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5. The Ontological Status of Causal Powers: Substances, Modes, and Humeanism

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Occasionalism and the considerations supporting it really should be part of the contemporary discussions regarding causal powers. Not the thesis of occasionalism, of course. *God is the only true efficient cause* is neither plausible nor relevant to today's metaphysical conversations—none of us should take the thesis of occasionalism all that seriously as an account of the metaphysics of causation. But the underlying worries and concerns that drove some philosophers in the seventeenth century to occasionalism is another matter altogether. *No physical object can truly be an efficient cause*, the negative thesis of occasionalism, was driven by a cluster of concerns that have not yet been clearly resolved. These concerns were by and large focused on explaining the causality of secondary causes, and it is here that they intersect with the current discussions regarding causal powers. In the seventeenth century, these concerns involved central metaphysical features of the Aristotelian conceptions of powers and substances. If we are to now return to a broadly Aristotelian metaphysics of causal powers, inherit potentialities, and primary substances, we should pay careful attention to the metaphysical concerns that led earlier thinkers to abandon this archtectonic. If we now have proper resolutions to those worries, great! Let's hear them, and for once and for all dispel these worries. But even if we do not have proper resolutions yet, we should have a clearer idea of the issues facing us and a firmer basis for assessing the prospects for proper resolutions.

The limited goal of this small paper is to initiate that critical reflection and conversation, to bring forth some of the worries and concerns that motivated the occasionalists of the seventeenth century and flag the ways that they still seem relevant to today's metaphysicians regarding causal powers. Whether and how contemporary practitioners benefit from this, I will leave for others as they carry on the discussion about causal powers.

Most of us begin our thinking about critiques of causal powers with Hume. That is not without reason—Hume's critique is an especially powerful, cogent, and elegant piece of philosophical writing. Plus, there is no greater wordsmith in the history of philosophy than Hume; he is always an absolute joy to read. And the crispness of his writing makes his thought sparkle, there is no question about that. One might think that Hume is sufficient and that there is no real need to consider the occasionalists' worries and concerns about Aristotelian causal powers. Hume's critique was, after all, strongly influenced by Malebranche's (McCracken 1983), and, so the thought goes, all the important features of the occassionalists' critiques are essentially contained in Hume's or can be easily reconstructed from it. I strongly disagree. Hume's critique is very different from the occasionalists', even from Malebranche's, despite the real and substantive influence Malebranche imposed on Hume's thinking, and there is a real danger that Hume's use of the occasionalists' ideas misrepresent their concerns. We don't want to be distracted by Hume's skeptical antics or rest contented with the belief that either Humean skepticism or a narrowly constricted, Humean empiricism is the primary basis for rejecting causal powers. So, it is important that we look at the occasionalists' critiques themselves and not view them only through the words of Hume.

Thus, I'd like to return us to the occasionalists' ideas by first considering Hume and Locke. Walking us back through Hume to Locke lets us see some parallels between Locke's position and the current neo-Aristotelian empiricism, which counters the idea that looking to Hume is sufficient for contemporary practitioners. It is all too easy to dismiss the Humean critiques as rooted in the skepticism engendered by a narrow and simplistic empiricism, and to believe that more mature, contemporary attitudes toward science and knowledge provide a firmer basis for grounding the postulation of causal powers. But Locke too failed to take the underlying metaphysical motivations for occasionalism seriously and focused his critical comments of it solely on the thesis itself. I shall bring out the underlying concerns that were driving occasionalist thinkers, especially with regard to their negative thesis, and emphasize the ways that they remain current. My fundamental fear is that contemporary practitioners also fail to take these underlying worries seriously and properly acknowledge or address them, with the result that they continue to fester and eventually lead to the return and re-entrenchment of radical Humeanism. It is out of concern for this that I offer these reflections on the nature of occasionalist thinking.

1. From Hume Back to Locke

It is with good reason that Hume is the customary place for metaphysicians to begin reflecting on causal powers. Consider his powerful, sustained argument against causal powers inherit in bodies.

> It must certainly be allowed, that nature has kept us at a great distance from all her secrets and has afforded us only the knowledge of a few superficial qualities of objects; while she conceals from us those powers and principles, on which the influence of those objects entirely depends. . . . Suppose a person, though endowed with the strongest faculties of reason and reflection, to be brought on a sudden into this world; he would, indeed, immediately observe a continual succession of objects, and one event following another; but would not be able to discover any thing further. He would not, at first, by any reasoning be able to reach the idea of cause and effect; since the particular powers, by which all natural operations are performed, never appear to the senses; . . . . There are [therefore] no ideas, which occur in metaphysics, more obscure and uncertain, then those of *power, force, energy,* or *necessary connexion* . . . . To be fully acquainted, therefore, with the idea of power or necessary connexion, let us examine its impression; . . . . When we look about us towards external objects, and consider the operation of causes, we are never able, in a single instance, to discover any power or necessary connexion; any quality, which binds the effect to the cause, and renders the one an infallible consequence of the other. We only find, that the one does actually, in fact, follows the other, the impulse of one billiard-ball is attended with motion in the second. This is the whole that appears to the *outward* senses. . . . From the first appearance of an object, we never can conjecture what effect will result from it. But were the power or energy of any cause discoverable by the mind, we could foresee the effect, even without experience; and might, at first, pronounce with certainty concerning it, by the mere dint of thought and reasoning. In

> reality, there is no part of matter, that does ever, by its sensible qualities, discover any power or energy, or give us ground to imagine, that it could produce any thing, to be followed by any other object, which we could denominate its effect. . . . It is impossible, therefore, that the idea of power can be derived from the contemplation of bodies, in single instances of their operation; because no bodies ever discover any power, which can be the original of this idea. (EHU 29–51 passim)

As we all know, it is easy to be swept along by Hume's elegant reasoning and to conclude, with Hume, that because nothing regarding power and causality is ever actually presented in our experiences, there must not be anything therein to discover. Power and causality, in other words, are chimeras, metaphysical analogues to the antipodean myths of the eighteenth century, because whenever we look for them, we fail to find them.

