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Régis's scholastic mechanism

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Abstract

Unlike many of Descartes's other followers, Pierre-Sylvain Régis resists the temptations of occasionalism. By marrying the ontology of mechanism with the causal structure of concurrentism, Régis arrives at a novel view that both acknowledges God's role in natural events and preserves the causal powers of bodies. I set out Régis's position, focusing on his arguments against occasionalism and his responses to Malebranche's 'no necessary connection' and divine concursus arguments.

Keywords: Pierre-Sylvain Régis; Causation; René Descartes; Nicolas Malebranche; Occasionalism; Power; Conceivability

1. Introduction

It is widely acknowledged that, whether or not he was himself an occasionalist, Descartes sowed the seeds of the doctrine that God is the only true cause. It is less widely known, however, that some of his followers, unlike Nicolas Malebranche and Louis de la Forge, actively resisted the temptations of occasionalism.[1] Pierre-Sylvain Régis (1632–1707) is one such Cartesian. He crafts a novel view that preserves a causal role for created beings by melding mechanism and scholastic concurrentism.

I propose to explore Régis's position on body–body causation, leaving aside his views (and those of the other philosophers I discuss) on mind–body relations. I shall argue that Régis's position is on the whole superior to those available in the broader context of seventeenth-century Cartesianism. What is more, Régis's own arguments against (and replies to) the occasionalists can tell us much about the dialectic of causation within Cartesianism. Régis is, for example, the only philosopher of the period I know of who explicitly takes on Malebranche's famous 'no necessary connection' argument.

The central tension in natural philosophy after Descartes can be put in terms of a dilemma. On one hand, the new ontology of the mechanists, which limits the properties of matter to size, shape, and movement, opens the way to new and more perspicuous accounts of bodily causation. The mechanists replace the scholastics' powers and occult qualities with explanations conducted purely in mechanical terms. On the other hand, the Continental mechanists[2] wish to accord God pride of place, not only in their ontology, but in their derivations of the laws that

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[1] I should note that there is some controversy in the literature over the precise form of La Forge's occasionalism, particularly whether it is as thoroughgoing as Malebranche's.

[2] 'Continental', in this context, is used to distinguish Cartesians such as La Forge and Malebranche from Hobbes and Locke, who hold that God has a very different (or, for Hobbes, arguably, no) role to play in body–body interaction, and who also had very different uses for the Aristotelian concept of power.

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govern the motion of extended substance. The difficulty is how to reconcile these contrary impulses, for the first of these tends to minimize God's role in bodily causation, while the second tends to rule out created substances as genuine explanatory and causal agents.

Something like this dilemma was already present in scholasticism. For the sometimes unhappy marriage of Aristotelianism and Christianity produced an analogous tension between bodies as loci of causal power and God as the origin of all being. Nearly all parties to the debate, scholastic and Cartesian alike, agree that God must at a minimum conserve all beings at all times; he is the source of being, not only in the beginning, but at each moment as well. But if God is the cause of everything, how can bodies be said to have powers?

The traditional *via media* among the scholastics was concurrentism. Briefly, concurrentism holds that one and the same effect can be ascribed both to God and to natural agents.[3] God, as the primary cause, is responsible for the *esse* of individual beings; creatures, as the secondary cause, are responsible for the properties of those beings. Aquinas writes,

> The order of effects is according to the order of causes. Now the first of all effects is being, for all others are determinations of being. Therefore being is the proper effect of the first agent, and all other agents produce it by the power of the first agent. Furthermore secondary agents which, as it were, particularize and determine the action of the first agent, produce, as their proper effects, the other perfections which determine being.[4]

The typical metaphor by which Aquinas explains this dual contribution of God and secondary cause is that of a craftsman and a tool. The tool or instrument by itself does not produce, and is not a sufficient cause, of, say, the wood being carved thus-and-so. Its power depends on the power of the craftsman using it. Nevertheless, that the wood is carved thus-and-so depends partly on the craftsman and partly on the instrument, for which instrument he uses, no less than how he moves his hands, will determine how the wood is shaped. 'The whole effect proceeds from [both God and the natural agent], yet in different ways, just as the whole of one and the same effect is ascribed to the instrument, and again the whole is ascribed to the principal agent'.[5] As we shall see, one of Aquinas's arguments against occasionalism is that if there were no true secondary causes, there would be no diversity in God's effects, since God is immutable. It thus seems secondary causes are required if God wishes to produce anything other than that which is, like him, immutable and uniform. That is, a primary and secondary cause are each necessary and jointly sufficient for the production of any natural event.[6]

These secondary causes, understood as the forms and powers of created substances, were among the most conspicuous targets of the mechanists.[7] Here is a typically coy passage from Descartes's *Le monde*:

> Others may, if they wish, imagine the form of fire, the quality of heat, and the process of burning to be completely different things in the wood. For my part, I am afraid of mistakenly supposing there is anything more in the wood than what I see must necessarily be in it, and so I am content to limit my conception to the motion of parts. For you may posit 'fire' and 'heat' in the wood, and make it burn as much as you please: but if you do not suppose in addition that some of its parts move about and detach themselves from their neighbours, I cannot imagine it undergoing any alteration or change.[8]

While careful to avoid directly challenging the scholastics, Descartes nonetheless makes it clear that their secondary causes are explanatorily impotent. Since even the scholastics admit that the qualities chiefly invoked to explain observable changes, as something over and above the mechanical properties of matter, 'are occult, and that they do not understand them themselves', 'these forms are not to be introduced to explain the causes of natural actions'.[9] Similar remarks can be found in nearly all of the early moderns.

One might expect that Descartes would go on to substitute what Boyle calls 'the catholick affections of matter' for forms and occult qualities in the role of secondary causes. But here we reach a decisive turning point in the history of mechanism.

The scholastic view is what we might call a 'bottom-up' view. The forms of created substances play a vital role in explaining the course of nature. The fundamental notion is that of powers, not laws. Until Descartes came along, the concept of a 'law of nature' seems to have been exclusively tied to the ethical context of divine command theory.[10] If we wish to speak in terms of laws of nature when describing the scholastic view, we must say that these laws supervene on the powers of objects. It is true that God must still concur with and conserve these created beings and their powers; but precisely how things go, in the broad-

[3] See *Summa contra gentiles*, Ch. 70, in Aquinas (1945), pp. 129–130.
[4] Ibid., Ch. 66, p. 119.
[5] Ibid., Ch. 70, p. 130.
[6] Except, perhaps, in the case of miracles; but see below.
[7] Thus Malebranche entitles Elucidation XV 'Concerning the efficacy attributed to secondary causes'.
[8] CSM I 83/AT XI 7. Translations of Descartes generally follow Descartes (1985) ('CSM'); I also give the reference to Descartes (1996) ('AT'). Garber discusses these passages as well; see esp. Garber (1992), pp.107–110.
[9] Letter to Regius, January 1642, CSM III 208–209/AT III 506.
[10] For a brief overview of conceptions of laws of nature in the period, see Steinle (2002).

est sense, is fixed by the powers of the beings God has chosen to create and preserve. Once these are established, it is only by a miracle, that is, by suspending his concurrence with a power, that God can change the course of nature.[11]

The Cartesian view, by contrast, is a top-down view. That is, the properties of created substances play little or no role in determining the course of events. If it makes any sense to speak of objects having powers in this context, we must invert the formula above and say that powers supervene on the laws of nature. We can see this if we examine how Descartes himself treats secondary causes.

