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**Chapter 22**

**Descartes on Formal Causation**

**Travis Tanner**

**Abstract**

This chapter explores Descartes’s notion of formal causation, articulating its relation to the Aristotelian version, principally as formulated by Suárez, with which it is both partly in opposition and partly in continuity. It shows that Cartesian formal causation plays a central role in Descartes’s philosophy and science, and it suggests some contexts for future study in which introducing this Cartesian notion of formal causation could yield valuable hermeneutic results.

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Beyond his well-known rejection of substantial forms in physics, discussions of Descartes’s causal theory often make little, if any, mention of formal causation (see, for instance, Bennett 2001, Des Chene 1996, Garber 1992, Gaukroger 2002, Ott 2009, Slowik 2002). Thus, what Tad Schmaltz has dubbed the *standard narrative* remains largely in force (Schmaltz 2008: 217). According to this narrative, Descartes sharply breaks with the Aristotelian past by taking causal explanation to be more or less exhausted by the efficient causality characteristic of mechanistic physics and the causal activity of minds. To be sure, there is much dispute about how such efficient causes should be understood, particularly in the case of bodies. Few, however, evince any serious doubts about the truth of the standard narrative itself.[[1]](#endnote-1)

This should be surprising. Descartes explicitly endorses a notion of formal causation in defending his version of the ontological argument. What is more, he does so by appealing directly to Aristotle’s own definition of formal causation as explanation from essence in the *Posterior Analytics*. In other words, Descartes endorses and utilizes an avowedly Aristotelian notion of formal causation in defending an argument of central importance to his philosophical project. This alone renders the neglect of formal causation worrisome. The need for further study is exacerbated by the potential applicability of this notion of formal causation in important contexts in Cartesian philosophy.

This chapter begins to meet this need. First, I establish that the Cartesian notion of formal causation is distinct from, but also continuous with, the Aristotelian notion. I argue that Descartes is best understood as clearing away some of the Scholastic cobwebs that had gathered around one of Aristotle’s own definitions of formal causation. In so doing, Descartes eliminates an important ambiguity which results from the apparent incompatibility between the formal causation of the *Organon* and the formal causation characteristic of the hylomorphic theories of perception and change. Since Descartes sees the rejection of hylomorphism and its accompanying emphasis on form receptivity as a positive good, he is free to straightforwardly endorse Aristotle’s definition in the *Organon*, and he does just that. For Descartes, as for Aristotle in the *Posterior Analytics*, formal causation is simply explanation from essence.

This is striking. Far from the isolated relic it is standardly taken to be, this notion of formal causation is afoot throughout Descartes’s work: explanations from essences abound throughout the Cartesian corpus. Of course, Descartes typically does not characterize such explanations as formal causation. But this terminological reticence should not lead us to conclude that formal causation is a peripheral notion for Descartes; I conclude by suggesting some contexts in which it may be profitably wielded.

**§1 Aristotelian Formal Causation**

Aristotle sometimes speaks of formal causation as an explanation from essence, as he does, for example, in the *Physics*: “In another way, the form or the archetype, i.e., the definition of the essence, and its genera, are called causes (e.g. of the octave the relation 2:1, and generally number)” (Aristotle 1984: 332; 194b27-29; see also 1600; 1013a24-b3). In the *Organon*, the same basic point is made in a passage which Descartes (AT VII 242) cites approvingly in expounding his own notion of formal causation: “[W]e think we understand when we know the explanation, and there are four types of explanation… one [of the four types] is what it is to be a thing” (Aristotle 1984: 155; 94a20-21). In both cases, Aristotle defines formal causation as explanation from essence, and his example of the octave is exactly to the point. The ratio 2:1 is part of what it is to be an octave, and so the ratio will figure in the full specification of the essence of the octave. And so, when a musician explains why the C-major scale begins and ends with C by appealing to the ratio 2:1, they give a formal causal explanation, because the explanation amounts to the derivation of a further property from an essential one.