Thus, it is not until we pause and reflect on the methodological presuppositions of Hume's larger project that we find reasons to resist this seductive conclusion. Hume's project overly epistemologizes the case against the causality of physical objects and inherit causal powers. It is Hume's peculiar brand of empiricism, driven by his commitment to his Copy Principle, that underwrites this argument, as Hume himself acknowledges (EHU, 50). As is well known, Hume deployed the Copy Principle as a check on the significance (or meaningfulness) of terms with regard to their conceptual content: a necessary condition for the significance of a term was that the idea functioning as its meaning be "copied from" a corresponding impression. This commitment to his Copy Principle severely restricts the nature of his empiricism, making it out to be almost verificationist. Both the "copied from" relation and the restriction on impressions as relata constrain the conceptual content of the idea such that it must be manifest within one's immediate experiences, which is why there is such a push in Hume's argument toward the need to see or observe the causal power itself, the power as a power, force, or energy residing within the cause. This notion of manifestness, which underlies the restrictions, is quite powerful. Hume believed that any causal power would have to be evident *per se*, and that its evidentness would make any inference or explanation in support of it otiose; it should be clear to any open and inquiring mind, in other words, as it exists in its own right and by itself. It would therefore be perfectly obvious what the causal power was, that it could not be other than what it is, and that it acts or operates in precisely the way that it does independently from all other relationships that might intrude on it. There could, moreover, be no basis for questioning it or for seeking an explanation for it—the impression of it would carry all the evidentness the case would require and could demand. The situation would be analogous to the case of color, in Hume's eyes: to demand an explanation of why red is, or appears, as red is absurd. Of course, red things might not be red, but impressions that appear red have to be red because that is precisely what being red means! To appear otherwise is to literally be otherwise; case closed, nothing more needs to be said or even could be said. Were power, force, or energy like this, it would analogously be perfectly obvious what it would be or do and analogously obvious that it could not be other than what it is or do other than what it does. Nothing like that is obvious in quite that way, however; you can look for yourself and know that. So, we are to conclude, nothing that constitutes a causal power is per se evident in the way that Hume's empiricism requires.

Hume's presentation of his argument against inherit causal powers in *A Treatise of Human Nature* makes the central role of this methodological Copy Principle even clearer than the above material from the *Enquiry*.

> I begin with observing that the terms of *efficacy, agency, power, force, energy, necessity, connexion,* and *productive quality*, are all nearly synonymous; and therefore 'tis an absurdity to employ any of them in defining the rest. By this observation we reject at once all the vulgar definitions, which philosophers have given of power and efficacy; and instead of searching for the idea in these definitions, must look for it in the impressions, from which it is originally deriv'd. . . . since reason can never give rise to the idea of efficacy, that idea must be deriv'd from experience, and from some particular instances of this efficacy, which make their passage into the mind by the common channels of sensation and reflection. Ideas always represent their objects or impressions; and *vice versa*, there are some objects necessary to give rise to every idea. If we pretend, therefore, to have any just idea of this efficacy, we must produce some instance, wherein the efficacy is plainly discoverable to the mind, and its operations obvious to our consciousness or sensation. By the refusal of this, we acknowledge, that the idea is impossible and imaginary; . . . . Our present business, then, must be to find some natural production, where the operation and efficacy of a cause can be clearly conceiv'd and comprehended by the mind, without any danger of obscurity or mistake. . . . [The conclusion that we have no adequate idea of power or efficacy from any object; since neither in body nor spirits, neither in superior nor inferior natures, are we able to discover one single instance of it] is unavoidable upon the hypothesis of those, who maintain the efficacy of second causes, and attribute a derivative, but a real power and energy to matter. For as they confess, that this energy lies not in any of the known qualities of matter, the difficulty still remains concerning the origin of its idea. If we have really an idea of power, we may attribute power to an unknown quality: But as 'tis impossible that the idea can be deriv'd from such a quality, and as there is nothing is known qualities, which can produce it; it follows that we deceive ourselves, when we imagine we are possest of any idea of this kind, after the manner we commonly understand it. All ideas are deriv'd from, and represent impressions. We never have any impression, that contains any power or efficacy. We never therefore have any idea power. (T, 1.3.13, 1:106–8)

We nowadays feel no such need to adopt Hume's restrictive Copy Principle—why should we? It is not news, and hardly a surprise, that following Hume's gambit forces us to lose half of our metaphysical world. But do we now have an answer to Hume? Maybe, but even if we don't, there is no reason why we have to follow his lead. Analytic philosophy returned long ago to a different form of empiricism, one which is decidedly more permissive and friendly to indirect observations of natures and essences. It is now easy, therefore, to dismiss Hume's own argument against causal powers as misguided and unsound. By avoiding Hume's peculiar epistemology, in other words, we can avoid his criticisms and return to the explanation he dismissed as "more popular than philosophical": "I believe

the most general and most popular explication of this matter, is to say, that finding from experience, that there are several new productions in matter, such as the motions and variations of body, and concluding that there must somewhere be a power capable of producing them, we arrive at last by this reasoning at the idea of power and efficacy. But to be convinc'd that this explication is more popular than philosophical, we need but reflect on two very obvious principles" (T, 1:106). But how does that really help defend the postulation of causal powers? How does turning away from Hume's gambit and returning back to the popular explanation of causal powers help metaphysicians ground causal powers and defend their postulation?[1]

Hume attributes the popular view to Locke (*Essay*, II.xxi.1, 233; see also II.xxi.4, 235) and describes it as follows: "that finding from experience, that there are several new productions in matter, such as the motions and variations of body, and concluding that there must be somewhere a power capable of producing them, we arrive at last by this reasoning to the idea of power and efficacy," (T, 1:106). The precise nature of this argument is none too clear from the texts themselves. Locke wrote:

> The Mind, being every day informed, by the Senses, of the alteration of those simple *Ideas*, it observes in things without; and taking notice how one comes to an end, and ceases to be, and another begins to exist, which was not before; . . . and concluding from what it has so constantly observed to have been, that the like Changes will for the future be made, in the same things, by like Agents, and by the likes ways, consider in one thing the possibility of making that change; and so comes by that *Idea* which we call *Power*. (*Essay*, II.xxi.1, 233)[2]

The texts speak only of "concluding from" the data of observation. It is quite likely that, as a historical point of fact, Locke meant this to be a kind of abductive argument—the best explanation for the observed phenomena of change is an inherent active power in the thing causing the change and a corresponding passive power in the thing being changed. But Locke does not quite come out and say that. Look closely at what he does say. Following up with the above passage from II.xxi.1, Locke explains that "since whatever Change is observed, the Mind must collect a Power somewhere, able to make that Change, as well as a possibility in the thing it self to receive it" (*Essay*, II.xxi.4, 235). Conceptually, the actuality of change entails the possibility of change—Locke's text can be read as stating exactly that. But he was clearly aware of alternative accounts that recognizes change and the possibility of change without the postulation of inherit powers in things. This alone suggests that his explicit invocation of powers was meant to be metaphysically significant—why else would he so prominently accept and display the language and concepts of powers unless he intended them to be read against the prominent alternative acounts? Since one of these alternative accounts was the doctrine of occasionalism, and

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[1] Others might want to focus on the two obvious principles that show the explanation to be more popular than philosophical, which Hume points to in the passage. That would be great, but I'm interested in going in another direction.