For Descartes, 'the universal and primary cause—the general cause of all motions in the world' is 'no other than God himself'. So far so good. But when we turn to the secondary causes, we find that Descartes appeals, not to created beings and their properties, but to laws: 'From God's immutability we can also know certain laws or rules of nature, which are the secondary and particular causes of the various motions we see in particular bodies'.[12] Descartes uses the scholastic terminology of secondary causes to express a fundamentally different position.

It is hard to understand how laws of nature, construed as aspects of God's will, could serve as causes in any sense, though Malebranche, too, speaks of laws as causes.[13] As we have seen, scholastic secondary causes are genuine collaborators in the production of their effects; they are, that is, a kind of efficient cause. Descartes's laws seem, however, not to be of the right ontological category to carry out this role. At best, they can be elements in a causal explanation, broadly construed; but it is obscure how they could play a role in efficient causation. I think Descartes's use of 'secondary causes' here is best understood as a self-conscious attempt to bend a bit of scholastic jargon to his own purposes. It would hardly be the first time Descartes did this.[14]

Descartes also happily takes over the scholastic talk of powers and reinterprets it in a way consistent with his derivation of the laws of nature. After setting out his three laws of motion, Descartes turns to a discussion of the power objects have to act on one another. 'This power consists simply in the fact that everything tends, so far as it can, to persist in the same state, as laid down by our first law'.[15] That is, talk of power or *vis* is simply a disguised way of talking about the first law of nature, the inertia law. And since power in this sense is not a quality or mode, it is at best very misleading to attribute power to bodies at all. This is what we should expect, since the primary concept for Descartes is that of *lex naturalis*, not *vis*.[16]

Thus while the scholastics respond to the dilemma above by adopting a bottom-up picture that accords causal powers to created beings and treats them as secondary efficient causes, Descartes locates this secondary causation in God and his will. The ultimate sources of both causation and explanation, for natural phenomena at least, are not terrestrial but divine.

A detailed consideration of Descartes's laws of nature is beyond my scope. For my purposes, the important point has been established: fixing the mechanical properties and even the initial quantity of motion in the world is not enough for God to fix the course of nature. He must also institute laws of nature which are arbitrary in the sense that, though they depend on his nature as an immutable and perfect being, they have little or nothing[17] to do with the nature of the objects that exist in that world.

If his treatment of laws tells against Descartes's being a concurrentist, it inclines him toward some version of occasionalism. There has been much debate on this question and I have neither the space nor the inclination to rehearse all of the competing arguments. What I wish to argue for now is merely that there are certain features of Descartes's view that push him in that direction, particularly where body–body interaction is concerned. Isolating these features will allow us to see how Régis departs from Descartes.[18]

Consider the following question. What can it mean to say that the laws of nature flow from God's will, once one has endorsed the top-down picture, other than that God has elected to move bodies about in certain regular ways? If the laws of nature supervened on created beings and their properties, we could easily make sense of

[11] See Suárez, *Metaphysical disputations* 22.1.11, in Suárez (2002), where Suárez discusses God's withholding his concurrence from a created being's powers as a source of miracles.

[12] *Principles* II.36–37; CSM I 240/AT VIIIA 62.

[13] 'He [God] also willed certain laws according to which motion is communicated upon the collision of bodies; and because these laws are efficacious, they act, whereas bodies cannot act. There are therefore no forces, powers, or true causes in the material, sensible world' (Malebranche, 1997, III.ii.6, p. 449). For more on the issue, see Jolley (2003).

[14] See, for example, Descartes's adaptation of the terminology of 'formal' and 'objective reality' to his own uses in the *First replies*. I should note that if Descartes's laws are aspects of God's will, they can certainly have a role to play as necessary (but not sufficient) elements in causal explanation. The contrast I am making, however, is with causal powers as efficient causes, not mere background conditions.

[15] II.43; CSM I 243/AT VIIIA 66.

[16] Thus my reading of Descartes on *vis* is consistent with that of Garber (1992), p. 298.

[17] There seem to be two places in the laws of motion that allow some minimal contribution from bodies. The first comes in the derivation of law one (*Principles* II.37), where Descartes writes that 'each thing, in so far as it is simple and undivided, always remains in the same state, as far as it can' (*quantum in se est*; the French version has *autant qu'il ce peut*) (CSM I 240–241/AT VIIIA 62). The second is in the proof of the first part of law three (*Principles* II.41), where Descartes repeats his claim that motion, being simple, 'always persists in being, so long as it is not destroyed by an external cause' (CSM I 241/AT VIIIA 65). This second quotation indicates that by *quantum in se est*, Descartes does not mean to attribute any genuine power or force to an object, but simply to indicate that the object continues on its course only so long as no other cause intervenes. And this fact, of course, is a direct result of God's own immutability.

[18] I do not, of course, wish to deny that there are other features of Descartes's view that incline him against occasionalism, particularly where mind–body relations are concerned.

according causal powers to bodies, since for God to be responsible for the laws of nature would simply be for him to have elected which bodies to create and conserve, and with which powers to concur. But when there is nothing else to a law other than a feature of the divine will, the execution of that will requires that God be causally active in every event that obeys those laws. To argue otherwise—that is, to assume that Descartes's God could fix the laws of nature in such a way that they could operate on their own, as it were – is to import a notion of a law of nature into the discussion that simply was not available to Descartes.[19]

Ralph Cudworth deploys a similar line of reasoning. Taking the mechanists to task for neglecting his 'plastic nature', he offers a dilemma for those who take God's only contribution to the natural world to be the creation and conservation of a certain amount of motion. These philosophers, he writes, must 'either suppose these their laws of motion execute themselves, or else be forced perpetually to concern the Deity in the immediate motion of every atom of matter throughout the universe, in order to the execution and observation of them'.[20] Cudworth takes both options to be so patently absurd that he enrolls the mechanists among his supporters; they have themselves 'unskilfully and unawares' made the case for Cudworth's plastic nature. A much more natural conclusion, of course, is that, at least in body–body causation, Descartes does in fact 'perpetually concern the Deity' in the motion of every atom. Cudworth's chief point is spot on: laws of nature, as Descartes conceives them, cannot accomplish anything on their own. If God is to give the army of unalterable law its marching orders, he must move his soldiers about himself.

This lets us bring the debate between Régis and the occasionalist post-Cartesians into sharper focus. For a philosopher like Malebranche, the scholastic's doctrine of secondary causes is among their chief departures from the truth. Since the fall, 'the mind constantly spreads itself externally'; some sinners 'prefer to imagine a nature and certain faculties as the cause of the effects we call natural, rather than to render to God all the honor that is due His power ... although they have neither a proof nor even a clear idea of this nature or these faculties'. Thus 'the efficacy attributed to secondary causes' is nothing more than the delusion of a debauched mind.[21] Régis's challenge, then, is to make sense of secondary causes in the context of mechanism, without treating them either as occult qualities (and hence retreating to a pre-mechanist Aristotelianism) or as laws of nature (and hence collapsing into body–body occasionalism). If he can bring this off, he will have upended the Cartesian view of laws of nature.

