives them their modifications) and another for spiritual beings (which leaves them able to cause their own properties).

(Nadler, *Occasionalism*, 140)

I do not see why La Forge should consider this position unacceptable, particularly if this allows him to secure his account concerning the mind's activity and it is not intrinsically inconsistent. But to accept two kinds of God's involvement with finite things seems coherent with the general Cartesian claim that there are two kinds of substances, and these are completely different in nature from (?) one another. La Forge's reinterpretation of God's continuous creation expressly aims to fill a gap in the kind of causation present in the material world, according to which bodies alone would be insufficient to explain motion and thus physical phenomena. Because this problem does not arise with minds, which are completely different kinds of substances, there is no need to invoke God's action in the same way concerning minds.

As La Forge himself expressly points out:

I would add to Mr. Descartes that although all things depend on God, as he says, *they do so in different ways*. For in the production of effects to which neither our own will nor that of any other free agent contributes, one could say that God consulted his own will alone, by which he unconditionally determined to produce them in a certain way and at a certain time; but in the case of effects to which our will contributes, God did not consider his own will alone but he also included the consent of our will in his decree, and it was only after having foreseen how our will would determine itself in such and such

<sup>23</sup>On mind–body interactionism, Bardout, 'Occasionalism', 141–2, stresses the affinity between La Forge and Descartes' own position.

circumstances that he consequently willed absolutely that such effects would result.

(La Forge, *Treatise on the Human Mind*, ch. 11, 106–7, emphasis added)

Here, La Forge clearly aims at clarifying Descartes' account of will rather than at contradicting it. Thus, he plainly acknowledges a difference in God's *modus operandi*, due to the difference between extended (inert) substances and spiritual (active) substances. The arguments developed in Chapter 16 explain in detail the grounds of such difference rather than undermining it. Indeed, the main difficulty envisaged by Nadler seems to be the apparent conflict between the general claim, according to which God moves all bodies, and the more restricted claim, according to which the human mind moves its body in certain circumstances, i.e. concerning voluntary motions. Consequently, it might be objected that the 'power' or 'force' of the mind to move the body is nothing but the fact that God moves the body, through the pineal gland, when the appropriate volition takes place in the mind. In that case, it would follow that it is not actually the mind that produces voluntary motions. Accordingly, continuous creation would lead La Forge to embrace full occasionalism. However, if we look at the way in which La Forge has supported his whole argument, a feasible answer exists that avoids such a conclusion.

Consider body–body causation. NT shows that a body is insufficient to bring about effects upon other bodies insofar as it cannot transfer its movement. This is the reason why God has to provide his support to physical interactions. The output of these interactions is deducible from the physical features of bodies, through the laws of nature and the rules of impact, for instance. However, to produce these results, bodies need God to add his force to them because this force cannot be a modification of bodies for NT.

Consider now mind–body causation. In this case, the mind clearly does not create new movement, which would be contrary to God's conservation of the total amount of movement in the world. However, to produce physical effects, it is sufficient that the mind changes the determination of animal spirits through the pineal gland (see La Forge, *Treatise on the Human Mind*, ch. 15, 139–42). In laymen's terms, the pineal gland is like a joystick, by acting upon which the whole bodily machine moves in this or that way. Evidently, this can happen only because certain animal spirits flow in certain nerves, which produce certain reactions in muscles and so on. In all these further stages, God supports the physical action by providing his force of movement. Nonetheless, to allow mind–body interaction, God has only had to establish since eternity that the mind has the power to directly modify the determination of animal spirits through the pineal gland in agreement with the content of its will. Indeed, NT granted that non-corporeal entities usually act upon physical entities, and no transfer of motion is needed to change the determination of a moving body. In the case of mind–body union, thus, God needs to establish just the general laws under which such kind of

interaction has to take place. Once these laws are provided, God's direct intervention no longer seems necessary.