[2] Locke's discussion of the idea of power has been subject to severe criticism by scholars, especially from a Humean perspective. For two treatments that offer a more sympathetic reading of Locke's discussion and its relationship to Hume's, see Coventry 2003 and Connolly 2017.

in 1693 Locke engaged with a sustained discussion of the doctrine, we should consider what reasons he had for rejecting it. Thus maybe, if we turn there, we can more clearly see that his reason for accepting the reality of causal powers, as presented in this "popular explanation" was largely abductive. Let's look at Locke against occasionalism, then.

Between late 1692 and mid-1693, Locke was considering adding a chapter to the *Essay* countering the Malebranche–Norris doctrine of seeing all things in God.[3] Part of the notes Locke drafted in support of this concerned their commitments to occasionalism as a component within their epistemological systems. Locke's general strategy against occasionalism is to flag the allegedly absurd consequences of the thesis, especially those that contravene the occasionalist's own core principles regarding divine creation. In effect, he argued that Malebranche's and Norris's commitments to occasionalism were internally inconsistent. The rub, according to Locke, was their commitment to the principle at God does nothing in vain (Norris) or that God acts in the simplest ways conceivable (Malebranche). If the thesis of occasionalism were true, Locke argued, all the wonderous complexity of the sense organs and the mediating structures of sense perception would be in vain: "How will they reconcile to this principle of theirs [God does nothing in vain], on which their whole system is build, the curious structure of the eye and the ear; not to mention the other parts of the body. . . . All that nice and curious structure of those organs is wholly in vain" (Locke 1720, 157). Locke himself certainly did not believe this to be "lost labour," and he did not believe that the occasionalists really did either. He exclaimed that, "He that understands Opticks ever so little," as the occasionalist surely do, "must needs admire the wonderful make of the eye, not only for the variety and neatness of the parts; but as suited to the nature of refraction, so as to paint the image of the object in the *retina*." In Locke's eyes, then, occasionalism is ultimately driven by a fallacious argument from ignorance and the desire to be omniscient: "But we do not know how any natural operation this can produce an Idea in the mind: and therefore (a good conclusion!) God the author of nature cannot this way produce it. As if it were impossible for the Almighty to produce any thing, but by ways we must conceive, and are able to comprehend: when he that is best satisfied by his omniscient understanding, and knows so well how God perceives and man thinks" (158). This is a common argument form for Locke. He was clearly hostile to the idea of rejecting something because we finite minds, in our fallen state of ignorance, could not conceive and explain how an omnipotent God might manage it.

But Locke does not leave matters merely at identifying the fallacy in the occasionalist's reasoning. He additionally provides the abductive argument for the existence of powers that was alluded to in II.xxi.1 and 4 (165–71), which is Locke's most sustained discussion of occasionalism. The argument begins with an affirmation typical of the early modern causal powers theorist: "I think it cannot be deny'd that God having a power to produce Ideas in us, can give that power to another: or, to express it otherwise, make any Idea the effect of any operation on our bodys. This has no contradiction in it, and therefore is possible" (165). Then, he identifies three natural phenomena that are not readily explained by the occasionalist hypothesis but are easily explained by the

[3] The *Examination of P. Malebranche*, as it has come to be called, was not published until the 1706 as part of the *Posthumous Works of Mr. John Locke*; the *Remarks on Norris*, as it has come to be called, was not published until 1720 as part of *A Collection of several Pieces of Mr. John Locke, Never before printed, or not extant in his Works*.

hypothesis of inherit causal powers. The first is the fact that objects are not occasional causes for blind people yet are for sighted people (166). The second is the aforementioned complex structure of the eye (166). The third is the phenomena of sensory habituation, in which the occasional cause remains unabated yet the idea disappears from our consciousness (167). Then, Locke draws out a canonical abductive inference. In response to the first phenomenon, he merely suggests that it "wou'd give one reason to suspect something more than a presential *occasional cause* in the object" (166). This suspicion is then vindicated by the next two phenomena, "'Tis hard to account for either of these Phaenomena, by God's producing these Ideas upon the account of *occasional causes*. But *by the production of Ideas in the Mind, by the operation of the object on the organs of sense; this difference is easy to be explained*" (167).

Locke talks in this argument of the "operation of the object." How does a commitment to the existence of causal powers come out of that? We should note that Locke's depiction of this "operation of the object" is again wholly couched in the terminology of powers in what immediately follows. Locke added:

> For I hope they will not deny God the privilege to give such a power to motion, if he pleases . . . . The infinite eternal God is certainly the cause of all things, the fountain of all being, and power. But because all being was from him, can there be nothing but God himself? or because all power was originally in him, can there be nothing of it communicated to his creatures? This is to set very narrow bounds to the power of God, and by pretending to extend it, takes it away. For which (I beseech you, as we can comprehend) is the perfectest power; to make a machine, a watch for example, that when the watch-maker has withdrawn his hands, shall go and strike by the fit contrivance of the parts; or else requires that whenever the hand by pointing to the hour, minds him of it; he should strike twelve upon the bell? No machine of God's making can go of it self. Why? because creatures have no power; can neither move themselves, nor any thing else. (Locke 1720, 169)

There is a lot here to suggest that Locke was advocating for an abductive argument in support of the postulation of causal powers, it seems.[4] It looks like Locke is pushing a position very much like the doctrine of "structure realism" and "structural powers" currently being pushed by neo-Aristotelians (Simpson et al. 2018). At least, this is not an implausible way of reading the texts and Locke's appeals to the language and concepts of causal powers. This, therefore, makes the contemporary causal powers debate look less like a division between the scholastics and the moderns and more like a division that cuts across both camps and tracks a division between causal powers realists, on the one hand, and occasionalists and skeptics on the other.

Unfortunately, Locke ignores the worries and concerns that are pushing the occasionalists and the underlying metaphysical basis of their system. And this is what's interesting and significant for the contemporary discussion, I think; not what Locke says,

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[4] Locke's qualms about mechanistic reductions have been long discussed by scholars (Wilson 1979; Ayers 1981; Wilson 1982; Downing 1998; Stuart 1998; Rozemond and Yaffee 2004; Connolly 2015; Wood 2016) and they fit perfectly with the emphasis on powers in a broadly Aristotelian sense throughout the *Essay* as well as the attacks on occasionalism.

but what he doesn't say and why he doesn't say it. It is not sufficient to declaim against the argument from ignorance and to simply postulate the existence of causal powers, as Locke does. It is not sufficient because that answers a different question than the one raised by the occasionalists. Locke, and others who appeal to an abductive argument, answer the question of whether or not causal powers obtain. But the question pressed by the occasionalists' worries and concerns is not whether they obtain, but how do or might they obtain. This suggests the need for an explanation of causality and power rather than an argument supporting the existence or postulation of causal powers. That subtle difference in context is forced by their metaphysical worries about the natures of causal powers and substance and significantly alters grounds for a successful or proper answer. Locke misses that difference by paying attention only (or primarily) to the thesis itself and not the underlying motivations that animate the occasionalists' thought processes. What's at issue in the seventeenth-century debate is not whether causal powers exist, but how they could, given the understanding of substance they were struggling with.