2. Mechanism and concurrentism

In 1690, Régis published his *Système de philosophie*, with a second edition the following year entitled *Cours entier de philosophie ou Système général selon les principles de Descartes*. Despite its title, it includes many departures from Descartes's own views, as we shall see. Fourteen years later, Régis's *L'usage de la raison et de la foi* appeared, covering many of the same metaphysical and physical questions. In both works, Régis melds mechanism and concurrentism.

To concur, he says, 'is to join forces with those of another agent, to produce together an effect which could not be produced by either of these forces alone'.[22] Secondary causes are thus insufficient for the production of a given effect, as is the primary cause, namely, God. But how exactly are secondary causes to be understood?

If we distinguish the role of these secondary causes from that which fills them, we can see that with regard to the former Régis follows scholastic concurrentism quite closely, while he departs from them on the issue of how that role is realized. Closing his attack on the occasionalists, Régis quotes Aquinas with approval:

> St. Thomas speaks in favor of instrumental causes thus: *The second, instrumental cause*, he says, *does not participate in the action of the principal cause except insofar as by something proper to itself it contributes to the production of the effect of the principal agent; for if the second cause contributed nothing proper to itself, it would become useless, and it would not be necessary to have different instruments for producing different determinate actions*.[23]

Since all change in bodies is a result of motion,[24] an understanding of the natural world must begin there. Descartes had defined motion (in the strict sense) as 'the transfer of one piece of matter, or one body, from the vicinity of the other bodies which are in immediate contact with it, and which are regarded as being at rest, to the vicinity of other bodies'.[25] As Régis sees matters, Descartes's definition imports a subjective element, insofar as the transfer

[19] Something like this argument might be implicit in Garber (1992).
[20] Cudworth (1837, Vol. 1, pp. 213–214).
[21] Malebrance (1997), Eluc. XV, p. 657.
[22] Régis (1996), p. 951. '[C]'est joindre les forces à celles d'un autre agent, pour produire ensemble quelque effet, qui ne pourrait être produit si ces forces étaient séparées' (all translations of Régis are my own). Régis does not deny that God sometimes performs miracles, and so does indeed produce by himself an effect that he would ordinarily produce with the cooperation of secondary causes. See below.
[23] Ibid., p. 416. 'Voicy comment saint Thomas parle en faveur des causes instrumentales. La cause seconde instrumentale, dit-il, n'a part à l'action de la cause principale qu'entant qu'elle contribue par quelque chose qui luy est propre à la production de l'effet du principal agent; car si elle ne contribue rien qui luy fût propre, son concours deviendroit inutile, et il ne seroit pas necessaire d'avoir des instrumens differens pour produire des actions déterminées'. (The quotation is from *Summa theologicae*, Pt. 1, question 45, article 5.)
[24] Ibid., p. 269.
[25] *Principles* II.25; CSM I 233/AT VIIIA 54.

of a piece of matter is a transfer only against the background of a set of bodies that are regarded as being at rest. (Whether this is a fair charge or not is open to debate, since Descartes struggled to purge his definition of motion from any such subjectivity.) Régis sees this as a terrible mistake, and announces that 'We have departed from an eminent modern philosopher'.[26] 'Nothing could be less well-founded than this opinion, since the relation of one body to distant bodies that one considers as at rest is nothing but a purely extrinsic denomination, which changes nothing in the bodies that one considers'.[27] Instead, Régis defines motion as 'the successive application [impact, collision] of bodies with one another'.[28] (It is not clear that this is much of an improvement: if anything, Régis has offered us a cause of motion, but not a definition of motion itself.)

In order to explain how God and creatures concur in producing effects, Régis isolates two aspects of motion. Motion considered in the mover is nothing but the will by which God produces '*l'application successive*' of bodies. Régis thus agrees with the occasionalists that matter is inert and that God is the sole efficient cause of motion taken in this sense, which Régis calls efficient motion or the moving force. Motion considered in its usual sense, that is, in the object moved, he calls formal motion.

Formal motion itself can be taken in two senses, as either substance or mode. And here is where the disagreement with the occasionalists emerges. God, being immutable, immediately produces only the substance of formal motion, which is unchanging, both with respect to its nature and quantity.[29] To explain why bodies move in the particular ways they do, however, we need to invoke second efficient causes, in this case, the modes of bodies themselves. Just as Aquinas's second causes 'particularize and determine' the acts of the primary cause, so modes of bodies make motion take on the forms that it does. One can think of this by analogy with a quantity of water being driven through a number of differently shaped channels. Although the shape of the channels on its own is hardly sufficient to generate the effect—water moving in this or that way—the same is true of water on its own, taken apart from these shapes. Similarly, motion on its own, that is, formal motion *qua* substance, produces nothing; it must be 'modified' (diversified, particularized) by the bodies that receive it.[30]

Régis's treatment of motion as a substance is one of his most important and puzzling claims. The ontology of motion is among the most obscure issues in the period, and Régis deserves credit for facing the issue head-on. Régis of course recognizes that it sounds odd to call motion a substance. He responds that insofar as a created substance is one that depends only on God for its existence, formal motion, in the sense of indivisible, non-successive motion, meets this definition.[31] But motion's claim to substancehood, it seems, must end there, since it is hard to see how it could play the other fundamental role of substance, a foundation of modes.

If we read Régis's claim as merely that formal motion is in one respect *analogous* to substance, we can see how his view might make sense. Motion in the object moved is nothing but the successive impact of bodies on one another. We can ask what the moving force of these collisions is; and of course, it is God. But these collisions would not take the course that they do, and the bodies would not be deflected in the directions and at the speeds they are, were it not for their modes. So the relation between what God immediately produces—formal motion *simpliciter*—and the effect that actually takes place is analogous to, though not identical with, that between a substance and its modes.

I suspect, however, that there is sense to be made of formal motion as (literally) a substance. I have argued elsewhere that Descartes conceives of the substance/mode relation in terms of the determinable/determinate relation.[32] On this view, a mode is, as the Latin indicates, a way in which a thing exists. At any given moment, there must be some determinate set of modes a substance possesses; but the substance itself is nothing over and above these modes. The substance *qua* determinable is an abstraction in the sense that it cannot exist without being fully determined. For Descartes, the distinction between a substance and its essence is merely conceptual. 'Thought and extension can be regarded as constituting the natures of intelligent substance and corporeal substance; they must then be considered *as nothing else but* thinking substance itself and extended substance itself—that is, as mind and body'.[33] By contrast, thought and extension may be thought of as modes of a substance 'in so far as one and the same mind is capable of having many different thoughts; and one and the same body, with its quantity unchanged, may be extended in many different ways'.[34] To call a determinate mode of a substance a mode is simply to mark the fact that that substance may exist in many

[26] Régis (1691), p. 302. 'Nous avons abandonné un Philosophe moderne tres considerable'. A marginal note cites 'Descartes, dans la 2. part de ses principes art. 25'.

[27] Ibid. 'Il n'y a rien de plus mal fondé que cette pretention, estant tres-constant que la rapport d'un corps à des corps éloignez qu'on considere comme immobiles, n'est qu'un pure denomination exterieure qui ne change rien dans les corps où la considere'.

