

CAUSAL SKEPTICISM AND THE DESTRUCTION OF ANTIQUITY

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## DISSERTATION ABSTRACT

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Title: Causal Skepticism and the Destruction of Antiquity

This dissertation examines the development of skeptical views concerning causation from the medieval to the early modern period. While causal skepticism is often overlooked by intellectual historians, I argue that, in spite of its typical motivation as a religious response to shibboleths of ancient philosophy that stood askance from the dogmas of Abrahamic theology, causal skepticism was the greatest intellectual development of post-antiquity and ultimately culminated into modern Science.

The first chapter examines Hume's famous analysis of causation and serves as a foil for the prior history of causal skepticism addressed in the subsequent chapters. The second chapter addresses the dispute over causation in medieval Islamic philosophy. I argue that virtually the entirety of Hume's analysis was anticipated, and in some cases superseded, by al-Ghazali in the eleventh century. The third chapter examines Averroes' critique of al-Ghazali, as well as the development of Aristotelian causal metaphysics in the Christian West. The fourth chapter concerns the development of the nominalist tradition skeptical attitude towards efficient causal explanation in the aftermath of the anti-Aristotelian condemnations of 1277. The fifth chapter addresses the Cartesian occasionalist tradition and its skeptical stance on secondary causation and the relation between this causal skepticism and central doctrines of Cartesian physics and metaphysics. The sixth and final chapter of my dissertation concerns the collapse of occasionalism and its many offspring. My ultimate thesis is that the hallmarks of both modern philosophy and modern science trace their origin to the failure of occasionalism to resolve its own internal contradictions.

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To my mother and father, my efficient cause.

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## CHAPTER I

### INTRODUCTION

[E]ven if [God] wished to make a rock into a man all of a sudden, it would be impossible. And this is the point at which my teaching and that of Plato and the other Greeks who have treated correctly of natural principles differs from that of Moses. For him it suffices for God to have willed material to be arranged and straightway it was arranged, because Moses believed everything to be possible to God, even if he should wish to make a horse or beef out of ashes. We, however, do not feel this to be true, saying rather that some things are naturally impossible and that God does not attempt these at all but chooses from among the possible what is best to be done.

—Galen, *De usu partium*

Ab actu ad potentiam consequentia valet.

—Bayle, *Dictionnaire*

“The inference from what is actual to its possibility is always valid.”<sup>1</sup> What manner of claim is this? Like many bromides, it appears sweeping and profound, but really amounts to: ‘If something is real or has happened, then it must be possible for it to be real or to have happened.’ Even a child knows as much! No matter how exhaustively a parent explains that monsters do not and *cannot* live under a bed, the child has heard them, maybe even seen them, and thus knows they can.<sup>2</sup> Such a puerile bit of reasoning might

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<sup>1</sup> Bayle, *Dictionnaire*, art. Manichees, rem .D. This maxim, inverting the customary formulation, reasons *a esse ad posse*. It was employed by Bayle against optimists such as Spinoza and Leibniz who—either through the principle of plenitude (i.e. *a posse ad esse*) or through innovative distinctions between existence and actuality—denied both the reality and possibility of evil in the world. Thanks are due to Thomas Lennon for helping me track down this quote.

<sup>2</sup> While not a small child, Stephen LaBerge, one of the first psychologists to scientifically study the phenomenon of lucid dreaming, provides a useful example of the maxim: “In the late 1970’s, when I began my Ph.D. study on lucid dreams at Stanford, I found myself challenged by a seemingly...hopeless task: proving that lucid dreaming is real. The experts at the time were convinced that dreaming with consciousness that you were dreaming was a contradiction in terms and therefore impossible. Such

seem strange coming from the pen of any philosopher, much less one with the stature of Pierre Bayle—“the greatest master of the art of reasoning that ever wrote,” according to Voltaire.<sup>3</sup> Yet, this little bromide formed the touchstone of one of the greatest intellectual transformations in human history: the change between the philosophy of the ancients and the philosophy of the moderns.

### 1. Pagan Philosophy and the Metaphysics of Causation

The philosophy of the ancients—from metaphysics to epistemology to ethics—was dominated by a structurally rationalistic ontology which extended from a hypostatization of human rationality that was accepted *without exception*. This hypostatization amounted to a projection of human intelligence and reason onto Being as such, often to displacement of human and its own particular share. As Heraclitus condescends:

For though all things come into being in accordance with this [*logos*], men seem as if they had never met with it...But although the [*logos*] is universal, the majority live as if they had understanding peculiar to themselves.<sup>4</sup>

While Heraclitus identifies this *logos* not with the gods but with elemental fire,<sup>5</sup> the tendency of such thought in subsequent antiquity was in the direction of further personification and deification, culminating in the *anima mundi* of the Platonists and

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philosophical reasoning could not convince me, since I had experienced lucid dreams—impossible or not.” (*Exploring the World of Lucid Dreaming* (New York: Ballantine Books, 1991), 20)

<sup>3</sup> From Voltaire’s introduction to his *Poème sur le désastre de Lisbonne*.

<sup>4</sup> Frag. B1-2

<sup>5</sup> Frag. B30

Stoics,<sup>6</sup> or the *primum movens* of the Peripatetics. Perhaps the supreme expression of Hellenic rationalism comes not from any Greek philosopher, but from Euripides' *Trojan Women* and the "strange prayer" of Hecuba: "O thou base of the Earth, and thou that art enthroned above the Earth, whoever thou art, hard to know, Zeus, or Nature's Necessity, or Reason of Man, to thee do I pray; for all things mortal do thou lead aright along their silent path."<sup>7</sup> Here, in an expression of the syncretic tendency intrinsic to pagan religion, divine Zeus, Nature's immutability, and human comprehension are united in one invocation. Indeed, Hecuba's prayer offers a virtual panoptic of the Greek intellectual landscape of Euripides day, where the mythology of old competed and mingled with Ionian science, Sophist humanism, and Socratic teleology.<sup>8</sup>

Underlying all of these cosmologies was the assumption that human reason and the order of the universe are deeply connected if not coextensive, that the *cosmos* and Nature was itself *rational*, and that what was impossible to human reason was impossible to Nature—impossible absolutely. The most apparent and intractable manifestation of this assumption can be seen in nascent application of the principle of sufficient reason (i.e. that anything that happens must needs happen for a reason) to foundational questions in cosmology and physical ontology by Anaximander,<sup>9</sup> Parmenides,<sup>10</sup> Leucippus,<sup>11</sup> and

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<sup>6</sup> See *Timaeus*, 28a-30d; *D. L.* vii. 147

<sup>7</sup> *Trojan Women*, 886; qtd. By Greene, 194

<sup>8</sup> *Ibid.*

<sup>9</sup> As Aristotle notes in *De caelo*: "there are some, Anaximander, for instance, among the ancients, who say that the earth keeps its place because of its indifference. Motion upward and downward and sideways were all, they thought, equally inappropriate to that which is set at the centre and indifferently related to every extreme point; and to move in contrary directions at the same time was impossible: so it must needs remain still." (285b10-15)

Plato.<sup>12</sup> Such a principle, which stood as the font of Western philosophy and science from its very inception, remained utterly beyond question throughout the entirety of classical antiquity. The real was always the rational.

The metaphysical upshot of this hypostatization of human reason was the determinism that defined and largely consumed ancient philosophy. While the *logical* determinism (i.e. necessitarianism) of the Eleatics was highly contested, the *causal* determinism of Democritus was never meaningfully subject to question. Following his teacher, Democritus expunged chance, “generous but unreliable,”<sup>13</sup> from the metaphysics of causation, declaring that: “Men have fashioned an image of Chance as an excuse for their own stupidity.”<sup>14</sup> Everything that happens is an effect of a determinate cause; and thus chance is purely epistemic, referring to nothing more than our ignorance of this relation, which has no place in either physics or metaphysics. Such a view was essentially universal among the ancients. Aristotle relates as much in the *Physics* when, concerning “the necessary and its place in nature,” he says: “all writers ascribe things to this cause, arguing that since the hot and the cold and the like are of such and such a kind, therefore certain things *necessarily* are and come to be.”<sup>15</sup> Even the Epicureans, whose notorious

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<sup>10</sup> Parmenides argues for the eternity of ‘What Is’ by imploring the reader: “what creation of it will you look for? How, whence (*could it have*) sprung?...what necessity impelled it, if it did spring from Nothing, to be produced later or earlier.” (Frag. B8, Freeman, 43)

<sup>11</sup> The only extant fragment of Leucippius reads: “Nothing happens at random; everything happens out of reason and by necessity.” (Frag. B2, Freeman, 91)

<sup>12</sup> “If...there is something solid and evenly balanced at the center of the universe, it could not move to any of the extreme points, because these are all alike in all directions.” (*Timaeus*, 63a)