And that's the real problem that I'd like to suggest contemporary causal powers theorists ought to focus on. To set up causal powers as ontological primitives in the construction of an abstract system misses the essential philosophical point, which is uncovering and exploring some sort of explanation for how causal powers can subsist and perform their functions as causal powers. Indeed, that seems to magnify the worry and its problematic character. "Biting the bullet" or simply accepting them as a "starting point" are merely dialectical moves sidestepping the philosophically interesting and significant question. That's all well and good if one wants to play that intellectual game, but Hume would be the first to emphasis that it is a merely intellectual game, I think. The worries and concerns underwriting the occasionalist's question remain untouched by it, which is why it continues to intellectually rub and fester like a too-small, wet leather shoe on a forced march. We can all acknowledge that the occasionalists' reaction to this rubbing, which is to give up on the possibility of explaining how causal powers are possible and pushing all efficient causality up to divine agency is undesirable. We can also all acknowledge that Hume's resolution, emphasizing that we don't need any explanation because we don't need causal powers because mere regularities will do, is equally undesirable. But neither resolve the underlying worries. The former is like suggesting that we just change to a different pair of shoes (which may be equally tight, wet, and chaffing, but seem acceptable because they rub in a different spot) and the latter is like suggesting that we don't need shoes and can just march barefoot. Better would be to look into where, how, and why the shoe rubs and work to repair it. But certainly, telling ourselves, and our compatriots in identical positions, that the shoe doesn't really rub or that we have to continue wearing it, and so shouldn't really complain about it because it is the only shoe we have, is not a proper solution worthy of a master shoemaker. We'd expect a shoemaker to fix it or to offer an explanation of why no repair is needed or is possible. Hume and the occasionalists are holding us metaphysicians to the same standards, and rightly so.

We therefore ought to turn our attention to the occasionalists' worries and concerns and try to diagnosis what causes them to rub so that we can provide the requisite explanation or explain why such an explanation would be unnecessary or unattainable.

2. Seventeenth-Century Occasionalism

In the seventeenth century, occasionalism was an almost exclusively Cartesian phenomenon. Not all Cartesians were occasionalists; but almost every occasionalist was

considered to be a Cartesian or strongly influenced by Descartes. Nicolas Malebranche was the most famous of them, but their numbers included Frenchmen Louis de La Forge and Geraud de Cordemoy, Fleming Arnold Geulincx, and Englishman John Norris. There seemed to have been something about Cartesianism that lead to the development and defense of occasionalism (Nadler 2011). It would be a mistake, however, to infer that the underlying worries and motivations animating the occasionalists were exclusively Cartesian or that we now easily avoid occasionalism and its underlying motivations because we are not Cartesians. To be sure, many of their arguments for occsaionalism rested on distinctively Cartesian premises and were explicitly directed at other Cartesian thinkers. But that's a different matter than the intuitive core of the underlying worries and motivations, which is what we are focusing on. The lesson for us lies in those underlying intuitive motivations and worries. But first, a bit of background.

Scholars commonly identify four central arguments that were made on behalf of occasionalism (Lee 2019; Lee 2018): The Passive Nature Argument, which rests on the claim that body is passive by nature and incapable of initiating motion; the No Knowledge Argument, which rests on a requirement that causality requires a causal agent with knowledge of the means to achieve the effect; the No Necessary Connection Argument, which rests on the requirement that causality requires a necessary connection and the claim that causal necessity is no genuine type of necessity; and the Conservation is but Continuous Creation Argument, which rests on the claim that the conservation of substances is a form of continuous divine recreation at every moment of their existence. From our perspective, as contemporary practitioners interested in learning from the past, the arguments used by the Cartesians and directed at other Cartesians are not the main object of interest. They are not irrelevant, of course; but we need to shift our gaze a bit. None of us are Cartesians, after all, and we're not the target audience for the arguments. As stated above, it's what made the arguments powerful and seductive to the Cartesians that is of interest to us. So, when returning to the historical texts, we want to focus more on what the Cartesians say about the arguments than their formulations of the arguments themselves. We need, in other words, to look at the context surrounding their presentations of the arguments to learn the lessons from past, which we are interested in.

I'd like to draw our attention to three underlying worries, which seem to me to be most relevant to our attempt to revive the Aristotelian notion of causal powers. These are three concerns that seem most damaging to the idea of causal powers in the eyes of the Cartesian occasionalists and seem to be most likely to menace the current movement. The first concerns the conceptual clarity of the metaphysical category corresponding to causal power. In seventeenth century jargon, this would be the clarity of the idea of power or efficacy, but what they had in mind was a particular sort of obscurity contained within the idea—what kind of metaphysical entity is a power and how does it connect with its subject? The second concerns the idea of fully determining the character of the effect. Causal power talk is generally focused on type-type relationships and categories of phenomena, but all actual causal events are non-idealized particulars with precisely determined outcomes that are generally diverse from one another, even when occurring in essentially identical contexts. Seventeenth-century occasionalists struggled with explaining how the same causal power in virtually identical situations produce slightly different effects. This struggled pushed them to conceptualize causality in terms of agency, which we will explore in more detail below. The third concerns the nature and grounds for natural necessity. They were worried about how to explain why certain

relations were naturally necessary, when others weren't, and what natural necessity consisted in.

Malebranche is perhaps the best figure to focus on because he was the most sophisticated thinker of the bunch and his work effectively synthesized the thoughts and concerns of most other occasionalists. But I will draw upon the works of others as appropriate. Malebranche's primary occasionalist works are *The Search After Truth* (1674-75), the *Elucidations of the Search after Truth* (1678), and *The Dialogues on Metaphysics and Religion* (1688). These will serve as the core of my discussion.

2.1 The No Conceptual Clarity Worry

When Malebranche opens his discussion of occasionalism, he calls the doctrine of inherent causal powers "the most dangerous error of the philosophy of the ancients" (Search 6.2.3, 446). That's weird to our ears, but for Malebranche it's dangerous because of the anti-Augustinian conclusions regarding human nature and the lack of intimacy in our relationship to God. Thus, believing that physical objects have causal powers might lead us to "render sovereign honor to leeks and onions," for example. Weird, but it makes sense in the Dialogues on Metaphysics and Religion, where topic is philosophical theology. However, in the Search, which is a work in logic (in the seventeenth-century sense), a discussion of the dangers of believing in inherit causal powers seems out of place.