[28] Régis (1996), p. 960. '[L]'application successive des corps les uns aux autres'.

[29] Ibid., p. 296. 'Or Dieu ne produit immediatement que la substance de la mouvement formel; car pour les modes de ce mouvement, ils dépendent immediatement des creatures'.

[30] Ibid., p. 412; cp. Descartes's *Principles* II.41.

[31] Ibid., p. 297; see Schmaltz (2003), p. 754.

[32] See Ott (2004).

[33] CSM I 215/AT VIIIa 30–31; my emphasis.

[34] CSM I 215/AT VIIIa 31.

different ways; it does not imply that the substance is a bare particular or featureless substratum in which the mode must inhere.

If we suppose that Régis has this same model in mind, his treatment of formal motion as a substance becomes intelligible. Régis, on this reading, identifies indivisible, non-successive motion with the essence of motion, that is, with motion as a determinable, as opposed to any of its modified instantiations. Formal motion *qua* substance cannot exist except as determined in particular ways; this is precisely what the determinate modes of created substances contribute. We then get the result, jut as Régis requires, that substantial formal motion does not exist except as modified; nevertheless, we can isolate, in thought, the contributions to formal motion *tout court* made by God and creatures.

Régis's God, then, produces immediately both the substance and essence of modified things (*les choses modales*); he produces the (fully modified) existence of these same things mediately, by secondary efficient causes.[35] It is not that the secondary cause literally transmits its motion to another; rather, all we can mean by this talk of 'transference' is that the body that is struck takes on a particular quantity of motion which, while numerically distinct *qua* mode from the motion of the striking body, is nevertheless quantitatively identical.[36]

We are now in a position to work back to one of the main themes of this paper: the contrast between top-down and bottom-up accounts of the natural world. Régis is intriguing partly because he is struggling to maintain the ancient, power-driven account of the workings of material beings.

Although Régis does not use this vocabulary, we can say that the laws of nature are hypothetically necessary in the sense that once God creates and conserves a world with a given set of objects and modes, and produces the substance of formal motion, there is only one way in which things can happen. Laws of nature are parasitic on, and generalizations over, the ways in which motion is realized in the natural world, and this is a function both of God's production of the substance of formal motion and the modes of extended substances. The laws of nature are not the consequences of God's nature; nor are they contents of his volitions. If God were to create a material substance that somehow lacked the mechanical properties that serve as secondary efficient causes, the laws of nature would be different. But, and here is the contrast with both Descartes and Malebranche, the only way for the laws of nature to change is for the modes of bodies to change.[37]

This is not to say that God does not perform miracles. And on this point, as on the question of mind–body interaction, Régis retreats to faith. That is, he does not think it is possible for reason to reconcile the immutability of the laws of nature and the performance of miracles; being assured of the latter through revelation, however, he must accept them. Knowing by reason that the course of nature is immutable, and by revelation that God has changed a rod into a serpent, 'I am obliged to accept these two truths as consistent even though I cannot conceive how they can be reconciled'.[38] This open confession of irrationality is hardly satisfying; it serves, however, to illustrate his firm commitment to the hypothetical necessity of the laws of nature.

At this point one might begin to doubt whether there is much cash value to the distinction between concurrentism and occasionalism. Malebranche, for example, takes natural causes, which themselves are impotent, to be prompts for God to perform a given action; they are thus background conditions to this action, given that God chooses to act in accordance with these occasional 'causes'. And Malebranche admits that those 'philosophers who assert that secondary causes act through their matter, figure, and motion...are right in a sense'.[39] Indeed, the charge that Régis's secondary causes are just occasional causes was brought against him only four years after his *Système* appeared in print.[40] Nevertheless, I think there is a substantive difference between these views.

One way to draw out the causal contribution of creatures is to ask what God would have to do to make the course of nature different. Take two quantitatively identical, purely material worlds. Must their futures be identical? For Malebranche, the answer is no. What fixes the laws of nature is only God's nature. Malebranche's God could produce motion and yet choose to distribute it in a different way in each world. For Régis, as we shall see, the futures of these worlds must be identical, even though neither of them is in itself, of course, a necessary being. That is, God need not have created either of them; but once he does, the

[35] Régis (1996), p. 271. '[D]ans l'ordre de la nature, Dieu produit toutes les substances et les essences des choses modales immediatement par luy-même, et...il ne produit l'existence de ces mêmes choses modales que par des causes secondes'. There is at least a verbal difference here with concurrentists such as Suárez who maintain that God immediately produces all effects. I think once Régis's view is properly understood, however, this difference emerges as merely verbal. See n. 71 below.

[36] Ibid., p. 299.

[37] See ibid., pp. 243 and 277. I am not, of course, saying that any formal motion that God creates must yield the same temporal history as any other. My point is exactly the opposite: the course of events in the natural world depends, for Régis, not just on God but on the modes of beings. Different modes and different initial arrangements of bodies yield different temporal histories.

[38] Régis (1691), p. 93. 'Je seray obligé de recevoir ces deux veritez commes tres constantes, bien que je ne puissse pas concevoir comment elles s'accordent ensemble'.

[39] Malebranche (1997), Eluc. XV, p. 658.

[40] Henri de Lelevel writes, '*Monsieur Regis accoûtumé à discoursis sans preuve & sans fondement, établit deux sortes de causes* efficientes. *Il en veut aux* causes occasionnelles, *mais malheureusement, ou il ne sçait ce qu'il dit, en les voulant détruire, où il n'en fait que changer le nom, en les appellant causes* efficientes secondes' (Lelevel, 1694, pp. 121–122).

events within those worlds must be exactly the same, so long as he creates the substance of formal motion. So whether one wishes to count secondary efficient causes as genuine producers of effects or as background conditions is, while important, not the crucial issue in the debate between concurrentism and occasionalism. The real question is, what fixes the course of nature? And to this Régis and Malebranche give very different answers.

3. Régis against the occasionalists

Let us turn to Régis's central arguments against his opponents.

(1) At least in the case of Descartes, it is difficult to see how the manifest diversity of natural effects can be reconciled with God's immutability. Consider again Descartes's claim: 'From God's immutability we can also know certain laws or rules of nature, which are the secondary and particular causes of the various motions we see in particular bodies'.[41]

Régis would regard this as close to self-contradictory. '[A]ll that is immutable in the production of effects must be attributed to God as the first cause, whereas all that is changeable must be attributed to body as the second cause'.[42] The varied motions of bodies cannot be attributed to laws of nature in Descartes's sense, for these follow immediately from God's nature alone, and their immediate effects or consequences must likewise be immutable. Now, Descartes claims in the same passage from the *Principles* that 'God imparted various motions to the parts of matter when he first created them'. The full story of the variety of motion that we observe must invoke, then, not only God's willing the laws of nature and preservation of moving bodies, but also his creation of a diversity of motions in the initial state of the universe. It is the last of these that Régis regards as unintelligible. An explanation of that which is successive and changeable in bodies requires a principle equally successive and changeable.

Aquinas had used roughly the same consideration in arguing against the view that created beings are bereft of causal power. '[I]f God works alone in all things, then, since God is not changed through working in various things, no diversity will follow among the effects through the diversity of the things in which God works'.[43] This is 'evidently false to the senses'.