<sup>13</sup> Frag. B176

<sup>14</sup> Frag. B119

<sup>15</sup> 198b11-15

doctrine of the ‘swerve’ was grounded on a metaphysical supposition of chance and indeterminacy, nonetheless made no attempt to apply this principle (denounced by their opponents as a “childish fancy” [*ficta pueriliter*]<sup>16</sup>) to the metaphysics of causation.<sup>17</sup> The swerve never pretended to be anything more than the random dew-drops protecting the spider of purpose and morality<sup>18</sup> from snagging and becoming trapped in the great snare-web of causality;<sup>19</sup> its ethical mandate was studiously quarantined from infecting physics and was never granted any place in the Epicurean account of causality, much less their epistemology of causal explanation.<sup>20</sup>

Such was the topology of rationalist metaphysics, the best description of which I know of was provided by Alexander of Aphrodisias in his *De fato*. Being unable to improve upon it, I shall quote at length:

[T]hey say that this universe, which is one and contains in itself all that exists, and is organized by a Nature which is alive, rational and intelligent, possesses the organization of the things that are, which is eternal and progresses according to a certain sequence and order; the things which come to be first are causes for those after them, and in this way all things are bound together with one another. Nothing comes to be in the universe in such a way that there is not something else which follows it with no alternative and is attached to it as to a cause; nor, on the other hand, can any of the things which come to be subsequently be disconnected from the things which have come to be previously, so as not to follow some one of them as if bound to it. But everything which has come to be is followed by something else which of necessity depends on it as a cause, and everything which comes to be has something preceding it to which it is connected as a

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<sup>16</sup> Cicero, *De finibus*, i. 19

<sup>17</sup> Cicero, *De fato*, ix. 18. Cf. *De rerum natura*, 1.150, Alexander of Aphrodisias, *De fato*, 192.25.

<sup>18</sup> Nietzsche, *The Gay Science*, 594b

<sup>19</sup> *De rerum natura*, 2.253-260. Cf. *De fato*, x. 23. This restriction of the doctrine to the consideration of human volition was recognized even by Chrysippus. (See *De stoicorum repugnantiis*, 1045B)

<sup>20</sup> *De rerum natura*, 1.159-173; Philodemus, Col. 33-34

cause. For nothing either is or comes to be in the universe without a cause, because there is nothing of the things in it that is separated and disconnected from all the things that have preceded. For the universe would be torn apart and divided and not remain single for ever, organized according to a single order and organization, if any causeless motion were introduced; and it would be introduced, if all the things that are and come to be did not have causes which have come to be beforehand [and] which they follow of necessity...Fate itself, Nature, and the reason according to which the whole is organized, they assert to be God; it is present in all that is and comes to be, and in this way employs the individual nature of every thing for the organization of the whole.<sup>21</sup>

Here we have an almost perfect summary of the rationalist causal determinism that was to dominate philosophy for fifteen centuries.

That the ancients understood causality in such terms should not be particularly surprising given their conception of science and logic. As noted, the Greeks understood no fundamental (i.e. modal) distinction between human *logos* and cosmic *logos*. As such, logico-syllogistic axioms, extending from the law of non-contradiction itself, were understood to possess an *ontological significance* and foundation. Similarly, as Aristotle emphasizes, “understanding” was distinct from “opinion” insofar as it was a deductively constructed body of knowledge that concerned the “causes and the principles of things,”<sup>22</sup> and that which “is universal and through necessities, and that which is necessary cannot be otherwise.”<sup>23</sup> Thus, from understanding: “we see that neither does fire have the capacity for coldness in itself, nor snow that for blackness, nor the things that are heavy that for lightness.”<sup>24</sup> The upshot of the union of these various conceptions was precisely the identification of the relationship between cause and effect as an entailment relation.

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<sup>21</sup> *De fato*, 191.32-193.1

<sup>22</sup> *Metaphysics*, 981b25-32

<sup>23</sup> *Posterior Analytics*, 88b30

<sup>24</sup> *De anima libri mantissa*, xxiii. 184.15-18

This relation was demanded by the ‘bottom-up’ metaphysic of ancient science, as such a standard was understood to provide the necessary foundation *in re* required for science and demonstrative syllogisms as the ancients understood them.

It behooves me to concede at this early juncture that not all—or even most—scholars accept such an interpretation of the metaphysics of causation in antiquity, much less that one is able to speak in such sweeping terms given the extraordinary and vitriolic disagreement among philosophical schools spanning nearly a millennia.<sup>25</sup> Did not Aristotle explicitly claim that “among things which are, some are always in the same state and are of necessity...and some are not of necessity nor always, but for the most part”?<sup>26</sup> Richard Sorabji thus argues that causal determinism was an essentially Stoic invention, coextensive with Stoic necessitarianism and fatalism, which was not accepted by earlier thinkers such as Aristotle.<sup>27</sup> This is certainly a possibility, but only insofar as the extant Aristotelian corpus admits of no definitive answer. Later Peripatetic philosophers did explicitly describe causal relations as involving necessitation and Sorabji concedes as much, but he attributes this to the influence of the Stoic view.<sup>28</sup> If this be indeed the case, the Stoics might well be regarded as the most influential metaphysicians of all antiquity; for even their arch enemies, such as Carneades, conceded: “If everything takes place with antecedent causes, all events take place in a

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<sup>25</sup> One scholar in agreement with my position is Walter Ott. See Ott 2009, 20-32.

<sup>26</sup> *Metaphysics*, 1026b27-31; *Physics*, 196b10

<sup>27</sup> Sorabji 1980, 253 ff.

<sup>28</sup> Sorabji 1980, 254-255



closely knit web of natural interconnexon; if this is so, all things are caused by necessity;”<sup>29</sup>

Against this classification of causal determinism as a Stoic invention, I should like to make three points in defense of my generalized interpretation. First, Aristotle’s distinction in *Metaphysics*  $\Theta$  between rational and non-rational potentialities strongly implies the necessity of the latter. Aristotle says that:

[E]ach of those [powers] which are accompanied by reason is alike capable of contrary effects, but one non-rational power produces one effect; e.g. the hot is capable only of heating...[And] since...contraries do not occur in the same thing...what can heat [produces] only heat and what can cool only cold.<sup>30</sup>

While the issue at stake here is muddled with Aristotle’s causal ‘likeness principle’ (i.e. that like causes produce like effects), the notion that non-rational causes are limited to one distinct effect that they cannot but produce strongly implies a necessary connection; and this was notably the interpretation of the passage taken by Suárez, who concluded: “every faculty which altogether lacks the use of reason exercises its operations by natural necessity.”<sup>31</sup> Second, if one wishes to deny the above interpretation, one must answer the following: ‘If “what can heat” is not necessarily connected to heat as its effect, this entails that it could be present and active and yet its “one effect” be absent, or even its contrary present. But how could this be so?’ It is quite telling that wherever Aristotle or his scions attempt an answer to this question, or when they speak of an effect following

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<sup>29</sup> *De fato*, xiv. 31

<sup>30</sup> 1046b2-18

<sup>31</sup> *DM*, 19.1.12. Locke concurs with Suárez and Aristotle on this point, arguing that “Wherever thought is wholly wanting, or the power to act or forbear according to the direction of thought, there necessity takes place...Agents that have no thought, no volition at all, are in everything necessary agents.” (*Essay*, II. xxi. §13)

for a cause “more or less,” they *invariably* attribute such an outcome to the contravention of *other causal factors*,<sup>32</sup> and never to any ground-level ontic indeterminacy (i.e. that certain things happen or don’t happen *for no cause or reason at all*<sup>33</sup>). As Sarah Waterlow argues concerning ‘substantial natures’ as the irreducible unit of Aristotle’s model of causation: “the unity of a substance-expressing change that leads him to hold that any change in what diverges from some single typical tendency in a given direction represents nothing but interference.”<sup>34</sup> Lastly, while philosophers typically refrain from arguments from authority, Cicero is a mighty authority, and in describing the views of “the old philosophers” he relates “the opinion of those who deemed that everything takes place by fate in the sense that this fate exercises the force of necessity—the opinion to which Democritus, Heraclitus, Empedocles and *Aristotle* adhered.”<sup>35</sup>

This issue will be addressed extensively in later chapters; the point is: in addition to my overarching analysis concerning the ideogeny and history of causal skepticism, I also intent to provide a sustained defense of my interpretation of ancient causal metaphysics as *deterministic to its core without exception*. I will say at this juncture, though, that in the above quotation from *Metaphysics E* concerning those effects that come to be “for the most part,” Aristotle included a parenthetical caveat clarifying that the type of necessity he was denying was not “necessity in the sense of compulsion but that

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<sup>32</sup> For a particularly explicit statement of this requirement, see *DM*, 19.1.14

<sup>33</sup> From this formulation it is evident that upholding such causal indeterminacy requires an abrogation of the principle of sufficient reason.