This sort of explanation is also of central importance to Aristotle’s conception of philosophical science in the *Organon*. There, Aristotle’s ideal is a deductive system proceeding from essences (Aristotle 1984: 149; 90b25), canonically via first figure syllogisms that capture both the fact and the reason why (Aristotle 1984: 129; 79a18-32). Scientific demonstrations ultimately ground out in the first principles of the relevant science. These first principles are the essences of the highest order kinds within the science, and Aristotle insists that these principles are “more familiar than and prior to and explanatory of” the deliverances of that science (Aristotle 1984: 115; 71b20-24). In other words, scientific demonstrations ultimately amount to explanations from the relevant essence or essences; scientific demonstration is formal causal explanation from essence.

This type of explanation is not, however, the only notion of formal causation in Aristotle. More familiar, perhaps, is explanation from a metaphysical entity, a form, inhering in or otherwise related to matter. The Aristotelian theory of perception as form reception is a well-known case in point (Aristotle 2016: 47-8; 424a17-24). Significantly, this theory of perception is just a particular instance of a more general hylomorphic account of change: just as perception is explained as the reception of form by the perceiver, in general change will be explained by either the reception or loss of form (Aristotle 1984: 342-3; 200b32-201a9). For example, when a bit of matter loses one substantial form and takes on another, one substance changes into another.[[2]](#endnote-2) This is what happens when a leaf is burned to ash. When a substance, a composite of matter and substantial form, loses one accidental form and takes on another, that substance moves from having one property to having another. This is what happens when the green leaf turns orange in autumn. In general, the reception of form by matter leads that matter to be actualized in a characteristic way, and so having that characteristic is explicable in terms of the relevant form.

For present purposes, the upshot is that formal causation is an ambiguous notion in Aristotle. One response would be to attempt to subsume one notion of formal causation under the other; however, the prospects for success along such lines seem dim, since each is integral to Aristotelianism in different and apparently irreducible ways.[[3]](#endnote-3) It is unsurprising, then, to find Aristotle’s inheritors clarifying the internal complexity of formal causation rather than attempting to eliminate it.

The crux of this trend toward internal complexity is arguably Suárez’s notion of formal causation. Suárez understands the substantial form as a partial substance (the human soul is a paradigm): it is that “which can be united to matter in such a way that it composes with it a substance that is whole and *per se* one” (Suárez2000: 20-2). The substantial form is the non-material component of hylomorphic substance. He further recognizes a class of entities, *physical forms*, that includes both substantial forms and the accidental forms inhering in matter, and he terms explanations in terms of such entities, *physical formal causation* (Suárez 2000: 177).

Physical formal causation is contrasted by Suárez with *metaphysical formal causation*,or explanation from a *metaphysical form*. Given the ambiguity inherited from Aristotle, it is unsurprising to find the metaphysical form equated with the essence of a thing: “The metaphysical form is the whole essence of a thing. It must, therefore, first be said that the properly metaphysical form of the whole is nothing else than the whole essence of a substantial thing which we also call the entire nature of a thing…. It does not differ from the physical form, however, except insofar as the form of the whole expresses the whole nature composed of matter and form, while the physical form only expresses the formal part.” (Suárez2000: 178-9) This is all largely familiar from Aquinas, with the central idea being that the metaphysical form is distinguishable from the physical form via the invocation of matter (e.g., Aquinas 2014: 17, 21-2). In the case of complex substances, the essences at stake in philosophical science contain indistinct references to substances taken as matter, as bone is both substance in its own right and matter with respect to a human being. In the case of simple substance, prime matter is instead invoked. In either case, the reference is to matter in a general way, and in Suarecian terminology metaphysical formal causal explanations are afoot. This is part and parcel of Aristotelian science, for Aristotle himself argues in the *Organon* that there can be no scientific understanding of particulars, and it is clearly particulars that are at stake in physical formal causal explanations (Aristotle 1984: 132; 81b6-9; see also 1803; 1142a11-25).