The remaining arguments are directed chiefly at Malebranche:

(2) Occasionalism makes the merely apparent secondary causes, which Malebranche termed 'natural causes', otiose. It would be silly, Régis argues, to suppose that fire and other natural agents have 'this innumerable diversity of qualities, these powers so different and yet at the same time so well proportioned to their effects[44] only to serve as occasions for the sole cause to act.[45] If there is a diversity of natural, material things and their properties, the simplest explanation for the course of nature adverts at least partly to these things. And of course God, being perfect, always acts in the simplest ways.

(3) Occasionalism supposes that natural events can be caused by God immediately, and without the cooperation of the powers of bodies. But the modes of matter that play the role of secondary causes are indispensable. It is 'an incontestable truth' that bodies 'cannot act without certain dispositions'.[46] On its face, this argument seems weak, at best; the occasionalist can of course grant Régis's conditional claim—if bodies act, it is in virtue of their modes—and deny that the antecedent is ever satisfied. But all Régis needs to strengthen his argument is the claim that God acts on bodies only through motion. 'For motion considered in itself produces nothing; it needs to be modified to be efficacious. What modifies the motion is thus a very real and positive physical cause'.[47] The substance of formal motion on its own can accomplish nothing. As we shall see below, Régis accepts a key premise of Malebranche's 'no necessary connection argument', namely, the claim that there is a logically necessary connection between a true cause and its effect such that the denial of a proposition stating this causal relation is a contradiction. The true cause, for Régis, will be both God in his capacity as the source of motion considered in itself, and substances and their modes, which are responsible for the way in which this motion itself is modified. These are individually insufficient to bring about any physical event: it is inconceivable that God create motion in bodies without the cooperation of secondary causes.

[41] II.37; CSM I 240/AT VIIIA 62.

[42] Régis (1996), p. 298. '[T]out ce qu'il y a d'immuable dans la production des effets doit estre attribué à Dieu comme à la cause premiere, au lieu que tout ce qu'il y a de changeant, doit estre attribué aux corps, comme à la cause seconde'.

[43] Aquinas (1945), Ch. 69, p. 125.

[44] Régis (1996), p. 411. '[C]ette diversité innombrable de qualitez, ces virtus si differentes, et en même temps si proportionnées à leurs effets'.

[45] This argument is drawn directly from Aquinas: see Aquinas (1945), Ch. 69, p. 125: 'It is contrary to the notion of wisdom that anything should be done in vain in the works of a wise man. But if creatures did nothing at all towards the production of their effects, and God alone wrought everything immediately, other things would be employed by Him in vain for the production of these effects'.

[46] Régis (1996), p. 411. '[U]ne verité incontestable'; 'ne peuvent agir s'ils n'ont de certaines dispositions'. Here, I take *disposition* to mean the arrangement of the bodies' parts.

[47] Ibid., p. 412. 'Or le mouvement consideré en luy-même ne produit rien; il a besoin d'estre modifié pour estre efficace. Ce qui modifie le mouvement est donc une cause physique tres réelle et tres positive'.

The final argument I shall examine is directed specifically at Malebranche. Like Malebranche's own divine concursus argument, which we shall examine below, it concerns the contents of God's volitions. Does God will the existence of each and every thing individually? Or does he simply will the laws of nature, plus the continual re-creation of bodies? This, of course, has been the subject of much controversy in the literature. It is a further matter of controversy whether the distinction as I have stated it matches up with Malebranche's own distinction between general and particular volitions. Rather than try to argue for an interpretation of Malebranche on this point, and then assess whether Régis got Malebranche right, we can take Régis as offering a dilemma. God's volitions will either be particular (where this means that God wills a particular, fully spatiotemporally indexed object or event as such) or general (where God wills only the laws of nature plus the existence of all beings). Whether Malebranche meant the divine will to be particular or general in this sense is irrelevant simply because neither option is consistent with God's nature. To take each case in turn:

(4a) In the context of particular volitions, occasional causes are incompatible with God's immutability. If an occasional cause determines God to act in ways that, absent that cause, he would not, this 'supposes in God an indetermination that is incompatible with his immutability'.[48] That is, if God were to will a particular event in response to an occasional cause, the content of his will would depend on something outside of him, and this is impossible. A second consideration Régis advances is that this multiplicity of volitions conflicts with God's simplicity.[49] This is hardly fair to Malebranche, for there is no reason why God must have a number of distinct volitions, each directed at distinct objects or events, as opposed to a single super-volition whose content referred to all of these.

(4b) Whereas particular volitions conflict with God's simplicity and immutability, general volitions conflict with God's actuality. 'These general volitions would be of themselves indeterminate and this contradicts the simplicity and actuality of the divine nature'.[50] When God forms a general volition, its content has in no way been determined by any particular agent, and so there is no conflict with God's immutability. God simply wills, for example, 'all motion will continue in a straight line unless the moved body is interfered with'. A general volition would be a volition whose content was not fully specified. But then God's will is not fully determinate and thus not fully actual.

Arguments (2) and (3) seem to me to be decisive. Of course, it is hardly news that occasionalism faces grave philosophical problems, even if God's existence were taken for granted. But Régis's arguments point to genuine defects in the Cartesian approach, particularly its attitude toward God's immutability, whose amelioration requires something very like Régis's own concurrentism, if anything of the Cartesian approach is to be preserved.

4. Régis's defense of concurrentism

However attractive, at least within its historical context, Régis's view is, it is not obvious that it can withstand the occasionalist arguments. I shall examine two of Malebranche's key arguments: the 'no necessary connection' argument and the divine concursus argument.[51]

4.1. The no necessary connection argument

In *The search after truth*, Malebranche produces one of his most famous arguments for occasionalism, one which Hume was to lift and take as his own in the *Treatise*.

> A true cause as I understand it is one such that the mind perceives a necessary connection between it and its effect. Now the mind perceives a necessary connection only between the will of an infinitely perfect being and its effects. Therefore, it is only God who is the true cause and who truly has the power to move bodies.[52]

For any two physical objects or events[53] a and b, a causal connection between them could obtain only if those events were necessarily connected. But if there were such a necessary connection, it would be impossible to conceive of a's occurring without b (since conceivability entails possibility). God's will and its effects aside, we can always conceive of this happening; thus there is no necessary connection, and hence no genuine causal connection, between a and b.

How important is the epistemic component of Malebranche's definition of a cause? A true cause, he writes, is one such that the mind perceives a necessary connection.

[48] Régis (1691), p. 110. '[S]uppose en Dieu une indetermination qui est incompatible avec son immutabilité'.
[49] Régis (1996), p. 92.
[50] Régis (1691), p. 92. '[C]es volontez generales seroient de soy indeterminées; ce qui repugne à la simplicité et actualité de la nature divine'.
[51] One might wonder why I do not consider Malebranche's argument in the reply to the fourth proof in *The search after truth*, Eluc. XV. I do not read this as an argument against concurrentism at all but as a response to a possible objection from the concurrentist, one which Régis, in any event, does not pose. So I think the reply to proof four is orthogonal to my interests here.
[52] Malebranche (1997), VI.ii.3, p. 450. Hume writes, 'Now nothing is more evident, than that the human mind cannot form such an idea of two objects, as to conceive any connexion betwixt them, or comprehend distinctly that power or efficacy by which they are united. Such a connexion wou'd amount to a demonstration, and wou'd imply the absolute impossibility for the one object not to follow, or to be conceived not to follow upon the other: which kind of connexion has already been rejected in all cases' (Hume, 1978, pp. 161–162).
[53] The moderns in general do not carefully distinguish between objects and events in causal contexts, and I shall be similarly free in my use of these terms.