<sup>34</sup> 1982, 33

<sup>35</sup> *De fato*, xvii. 39; emphasis added

which means the impossibility of being otherwise.”<sup>36</sup> From this it is evident that the notion of ‘necessity’ Aristotle was rejecting was not the necessity of the efficient cause, but rather the Megarian *necessitarian* conception coming from Diodorus Cronus which was predicated on a hard application of the principle of bivalence and held the necessary to be ‘that which cannot be otherwise’ (i.e. that the actual exhausts the possible).<sup>37</sup> This caveat is extremely important not just to my case, but because the notion of ‘necessity’ is remarkably variegated and, as will be seen, much of the incredible confusion circling the issue in the history of philosophy stemmed from a systemic failure to adequately understand and distinguish between various conceptions of ‘necessity.’ This failure inevitably fomented equivocation between, and conflation of, distinct notions of ‘necessity’ with each other.

To avoid repeating such an error, I shall distinguish between three different types of ‘necessity’ throughout this work: *existential necessity*, *causal necessity*, and *material necessity*. What I mean by ‘existential necessity’ is precisely the necessitarian conception of Diodorus Cronus, which holds that “nothing happens which was not necessary, and that whatever is possible is now or will be.”<sup>38</sup> The best example of this conception is the “The Reaper” *argos logos*<sup>39</sup> [‘golden argument’] which Zeno of Citium (a student of

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<sup>36</sup> *Metaphysics*, 1026b29

<sup>37</sup> See *De interpretatione*, 18a28-19a5

<sup>38</sup> Cicero, *De fato*, ix. 17

<sup>39</sup> Cicero, *De fato*, xii. 28

Diodorus’) allegedly purchased from an anonymous dialectician for two hundred drachmas.<sup>40</sup> Ammonius describes it thus:

‘If you reap,’ it says, ‘it is not the case that perhaps you will reap and perhaps you will not reap, but you will reap, whatever happens; and if you will not reap...whatever happens, you will not reap. But in fact, of necessity, either you will reap or you will not reap.’ Therefore the ‘perhaps’ has been destroyed...But the ‘perhaps’ was what introduced the contingent. Therefore, the contingent is gone.<sup>41</sup>

This is the notion of necessity Aristotle was criticizing and it should be obvious that *it has nothing to do with causality*, but with the bivalence of propositions and the definition of terms.<sup>42</sup> Indeed, Carneades rejected the argument on precisely these grounds, arguing that:

[I]t does not immediately follow from the fact that every statement is either true or false that there are immutable causes...that forbid anything to fall out otherwise than it will fall out...For it makes a great deal of difference whether a natural cause, existing from all eternity, renders future things true, or things that are going to be in the future can be understood to be true even without any natural eternity.<sup>43</sup>

This latter possibility is unintelligible insofar as the mere truth of a proposition (e.g. ‘Fabius will die at sea’) does not bring its existential conclusion about, causes do.<sup>44</sup>

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<sup>40</sup> *D.L.* vii. 25

<sup>41</sup> *In Aristotelis de interpretatione commentarius*, ix. 131,25-33. Ammonius identifies this argument as the “more verbal” sibling of the “more troubling” problem of divine foreknowledge. However, the reaper clearly concerns existential necessity, while the divine foreknowledge could be based on either existential or causal necessitarianism.

<sup>42</sup> See *De fato*, ix. 20

<sup>43</sup> *De fato*, xi. 28

<sup>44</sup> Chrysippus had already conceded this point to critics of Stoicism; he held that fate must follow causality (or *vice versa*), such that the true proposition and the antecedent causes that bring it about are “condestinate” [*confatalia*]. (*De fato*, xiii. 30) Similarly, Carneades asks the Stoics: “if a...chain of interlinked causes us not going to bring [an event] about, can it be true in any other manner?” (*De fato*, xii. 27) Yet Chrysippus had already—and perspicuously—noted that uncaused events violate the very principle of bivalence such considerations were grounded on: “If uncaused motion exists, it will not be the case that

This Megarian conception of necessity is very much distinct from what I term ‘*causal necessity*’ insofar as the latter refers to the *propositional* ‘necessary connection’ underlying causal relationships, i.e. ‘if  $\Phi$  then  $\Psi$ .’ The point of “The Reaper” is that the “if” is otiose:  $\Box (\Psi \vee \neg\Psi)$ . By contrast, the causal proposition means only that ‘ $\Psi$  necessarily follows *if*  $\Phi$ .’ Neither the existence or non-existence of  $\Psi$  is logically necessary, nor is the existence or non-existence of  $\Phi$ ; but rather, given  $\Phi$ ,  $\Psi$  *must* follow. These two notions of necessity were rampantly confused in ancient and medieval discussions and to avoid similar confusion I have endeavored to avoid the term ‘*logical necessity*’ as much as possible, given that such a designation could be coherently applied to both.<sup>45</sup> However, what I term ‘*causal necessity*’ is subject to similar confusion in that this term is sometimes used to signify a supposedly non-logical mode of necessitation understood to exist between physical causes and their effects. It is similar to the propositional view, but presumes to avow a type of “necessitation” in which, somehow, ‘ $\Phi \rightarrow \Psi$ ’ is compatible with ‘ $\Phi \Box \neg\Psi$ .’ This view I designate as ‘*material necessity*’ and, as will be seen, I reject its intelligibility, though not its possibility.<sup>46</sup>

Returning to the narrative at hand, the particular *cultural* latitude which permitted the conception of a determinist and autonomous natural order endemic to ancient philosophy was the deep ambiguity in Graeco-Roman religion as to the nature and extent of divine power. I say ‘ambiguity’ as I do not wish to suggest the notion of divine

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every proposition... is either true or false, for a thing not possessing efficient causes will be neither true nor false.”<sup>44</sup> (*De fato*, ix. 20)

<sup>45</sup> Writing against the “Megaric school,” Aristotle very lucidly disentangled the two conceptions in terms of “the possible,” but unfortunately failed to systematically pursue his insight to ‘the necessary.’ (See *Metaphysics*, 1047b3-14)

<sup>46</sup> Assuming the term ‘possibility’ retains any meaning under a notion of material necessity.

omnipotence was entirely allochthonous to the ancients. Homer declared that “all things gods can accomplish,”<sup>47</sup> and Epicharmus concurred: “Nothing escapes the divine: this you must realize. God himself is our overseer, and nothing is impossible for him.”<sup>48</sup> Similarly, in a remarkable late-antique dialogue spuriously attributed to both Plato and Lucian,<sup>49</sup> but presumably pagan in authorship, Chaerephon expresses skepticism over the existence of the halcyon bird, or at least its supposed effect on the weather; and “Socrates” upbraids him for such doubts concerning what is possible in Nature by appealing directly to the power of the gods:

My dearest Chaerephon, we men are but purblind judges of what is possible or impossible. For judging of such things we have nothing but our human faculties, which but too frequently can neither see, nor comprehend, nor believe....In a great many cases the fault may perhaps lie entirely in our inexperience; but very frequently it lies in the weakness and infancy of our understanding...Seeing now that we know so little of the powers of the gods and daemons, how, my dear friend, shall we be able to say, respecting objects of that nature, what is possible or impossible?...It is therefore reasonable to think, that a god, having very great powers, which are incomparably superior to ours, could execute all these things with the greatest ease....Seeing then the powers of the immortals are so great, how should such little and transitory creatures as we (who, far from being able to survey nature in the aggregate, even in what passes within the small sphere about us, are every moment in perplexity, and are obliged to confess our ignorance), how should we presume to decide peremptorily concerning halcyons and nightingales?<sup>50</sup>

As with Homer and Epicharmus’ asseverations, such views were common in Graeco-Roman religion *as pietisms*, but were never taken seriously *philosophically*: No ancient (pagan) philosopher of note ever dared to assert that the gods have the power to flaunt or

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<sup>47</sup> *Odyssey*, Bk. x. 302-306

<sup>48</sup> Frag. B23

<sup>49</sup> Diogenes Laertius says that, according to Favorinus, it is “the work of a certain Leon.” (*D.L.* iii. 62)

<sup>50</sup> *Halcyon seu de transformatione*, 421-423

circumvent the causal order essential to Nature itself. The likely reason for such reticence was that the issue was simply never forced by ancient pagan mythology. As evident in Galen's contrast between the demiurge of Plato and the God of Moses, the notion of divine omnipotence that was so central to the Jews was simply not to the pagans.<sup>51</sup> Even though the gods were said to be able to do anything, it was entirely unclear what that nebulous power entailed; and insofar as *almost nothing of religious importance hinged on such a capacity*, ancient philosophers—who were often aloof to the very existence of the gods—*never concerned themselves with the question*. Yet the exact opposite was the case in later philosophical traditions situated in a Judeo-Christian-Islamic cultural background.

Thus, as long as Yahweh remained the curious local deity of an obstinate Levantine people—or even if, following the death of Christ and the dispersal of his apostles, His cult spread to the gentile lower-classes across the Empire—His remarkable power posed no threat to the philosophical systems of the wider Mediterranean world. The Battle of the Milvian Bridge, which secured the political ascendancy of Christianity, was thus of almost incomprehensible macro-historical importance—and in terms of *intellectual* as well as political and religious history. In paving the way for a Christian Empire, Constantine and his loyalist legionaries paved the way for seminal developments in philosophy, science, and logic that—over the body of ancient metaphysics as much as the bodies of Maxentius and his men—laid the foundation for modernity itself.