A more distinctive feature of Suárez’s account is his stressing that the metaphysical form does not exercise formal causality properly so-called. In his view, “proper formal causality… consists in actualizing some subject” (Suárez2000: 181; see also 83-4). He argues that the metaphysical form cannot do this, precisely because the metaphysical form of composite substances involves matter.[[4]](#endnote-4) As Helen Hattab observes, this “betrays the extent to which the substantial form [and, we might add, physical forms generally] had come to be equated with a certain causal role in physics” (Hattab 2009: 54). The metaphysical form cannot exercise formal causality because, unlike the physical form, it cannot bring what was in potentiality into actuality. Suárez goes so far as to claim that the metaphysical form is a form “only by analogy and a certain metaphor” (Suárez2000: 177). Such claims doubtless underlie Descartes’s incorrect but understandable comment that Aristotelians posited substantial forms "solely to account for the proper actions of natural things" (AT III 506).

That metaphysical formal causation is a derivative notion for Suárez is also noteworthy given the centrality of such explanations to Aristotelian science. Indeed, one can detect in Suárez an early example of discomfort with using causal language in a fully Aristotelian way: he does not reject the thesis that explanations from essence are an important class of explanations, but he does not fully endorse the claim that they are *causal* explanations. If this is right, then already in Suárez one can detect what Walter Ott has called the “trial separation” and eventual “permanent divorce” of causation and explanation that would increasingly characterize Western thought from the early modern period onward (Ott 2009: 110). Suárez’s reticence should thus be borne in mind as an early example of a general trend in philosophical language that is largely responsible for the disappearance of talk of formal causation despite continued philosophical interest in explanation from essence.

**§2 Cartesian Formal Causation**

Let us turn now to Descartes’s own causal theory. The standard narrative says that it is more or less exhausted by the efficient causation characteristic of mechanistic physics and the activity of minds. Let us therefore begin by briefly examining how Descartes understood efficient causation, given both his Aristotelian predecessors and his embrace of mechanistic physics.

Suárez defines efficient causation as principles “from which the effect flows forth, or on which it depends, by means of an action” (Suárez 1994: 10). This encapsulates the general Aristotelian understanding of efficient causation, which is variously linked with action, motion, agency, and power (Aristotle 1984: 155, 332, 1600; 94a20-24, 194b30-32, 1013a24-b3; Aquinas 2014: 6, 10, 259). What, then, of mechanism? The succinct definition of mechanism offered by Boyle in terms of “deducing all the Phenomena of Nature from Matter and local Motion” (Boyle 1661: 4-5) illustrates the continuity between early modern mechanism and the efficient causation of the Aristotelians. And, indeed, Descartes himself variously links efficient causation with God’s creative activity and power (AT I 151; VII 237, 374-5, 435-6), generation and production (AT III 274; VII 40-1, 108, 236, 238, 240), and volitions (AT VII 436). We will henceforth use *causal activity* as a catch-all term for generation, power, production, volitions, and so on. We may then summarize the foregoing by saying that Cartesian efficient causation is best understood as explanation from causal activity. Thus, the question of whether Descartes endorsed non-efficient causation is the question of whether he endorsed causal explanations other than those from causal activity.

*Contra* the standard narrative, he undeniably did. Consider Descartes’s response to Arnauld’s percipient observation that God cannot be his own efficient cause:

For in saying that God “in a sense” stands in the same relation as an efficient cause, I made it clear that I did not suppose he was the same as an efficient cause.... In every passage where I made a comparison between the formal cause, or reason derived from God's essence... and the efficient cause... I always took care to make it explicitly clear that the two kinds of cause are different…. Hence, I can readily admit everything my critic puts forward to prove that God is not the efficient cause of himself and that he does not preserve himself by any positive influx [*influxum positivum*] or by continuously recreating himself (AT VII 235-237).

The basic dialectic here is as follows.[[5]](#endnote-5) Descartes has argued that God is his own cause (AT VII 40-1, 65-9, 107-9). Arnauld objects that God cannot be his own efficient cause, so, if God is *causa sui*, the causation at issue cannot be efficient causation. Though Arnauld clearly understands himself to be objecting to Descartes’s stated position, Descartes simply agrees with him. That is, Descartes affirms that God cannot be his own cause in virtue of his causal activity and clarifies that the reason God exists is his essence. He further claims that this was clearly what he had meant all along, even if he did not explicitly use the language of formal causation when expressing the point. God is *causa sui*, Descartes argues, in that he is his own formal rather than efficient cause.