One might object that even if we grant that causal necessity is logical necessity, sufficiently complicated instances of the latter can escape even the most acute minds. And if Malebranche reads 'the mind' as God's mind, he simply pushes the problem back, inviting the objector to ask how Malebranche has epistemic access to the divine mind and its perceptions (if indeed it has any).

But the epistemic element is really innocuous.[54] In order to work, the objection has to appeal to undetected logically necessary connections, with which mathematics and logic, for example, are replete. So, even though a and c are not (perceptibly) necessarily connected, there is some intermediate chain of causes and effects $b_1 - b_n$ that are. Malebranche can now respond that, whatever one fills in for $b_1 - b_n$, the objector must claim that it is logically impossible for the relation to fail to hold between each pair. And now we simply run NNC on these two events. In short, the problem cannot be the merely epistemic one of locating logical necessities that might after all be there; finite relata are simply not the right sorts of things to serve as truly causal relata.

Thus NNC takes as its target the conception of causation as logical necessitation. The Aristotelian concurrentist treats causation in just this way: if an object has the requisite powers, and God concurs, it cannot but produce its characteristic effect when in the presence of objects with the relevant passive powers. It is, for example, impossible that these conditions be satisfied and fire, for example, fail to burn human flesh; anything that failed to do so would, for that very reason, not be fire.[55] We can now see how this earlier concurrentist view can respond to NNC. The Aristotelian claims that a thing's substantial form is either partly constituted by or logically entails its powers. We must be careful, then, how we describe what we are conceiving. When I conceive of myself walking unharmed through a wall of flame, I am conceiving either a situation in which God does not concur with the fire's power, or in which what I walk through, although it has some of the same superficial properties, is not fire after all. The forms of created things, then, create a network of logically necessary connections. One is not in a position to know these connections unless one has fully grasped the essences of both agents and patients, however, and so many states of affairs will seem conceivable, and hence possible, when they are not.

Evaluating the strength of this reply would take us too far afield. We might point out, however, that much will turn on the nature of what one takes as the causal relata. For the Aristotelian, the relata are full-blooded forms, which just are or at least entail powers. With a robust Aristotelian ontology, it is easy to see how one might argue that Malebranche's criterion is satisfied: if we knew all of the relevant forms, we would also know precisely what would and could happen, since this is fixed by what amounts to a set of analytic truths. For Malebranche, by contrast, body–body interaction, if it obtained, would have to connect the bare bones qualities of extension—size, shape, and motion—and nothing else. If we gave Malebranche his ontology, it would be correspondingly harder to resist NNC, for the Aristotelian reply is not available when talk of powers and forms has gone by the boards.

Régis's task, then, is to resist Malebranche's argument without appealing to any materials beyond those available to a mechanist. Régis writes,

> We should not say that we see no necessary connection between the second causes and the effects we attribute to them, such as we see between the first cause and its effects. For unless we renounce the senses and reason, one sees an obvious connection. We see, for example, that the production of flour is necessarily connected with the way in which the mill changes the motion of the water and wind that comes immediately from God. We see, again, that a house one builds is necessarily connected with both the way in which the motion of the stones is modified and with this same motion, and so on for all the other effects God produces by the second causes, as by instrumental causes.[56]

While this has an air of table-thumping about it, one can see Régis's point: there is something obvious about the claim that the direction of motion, itself derived from instrumental causes, is necessarily connected with the effects we observe. Note that the necessary connection is not said to hold between a given effect and its total cause, which would include both God and modal things. Rather, there are two distinct causal orders, each characterized by necessity: primary cause–primary effect (God–the substance of formal motion) and secondary cause–secondary effect (modes of created beings–modification of formal motion). Malebranche and Régis agree with regard to the primary causal sequence; God, being omnipotent, cannot fail to produce anything that he wills. But what of secondary causes?

It is startling that Régis does not take the route that naturally occurs to us, namely, to deny that genuine causation involves logical necessity. Instead, he insists that the necessary connection, in the strongest sense, is in fact present,

[54] I owe this point to Steven Nadler.

[55] See Suárez (2002), 19.1: 'For if God had decided on his own part to grant his concurrence and had left all the other required conditions intact, then he would have been unable to prevent the action. For *it involves a contradiction* to remove that which is natural in the absence of any contrary efficient causality, or at least without withholding the assistance or efficient causality that is required on God's part ... And so once the presupposition in question, explained as above, has been made, the action arises with such a strong necessity that it cannot be impeded except by removing some part of what has been presupposed' (my emphasis).

[56] Régis (1996), pp. 414–415. 'Qu'on ne dise donc pas qu'on ne voit point de liaison necessaire entre les causes secondes et les effets qu'on leur attribuë, comme l'on en voit entre la cause premiere et ses effets; car à moins de renoncer aux sense et à la raison, on y voit une manifeste. On voit, par exemple, que la production de la farine est aussi necessairement liée avec la maniere dont le moulin modifie le mouvement de l'eau et du vent qui vient immediatement de Dieu. On voit encore qu'une maison qu'on bâtit, est liée aussi necessairement avec la maniere dont se modifie le mouvement des pierres, qu'elle est liée avec ce même mouvement; et ainsi de tous les autres effets que Dieu produit par les causes secondes, comme par des causes instrumentales'.

even between secondary causes and their effects. This, however, holds true not because of an identity between substantial form and powers, but only in virtue of the mechanical properties of bodies. Can he then offer his own version of the Aristotelian response, namely, that when conceiving that these connections fail to hold, Malebranche is misdescribing what he has conceived?

For Régis's response to work, in no possible state of affairs with the same arrangement of secondary causes can any effect but one be generated. Now, secondary causes do nothing on their own, so it is easy to imagine a world with the same arrangement of modes and yet no effects whatsoever, or effects only in certain regions of that world, since God might simply fail to produce the substance of formal motion in all or part of that world. Precisely because the secondary causes are dependent on the first cause, there cannot be a necessary connection that holds between the elements of the secondary series. But perhaps this isn't what Régis means. In his examples, he always includes the primary cause and its effect. So the real question is whether there can be two (mechanically) identical worlds, with the same amount of motion, whose events nevertheless proceed in distinct ways. Are there conceivable, and hence possible, worlds in which the modes of matter are held constant, as is the production of motion per se, and yet the course of events is different?

We must have a bit more of Régis's view on the table before we can understand his response to NNC. Although Régis will have no truck with occult qualities,[57] he does maintain a functional replacement for scholastic forms. Forms will still be that which makes a thing the kind of thing it is and explains why it has the properties it does.[58] But instead of existing as something over and above matter, a form is just a mode of that matter and hence 'nothing but the subject or the substance itself'.[59] Forms are ontologically innocuous, then, because they can be reduced to elements any mechanist already accepts.