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<sup>51</sup> This difference rests, of course, on the overarching difference between the oral and scattered tradition of pagan mythology, with the written and divinely codified tradition of Abrahamic Scripture.

## 2. Yet It Was Not Consumed

How did this come to pass? How did the spread of a cosmopolitan Judaism and the victory of the God of Moses check what had been the totem and greatest assumption of Western thought—one that extended from its very birth? To speak of ‘ancient philosophy’ is to speak in the broadest generalities of a remarkably acephalous tradition. Nonetheless, what modicum of orthodoxy remained beneath the squabbling acrimony of the ancient schools was separated by a gaping chasm from the founding dogmas of the Abrahamic Faith. Regardless of their intractable disagreements and *odium scholasticum*,<sup>52</sup> the schools of antiquity were united in agreement, or rather in disagreement, with the Jewish *creatio ex nihilo* cosmogony.<sup>53</sup> This was no idle quarrel but struck at the heart of ancient determinism. When Epicurus and his followers dared to propound the doctrine of the ‘swerve,’ they challenged the causal determinism on which the entire edifice of ancient metaphysics sat.<sup>54</sup> Yet while they upheld the doctrine morally,<sup>55</sup> they recoiled from it metaphysically: Lucretius stridently denied the possibility of creation or change *ex nihilo* even though his opponents uniformly agreed that this is precisely what an atomic ‘swerve’—as an uncaused disturbance in the order of nature—

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<sup>52</sup> The relations between the Epicureans and their critics are perhaps the best example. See *D.L.* x. 3-8 for a compendium of the charges leveled against Epicurus in antiquity, which include: sorcery, plagiarism, political flattery, fabrication of his Athenian citizenship, vapid hedonism and overindulgence, consorting with unsavory figures, as well as being a pitiful syphilitic in wretched health. For his own part, Epicurus was happy to return the barbs, notably describing Aristotle as a mercenary and a drug-dealer. Such was the charmingly contentious world of Greek academia.

<sup>53</sup> Even Epicharmus supposedly rejected the possibility, though the fragment is possibly a later forgery. (See Frag. B1)

<sup>54</sup> *De rerum natura*, ii. 217-222

<sup>55</sup> *De rerum natura*, ii. 251-260



represented.<sup>56</sup> Thus, for the ancients, the dictum *nihil fit sine causa* was simply a more precise reiteration of the dictum *nihil ex nihilo*. As Timaeus insisted, “everything that comes to be must of necessity come to be by the agency of some cause, for it is impossible for anything to come to be without a cause.”<sup>57</sup> From this requirement no exception was deemed possible.<sup>58</sup>

While Yahweh’s creation of the universe *ex nihilo* was His greatest miracle, and provoked the greatest incredulity and offence among his pagan detractors, the specific miracles of the Old Testament ultimately proved more pernicious to the ancient metaphysics of causation. Judaism and its scions were religions grounded on the miraculous activity of their one true God. God’s miracles not only demonstrated His power and supremacy, but were described in the Torah as directly responsible for the very survival of the Jewish people. All of the miracles attributed to God involved a break in the natural causal order; indeed, that was precisely what made them miraculous.<sup>59</sup> To Jews, Christians, and Muslims, then, the ancient philosophical model of causality—which flatly rejected the possibility of any disorderly break in the order of nature<sup>60</sup>—posed an existential threat to the very foundation of their Faith.

What was the precise nature of this threat? As Dostoyevsky’s narrator in *Notes from the Underground* declares:

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<sup>56</sup> *De rerum natura*, 1.159-173, *De fato*, x. 22, *De finibus*, i. 19, *De animae procreatione in Timaeo*, 1015c, Alexander of Aphrodisias, *De fato*, 192.25

<sup>57</sup> *Timaeus*, 28a

<sup>58</sup> Parmenides, Frag. B8, B9; Melissus of Samos, Frag. B1; Empedocles, Frag. B9, 1b2; Aristotle, *Physics*, 18a27; Epicurus, *D.L.* x. 38.

<sup>59</sup> *Adversus Marcionem*, 3.13

<sup>60</sup> *Physics*, 252a10-12

The impossible means the stone wall! What stone wall? Why, of course, the laws of nature, the deductions of natural science, mathematics...you have just to accept it, there is no help for it, for twice two is a law of mathematics...Nature does not ask your permission, she has nothing to do with your wishes, and whether you like her laws or dislike them, you are bound to accept her as she is, and consequently all her conclusions. A wall, you see, is a wall...<sup>61</sup>

If causes necessitate their effects, any violation of the normal causal order thereby involves a formal logical contradiction. Along these lines, with Russian literature being apropos, Turgenev thus laments: “Whatever a man prays for, he prays for a miracle. Every prayer reduces itself to this: Great God, grant that twice two be not four.”<sup>62</sup> If God possessed such a power, viz. to do the impossible, then the existence of miracles within a deterministic causal order would not pose a problem. Yet, such an interpretation of the divine omnipotence was strongly resisted by almost every major theologian of the Abrahamic tradition and the overwhelmingly orthodox conception of the limits of God’s power was identified as coextensive with the logically possible.<sup>63</sup> Origen, for example, insists: “We...do not betake ourselves to a most absurd refuge, saying that with God *all* things are possible; for we know how to understand this word “*all*” as not referring either to things that are “*non-existent*” or that are inconceivable.”<sup>64</sup> This point was repeated

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<sup>61</sup> Pt. 1 Ch. 3

<sup>62</sup> “Prayer,” *Poems in Prose*.

<sup>63</sup> Whereas Descartes had maintained a radical theological voluntarism, such an extreme view of God’s power was not shared by the occasionalists. Even though, in their critique of Aristotelian determinism, the occasionalists had undermined many of the constraints placed on the divine omnipotence by Scholastic intellectualism, *all* remained committed to the supposition that God was bound by the law of contradiction. See Malebranche, *Dialouges*, VII.6, 153, for an explication of this.

<sup>64</sup> *Contra Celsum*, 5.23

eight centuries later by al-Ghazali: “No one has power over the Impossible. [But]...that which is not impossible is within [God’s] power.”<sup>65</sup>

Under such a *logical* limitation, the threat of ancient metaphysics crystalizes: If God created a world dominated by an inviolable order of causes and effects, then His Creation would ultimately transcend Him, and He would be unable to act within it, unable to *willfully* effect the very miracles that form the basis of His worship. On this point Plotinus is clear:

[S]ince all is one and belongs to one, one thing can be known from another, the cause from what is caused and the consequence from the antecedent...because the rational principle of the universe composes one part and another together. If this argument is correct...[that] coming from the gods...is not [from] their deliberate choices...but all that comes from above happens by natural necessity...as consequences of the life of the one universe.<sup>66</sup>

In the third century, the divestment of *choice* and *will* from the Divinity was a well-established principle among the philosophers of the Academy and the Stoa, much less of the Garden. Yet, two and a half centuries later, Boethius recoiled:

[I]f any says that everything happens necessarily, it is necessary also that he rob God of benevolence; for [in that case] his good will produces nothing, since necessity governs all things, with the result that it is somehow of God’s necessity that he confers benefits, and not of his own will. For if some things happen of his own will, in such a way that he is confined by no necessity, then not all things occur necessarily.<sup>67</sup>

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<sup>65</sup> *Tahafut*, 194

<sup>66</sup> *Enneads*, iv. 4.39.20-28

<sup>67</sup> *Commentarius in de interpretatione*, ix. 226,14-20

In a perfect emblem marking the transition of philosophy from its ancient ratiocentric to its medieval theocentric form, Boethius deemed this theological consideration as of-itself sufficient to refute the doctrine.

This, then, returns us to Bayle's maxim: "The inference from what is actual to its possibility is always valid." While Spinoza caustically denounced appeals to "the will of God" as "the sanctuary of ignorance,"<sup>68</sup> the miracles attested to in Holy Scripture were regarded by non-heretical members of the Abrahamic Faith as *facts*: they were the absolute, divinely certified, historical record of actual events. One such event comes in Exodus 3:2, where, when crossing the Sinai, Moses encounters a burning bush. On the relation between burning and burned, the ancient account of causality is clear: When a substance burns it is thereby consumed. That is to say: burning as cause *entails* consumption as effect; and yet, as the Vulgate relates: *nec tamen consumebatur*. Following 'Bayle's maxim,' as the burning of the bush *sans* its consumption actually happened, it must therefore be possible for something to burn without being consumed, and thus the traditional conception of the metaphysics of causation inherited from Graeco-Roman philosophy *cannot be correct*.