This conclusion is supported by a further difference between the actions of a mere body and that of a body united with a mind. In the first case, the body undergoes nothing but what is implied in its bodily nature. In the second case, it happens that the body is also used to produce actions that depend on the (free) volitions of its mind. Accordingly, when a stone turns in a sling, there is just one effect that it can produce according to the laws of motion, namely, it tends to proceed along the tangent. However, when I move my arm to the left because I want to, there are no physical reasons why God should move my body in such a way. Indeed, my arm could move equally well to the right. This is to say that, in case of voluntary motions, the law of the physical world is not sufficient to establish the complete cause of such kind of effect. Insofar as we accept the existence of voluntary motions, we have to accept that even God, to produce such a movement in my arm, needs to look at the content of my will to produce that effect.<sup>24</sup>

Therefore, even if God moves generally all bodies, in case of a body united with a mind, this body produces voluntary motions that cannot be produced only by God, whose force is necessary but not sufficient to bring about these kinds of effects.<sup>25</sup> In other words, in the case of voluntary motions, God established to produce nothing but the movements that follow from the determination that the mind impresses upon animal spirits through the pineal gland, according to the content of its (free) volitions. NT, as such, grounds the fact that an immaterial agent like a mind causes effects on physical bodies. Moreover, the mind causes such effects without the need to transfer any motion to the human body, and thus, again, NT cannot be invoked against such a kind of interaction. Therefore, it might be said that, in such cases, the will really uses God's force to produce what it wants.<sup>26</sup> Hence, La Forge's reinterpretation of God's continuous creation

<sup>24</sup>As La Forge clearly states (*Treatise on the Human Mind*, ch. 16, 150):

you should not say that is God who does everything and that the body and mind do not really act on each other. For if the body had not had such a movement, the mind would never have had such a thought, and if the mind had not had such a thought, the body might also never have had such a movement.

<sup>25</sup>According to Clatterbaugh, 'Cartesian Causality', because Descartes assumes that God is the total and efficient cause of all things, he should be committed to (full-blown) occasionalism. I suggest that, even if (from the point of view of God's *potentia absoluta*) nothing can happen without God's will, in some cases (from the point of view of God's *potentia ordinata*) God does not need to act directly to bring about certain effects. Because we assume that occasionalism implies a *direct* intervention by God, we can thus conclude that a general assertion of God's *absolute power* does not entail any commitment to a (full-blown) occasionalism.

<sup>26</sup>See La Forge, *Treatise on the Human Mind*, ch. 16, 151: 'there are certain bodily movements which depend directly on the soul and of which it is absolutely the mistress when the body is

does not prevent the mind from having real causal power to act upon the body even if this causal power is conditioned, that is, should be brought about following the general laws that God established concerning motion and mind–body union. Nonetheless, having a conditioned causal power does not mean that the mind has no causal power at all. Indeed, as La Forge said, echoing a letter Descartes wrote to Elisabeth,<sup>27</sup> ‘the *force* which the mind has to move the body, and that which the body has to stimulate various thoughts in the mind are *necessary consequences* of this union’ (La Forge, *Treatise on the Human Mind*, ch. 16, 150, emphasis added).

NT established that God has to intervene in physical relationships only to bring about those effects that bodies have no means to produce. Even if it might sound paradoxical, God’s intervention remains instrumental, that is, it concerns how to bring about a certain effect, rather than the effect itself. Concerning body–body interactions, God has to constantly and directly intervene to redistribute force of movement because NT forbids the direct transfer of motion and because the great majority of physical effects are produced in that way. In mind–body interactions, however, God established since eternity the rules of the union, and he no longer needs to intervene in such kinds of effects.

This is exactly what La Forge himself stresses:

although God is thus the universal cause of all the motions which occur in the world, I also recognize bodies and minds as the particular causes of these same motions, not really in producing any ‘impressed’ quality in the way the Schools explain it, but *in determining and forcing* [*en déterminant et obligeant*] *the first cause to apply his force and motive power to the bodies to which he would not otherwise have applied it*, according to the way He decided to govern himself in relation to bodies and minds; that is, for bodies, according to the laws of motion which are so well explained in Book Two of Mr Descartes’s *Principles*; and for minds, according to the scope of the power which He chose to give to their wills. The power of bodies and minds to move consists in that alone. Therefore it is no more difficult to understand how a mind can act on a body and move it, than to conceive how one body pushes another.