What, then, is this Cartesian notion of formal causation? This question is not as straightforward as it might seem. Karolina Hübner argues that Descartes’s conception of formal causation “does not entail any curbing of productive power or efficacy” and that “the sole difference between efficient and formal causal relations lies… in the possibility and impossibility of their relata being identical” (Hübner 2015: 210). On Hübner’s view, then, formal no less than efficient causes are explanations from causal activity. She observes that Descartes consistently stresses an analogy between the positive power of the efficient cause and the formal cause of God’s existence; as she puts it, Descartes “never backs down from” the language of power. Moreover, she is surely correct that Descartes is concerned throughout the exchange with Arnauld to stress an analogy between God’s self-causation and efficient causation, thereby gesturing at some unifying notion of cause common to both. Yet, if Hübner is right, it is difficult to understand Descartes’s repeated insistence on understanding formal causation in terms of essence alone.

It is therefore useful to approach the question of how to understand Descartes’s distinction between efficient and formal causation obliquely by considering another, related question: Why do Descartes and Arnauld agree that God cannot be his own efficient cause?

Initially, part of Arnauld’s motivation is his supposition that efficient causes are temporally prior to their effects (AT VII 210). Descartes, however, replies that “a cause need not be prior in time” because “the notion of a cause is applicable only during the time when it is producing its effect” (AT VII 240). The real trouble, Descartes thinks, is that “the notion of an efficient cause requires that it be distinct from its effect” (AT VII 243). It is worth asking why Descartes is confident that this principle is true, but first the principle itself needs clarifying. What, after all, is the distinction at issue? Elsewhere, Descartes holds there to be three types of distinction: real, modal, and conceptual (AT VIII-1 28-30). Now, Descartes is obviously thinking that whatever distinction is at issue does not obtain between God and his causal activity. This means that the distinction must be a real distinction. After all, God is conceptually distinct from his causal activity. As for the modal possibility, one of Descartes’s paradigmatic examples of a modal distinction is that between “recollection and the mind” (AT VIII-1 29); that is, between an action and the substance performing it. The case of God’s causal activity and God himself seems analogous.[[6]](#endnote-6) The only distinction that clearly does not obtain is a real distinction, or a distinction between substances. And so, Descartes apparently holds that an efficient cause must be really distinct from its effect.

One wellspring of his confidence in this principle is probably its pedigree, as it has precedent in both Suárez and Aristotle (Suárez 2000: 84; Aristotle 1984: 1609; 1019a15-20). Still, the principle appears plainly false. I can easily cause numerous changes to myself; I can, for example, conjure up a mental image via an act of will. But what is at issue in the exchange with Arnauld is the efficient cause of the existence of a substance, and so it is natural to restrict the principle to such contexts. The idea is that the efficient cause of the existence of a substance must be really distinct from it. Since, in Cartesian parlance, the activity of a thing and the thing itself are merely modally distinct, the principle may be put like this: that a substance exists at all cannot be explained by one of its modes. Saying otherwise runs afoul not of temporal but of ontological priority, since modes are ontologically parasitic on substances and not vice-versa.[[7]](#endnote-7)

Taking God’s self-causation “in terms of the essence or formal cause” (AT VII 243) solves the problem, since the restriction to really distinct causes is inappropriate in the case of formal causation. Again, the restriction is predicated on the ontologically parasitic relationship between an action and the substance of which it is a mode. Formal causation, however, concerns essential properties rather than causal activity, and so Descartes rightly does not consider formal causes to be subject to the same restriction. Arnauld is right to point out that God cannot be his own efficient cause, but this does not undercut Descartes actual position, namely that God exists because of his essence. Arnauld only thought he was objecting to Descartes because he, like contemporary advocates of the standard narrative, mistakenly assumed that Descartes’s references to causation must be references to efficient causation.