The initial response of Christian theologians to the metaphysics of miracles was mysticism and an insistence on the fact *je sais pas comment*. Aside from Tertullian's notorious misology,<sup>69</sup> Hilary of Poitiers provides a good example:

[W]hen water was made wine, and five loaves satisfied five thousand men...we see a fact though we cannot understand it; a deed is done though

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<sup>68</sup> *Ethics*, Bk. III, Appendix, 241

<sup>69</sup> For the most famous example, see *De carne Christi*, §5

it baffles our reason; the process cannot be followed, though the result is obvious. It is folly to intrude in the spirit of carping, when the matter into which we enquire is such that we cannot probe it to the bottom... [Thus,] when we doubt and criticize the mysteries and powers of God... all the while there has been confronting us the evidence of works done to assure us that God's action is not limited by our power of comprehending His methods.<sup>70</sup>

Yet, as the initial hostility between Abrahamic monotheism and pagan philosophy wore off, when paganism ceased to pose any serious *social* threat to Christianity, what might be called ‘*the philosophical question*’ of Abrahamic theology beckoned for an answer.

While theological considerations forced ‘the philosophical question,’ viz. ‘How are miracles possible?’, any meaningful answer to it was necessarily dialectical; and would thus have to stand on its own outside of any theological presuppositions. Moreover, the concession that God cannot do the impossible puts the onus on the theist and believer in miracles to explain how such syncopations of the natural order are possible to begin with; for God’s capacity to effect miracles is dependent on their underlying possibility, and not *vice versa*.<sup>71</sup> As Steven Nadler perspicaciously points out:

If God *can* bring about some sequence of events (say A followed by not-B) contrary to the usual course of nature, this is only because that sequence is, in itself and independently of God’s power, logically possible... Any appeals to the possibility of miraculous divine intervention, or to what order God *could* have originally instituted, are superfluous to this argument.<sup>72</sup>

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<sup>70</sup> *De trinitate*, iii. 18

<sup>71</sup> Cf. Plato’s claim concerning the genesis of the world: “The god wanted everything to be good and nothing to be bad *so far as that was possible*, and so he took over all that was visible... and brought it from a state of disorder to one of order.” (*Timaeus*, 30a; emphasis added) Here Plato clearly constrains the activity of “the god” to the possible.

<sup>72</sup> Nadler 1996, 457-8

The defense of Abrahamic theology required an answer to ‘the philosophical question’ underlying the miraculous testimony of Scripture; which in turn required a *philosophical* critique of causal determinism. That is to say, it required the believer to do philosophy—critical analytic philosophy—and thereby defeat the ancient philosophers at their own game. Thus, the point forced by ‘Bayle’s maxim’ was turned completely around: *the actual must be possible*—and it was up to the believer to explain how. In this way the Abrahamic critique of causation was fully compatible with the later secular critique most commonly associated with Hume.<sup>73</sup>

### 3. The Marionette World

In attempting a response to ‘the philosophical question,’ theologians of the Abrahamic religions advanced three distinct metaphysical positions to account for the ongoing causal relation between Creator and Creation. All of these assumed—studiously avoiding the pagan conception of an autonomous natural order—that God’s continual activity was needed to preserve creation, but disagreed as to the extent and means by which this preservation was effected:

- 1) Conservationism—God creates the world in the beginning but after this initial act His causal activity is effectively exhausted in his continual existential preservation of the world, which thus operates semi-autonomously and on the

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<sup>73</sup> As J. R. Milton notes: “It might be supposed that Hume’s atheism would have lead him to reject the voluntarist arguments against necessary connections which had relied for their force on the doctrine of divine omnipotence. In fact the conclusions survived, and the arguments were adapted with God being replaced by the human imagination.” (Milton 1987, 69)

basis of the causal powers of the created agents therein, who thus produce their effects alone and unaided.

- 2) Concurrentism—God creates the world in the beginning and continually preserves it in existence, but also retains His status as the continual efficient cause of the world by actively “concurring” with the activity of created agents therein, who thus actively contribute to the production of their effects. Yet, He is capable of both withholding his concurrence, thereby rendering natural agents impotent, as well as producing their effects alone without any natural agent at all.
- 3) Occasionalism—God creates the world in the beginning and preserves it by continually recreating it *ex nihilo*, the upshot of which is that He is the *sole* efficient cause and created “agents” contribute nothing to the production of their effects, but merely serve as the token occasions for the divine cause to act under His global causal aegis.

A strictly mechanistic metaphysics, by which God creates the world and the causal order which governs it, then promptly absconds, leaving Nature to govern herself, was never taken seriously in the Abrahamic tradition as it stood so obviously askance from the depictions of God in Scripture and the testimony of the Prophets. Conservationism was similarly implicated and, with very few exceptions, was never seriously maintained beyond late-antiquity. Thus, for philosophers and theologians of the medieval and early-modern periods, the metaphysics of causation came down to a dispute between concurrentism and strict occasionalism.

Finding its inception in the thought of Augustine, concurrentism was the initial (and extremely influential) response to ‘the philosophical question.’<sup>74</sup> Yet, while concurrentism saved the appearances and—in support of the great intellectual project of late-antiquity—served to mediate between Christian theology with pagan philosophy, like many middle-positions, it was overcome by severe difficulties. One of the most distinctive features of the Hebrew religion is its insistence—repeated almost *ad nauseum* in the Old Testament—that God alone was (and *remains*) directly responsible for creating *everything*. In the Abrahamic religions, God alone possesses the power of creation—a *capacity that is not bestowed upon His creatures*. This stands in marked contrast to the theogonies and cosmogonies of pagan religious traditions, which almost invariably describe a succession of creations from successively created agents. For example, consider the Babylonian “Legend of the Worm”:

After Anu<sup>75</sup> [had created the Heavens],  
The Heavens created [the Earth],  
The Earth created the Rivers  
The Rivers created the Canals,  
The Canals created the Marshes,  
The Marshes created the Worm.<sup>76</sup>

Contrast this pyramid of secondary creation—much less an active and self-possessed natural order—with the boasts of Yahweh presented in the Hebrew Bible:

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<sup>74</sup> See *De genesi ad litteram*, ix. 17

<sup>75</sup> Anu was the king of gods in Sumerian mythology.

<sup>76</sup> R. Campbell Thompson, *Devils and Evil Spirits of Babylonia*, vol. 1, lxiii-lxiv



Have you ever in your life commanded the morning, or made the dawn know its place, that it might seize the corners of the earth, and shake the wicked out of it?

Who carves out a channel for the heavy rains, and a path for the rumble of thunder, to cause it to rain on an uninhabited land, a desert where there are no human beings, to satisfy a devastate and desolate land, and to cause it to sprout with vegetation?

Do you hunt prey for the lioness and satisfy the appetite of the lions, when they crouch in their dens, when they wait in ambush in the thicket? Who prepares prey for the raven, when its young cry out to God and wander about for lack of food?<sup>77</sup>

Similarly, Isaiah says: “Oh Lord, you make us secure, for even all we have accomplished, you have done for us.”<sup>78</sup> And Paul notes that, of all good works, “there are different results, but the same God who produces all of them in everyone.”<sup>79</sup>

Moreover, as Henry Wheeler Robinson notes: “The Hebrew vocabulary includes no word equivalent to our term ‘Nature’... The only way to render this idea into Hebrew would be to say simply ‘God.’”<sup>80</sup> This theogonic reduction of ‘Nature’ also claims a toll on the contradistinctive notion of ‘miracle,’ such that, as Robinson claims:

Any attempt to classify the Nature-miracles [of the Old Testament] statistically as supernatural events would be futile, if not impossible. We should have to include ordinary rain amongst the ‘miracles,’ whilst angelic visitation or possession by good or evil spirits is a normal explanation of certain physical or psychical phenomena.<sup>81</sup>

This is no exaggeration, for the God of the Old Testament is routinely described as intimately involved in and directly responsible for an entire host of phenomena:

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<sup>77</sup> Job 38:12-41

<sup>78</sup> Isaiah 26:12

<sup>79</sup> 1 Corinthians 12:6

<sup>80</sup> *Inspiration and Revelation in the Old Testament*, 1

<sup>81</sup> *Ibid.*, 34

He makes the clouds rise from the far-off horizons.

He makes the lightning flash out in the midst of the rain.

He unleashes the wind from the places where he stores it.<sup>82</sup>

As noted, the supreme miracle of the Abrahamic Faith is God's creation of the world from nothing; yet in Genesis there is extraordinarily little attention paid to or emphasis placed on this marvel, or on nature miracles in general. God so dominates and steers the supposed "natural" events of the world that effectively "all nature is miraculous."<sup>83</sup> To see the matter otherwise, to believe in an autonomous natural order, is to fall in with the "idolaters" who worshipped that order,<sup>84</sup> forgetting that it was only the *effect* of its Master's will.