How is this reduction accomplished? Régis argues that what makes gold gold, for example, is 'a certain order and arrangement of parts'[60] that gives it properties it would not otherwise have. But there is nothing mysterious in this: to say that gold has the (passive) power to dissolve in aqua regia is just to issue a promissory note for an explanation in microphysical terms that would appeal to nothing but the size, shape, and movement of the relevant bits of matter. And there is nothing mysterious either in a body's gaining or losing one of these forms, for 'all generation and corruption that happens in the world can be explained by local motion alone'.[61] Nevertheless, it is impossible for us to know these forms, to know what microstructural arrangement gives gold its distinctive properties, simply because the parts in question are insensible. (We can, of course, make conjectures about these structures.)[62]

And here is the key point. Régis can account for the appearance of conceivability presented by counterfactual statements in purely epistemic terms.[63] Our ignorance of the underlying mechanical disposition of a hunk of gold means that we can seem to conceive a state of affairs in which a hunk of matter with precisely the same microstructure is not dissolved in aqua regia. But this appearance of conceivability does not entail possibility, anymore than my ability to think of the claim that Hesperus is not Phosphorus entails that it there is a possible world in which they are not identical.

So although Régis replaces scholastic forms with mechanically acceptable substitutes, he nevertheless holds that when a given ersatz form is realized in a bit of matter, there is no logically possible world in which that body behaves in any way other than it does in the actual world. Worlds in which gold does not dissolve in aqua regia, fire fails to burn, and so on, cannot really be conceived, though they can be described in a superficial way. For fire that failed to burn would not be fire at all, that is, it would not have the particular modes at the microscopic level that make fire what it is, and make it do what it does.[64]

4.2. The divine concursus argument

Malebranche argues in *Dialogue* VII that 'it is a contradiction—a "contradiction", I say—that bodies can act on bodies'. Here is his summation:

> Creation does not pass: the conservation of creatures is on the part of God simply a continued creation, simply the same volition which subsists and operates unceasingly. Now, God cannot conceive, nor consequently will, that a body be nowhere or that it not have certain relations of distance with other bodies. Hence, God cannot will that this chair exist and, by this volition, create

[57] Régis does deny substantial forms, but by this he means forms that are themselves substances, that is, real qualities. Thus depending on how one reads Aristotle on the issue, he is not being disingenuous when he says that 'nous ne dirons rien de contraire au sentiment d'Aristote' (Régis 1691, p. 393).
[58] Ibid., pp. 391–393.
[59] Régis (1996), p. 960. '[N]'est autre chose que le sujet, ou le substance ce même'.
[60] Régis (1691), p. 392. '[U]n certain ordre & arrangement de parties'.
[61] Ibid., p. 393. '[T]outes les generations & corruptions qui arrivent dans le monde se peuvent expliquer facilement par le seul movement local'. Régis continues: 'ou, pour mieux dire, par la seule transposition des parties imperceptibles de la matiere, lesquelles selon qu'elles sont diversement figurées & arrangées, rendent leur sujet capable de differences proprietez'.
[62] Ibid., p. 392.
[63] There is a complication here I am ignoring. In responding to conceivability arguments, one always has the choice of either denying that the state of affairs in question is in fact conceived (which is how I am putting it), or denying that the kind of conceivability in question entails or justifies possibility. I don't see much difference between these. If the reader prefers, she is free to read me as arguing that conceivability gets us only epistemic possibility.
[64] I should say that I think there is considerably more to NNC than Régis does, and I am thus unsure whether his reply will work.

> or conserve it without His placing it here or there or elsewhere. Hence, it is a contradiction that one body should move another.[65]

Here is one way to reconstruct the argument:

1. One body can move another, that is, cause it to occupy a given place. (Assumption)
2. If one body can move another, the volition by which God conserves it in existence must not include any reference to any particular place, on pain of overdetermination.
3. Conceivability entails possibility.
4. It is impossible for a body to exist without existing in some particular place or other.
5. It is inconceivable that a body exist in no determinate place. (4, contrapositive of 3)
6. What cannot be conceived cannot be willed.
7. God cannot will to create a body without willing it to exist in a fully determinate place. (5,6)
8. God conserves all beings at all times.
9. To conserve a being is to re-create that being.
10. God cannot conserve a being without willing it to exist in a fully determinate place. (7,8,9)
11. No body can move another (10,2, MT)
    Contradiction (1,11)

Note that Malebranche's point is not that the determinateness of reality directly constrains what God can accomplish. Rather, this determinateness constrains what God can conceive (via 3), and hence will.[66] The challenge it presents, then, is not merely to show how God and creatures can collaborate as Régis thinks to produce their effects, but also how God can will to conserve, that is, re-create, each object, without willing it to exist in this or that place. For once he wills their locations, each object will necessarily exist in its place, and there will be nothing for bodies to contribute to the proceedings.

Let us work through the argument. It is helpful to keep in mind the ground common to nearly all the disputants, Cartesian and scholastic alike: God must conserve the world and all of its substances at every moment of their existence in an act that is only conceptually distinct from his initial act of creation.

To suppose that body a can move body b is to suppose that b's future location is due to the activity of a, while, in the context of the continuous creation doctrine, b's existence *simpliciter* is due to God's activity. Now, how precisely are we to characterize this activity? Whenever God acts, he must form a volition: an act of will directed at a given state of affairs. We can call the propositional object of God's volition, as distinct from the contribution made by his will, a 'p-volition'. The argument's key question is this: what would God's p-volitions have to look like, if objects could move one another?

To start with, it could not include reference to any particular place (premise 2). Suppose that God wills (V1) to conserve object x in place a at time t, and (V2) in b at t′. (It is important that the temporal element be included in the content of the p-volition, since Malebranche's God does not act in time. There is no succession in the divine will, although there can be in the propositional contents of those acts of will.) Now suppose further that object y moves x to b at t′. If God's conservational p-volitions were fully specified along the lines suggested by V1 and V2, so that they include the information that x exists in b at t′, we would have a case of overdetermination. In Elucidation XV, Malebranche writes, 'Since God's volitions are efficacious by themselves, it is enough that He should will in order to produce, and it is useless to multiply beings without necessity'.[67] The claim is not that parsimony alone entails that only God is a cause. Rather, Malebranche's point is that any causal contribution by creatures will be superfluous if God's p-volitions are fully determinate. A divine p-volition, if bodies are to contribute anything, must be indeterminate with regard to place; it must be something like, 'that substance x exists at t'.

Premise 3—that conceivability entails possibility—is something that all parties to the debate, including Descartes, hold. Descartes's 'sixth meditation' argument for the real distinction between mind and body turns on just this principle. It is so prevalent in the early modern period that in 1739 Hume is able to declare that it is 'an establish'd maxim in metaphysics, That whatever the mind clearly conceives includes the idea of possible existence'.[68]

Premise 4 is the intuitive principle that it is a logical necessity that all bodies exist in some determinate place or other. While we clearly do not know all of their locations, that bodies have them should be uncontroversial. It would be a modal fallacy to infer from this principle that each body necessarily is in the place that it is, of course. The claim is simply that physical reality is fully determinate in respect of location.