Importantly, Cartesian formal causation cannot be understood as explanation from the exercise of causal power. Thus, I disagree with the view that the “difference between efficient and formal causes does not entail any curbing of productive power or efficacy” (Hübner 2015: 210). On the contrary, that is the crux of the distinction. For allowing power to figure in formal causation lands Descartes back in exactly the same hot water as before: Arnauld’s objection could be resurrected in the context of formal causation. Granted, Descartes holds that only efficient causes must be really distinct from their effects. However, appealing to this dictum now gets things the wrong way around, for, as we have seen, the restriction to really distinct causes is appropriate just because efficient causes concern causal activity. If formal causes were understood in terms of the exercise of productive power, then formal causes should also be subject to this restriction and for exactly the same reason. On the assumption that Descartes’s reply is to the point, then, the distinction between efficient and formal causation must be a distinction between explanations from the exercise of power and explanations from something other than the exercise of power, namely essence.

In short, then, Cartesian formal causation is simply explanation from essence, and the distinction between formal and efficient causation is the distinction between explanations from essential properties and explanations from causal activity, including the exercise of causal power. Descartes consistently stresses this point:

Hence, when we ask whether something can give itself existence, this must be taken to be the same as asking whether the nature or essence of something is such that it does not need an efficient cause in order to exist (AT VII 240).

[I used] the analogy of an efficient cause to explain features which fact belong to a formal cause, that is, to the very essence of God (AT VII 241).

In taking the whole essence of a thing to be its formal cause in this context, I am simply following in the footsteps of Aristotle (AT VII 242, citing 94a20-1).

“God is the cause of himself.” Several people in the past misinterpreted this phrase, and hence it would appear to require some such explanation: “For something to be the cause of itself is for it to exist through itself, and to have no other cause than its own essence, which may be called a formal cause.” (AT V 546)

[T]he answer to the question why God exists should be given not in terms of an efficient cause in the strict sense, but simply in terms of the essence or formal cause of the thing (AT VII 243).

Strikingly, this amounts to an endorsement of what Suárez termed metaphysical formal causation. Indeed, Descartes plays against type by framing his own position as a simple embrace of an Aristotelian definition. Of course, Cartesian formal causation is also importantly discontinuous with its Aristotelian counterparts. Most obviously, Descartes’s rejection of physical forms in natural philosophy entails an equally decisive rejection of physical formal causation, and this was, as we have seen, the core notion of formal causation for Aristotelians like Suárez. Still, the careful reader of Suárez - and for that matter of Aristotle - would have recognized that formal causation was not and had never been exhausted by explanations from physical forms. It is perfectly consistent to endorse metaphysical formal causation while rejecting physical forms, and this is precisely the position Descartes occupies.

Descartes can thus be understood as eliminating the ambiguity inherited from Aristotle by jettisoning physical formal causation, something that was impossible for thinkers like Suárez who were committed to preserving Aristotle’s basic corporeal ontology. Descartes, conversely, rejected the ontology of hylomorphism and its physical forms, and so was free to streamline the formal cause by rejecting the part of it that was parasitic on that ontology. As a result, Cartesian formal causation is exhausted by metaphysical formal causation, or explanation from essence.

**§3 Intellectualism and the Argument for Peripherality**

Clearly, then, there is Cartesian formal causation. Given that it amounts to explanation from essence, it is also widely applicable. Why, then, has it not attracted more attention?

Part of the problem is that while the evidence is clear-cut, it is also thin on the ground. This suggests an argument for peripherality. Here is how it might go: Descartes explicitly speaks of formal causation only in a desperate attempt to save the central but otherwise doomed argument for the existence of God; therefore, the notion is peripheral, *ad hoc*, and best ignored outside its immediate context. Moreover, it is surely telling that, in the *Principles*, Descartes does not invoke formal causation at all.

But this is not convincing. An immediate problem is that it ignores the import of Descartes’s discussion of the topic. That discussion could hardly be weightier. It is in the *Objections and Replies*, which (along with the *Meditations* proper) surely represents Descartes's mature metaphysical views. Descartes's correspondence is replete with careful revisions to and discussions of it, evidence of his taking care to present his views within it in exactly the correct light.[[8]](#endnote-8) The importance of the text in Descartes's own mind is also clearly attested in the *Preface to the Reader* (AT VII 10), and, for good measure, Descartes also stresses its importance in the *Synopsis* (AT VII 14). It is therefore rash to write off an entire causal notion as peripheral just because Descartes explicitly mentions it primarily in the *Objections and Replies*. This is especially so in the present case, given that his interlocutor in the relevant exchange is not an empiricist like Gassendi or Hobbes, towards whom Descartes could be curt and dismissive, but Arnauld, whom Descartes respected both personally and intellectually. That the argument he is defending is of central importance to his entire philosophical project is also, of course, telling.