Thus, in spite of Augustine's guidance, Abrahamic theology was nonetheless internally inclined towards an occasionalist philosophy—perhaps irrevocably so. The ancients had warned that without fate or necessity guiding the "ordered sequence" of natural (i.e. secondary) causes, the great edifice of Nature would collapse at its base.<sup>85</sup> This consequence the occasionalists gladly accepted, as for them the 'Nature' of the ancients provided only fetters to God's freedom and the temptations of idolatry. Malebranche thus averred that: "The most enlightened, and even the greatest number, of theologians, [saw]...that Sacred

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<sup>82</sup> Jer 10:13 See also Psalms 147:9-18

<sup>83</sup> Grant, 157

<sup>84</sup> Jer 10:13

<sup>85</sup> *De anima libri mantissa*, xxv. 181.12-25; *D.L.* vii. 148-149

Scripture opposed the efficacy of secondary causes.<sup>86</sup> In opposition to such secondary causes, Malebranche provided the occasionalist response: “there is only one true cause because there is only one true God; that the nature or power of each thing is nothing but the will of God; that all natural causes are no *true* causes but only *occasional* causes.”<sup>87</sup>

So much, then, for the impetus of occasionalism as a metaphysic; but what is an occasional cause? Arnauld and Nicole give the example of an open window being the occasional cause of the illumination of a room, where the sun is, of course, the “proper” cause here with the unshuttered window being “only a cause or condition without which the effect would not take place.”<sup>88</sup> This example is helpful, but somewhat misleading insofar as it is not the window that is the occasional cause of the light passing through it, but rather the *act* of unshuttering it. The best example of an occasional cause that I have been able to come up with—*sans* speculative theology anyway—is a placebo: a designation that could be applied to almost anything, but is understood as such insofar as it serves as the “cause” of the placebo effect. Yet, as has been noted in clinical analyses of the placebo effect, this causal conception is erroneous insofar as a placebo is an inert compound or pointless procedure that doesn’t actually cause anything, much less

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<sup>86</sup> *Recherche*, 676-677. This is not as obvious as Malebranche presents it. Gassendi, for instance, regarded occasionalism as contrary to Scripture, citing Genesis 1:11-12 where, at the behest of God’s command: “The land produced vegetation – plants yielding seeds according to their kinds, and trees bearing fruit with seed in it according to their kinds.” This, Gassendi thinks, presents a clear Scriptural commitment to secondary causality operant in Creatures. (*Syntagma*, 1.493a)

<sup>87</sup> *Recherche*, 448

<sup>88</sup> *Logique de Port-Royal*, 240

its salutary effect.<sup>89</sup> Nonetheless, without the presence and administration of the placebo, the effect would not follow; and thus a placebo may be understood as an occasional or *sine qua non* cause of whatever underlying psycho-physical causality that produces the effect.

How does this model of causation play out as a metaphysic? Antoine Rochon, a scholastic critic of Cartesianism, provides an ‘etic’ and incredulous—but nonetheless accurate—explanation:

[They say that] when we see that a cannonball from a cannon is carried with violence against a wall, we imagine that the ruin which follows in the wall is caused by the cannonball, but we are clumsily mistaken. It is neither the cannon, nor the powder, nor the cannonball, nor the machine, nor the man, nor an angel, nor any creature imaginable which is capable of shaking a tiny cottage. It is God alone who, on the occasion of the firing, shoots the cannonball and who, on the occasion of the bullet firing, collapses the wall, which would otherwise remain steady. Likewise, when we want to wiggle a finger, and when that finger wiggles, we think that it is we in effect who wiggle it; but it is an error which wrongs the sovereign domain of God. It is in no way we who wiggle the finger; all created forces are insufficient for that. It is God alone who, following the resolution which he made in the beginning, at the occasion of the act of our will, himself produces this movement in our finger. In a word, it is God who causes all the movements which occur in the world, and all which creatures do is serve God as the occasion for his executing what he resolved to do in such and such circumstances.<sup>90</sup>

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<sup>89</sup> Irenaeus justifies this connection by appeal to the claim made in Luke 18:27, that “the things which are impossible to men are possible to God.” A similar identification is made by Theophilus of Antioch, (*Apologia ad Autolyicum*, 2.13) also writing in the late second century, again in the third and fourth centuries by Lactantius (*Divinarum Institutionum*, 2.9) and Zeno of Verona (*Tractatus*, 1.7.1-3), before being codified by Augustine, who argues that if God is almighty, “it becomes matter of course that [one] must also acknowledge that He made out of nothing the things which He did make. For, granting that He is almighty, there cannot exist anything of which He should not be the Creator. (*De fide et symbolo*, 2.2) Other Church Fathers who explicitly upheld the *ex nihilo* doctrine include: Ambrose, Athanasius, Basil of Caesarea, Clement of Alexandria, Ephrem the Syrian, John Chrysostom, Lactantius, Minucius Felix, and Victorinus of Poetovio.

<sup>90</sup> This summary came in letter sent, anonymously but presumably by Rochon, to Robert Desgabets in 1672—two years before Malebranche’s *Recherche* was published. See Rochon, A. *Lettre d’un philosophe à un cartésienne des ses amis*. Paris: Thomas Jolley, 1672, 83-4. It is worth nothing that Malebranche was

Such is occasionalism: a ludicrous doctrine entailing an even more ludicrous theocentric metaphysic that, in terms of causal explanation, seems to offer an absolute exemplar of an *obscurum per obscurius*; but, as I shall maintain, this strange philosophy was to be of absolutely decisive importance in the history of philosophy.

#### 4. Thesis of the Dissertation

In narratives of the history of philosophy, the Hellenic tradition is typically regarded as being not only of paramount, but moreover of definitive importance: philosophy itself is defined with the intellectual project *of*—rather than *begun in*—ancient Hellas. Following such a definition, the narrative inevitably proceeds to the descent of “philosophy” in the Hellenistic and Roman era from the lofty perches where Plato and Aristotle had left it, until ending in its complete disappearance in late-antiquity and the Middle Ages with the political ascendancy of Christianity and Islam. These latter traditions are customarily depreciated by historians as intrinsically anti-intellectual, superstitious, fervently fundamentalist, and even misologist. I reject this historical and interpretive chauvinism insofar as one of the most important philosophical advances in Western intellectual history, viz. the critique of causal determinism, traces its origins almost entirely within the Abrahamic religious tradition. The ramifications of this critique were profound, ultimately culminating in defining hallmarks of modern *logic*, *epistemology*, and *science*.

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likely aware of Rochon and his critique of occasionalism as he possessed a copy of the *Lettre* in his library. (See the inventory of Malebranche’s library in *OM*, vol. XX, 234-251)

In attempting to answer ‘the philosophical question’ underlying their theology, Abrahamic philosophers were driven to seminal developments in logic that liberated it from the ontological undercarriage to which it had been bound in antiquity. If miracles were to be accounted for, the notion of ‘contradiction’ could not be understood *causally* as it was by Plato: “It is obvious that the same thing will not be willing to do or undergo opposites in the same part of itself, in relation to the same thing, at the same time;”<sup>91</sup> or by Aristotle, who essentially repeated Plato’s conception and tied it to the notion of “a privation of substance” or “the denial of a predicate to a determinate genus.”<sup>92</sup> In challenging such a conception of contradiction, the Abrahamic philosophical tradition led not only to the modern modal formulation of the law, but also to modern notions of necessity, contingency, and possibility—all freed from the fetters of Nature or ontology.

In attacking the vincular necessity between cause and effect, Abrahamic philosophers also thereby challenged the deductivist model of causal explanation that largely dominated ancient natural philosophy. This line of critique had three fundamental upshots. First, by the thirteenth century and the development of Latin nominalism—borne largely as a counter to the unacceptable constraints placed on the divine omnipotence by Aristotelian scholasticism—it served as the impetus and foundation of a rigorous empiricist epistemology that had been almost completely absent among the schools of antiquity. This in turn was connected to developments that had their roots in antiquity, such as the problem of induction, but waited to be fully cashed out until the late-medieval and early-modern period. Second, the critique of causal determinism was implicitly a

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<sup>91</sup> *Republic*, 436b

<sup>92</sup> *Metaphysics*, 1011b17-20

critique of the hermetic union between *logos* and *physis*, Nature and Reason, so broadly assumed by the ancients.<sup>93</sup> This line of critique ultimately led to the central and defining problem of modern philosophy—that concerning the adequacy of the human faculties to represent and thus comprehend the natural world in-itself.

Lastly, it was this nascent critique of causation that drove the attack on neo-Platonic and Aristotelian metaphysics, the causal models of which had dominated human efforts to understand and explain the operations of Nature since antiquity. By the early seventeenth-century, the empiricist and anti-metaphysical epistemology developed in the Late Middle Ages in service of theological concerns burst out of its religious vessel, and in doing so formed the basis of modern scientific empiricism. Such an understanding directly challenges the traditional narratives of the history of science that proceed directly from Aristotle to Bacon, completely ignoring the eighteen-century interregnum between them, as well as the debt Western scientific thought owes to Western religious thought.

Thus, while occasionalism and the critique of causation underlying it began in service of religious fundamentalism, it culminated, with Hume and Newton, into modern philosophy of science. This thesis should be shocking. Thales is credited as the father of Science insofar as he posited that natural events could be explained through natural causes rather than, immediately or mediately, by the activity and machinations of the gods. It is thus an astonishing irony that modern science owes its genesis to an intellectual tradition that denied and reversed this posit in the most strident of terms. Yet, with Laplace's declaration to Napoleon (much less his 'demon'), this intellectual tradition

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<sup>93</sup> Which in the Christian tradition was transmuted into the maxim that, as Aquinas puts it: "God cannot act against the principles of reason." (*De potentia Dei*, q.6, a.1)

and the destruction of ancient philosophy it accomplished had come full circle, thereby concealing itself and its role in history.