Malebranche brings it up, however, as an example of the ancient philosophers' failure to follow the proper logical method. When reading Malebranche's discussion, the emphasis needs to be placed on the erroneousness of the belief in causal powers, an erroneousness due to poor epistemic practices. The primary worry motivating Malebranche is expressed in the following passage.

> If we assume, in accordance with their opinion, that bodies have certain entities distinct from matter in them, then, having no distinct idea of these entities, we can easily imagine that they are the true or major causes of the effects we see. That is even the general opinion of ordinary philosophers; for it is mainly to explain these effects that they think there are substantial forms, real qualities, and other similar entities. If [however] we next consider attentively our idea of cause or of power to act, we cannot doubt that this idea represents something divine. (Search 6.2.3, 446)

The error consists in believe where we lack a distinct idea of "these entities" and imagining that they are the true or major causes of the phenomena of change. Just as we would expect, in the Elucidations this focus on the lack of a clear and distinct idea of causal powers is brought even further forward into the limelight. Malebranche sees the continued commitment to inherit causal powers as a kind of prejudice caused by the Fall and our embodiment, and clarifies his grounds for opposing it in hopes that it will help our reason to triumph over the sensory inclinations and the imagination. He explains:

> There are many reasons preventing me from attributing to secondary or natural causes a force, a power, an efficacy to produce anything. But the principal one is that this opinion does not even seem conceivable to me. Whatever effort I make in order to understand it, I cannot find in me any idea representing to me what might be the force or power they attribute to creatures. And I do not even think it a temerarious judgment to assert that

> those who maintain that creatures have a force and power in themselves advance what they do not clearly conceive. For in short, if philosophers clearly conceived that secondary causes have a true force to act and produce things like them, then being a man as much as they and participating like them in sovereign Reason, I should clearly be able to discover the idea that represents this force to them. But whatever effort of mind I make, I can find force, efficacy, or power only in the will of the infinitely perfect Being. (Search Elucidation Fifteen, 658)

This is, obviously, the analogue to Hume's suggestion that we have no idea of power and efficacy because experience fails to provide us with any. In Malebranche, of course, the suggestion is not bound up with Hume's narrow empiricism. Malebranche's suggestion is importantly different in a couple of ways. First, Malebranche's is entirely conceptual. That our idea of natural power and efficacy has no genuine cognitive content is what Malebranche is claiming. Second, the lack of content revolves around the metaphysical character of power and efficacy. This is brought out in the very next paragraph when he criticized the diversity and lack of consensus among the Aristotelians regarding the nature of power. They appeal to "substantial forms," "accidents or qualities," "matter and form," "form and accidents," and "certain virtues or faculties," Malebranche argues, and these are not just different names for the same thing because they all take different stands on how causality operates, "some maintain that the substantial form produces forms and the accident form accidents, others that forms produce other forms and accidents, and others, finally, that accidents alone are capable of producing accidents and even forms" (Search Elucidation Fifteen, 658). The appeal to a lack of consensus is interesting here. It's not an ad populum fallacy, but rather is being presented as evidence of the conceptual vacuousness of the idea itself. Such a diversity of speculations obtains precisely because no one know what they are talking about, since there are no grounds to guide our metaphysical judgments regarding causality. That the diversity and disagreements concern the forms and the relationships between forms and powers strongly emphasizes this. What's at issue, then, beneath Malebranche's denial are not correlations between causes and effects or even the details of causal processes, but the metaphysical structures that constitute causality.

Even though Malebranche's claim is couched in the Cartesian terms of clear and distinct ideas, one does not really need to be a Cartesian to feel the underlying intuitive pull of his point. It does seem very difficult, upon thoughtful reflection, to say that the community of philosophers and metaphysicians have made much progress to identifying and analyzing the metaphysical features involving causality. Indeed, this very point seems to be the take-home message of the Stanford Encyclopedia of Philosophy entry on Dispositions (Choi and Fara 2018): lots of work on the semantics of how we think and talk about causal dispositions has been done, but there is no real consensus about even that and very little about the underlying metaphysical structures and nature of substances and properties that would properly constitute an answer to the question, "what are powers?" If we take the SEP as representative of the current state of philosophical understanding, as seems reasonable, it is hard to see our current state as essentially much different than that of Malebranche's, despite the different ways of expressing what sort of relationship we would recognize as a causal one. And that's a real worry. This might not seem so surprising if we remember the original reason why the concept of powers was introduced:

Aristotle introduced potentiality as a bridge between being and non-being in a move to avoid the Eleatic paradox of becoming. The root concept is, thus, a rather bastardized notion combining elements of both being and non-being—a power is a quasi-existential state such that a property does not actually obtain but would obtain were the power actualized (to differentiate it from an absolute state of non-being) and when actualized it in fact obtains and is transformed into a fully existential state. There is nothing conclusive that says such a bastardized notion is impossible or inconsistent; yet there is also nothing conclusive that say that it is isn't. Hence the lack of consensus. In Aristotle's day, it might have been dialectically acceptable to accept it and hope, or even expect, greater clarity to eventually come. By the time of the Cartesian occasionalists, however, there had been over 2000 years for clarity to be achieved and not even some of the greatest metaphysicians who had ever lived were able to make much progress, if any. That's the real source of the underlying intuitive pull of Malebranche's claim.

It might seem as if the lesson to learn is not to re-introduce causal powers until we finally resolve what their metaphysical features are, and some might object that this is too high of a standard to hold contemporary metaphysicians to. But if we are not going to ignore and overlook this lesson of the seventeenth-century occasionalists, caution toward accepting causal powers into our metaphysics until the concept can be clarified is certainly warranted. Even if demanding that the metaphysical questions be clearly resolved is too strong, the dialectical state does demand that we should perceive something different this time around before giving causal powers a second chance at taking a leading role in our metaphysics of body. Clear and compelling accounts of their metaphysical features would be sufficient, but not necessary. What is demanded of proponents of causal powers instead is evidence that conceptual advances since the seventeenth-century give us new, promising avenues and resources for resolving the metaphysical mystery of what causal powers are. Evidence of that does not seem to be too much to demand. It is certainly the case that there is considerable enthusiasm and work is now being done again on the metaphysics of causal powers and efficacy. And such work should be encouraged, supported, and championed, to be sure. That is a different matter from advocating the return of causal powers to our metaphysics or philosophy of science. But I don't think that we can really say that such work has yet provided evidence that the mystery of what causal powers are is likely to be cleared up. And that's what the dialectical state would seem to require before we ought to build Aristotelian causal powers back into our metaphysics of bodies and our philosophy of science. Malebranche emphasizes this in the Dialogues: "It is up to you, Aristes, to give me some idea of this power. . . . It is better to remain silent than not to know what one is saying" (Malebranche 1997, dial. 7, 107). Perhaps there is such evidence, or a case can be made on behalf of such advances—Great, let's see it! But let's see that rather than abductive arguments merely maintaining that causal powers ought to be accepted or returned to the center of our metaphysics or our philosophy of science.