These considerations alone defang any straightforward argument that formal causation is a peripheral notion. To them could be added that Descartes is surely loath to talk of formal causes explicitly because he is at pains to distance himself from explanations from physical forms, which had, as we have seen, become the core notion of formal causation among Aristotelians like Suárez. This point would have been of special importance to him in the *Principles*, which was intended as a textbook: It would hardly do to invite confusion about his views with loose talk of formal causes in such a text, given the inevitable (and, to Descartes, profoundly unpalatable) connotations such talk would have had for his audience. [[9]](#endnote-9) Both rhetorically and pedagogically, the best strategy may have been to appeal to formal causation without pointing out that this is what is being done. Given his audience and his aims, explicit talk of formal causation would probably have invited more confusion than it avoided. We know, from the exchange with Arnauld, that Descartes adopted this strategy in arguing for God’s existence, and it seems reasonable to suspect that he might have done so in other contexts as well.

There are, moreover, persuasive reasons to think that for Descartes formal causal explanation is a pervasive rather than peripheral notion. Perhaps the most compelling among them turns on Descartes’s intellectualism, a subject which we can approach via his argument -considered above - for the existence of God.

In saying that God is his own formal cause, Descartes is defending a variant of the ontological argument. Roughly, his idea is that necessary existence pertains to the essence of God, and this explains God’s existence (AT VII 65-8, 166-7). While the ontological argument certainly is not without contemporary defenders, Jonathan Bennett’s characterization of it as “notorious… sterile and boring” is probably more representative of contemporary attitudes (Bennett 2001: 122).[[10]](#endnote-10) Bennett, indeed, seems to view the Cartesian resurrection of the argument as a particularly unfortunate event in philosophical history. Perhaps it was, but it was also natural for someone with Descartes’s philosophical outlook.

The key point is that the ontological argument is unlike other familiar arguments for the existence of God, notably Aquinas’s ways, in proceeding from the intellectual grasp of the divine essence. In this respect, the ontological proof resembles proofs from geometrical natures in mathematics, a point which no doubt appealed to Descartes. Aquinas had criticized this very inference on the grounds that the divine essence is beyond our ken (Aquinas 2014: 50-1). This is sensible from Aquinas’s perspective, since he holds, with Aristotle, that one comes to know the nature of a thing by encountering it sensorially. Obviously, we do not directly encounter God in this way; we come to know him only indirectly via his effects. So, Aquinas concludes, we cannot come to know the nature of God except through his effects. And so, Aquina holds that although it is true that necessary existence pertains to God more or less as the ontological arguer requires (Aquinas 2014: 28-9, 60-1), this fact is not graspable in the requisite way (Aquinas 2014: 52).

My purpose is not to resolve this dispute. My purpose is to point out that the dispute turns on whether human beings can grasp essences in a purely intellectual manner.[[11]](#endnote-11) Aquinas does not think we can, and so he rejects the ontological argument. Descartes thinks we can, and so he takes the ontological argument to be sound. In other words, Descartes ultimately relies, with Plato, upon non-empirical insight into the real natures of things. The ontological argument makes this clear in a specific case, but the point is a general one. Illustratively, Descartes holds that one’s grasp of the nature of a substance is achieved either prior to or simultaneous with one’s knowledge that said substance exists (AT VII 107-8; cf. Aristotle 1984: 152; 92b4-6).[[12]](#endnote-12) Given the obvious justificatory role played by sensation in knowledge of the existence of a substance, Descartes is defending the view that one can know the nature of a substance without encountering that substance sensorially. That is, Descartes holds that the essential properties of a substance are graspable by the armchair philosopher - indeed, he repeatedly insists that overreliance on the senses is the main cause of ignorance with respect to the real natures of things (e.g., AT VII 18, 172). He thinks instead that we must begin with an intellectual grasp of essences from which we can then proceed to give explanations that precede and inform our empirical science. There is thus an intimate connection between Descartes’s endorsement of formal causal explanations from essence - the explanations characteristic of geometry and the ontological argument - and his Platonic intellectualism. This connection, in turn, argues for the widespread importance and applicability of Cartesian formal causation within Descartes’s thought.