## CHAPTER II

### HUME AND THE DENOUEMENT OF MODERN PHILOSOPHY

There is no question, which on account of its importance, as well as difficulty, has caus'd more disputes both among ancient and modern philosophers, than this concerning the efficacy of causes, or that quality which made them be followed by their effects.

— Hume, *A Treatise of Human Nature*

[N]ature 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.”

—Hume, *Enquiry Concerning Human Understanding*

#### 1. Introduction

In many ways, David Hume's *A Treatise of Human Nature* represents the culmination of modern philosophy, at least insofar as the skeptical epistemology therein can be roughly described as Descartes *sans Dieu*. It was Descartes who, in his *Meditationes*, bisected human episteme into the domains of ideas and matters of fact, which shared no connection save through the slender thread of the divine guarantee—a fetter Hume proceeded to cut. This scission was made by Hume's relentless pursuit of three interlinked programs:

- 1) The development of an empiricist epistemology that had been progressively radicalized by a half century of innovations since Locke's publication of *An Essay Concerning Human Understanding*.

- 2) The advancement of a centuries old occasionalist critique of causal explanation and associated doctrines stripped of their theological underpinnings and permuted within the strictures of the above epistemology.
- 3) The adumbration of a philosophy of mind that sought to rescind Descartes' exemption of human consciousness and ratiocination from his mechanistic natural philosophy.<sup>1</sup>

The progeny of the first program has been well appreciated since the nineteenth-century. The second program has witnessed a scholarly renaissance since the 1980's, but remains largely unknown outside scholarly circles in early-modern philosophy. The third program remains significantly less appreciated still, though in many ways Hume's entire philosophy is directed towards it.<sup>2</sup>

In this chapter one shall attempt to elucidate Hume's famous critique of causation primarily in terms of these latter two programs, both examining Hume's debts to earlier philosophers, as well as framing Hume's critique in terms that will make the subsequent chapters, which focus on the earlier history of causal skepticism, more easily relatable and comprehensible to a reader with an understanding of Hume, but not of Islamic or Cartesian occasionalism or medieval nominalism.

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<sup>1</sup> This extension of Cartesian mechanistic physics to a mechanistic psychology was first suggested by Descartes himself in the *Traité de l'homme*; upon which Claude Clerselier remarks in his preface to the 1664 publication: "Did it ever happen to you, as it did to me, that whilst reciting your prayers you did not pay attention to what you were saying, but that you still continues to say your prayers instantly without failing, much better in fact than if you had paid a lot of attention to it? This shows that it is only the mainspring of the machine that unwinds itself and slackens its cord."

<sup>2</sup> See Wright, 1983.

As a rough outline of his empiricist epistemology, Hume begins from a ground-level distinction between impressions and ideas, maintains that the latter are derived exclusively from the former, and that they vary from them only in terms of the “force and liveliness with which they strike upon the mind.”<sup>3</sup> Impressions gleaned from direct experience form the standard of vivacity, while the simple ideas they generate are presented by the memory and are distinguishable from them by their desiccated nature, where “The most lively thought is still inferior to the dullest sensation.”<sup>4</sup> These simple ideas presented by the memory can be combined into complex ideas in a near infinite number of ways by the imagination, which are in turn distinguishable from impressions and memories by their further diminishment in vivacity.<sup>5</sup> By comparing related simple or complex ideas, the imagination can abstract further ideas from simple ideas, which are devoid of all vivacity.<sup>6</sup> This exiguity is due to the fact that, while ultimately originating from impressions, these abstract ideas do not call forth any particular impression and thus lack the intrinsic phenomenal content of the simple ideas of the memory, or the complex ideas of the imagination.<sup>7</sup> This is because such abstract ideas are only *ideas of relation* between corresponding simple or complex ideas.

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<sup>3</sup> *Treatise*, 1 ff.

<sup>4</sup> *Enquiry*, 11

<sup>5</sup> *Treatise*, 8 ff.

<sup>6</sup> *Treatise*, 34. It is on this point that Hume breaks with Berkeley. (17)

<sup>7</sup> For example, one cannot think of a duck’s quack without some aural instance of it being brought to the mind. Similarly, one cannot entertain the idea of a green unicorn without forming some particular visual conception of it corresponding to possible experience. Conversely, one can think about time, as an abstract idea, without any such particular conception of possible experience.

Hume divides the “sources of all philosophical relation” implicit to human experience into seven categories: 1. Resemblance, 2. Identity, 3. Space and Time, 4. Quantity, 5. Quality, 6. Contrariety, 7. Causation.<sup>8</sup> Hume notes that these philosophical relations “may be divided into two classes; into such as depend entirely on the ideas, which we compare together, and such as may be chang’d without any change in the ideas.”<sup>9</sup> The first class are simple, “discoverable at first sight,” and latent in our experience, which includes “resemblance, contrariety, degrees in quality, and proportions in quantity of number,”<sup>10</sup> all of which Hume describes as “more properly under the province of intuition.”<sup>11</sup> The second class of ideas are complex and arise only in the comparison of certain ideas and includes “identity, the situations in time and place, and causation”<sup>12</sup> all of which are distinct from the data of experience (i.e. impressions) and thus *purely relational*. Hume’s investigation into the origin and application of this latter class of ideas is the fundamental concern of Book I of the *Treatise*.

It’s worth noting at this juncture that, upon considering this latter class of relational ideas, Hume ultimately concludes that each is rationally warrantless and supported only by a combination of habituation provided from senses, along with and undergirded by a certain natural instinct derived from the mechanical activity of the mind. The most famous relation to be deconstructed by Hume in such a fashion was the last: causation.

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<sup>8</sup> *Treatise*, 14-15

<sup>9</sup> *Treatise*, 69

<sup>10</sup> *Treatise*, 70

<sup>11</sup> *Treatise*, 70

<sup>12</sup> *Treatise*, 73

## 2. Hume's Critique of Causation

Hume's analysis of causation is based on four negative epistemological principles:

- 1) We cannot experience causal connections directly, i.e., *causation is not a phenomenon.*
- 2) We cannot infer causal connections on the basis of 'forces' or 'powers,' i.e., *causal judgments cannot follow from a metaphysical insight into the properties of things.*
- 3) We cannot infer causal connections on the basis of past experience, i.e., *causal judgments cannot follow as the conclusion of an inductive argument.*
- 4) We cannot deduce causal connections on the basis of a 'necessary connection,' i.e., *causal judgments cannot follow as the conclusion of a deductive argument.*

None of these four principles were original to Hume, but each had extensive histories that will be examined in subsequent chapters. However, Hume's influence lies in the fact that he provided the most extensive argument in support of said principles, linked them together into a systematic critique, and also imbedded them within a highly influential empiricist epistemology. I shall endeavor to explain Hume's reasoning as well as some of the attendant history behind each principle before turning to Hume's own positive thesis on causation.

1) *We cannot experience causal connections directly.*

Plato was the first to question the empiricity of causality, noting that “we see (*or think we see*) the thing that we have just now been calling water condensing and turning to stones and earth...In this way, then, they [and the other elements] transmit their coming to be one to the other in a cycle, *or so it seems*.”<sup>13</sup> Hume’s own reasoning behind this skepticism is straightforward and has been widely appealed to since at least the early eleventh-century, when al-Baqillani, an Ash’arite Islamic theologian, argued that we never actually observe causation or causal powers, but only the temporal congruence of regular changes in state.<sup>14</sup> Such was the force of al-Baqillani’s insight that the point was even accepted by his arch-opponent among the rationalist ‘Philosophers,’ Avicenna, who concedes that, “As for sensation, it leads only to concomitance.”<sup>15</sup> This argument of al-Baqillani’s is developed by Hume within the framework of his empiricist epistemology. He notes that “All kinds of reasoning consist in nothing but a *comparison*, and a discovery of those relations, either constant or inconstant, which two or more objects bear to each other.”<sup>16</sup> Given that no survey of the qualities of an object itself suffices to provide us with an understanding of its effect on anything, much less its complete range of effects on everything, Hume concludes that the idea “of causation must be deriv’d from some *relation* among objects.”<sup>17</sup> However, Hume is adamant that such a relation is nowhere evident in the content of experience:

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<sup>13</sup> *Timaeus*, 49c; emphasis added.

<sup>14</sup> McGinnis, 35. This particular argument is implied in by Aenesidemus and Sextus Empiricus, but was never explicitly advanced in antiquity.