Malebranche pushes yet another feature of the debate that seems to magnify the importance of this dialectical point that the onus is on the causal powers theorists to show progress in clarifying the concept of a power. He flags the commitment to inherit causal powers as a prejudice instilled in us by repeated experience. While I would wish to suggest that prejudice plays any role in contemporary philosophical discussions, Malebranche's appeal to repeated experience grounding belief is reminiscent of Locke's popular argument—experience shows us that causes act to produce effects and the best

explanation for this is that bodies have inherent causal powers acting and passively receiving those actions. This helps to drive the point home that admitting causal powers cannot rest on what seems obvious or natural to us. We need to make sure that their acceptance is properly grounded and that we are not simply falling for a natural, common-sense presumption when accepting their existence on the basis of Locke's popular argument. The dialectical state in the seventeenth century as well as now, in other words, means that we really need clarity regarding the metaphysical features or evidence that such clarity is likely to be developed, before we ought to return to a metaphysical commitment to causal powers. This suggest a slightly different direction for the contemporary discussion.

2.2 The Explaining Full Determination Worry

There is another feature of the occasionalists' critiques of secondary causes that is suggestive of an interesting worry about the alleged operations of causal powers. I find this worry to be especially interesting because it lies at the intersection of two very different arguments for occasionalism, the so-called No Knowledge Argument and the No Transference Argument. The No Knowledge Argument might be familiar because, thanks to Malebranche, it is commonly identified as a main argument for occasionalism. But the No Transference Argument might not be familiar because it was presented by the obscure Cartesian Louis de La Forge and presented only in support of a restricted version of occasionalism.

The No Knowledge Argument sounds very odd to our ears now:

> For how could we move our arms? To move them, it is necessary to have animal spirits, to send them through certain nerves toward certain muscles in order to inflate and contract them, for it is thus that the arm attached to them is moved. . . . Men who do not know that they have [animal] spirits, nerves, and muscles move their arms, and even more them with more skill and ease than those who know anatomy best. Therefore, men will to move their arms, and only God is able and knows how to move them. (Search 6.2.3, 449–50; cf. Search Eludication Fifteen 670–71)

Why would Malebranche equate causality with agency? It's a weird assumption and makes it easy to summarily dismiss the argument as irrelevant for discussions of natural causation. What could possibly be the motivation for accepting such a presumption?

Perhaps it is driven by a commitment to the principle that if one wills the end, one must will the means. To will the movements, we must will the complex chain of constituent movements that constitute or make up that movement. In Malebranche's example, in willing to move our arm, we would have to also will to active the right neurons in just the right sequence and to exactly the right degree to actually move our arm in the appropriate manner. Since willings have to be direct, perspicuous, and informationally precise, any proper volition to move our arm would have to involve a host of volitional sub-components, each of which we'd have to also be conscious of. Of course, there's a lot here that a non-Cartesian would object to and could avoid in order to preserve a commitment to this principle. But really this all misses the central point—why equate causality with agency? Even if we understood agency better than natural causality, it does not at all seem appropriate to use agency as an analogue in analyzing natural causality.

If we look at the texts supporting and developing the arguments from the Search, however, I think that we can discern an underlying worry that the move to equating natural causality with agency is supposed to solve. In the Dialogues, Theodore guides Aristes from the neutral position of neither affirming nor denying that bodies can act on other bodies with the following line of reasoning: "Do you not clearly see that bodies can be moved, but they cannot move themselves? You hesitate. Well, suppose then that this chair can move itself. In which direction will it go, with what speed, and when will it decide to move itself? Give it then an intelligence as well, and a will capable of determining itself. In other words, create a human being out of your armchair. Otherwise, this power of self-motion will be useless to it" (Malebranche 1997, dial. 7, 110–11). The text suggests that move to equating natural causality with agency is the solution to the problem of full determination. When bodies move, undergo change, or develop, they develop in fully determinate ways. Existence is fully determinate, of course. So, when something changes from rest to motion, it must move in a fully determinate way—fully determinate with regard to direction, velocity, spin/gait/character, and all concomitant features of moving. Aristes' armchair, for example, were it a self-mover, would begin moving at a definite point in time, in a certain direction, at a certain speed, for a certain distance, with a certain gait or type of movement, etc. What determines all that; what could determine all that? This is the problem of full determination, how do we explain the full determination of this instance of the activation of the power? If it were a self-mover, it would have to "choose," either freely or determinately—hence Theodore's strange suggestion to "create a human being of your armchair." Aristes is having none of that, of course: "A human being out of my armchair! What a strange thought! . . . I certainly think that this chair cannot move itself" (111).

But the problem of full determination arises even if the object is put into motion by something else, God included. Malebranche, as Theodore, continues, arguing: "For even God—though omnipotent—cannot create a body which is nowhere or which does not have certain relations of distance to other bodies. Every body is at rest when it has the same relation of distance to other bodies; and it is in motion when this relation constantly changes. Yet it is obvious that every body either changes or does not change its relation of distance. There is no middle ground" (111). Imagine being an animator on Disney's The Beauty and the Beast—the armchairs can skitter, gallop, skip, slide, etc. across the floor; how do you want to handle their movements? The domain of possibility is virtually endless, yet the movement has to be fully determinate, a single expression from this virtually infinite domain. Malebranche conceptualized the solution in terms of agency—the chair chooses, or someone else chooses, or God chooses; not the chair; not someone else; therefore. . . . Some form of agency is the solution to the problem of full determination, and grounds explanations for instances of motion or change. But at the cost of foisting large epistemic requirements on the active object. The epistemic consequences are not our concern, however (the plausibility and grounds for occasionalism itself are not our issue). But this underlying worry regarding the problem of full determination is our concern—what fully determines the various characteristics in the activation of a power?

Nowadays we are inclined to consider the complexity of the context as imposing itself on the activation of a power. In other words, we tend to think that the reason why different activations of the same determinable power display different determinate properties is because the actors and their context differ subtly and in a myriad of ways; it

has nothing to do with choice from among a virtually infinite domain of possibilities, but from the virtually infinite complexities among the natural objects constraining the exemplification of the power. Malebranche, in other words, was rather naïve in believing that such complexity required an agent to oversee and manage it.