(La Forge, *Treatise on the Human Mind*, ch. 16, 148, emphasis added)

well disposed, such as those movements which are called voluntary.’ Historically, Johannes Schotanus (*Questiones metaphysicae*, Franequerae, 1687, 320) expressly criticized La Forge for having subordinated God’s decrees to that of finite creatures by accusing him of *molinism*. On Schotanus’s dealing with La Forge, see Scribano, *Da Descartes a Spinoza*, 23–52 and 63–6.

<sup>27</sup>Descartes to Elisabeth, 21 May 1643 (AT3: 665), in Shapiro, *Correspondence Between Princess Elisabeth of Bohemia and René Descartes*, 65:

for the soul and the body together, we have only that of their union, on which depends that of the power [*la force*] the soul has to move the body and the body to act on the soul, in causing its sensations and passions.

In body–body causation, bodies are still the explanatory causes of motions. Indeed, NT does not deny that the results of impacts follow from the physical parameters of the colliding bodies according to the laws of nature, but only that such bodies can bring about those effects on their own. Concerning mind–body causation, minds are also *direct* causes of voluntary motions because ‘the power which [God] chose to give to their wills’. Here, NT does not prevent a causal interaction between mind and body. Thus, the kind of occasionalism resulting from this view is of course partial, but this does not imply that it must be inconsistent. Arguably, in La Forge’s view, this partiality was precisely what made occasionalism appealing.

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## BIBLIOGRAPHY

- Bardout, Jean-Christoph. ‘Occasionalism: Cordemoy, La Forge, Geulincx’. In *A Companion to Early Modern Philosophy*, edited by S. Nadler, 140–51. Oxford: Blackwell, 2002.
- Clarke, Desmond M. ‘Causal Powers and Occasionalism from Descartes to Malebranche’. In *Descartes’ Natural Philosophy*, edited by S. Gaukroger, J. Schuster, and J. Sutton, 131–48. London: Routledge, 2000.
- Clatterbaugh, Kenneth. ‘Cartesian Causality, Explanation, and Divine Concurrence’. *History of Philosophy Quarterly* 12, no. 2 (1995): 195–207.
- Descartes, René. *Lettres de M. Descartes, où sont traitées les plus belles questions de la morale, de la physique, de la médecine et des mathématiques*. Published by C. Clerselier, vol. 3. Paris: Charles Angot, 1667.
- Descartes, René. *Oeuvres*. Edited by C. Adam and P. Tannery, new presentation by J. Beaudé, P. Costabel, A. Gabbey, and B. Rochot. 11 vols. Paris: Vrin, 1964–1974.
- Descartes, René. *Principles of Philosophy*. Translation with explanatory notes by V. R. Miller and P. Miller. Dordrecht: Reidel, 1983 (ried. Kluwer).
- Descartes, René. *The Philosophical Writings* (vol. 3) – The Correspondence. Translated by J. Cottingham, R. Stoothoff, D. Murdoch, and A. Kenny. Cambridge: Cambridge UP, 1991.
- Eaton, William, and Robert Higginson. ‘Causation and the Cartesian Reduction of Motion: God’s Role in Grinding the Gears’. In *Causation and Modern Philosophy*, edited by K. Allen and T. Stoneham, 48–64. New York: Taylor & Francis, 2011.