I can do no more than gesture at some of these potential applications here. For example, the impenetrability of matter lies at the very heart of Cartesian dynamics, and it is a scholarly commonplace that Descartes derives impenetrability from extension as a conceptual truth (AT V 342). In other words, explanations from the impenetrability of matter ground out in explanations from the corporeal essence. This suggests that explanations from impenetrability are not efficient causal explanations trading in a corporeal causal power but are instead formal causal explanations from what it is to be a material thing, a result with obvious ramifications for debates concerning whether Descartes was an occasionalist in the corporeal domain.[[13]](#endnote-13) Similarly, Descartes derives the laws of nature from the divine essence, but he also, somewhat perplexingly, identifies the laws as causes of particular phenomena (AT VIII-1 62). This apparent category mistake – the laws of physics, whatever they are, presumably cannot literally act on particular bits of matter – can perhaps be dissolved by considering the possibility that nomological explanation is formal causal explanation in terms of the divine essence (and, perhaps, the corporeal essence as well via impenetrability).

Whether or not these interpretations and others like them are ultimately defensible must await further study. They have not yet been studied, I suspect, because of a widespread, if implicit, endorsement of the standard narrative. At the very least, I hope to have cast serious doubt on the wisdom of such an interpretative policy. There is a Cartesian notion of formal causation, and Descartes did make an important appeal to it in at least one context. The possibility that he did so in other contexts should not be dismissed out of hand. To do so would be to foist on Descartes a causal ontology narrower than the one he actually endorsed.

**Bibliography**

Aquinas, Thomas (2014). *Basic Works*. Edited by Jeffery Hause and Robert Pasnau. Hackett.

Aristotle (1984). *The Complete Works of Aristotle*. 2 vols. Princeton University Press.

Bennett, Jonathan (2001). *Learning from Six Philosophers: Volume 1*. Oxford University Press.

Boyle, Robert (1661). *Some Specimens of an Attempt To make Chymical Experiments Useful to Illustrate the Notions of the Corpuscular Philosophy*. London: Henry Herrigman.

Carriero, John (2009). *Between Two Worlds: A Reading of Descartes’s Meditations*. Princeton University Press.

Des Chene, Dennis (1996). *Physiologia: Natural Philosophy in Late Aristotelian and Cartesian Thought*. Cornell University Press.

Flage, Daniel and Bonnen, Clarence (1997). “Descartes on Causation.” *The Review of Metaphysics*, 50: 841-872.

Flage, Daniel and Bonnen, Clarence (1999). *Descartes and Method: A search for method in Meditations*. Routledge.

Garber, Daniel (1992). *Descartes’s Metaphysical Physics*. University of Chicago Press.

Gaukroger, Stephen (2002). *Descartes’ System of Natural Philosophy*. Cambridge University Press.

Hattab, Helen (2009). *Descartes on Forms and Mechanisms*. Cambridge University Press.

Hübner, Karolina (2015). “On the Significance of Formal Causes in Spinoza’s Metaphysics.” *Archiv für Geschichte der Philosophie*, 97.1: 196-223.

Ott, Walter (2009). *Causation and Laws of Nature in Early Modern Philosophy*. Oxford University Press.

Schmaltz, Tad (2008). *Descartes on Causation*. Oxford University Press.

Schmitter, Amy (1996). “Formal Causation and the Explanation of Intentionality in Descartes.” *The Monist*, 79.3: 368-387.

Secada, Jorge (2000). *Cartesian Metaphysics*. Cambridge University Press.

Slowik, Edward (2002). *Cartesian Spacetime: Descartes’s Physics and the Relational Theory of Space and Motion*. Kluwer.

Suárez, Francisco (1965). *Disputationes Metaphysicae*. Georg Olms.