At premise 5, things begin to get interesting. Take the contrapositive of 3: if x is impossible, x is inconceivable. If we accept the determinateness principle (premise 4), we get the result that a body that existed in no particular place is not just impossible but inconceivable.

Now, clearly one must be able to conceive a state of affairs before one can include it among the contents of a p-volition. This is all premise 6 states. The rest of the argument is simply drawing the obvious conclusion: God cannot form the p-volitions required if bodies are to be causes (or even co-causes). Insofar as the concurrentist

[65] Malebranche (1992), p. 230.
[66] This is a significant difference between Malebranche's version of the argument and that of LaForge, which Garber (1992) relies upon.
[67] Malebranche (1997), p. 679.
[68] Hume (1978), p. 32.

attributes causal powers to objects, his position is incoherent. These powers are elbowed out of our metaphysics by God's activity of conserving bodies.

Let us turn now to Régis's defense. From his point of view, the key premise here is (9): God's activity in creating beings is only conceptually distinct from his conserving them. Only in this way can Malebranche derive (10): since God must re-create the world anew at each moment, he must choose determinate places for every being he conserves.

For this, Régis has a clever response. First, he denies that there is no real difference between creation and conservation. Creation is an act whereby God produces something immediately;[69] in this sense, creation concerns only the existence of substances, not their modes (or better, substances considered in themselves and not as '*choses modales*'). Conservation, by contrast, concerns what God produces mediately, that is, modified things. Conservation results not in the existence of substances considered absolutely, but in 'modes that diversify the substance by motion, and that give it new forms, such as those of stone, wood, etc.'.[70]

We can see now how Régis can parry the divine concursus argument by invoking the distinction between immediate and mediate divine actions. God need not *immediately* will the substance's modes; what he immediately creates is the substance itself, and its modes will be determined by the ways in which the second causes modify the motion that God produces.[71] Régis is not, however, saying that there is a real distinction between a substance and its modes, as if they were independent beings; this would just be the mistake of real qualities again. A thing's modes are 'nothing but the subject or substance itself'.[72] Instead, we must think of the existence of a substance and that of its modes as two aspects of a single thing,[73] aspects that have distinct causal origins.

5. Conclusion

Faced with the host of problems that define the Cartesian predicament, Régis returns to what otherwise seems a moribund scholastic tradition, that of concurrentism. Indeed, it would be difficult to find a defender of any recognizable version of concurrentism after Régis.[74] Thus from one point of view Régis seems hopelessly backward, trying to cling to the scholastic raft long after the attacks of Descartes, Hobbes, Malebranche, and others have shot it to pieces.

But from another point of view, Régis can be seen as trying to preserve what was valuable in the Aristotelian tradition. By 'sanitizing' key concepts such as power and form and making them intelligible in the context of mechanism, Régis preserves something like a commonsense view of the powers of physical objects. The 'bottom-up' conception of the workings of the natural world is independently plausible, and makes room for scientific explanations of phenomena in terms of the modes of the objects involved.

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References

Aquinas, T. (1945). Summa contra gentiles, III, Chs. 1–113 In idem, *Basic writings of Saint Thomas Aquinas, Vol. 2* (A. Pegis, Ed.) (pp. 3–224). New York: Random House.

Cudworth, R. (1837). *The true intellectual system of the universe* (2 Vols.). New York: Gould and Newman.

Descartes, R. (1985). *The philosophical writings of Descartes* (J. Cottingham, R. Stoothoff, & D. Murdoch, Eds.) (3 vols.). Cambridge: Cambridge University Press.

Descartes, R. (1996). *Oeuvres de Descartes* (C. Adam, & P. Tannery, Eds.) (11 vols.). Paris: Vrin.

Garber, D. (1992). *Descartes's metaphysical physics*. Chicago: University of Chicago Press.

Hume, D. (1978). *A treatise of human nature* (2nd ed.) (L.A. Selby-Bigge, Ed.; rev. by P. Nidditch). Oxford: Oxford University Press. (First published 1739)

Jolley, N. (2003). Occasionalism and efficacious laws in Malebranche. In P. French, & H. Wettstein (Eds.), *Renaissance and early modern philosophy* (pp. 245–257). New York: Blackwell.

Lelevel, H. (1694). *La vraye et la fausse métaphysique*. Rotterdam: Reiner Leers.

Malebranche, N. (1992). *Philosophical selections* (S. Nadler, Ed.). Indianapolis: Hackett.

[69] Régis (1996), p. 952.

[70] Ibid., p. 334; see pp. 322–323 for the response to Descartes. '[M]odes qui diversifient la substance par le mouvement, et qui luy donnent des nouvelles formes, telles que sont celles de la pierre, du bois, etc.'. In his earlier (1691), p. 101, Régis gives a very different treatment of the relation between creation and conservation.

[71] One might worry that in distinguishing between God's mediate and immediate actions, Régis departs from concurrentism and retreats to conservationism, which holds that God merely conserves bodies while their powers operate autonomously. On this view, God's activity is demoted to a mere necessary condition, and the notion that God 'works through' bodies rather than merely permitting them to pursue their own directions is abandoned. Scholastic concurrentists often cast the debate in terms of immediacy, taking their opponents as claiming that God acts only mediately in ordinary events (Suárez 2002, 22.1). I think the difference between Régis and Suárez here is merely verbal. Régis's God is not just another necessary condition; he is genuinely active in the production of effects. If anything, Régis's mechanistic view makes even more stark the difference between conservation and concurrence. To say that God produces modes 'mediately' is to say that he produces them through the activity of secondary causes, not that he merely allows those secondary causes to persist.

[72] Régis (1996), p. 960. '[N]'est autre chose que la sujet, ou la substance même'.

[73] For the concurrentist pedigree of this move, see *Metaphysical disputations* 22.3 in Suárez (2002), p. 214.

[74] I should mention Leibniz as a possible exception.

Malebranche, N. (1997). *The search after truth* (T. Lennon, & P. Olscamp, Trans.). Cambridge: Cambridge University Press.

Ott, W. (2004). The Cartesian context of Berkeley's attack on abstraction. *Pacific Philosophical Quarterly*, *85*, 407–424.

Régis, P.-S. (1691). *Cours entier de philosophie ou Système général selon les principles de Descartes* (2nd ed.). Amsterdam: Huguetan. (Previous ed. published as *Systême de philosophie contenant la logique, la metaphysique, la physique et la morale*. Paris: D. Thierry, 1690)

Régis, P.-S. (1996). *L'usage de la raison et de la foi* (J.-R. Armogathe, Ed.). Paris: Fayard.

Schmaltz, T. (2003). Cartesian causation: Body–body interaction, motion, and eternal truths. *Studies in History and Philosophy of Science*, *34*, 737–762.

Steinle, F. (2002). Negotiating experiment, reason, and theology: The concept of laws of nature in the early Royal Society. In W. Detel, & C. Zittel (Eds.), *Wissensideale und Wissenkulturen in der frühen Neuzeit* (pp. 197–212). Berlin: Akademie-Verlag.

Suárez, F. (2002). *Causation, conservation, and concurrence: Metaphysical disputations* 20–22 (A. Freddoso, Trans.). South Bend: St. Augustine's Press.