Fine, fine: I have absolutely no doubt that the recent advances in mathematical modeling and computational power necessary to work through such models will give us much clearer and richer understandings of the complexities actually involved in the exemplification of any causal power. Think of modelling the chemical and histological complexities involved in the short-term and long-term impacts of a can of Coke on the human liver, for example. But the point for us as philosophers is, what does this sort of response do to the metaphysics of neo-Aristotelian hylomorphism? That is the challenge that the problem of full determination poses for contemporary proponents of causal powers. By focusing on the complexities of the interactions and characteristics of the actors involved and the context in which they are interacting, the subject-power relationship, central to the Aristotelian metaphysical system, is threatened in that the power seems to be an emergent property of a state of affairs rather than a per se property of a singular substance. Because determinable powers are conceptually tied to the possibilities of their determinate instantiates, the more that instantiations are relativized to fully determinate contexts and interactions, the less coherent the category of causal powers becomes, and the less explanatory power any such appeals to them carry.

This horn of the dilemma can be avoided by connecting the full determination of a power's activation to the force or energy necessary to activate the power rather than the complex interactions and context involved in its exemplification—diverse determinations of an effect in seemingly identical contexts are thus explained by different levels, or different types of energies that activate the causal power. But this has metaphysical baggage of its own that also threaten neo-Aristotelian hylomorphism. In this case, the problems revolve around the ontological status of this energy or force and its relationship to the substance of the actors involved in the exemplification of the power. Louis de La Forge's No Transfer Argument is a nice analogue to this worry.

La Forge used the argument to argue against the possibility of mechanistic body-body causation, causation involving the transference of motion from one object to another and set up the occasionalistic alternative.

> We should distinguish between a movement and its determination and between the cause of a movement and the cause which determines it, because one is often different from the other just as movement is from the force which makes something move. . . . Motion is only a mode which is not distinct from the body to which it belongs and which can no more pass from one subject to another than the other modes of matter. . . . But the motive force, i.e. the force which transports a body from one vicinity to another and which applies it successively to different parts of the bodies which it leaves behind, which is also sometimes called 'motion', is not only distinct from this application but also from the body which it applies and moves. . . . Now if the force which moves is distinct from the thing which is moved and if bodies alone can be moved, it follows clearly that no body can have the power of self-movement in itself. For if that were the case this force would not be distinct from body, because no attribute or property is distinct from

> the thing to which it belongs. If a body cannot move itself, it is obvious in my opinion that it cannot move another body. Therefore every body which is in motion must be pushed by something which is not itself a body and which is completely distinct from it.
>
> I may be told that I assume without argument that the force which moves must be distinct from the thing which is moved. But it is easy for me to show that, because if the force which transfers and thereby applies bodies to each other could belong to them in such a way that the thing which is moved were itself the principle of its motion and this force were identical with it, then the notion of this force would have to include in its concept the idea of extension, as the other modes of body do. This is not the case. . . . Let us assume, if you wish, that this force is a mode of body; it could not then be distinguished from it and consequently it could not pass from one body to another. If you conceive it in the same way as real qualities are conceived, in the Schools, and if you think it is definitely an accident of body, even if it distinct from it, then you would have to conceive that it subdivides itself when one body moves another and that it gives part of its movement to the other body, and is therefore itself a body, at the same time that you assume it is distinct from corporeal nature; for anything which is divisible and which has parts which can exist independently is a body; or you would have to say it does not subdivide but that the body in which it is present produces a similar property in the body it touches when it pushes it. You thereby give to bodies the power of creation, for if the motive force is distinct from body, it is a genuine substance despite the fact that you call it an accident whose being (if I may use the term), since it is not drawn from any other substance by division, can be produced only by creation. Besides, what happens to the first moving force when there is no longer any motion in the body which was moved? Will you say that it is annihilated? (THM 145–46)

La Forge's argument is couched in the Cartesian ontological terms of "substance" and "mode" and is directed toward "motive force," but we can replace "motive force" with "energy" and think in terms of properties or states rather than modes to formulate a similar sort of dilemma. The central ideas concern what energy is and how it connects with the substance that it actualizes or activates.

It is easy for us to talk about energy and the activation of powers in terms of "energizing" them or of the transference of energy to them. But what is this energy that we are speaking of? La Forge's dilemma emphasizes that we have two ways of conceiving it: either energy is a special kind of substance or it is a property or state of a substance.

If the former, it has the requisite existential independence to be transferred from one body to another. In itself, that's fine, but what does it do to a neo-Aristotelian hylomorphic concept of substance? And, more importantly, how does it interact with the other body such that it activates its causal power? I have had difficulty locating sustained contemporary explanations of this. The traditional answer for what happens with one substance ingests another is that some sort of "natural transubstantiation" occurs. Maybe contemporary practitioners would like to go this route, though I do not see why; likening the process of the absorption of energy to transubstantiation does little to naturalistically

explain and ground the process. Maybe contemporary practitioners would like to say that transferred energy is merely co-located with a body and activates its causal powers on the basis of that co-location. That's again fine in itself. But it does not seem keeping in the spirit of an Aristotelian substance. For now, there is some sort of special, co-located stuff that is not strictly speaking part of the body yet is triggering the body's powers through its proximity. Either a regress looms (in that co-location is not sufficient to account for the activation of a power, but something from the independent substance, the energy stuff, must still be transferred to the body to trigger its causal power) or the hylomorphic structure of individual substance threatens to collapse (in that the body is composed of matter, form, and some sort of co-present energy). Some explanations of how this is consistent with hylomorphic principles seems to be in order. Furthermore, there is presumably some sort of natural, internal process corelated with this transference of energy and activation of a causal power. Whatever that might be, why not mechanistically conceive of the energy-body process and reduce the activation and exemplification of the causal power to the mechanistic process itself? In other words, if energy is conceived as an independent substance transferred into a body that is not a hylomorphic unity but rather an atomistic composite, what is the real metaphysical import of returning to Aristotelian causal powers? Some further explanation is needed regarding that, it seems.

An alternative would be to conceive of energy as a state or property of a body that is triggered by either something internal or something external to it. Again, that is fine in itself, but the consequences for the metaphysical framework of causal powers needs to be developed to accommodate that move. And it is not obvious that it can be. On this model, there is no genuine transfer of anything, but changes are happening nonetheless. Whether the source of the energy is internal or external, matter in a certain state is given or accorded the creative power to put matter into a different state through its proximity alone. La Forge does not seem to be misrepresenting the dynamics of this model for conceiving of the activation of a causal power when he likens it to creation ex nihilo or some sort of magical transformation from bodily state α to bodily state β without anything being transferred into the body. La Forge pushes us to demand some sort of explanation for this rather than to defer it. And so long as the states or properties of a body are characterized as "that body's" (or "that body's time-slice"), it is difficult to see how the neo-Aristotelian will provide such an explanation. The situation seems quite similar to the paradoxes involving substantial forms when a substance undergoes substantial change that Aristotle outlined in *On Generation and Corruption*.