- Freddoso, Alfred J. 'God's General Concurrence with Secondary Causes: Pitfalls and Prospects'. *American Catholic Philosophical Quarterly* 67, no. 2 (1994): 131–56.
- Garber, Daniel. 'How God Causes Motion: Descartes, Divine Sustenance, and Occasionalism'. *Journal of Philosophy* 84, no. 10 (1987): 567–80.
- Garber, Daniel. *Descartes' Metaphysical Physics*. Chicago: University of Chicago Press, 1992.
- Geulincx, Arnold. *Arnoldi Geulincx Antverpiensis Opera Philosophica*. Recognovit J. P. N. Land. 3 vols. Hagae Comitum: Martinus Nijhoff, 1891.
- Goussset, Jacob. *Causarum Primae et Secundarum realis operatio rationibus confirmatur, et ab abjectionibus defenditur. De His Apologia fit pro Renato Des Cartes, Adversus Discipulos ejus Pseudonymos a Jacobo Gussetio, in Epistola ad Celeb. Dominum Hautecurtium Scripta*. Leovardiae: excudit Franciscus Halma, Ordinibus Frisiae Typographus, 1716.
- Hobbes, Thomas. *De Corpore. Elementorum Philosophiae Sectio Prima*. Edited by K. Schuhmann. Paris: Vrin, 1999.
- Kolesnik-Antoine, Delphine. 'Les occasionalismes en France à l'âge classique. Le « cas » arnaldien'. *Revue de métaphysique et de morale* 49, no. 1 (2006): 41–54.
- Kolesnik-Antoine, Delphine. *L'homme certésien*. Rennes: PuR, 2009.
- Kolesnik-Antoine, Delphine. 'Les voies du corps. Schuyf, Clerselier, et La Forge lecteurs de L'Homme de Descartes'. *Consecutio Temporum* 3, no. 2 (2012): 118–128. <http://www.consecutio.org/2012/02/>.
- La Forge, Louis de. *Treatise on the Human Mind (1664)*. Translation with an Introduction and Notes by D. M. Clarke. Dordrecht: Kluwer, 1997.
- Le Grand, Antoine. *An Entire Body of Philosophy According to the Principles of the Famous Renate Des Cartes*. London: Richard Bloom, 1694.
- Machamer, Peter, and John McGuire. *Descartes's Changing Mind*. Princeton, NJ: Princeton UP, 2009.
- Nadler, Steven. *Occasionalism: Causation among the Cartesians*. Oxford: Oxford UP, 2010.
- Ott, Walter. *Causation and Laws of Nature in Early Modern Philosophy*. Oxford: Oxford UP, 2009.
- Pessin, Andrew. 'Does Continuous Creation Entail Occasionalism? Malebranche (and Descartes)'. *Canadian Journal of Philosophy* 30, no. 3 (2000): 413–39.
- Platt, Andrew R. 'Divine Activity and Motive Power in Descartes's Physics'. *British Journal for the History of Philosophy* 19, part I: no. 4 (2011): 623–46; part II: no. 5 (2011): 849–71.
- Radner, Dasie. 'Occasionalism'. In *The Renaissance and Seventeenth-Century Rationalism*, edited by G. H. R. Parkinson, 320–52. London: Routledge, 1993.
- Regis, Pierre-Sylvain. *Cours entier de philosophie, ou Systeme general selon les principes de M. Descartes*. Amsterdam: aux dépens des Huguétan, 1691.

- Regius, Henricus. *Philosophia Naturalis*. Amsterdam: Apud Ludovicum Elzevirium, 1654.
- Sangiaco, Andrea. 'Dall'origine della superstizione all'origine del movimento: lo strano caso della confutazione tolandiana di Spinoza'. *Rivista di Storia della Filosofia* 68, no. 4 (2013): 645–71.
- Schmaltz, Tad M. *Descartes on Causation*. New York: Oxford UP, 2008.
- Schmaltz, Tad M. 'Occasionalism and Mechanism: Fontenelle's Objections to Malebranche'. *British Journal for the History of Philosophy* 16, no. 2 (2008): 292–313.
- Scribano, Emanuela. *Da Descartes a Spinoza. Percorsi della teologia razionale nel Seicento*. Milano: Franco Angeli, 1988.
- Scribano, Emanuela. 'Introduzione'. In *M. Cureau de la Chambre, Quale sia la conoscenza degli animali e fin dove possa estendersi*, edited by Emanuela Scribano, 11–49. Pisa: Felici Editore, 2010.
- Shapiro, Lisa. *The Correspondence Between Princess Elisabeth of Bohemia and René Descartes*. Edited and translated by Lisa Shapiro. Chicago: University of Chicago Press, 2007.
- Stirner, Max. *The Ego and Its Own*. Edited by D. Leopold. Cambridge: Cambridge UP, 1995.
- Toland, John. *Letters to Serena*. London: Bernard Linton, 1704.
- Yakira, Elhanan. *La causalité de Galilée à Kant*. Paris: Puf, 1994.