Suárez, Francisco (1994). *Metaphysical Disputations 17, 18, 19: On Efficient Causality*. Translated by A. Freddoso. Yale University Press.

Suárez, Francisco (2000). *On the Formal Cause of Substance: Metaphysical Disputation XV*. Translated by John Kronen and Jeremiah Reedy. Marquette University Press.

1. Three exceptions bear mentioning. First, Schmitter 1996 provides a helpful discussion of Cartesian formal causation, albeit one focused fairly narrowly on “causation for and within ideas” and mentality generally. Second, Schmaltz 2008: 59-61, among others, provides a brief discussion of formal causation vis-à-vis the ontological argument. While instructive, the brevity of such discussions may betray a judgment that formal causation is a peripheral notion in Descartes, while leaving much to be said in terms of detail. I go some way towards redressing this. Third, Flage and Bonnen 1997 and 1999: 70-99 argue that Cartesian physics is shot through with formal causation. I do not think, however, that their interpretation can stand. Its lynchpin is the claim that the laws of nature are partly constitutive of the essence of the physical universe (Flage and Bonnen 1997: 860; and 1999: 85, 91), but laws are of the wrong ontological type to constitute an essence. Moreover, the essence of the physical universe is surely extension, whereas the canonical Cartesian laws are grounded in God’s nature. [↑](#endnote-ref-1)
2. Of course, whether Aristotle was committed to substantial forms is controversial. However, since Christian Aristotelians from at least the time of Aquinas (e.g., Aquinas 2014: 186-9) tended to read Aristotle as at least implying the existence of such entities, I set this controversy aside. [↑](#endnote-ref-2)
3. One way to motivate this claim is to consider the scope of the two types of explanation. Clearly, explanation from essence only involves essential properties, whereas the hylomorphic account of change will very often involve accidental properties. This alone seems to frustrate any attempt to totally reconcile the two notions of formal causation, though perhaps a solution could be found via clever exegesis. As we shall see directly, however, that was not the path tread by thinkers like Suárez. [↑](#endnote-ref-3)
4. He makes an analogous point about non-composite substance, namely God and angels, such that the point is a perfectly general one, though the details need not detain us. [↑](#endnote-ref-4)
5. Contrast Carriero 2009. Riffing off Descartes’s geometrical analogy (AT VII 239, 241, 245), Carriero writes that “just as you might think of a circle as an infinite version of a regular polygon, you might think of the formal or essential cause of God’s existence as the infinite version of an efficient cause.” (Carriero 2009: 220) This makes it sound like the formal cause is akin to an infinite number of infinitesimal efficient causes. But what Descartes is doing with the circle analogy is explaining why the analogy to efficient causation is harmless and useful. He is not giving an account of formal causation. When he wants to do that, he consistently refers to explanation from essence: see AT VII 240-3; V 546. [↑](#endnote-ref-5)
6. Here and throughout, I ignore complications resulting from divine simplicity. My grounds for this are (i) Descartes is willing to apply the general principle that a substance cannot be its own efficient cause to God, even if terms like “substance” and “mode” cannot apply univocally to divine and non-divine substances and (ii) Descartes clearly cannot take divine simplicity to obliterate the distinction between God’s causal activity and his essence. [↑](#endnote-ref-6)
7. Of course, this principle does not run afoul of the fact that some of my actions explain my continuing to exist. [↑](#endnote-ref-7)
8. AT III 282-5 is illustrative in this regard, as, indeed, is much of the philosophical correspondence of this period, from AT III 271-6 to 448-450. [↑](#endnote-ref-8)
9. For further details, see Gaukroger 2002: 32-63. [↑](#endnote-ref-9)
10. The seminal contemporary defense is Plantinga 1974. Useful discussions of the Cartesian ontological argument include Carriero 2009: 168-222, 317-337 and Secada 2000: 148-82. [↑](#endnote-ref-10)
11. For further details, see Carriero 2009: 169-175. [↑](#endnote-ref-11)
12. For further details, see the discussion in Secada 2000, especially ch. 1. [↑](#endnote-ref-12)
13. For an introduction to this thorny issue, see Walter Ott’s contribution to this volume. [↑](#endnote-ref-13)