A complete, detailed account of what goes on metaphysically within or between substances when a causal power is activated and a determinate effect produced certainly seems warranted, as La Forge and Malebranche would emphasize. And it is important that it at least addresses, if not resolves, these paradoxes involving agency and the transference of energy in ways consistent with the hylomorphic structure of substances and powers.

2.3 The Grounds of Necessity Worry

It might seem easy to dismiss concerns about the coherence of natural necessity as Humean skeptical theatrics. But Malebranche was no skeptic and he shared Hume's underlying concerns about natural necessity. "A true cause as I understand it is one such that the mind perceives a necessary connection between it and its effects. 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" (Search 6.2.3, 450).

The key for us to recognize is that this was not just hollow piety; it was also a central feature of Malebranche's response to a worry that is essentially the same as our worry about the coherence of natural necessity. The crux of the metaphysical problem is that causal powers are contingently necessitating features of our logical possible world. It's not just whether or not a causal power obtains within a world; it's also whether or not the powerfulness of the causal power only ever contingently obtains. For example, whether a piece of stemware is actually fragile depend on the existence of other things in its world solid enough to shatter it (or so the standard example goes), and vice versa for the hammer's having the power to shatter stemware. But there is still another issue in that the supposedly essential relationship between the universal properties of being fragile and being able to shatter glass are contingent as well, at least as far as we can see. Yet these contingent properties are supposed to be necessitating, naturally nessessitating to be sure but necessitating nonetheless. How is that category metaphysically coherent?

Historical Aristotelians faced the same problem, and during the medieval and early modern periods conceptualized it through divine creation. They centered their thinking around explaining miracles and counter-factuals regarding what God could or could not do, but the core issue was the same as ours—if causal powers are merely contingent, how can they be, properly speaking, necessitating? The medieval and early modern discussions fell along a continuum between two extremes, the intellectualist pole and the voluntarist pole. The intellectualists grounded natural necessity in the Forms or the Divine Ideas themselves. This allowed them to be truly necessitating, but it put pressure on the contingency of the powers. The intellectualists' version did not allow God to be omnipotent in a strong sense, did not allow miracles, properly speaking, to obtain, and did not permit powers to be accidental features of the world. On their view, even though God might not create hammers (or stemware), any world that contains hammers (or stemware) is a world in which fragility and the power to shatter must obtain.

The voluntarists, on the other hand, left natural necessity ungrounded. For them, God made the powers powerful through his unrestricted act of creation. As a matter of fact, God made glass fragile and gave hammers the active power to shatter, and so for us (or relative to us) these powers are essential to their stemware and hammers, but God did not have to create them such and neither follows from the other. Moreover, God could have made them different, or have made the metallic hammer out to be fragile and glass to have the active power to shatter. And God could have done this within our own logical possible world without changing anything else within or about it. Obviously, God is omnipotent in a strong sense for the voluntarists, the metaphysical possibility of miracles is easy to explain, and powers, like everything else, is a contingent feature of our logically possible world.

These are the extremes. But after the voluntarists' critiques of the intellectualists' standard position appeared on the scene, intellectualists developed a weaker, compromise position. The essential move in the compromise position was simple—let God voluntaristically create the Divine Ideas, but then they become fixed and necessitating, even relative to God, because of God's own nature. This seems to allow for the counter-factuals necessary for omnipotence in a strong sense, the possibility of genuine miracles, and as much stability as nomologicality requires, as well as a proper grounding of the powerfulness of powers.

For Malebranche, this sort of move allows the imagination to fly free and chase down all sorts of counter-factual scenarios, allowing us to think about alternative ways God might create a world. But when we intellectually apprehend the Divine Ideas, we can now see the nomic necessity and appreciate God's wisdom for making just these actual causal connections. Non-occasionalists could avail themselves of something like this just as well as occasionalists can. The key is not that Malebranche and the occasionalists made God out to be the only efficient cause but is rather the balance between forms or natures being contingently structured yet necessitating. It is this balance that provides a proper characterization of natural necessity, should it obtain of course. For the early moderns, whether Aristotelian or occasionalist, because all the conceptual work is fobbed off onto God, the worries that causal connections are merely human conceits or accidental features of our limited experiences and conceptions is completely avoided.

Unfortunately, we don't have recourse to God to fob the responsibility and the conceptual work off onto. Contemporary metaphysicians need to discover a naturalistic way of finding such a balance between contingency and necessity, and then find it within our logically possible world. I confess, I have no idea what that might be or look like, or even where to begin characterizing it. Alan Sidelle has discussed the semantic and logical challenges that the contemporary essentialist conceptual framework faces in making sense of the contingently necessitating aspect of causal powers (Sidelle 2002). One of the advantages, perhaps, of approaching this through Malebranche's concept that only the divine will is necessitating is that we can see a reason why we have such trouble understanding the contingently necessitating character of causal powers—the origins and source of a power's powerfulness is opaque. If we understood the source for a power's powerfulness and could explain why there was such a relationship between active power φ and passive power π, perhaps we could grasp the reasons for its being necessitating even though it is contingent. The moderate voluntarist position provides such an understanding precisely because we can see why the relationship is necessary relative to our logically possible world (God willed it to be so) while also seeing why it is ultimately contingent (God could have willed otherwise). But from within a naturalistic framework, it is difficult to see what that source might have been, a fortiori if scientific theories entailing that our universe is one multi-verse among billions upon billions of others.

3. Conclusion

The dominant themes of this romp through seventeenth-century occasionalist thinking are twofold. First, the dialectical state after the occasionalists' criticisms mean that we cannot just postulate causal powers as explanatory devices and expect or hope that we'll be able to eventually resolve any metaphysical issues that arise. The occasionalists took us past that point and we have an obligation to address their concerns, or at least provide reasons suggesting that this time is different, and we can be confident that their concerns will soon be resolved. Second, the core issue should not be thought to be whether or not causal powers exist or obtain; rather, the core issue is explaining how causal powers could be. The occasionalists concerns, in other words, focus on what causal powers are, what is the nature of a causal power. Thus, the opacity of what a causal power conceptually consists in is pushed to the forefront. Abductive arguments and the need for them to support the truth-conditions of counter-factual claims are thus irrelevant. The occasionalists insist on having explanations for how such bastardized entities could obtain, how they could be productive of phenomena, and how they could bind subsets of

"close" logically possible worlds such that they provide counter-factuals with truth-conditions. This all means that in our discussions about causal powers, they can no longer be presented as primitive or as metaphysical starting points. It is heartening to see a number of philosophers working in this direction and moving our concept of a causal power forward. It is hoped that this look back at occasionalism can encourage and support such efforts by bringing some of the underlying concerns that brought down Aristotelian causal powers in the first place into sharper focus.

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