<sup>15</sup> *al-Ilahiyyat*, 1.1.16, 6

<sup>16</sup> *Treatise*, 73

<sup>17</sup> *Treatise*, 75

Let us therefore case our eye on any two objects, which we call cause and effect...Motion in one body is regarded upon impulse as the cause of motion in another. When we consider these objects with the utmost attention, we find only that the one body approaches the other; and that the motion of it precedes that of the other but without any sensible interval.<sup>18</sup>

Nowhere do we perceive the causal relation between the motion of one body and the motion of the other, but only their temporal conjunction and succession.

Many philosophers, before and after Hume, have taken issue with this claim and insisted that we do, in fact, and in one way or another *see* causation taking place. As Hume himself says: “When both the objects are present to the senses along with the relation, we call *this* perception rather than reasoning.”<sup>19</sup> They concur here and claim, *pace* Hume’s division of relations, that causality is indeed a relation present to the sense along with its objects. Yet, caution is required here, for to claim that one can ‘see’ the casual connection between two events demands an epistemological account rather than a phenomenological asseveration. For Hume, a purely empirical account of causal connection would require an empirically veridical insight into the means, manner, or power by which the cause produces its effect. Hume follows the occasionalists in rejecting any such insight, but does so in a uniquely empiricist manner that stems from Berkeley, which regards possibility as coextensive with conceivability, which in turn is coextensive with perceivability, such that every object or event series that could manifest itself in possible experience, is itself possible; and the contrary, any object or event series of which we cannot conceive (i.e. can form no idea of what such a thing would *look like*), we regard as impossible. This means that, in the event of *seeing* a causal interaction take

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<sup>18</sup> *Treatise*, 75-7. Hume’s particular example here was espoused some seventy years earlier by the early Cartesian occasionalist, Géraud de Cordemoy. (*Discernement*, 137)

<sup>19</sup> *Treatise*, 73

place, we could not conceive anything else happening because, given such empirically veridical insight into the nature of colliding bodies, “[e]very effect, then, beside the communication of motion, [would imply] a formal contradiction: and ‘tis impossible that it can exist, but also that it can be conceiv’d.”<sup>20</sup> That is to say, supposing we had an empirically veridical insight into a causal event, we could not conceive any alternative outcome to the observed event without changing the ideas under consideration (i.e. if we *saw* one body *cause* the movement of another), we could not conceive of any other outcome happening without introducing an impediment, or conceiving of the fire or cotton as something other than what they are). But, Hume has already placed causation in the group of relations whose objects “may be chang’d without any change in the ideas”<sup>21</sup> because he is adamant that we can conceive of a collision *sans* the communication of motion insofar as that event series is within the realm of *possible experience*:

[W]e may soon satisfy ourselves of the contrary, by forming a clear and consistent idea of one body’s moving upon another, and of its rest immediately upon the contact or of its returning back in the same line, in which it came; or of its annihilation; or circular or elliptical motion: and in short, of an infinite number of other changes, which we may suppose it to undergo.<sup>22</sup>

2) *We cannot infer causal connections on the basis of ‘forces’ or ‘powers.’*

While this principle has been already alluded to above, it is worth considering in detail for it is the point on which Hume is most clearly and directly indebted to his

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<sup>20</sup> *Treatise*, 111

<sup>21</sup> *Treatise*, 69

<sup>22</sup> *Treatise*, 111



predecessors. Hume's rejection of scholastic models of causal explanation on the basis of dispositional 'forces,' 'powers,' 'potentialities,' 'capacities,' 'natures,' etc., is derived almost entirely from the Cartesian tradition; for example, consider this clincher from the *Logique de Port-Royal*, which could have just as easily hailed from the *Treatise*:

Whenever we see an effect whose cause we do not know, we imagine that we have discovered it if we connect the general word "power" or "faculty" to this effect. This word produces no other idea in the mind except that this effect has some cause, which we knew quite well before finding the word.<sup>23</sup>

While this particular debt will be examined in detail in later chapters, it should suffice here to note that Hume reiterates standard nominalist and Cartesian criticisms of scholastic explanation, to the extent of duplicating entire passages from Malebranche. In his *Recherche de la verite*, Malebranche notes that: "There are some philosophers who assert that secondary causes act through... a *substantial form*; others through accidents or *qualities*, and some through certain *virtues* or *faculties* different from the above."<sup>24</sup> Hume must have been impressed by this formulation, for in the *Treatise* he writes: "There are some, who maintain, that bodies operate by their substantial form; others, by their accidents or qualities; several, by their matter and form; some, by their form and accidents; others by certain virtues and faculties distinct from all this."<sup>25</sup>

Like Malebranche, Hume regards such a "prodigious diversity" in explanations of the "secret force and energy of causes" to be indicative of their common vacuity and

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<sup>23</sup> Arnauld and Nicole 1662, 247

<sup>24</sup> *Recherche*, 658

<sup>25</sup> *Treatise*, 158. Prior to this passage, Hume directs the reader to "See Father *Malebranche*, Book VI. Part ii. Chap. 3, and the illustrations upon it." This chapter of the *Recherche* is devoted to Malebranche's attacks on scholastic principles of causal explanation, his argument that true causal connection requires a necessary connection, and his rejection that any such connection is possible between finite things.

rejects any meaningful distinction between “the terms of *efficacy, agency, power, force, energy, necessity, connexion, and productive quality*.”<sup>26</sup> Hume’s contribution to this occasionalist line of criticism was to extend and situate it within an empiricist epistemology, for what Hume insists on is: given that “reason can never give rise to the idea of efficacy,<sup>27</sup> that idea must be deriv’d from experience.”<sup>28</sup> As the mind is wont to confound the inductions of past experience with direct impressions, a true test of the possibility of *actual* experience of the force or efficacy of any object would be the ability to comprehend and predict the activity of an entirely novel object in an entirely novel situation. Hume is adamant that we are entirely lacking of such insight and ability, as “’tis impossible in any one instance to shew the principle, in which the force and agency of a cause is plac’d.”<sup>29</sup> The upshot of this impossibility is that “we can only define power by connexion,<sup>30</sup> and never as a property of things.

Later in the *Enquiry* Hume provides a thought experiment to elucidate the inadequacy of our minds to grasp natural powers:

Let an object be presented to a man of ever so strong natural reason and abilities; if that object be entirely new to him, he will not be able, but the most accurate examination of its sensible qualities, to discover any of its causes or effects. Adam... could not have inferred from the fluidity and transparency of water that it would suffocate him, or from the light and warmth of fire that it would consume him.<sup>31</sup>

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<sup>26</sup> *Treatise*, 157-158

<sup>27</sup> This principle follows from the general maxim of empiricism that all ideas are derived from impressions and thus “reason alone can never give rise to any original idea.” (*Treatise*, 157)

<sup>28</sup> *Treatise*, 157

<sup>29</sup> *Treatise*, 158

<sup>30</sup> *Treatise*, 248

<sup>31</sup> *Enquiry*, 27

Hume's point here concerning Adam's ignorance is an elaboration of an earlier argument by Locke (whom Hume dutifully cites) against substance-attribute metaphysics. Locke rejects the Aristotelian-scholastic model of causal explanation as epistemologically presumptuous and incapable of offering non-vacuous explanations of phenomena. Concerning any concept we have of a particular substance and the qualities it possesses which demarcate its identity in the order of beings, Locke points out that, "we perceive not [their] connexion or dependence one on another, being ignorant both of that real constitution in which they are all founded, and also how they flow from it."<sup>32</sup> This lack of a necessary connection between the qualities that make up the complex idea we have of a substance is problematic insofar as "the chief part of our knowledge concerning substances is not, as in other things, barely of the relation of two ideas that may exist separately; but is of the necessary connexion and co-existence of several distinct ideas in the same subject, or of their repugnance to co-exist."<sup>33</sup> That is to say, when we consider the qualities that a particular substance has, insofar as these qualities *make the substance what it is*, we consider such qualities to be *substantial*, which is to say *essential* or *intrinsic*, rather than the merely extrinsic and contingent properties a thing might own simply by situational relation with other things.<sup>34</sup> Yet, the coherence of our ideas of substances is plagued by fact that we do not see the necessary connections that bind the observed qualities together into a substantial haecceity. Locke concedes that, if we did

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<sup>32</sup> *Essay*, IV, vi, §10, 499

<sup>33</sup> *Loc. cit.*

<sup>34</sup> For example, salt has qualities (taste, solubility, crystallinity, nutritivity, effect on the freezing point of water, etc.) that constitute its substantial identity such that they are considered intrinsic properties. By contrast, whether the salt is to be found dissolved in the Indian Ocean or the Atlantic is extrinsic and thus non-essential.

posses such insight, “and could perceive wherein all sensible qualities originally consists, and how they are produced, we might frame such abstract ideas of them as would furnish us with matter of more general knowledge, and enable us to make universal propositions that should carry truth and certainty with them.”<sup>35</sup> However, Locke regards such perspicuity as beyond the limit of our faculties:

Our complex ideas of the sorts of substance are so remote from that internal real constitution on which their sensible qualities depend, and are made up of nothing but an imperfect collection of those apparent qualities our senses can discover...I imagine, amongst all the secondary qualities of substances and the power relating to them, there cannot any two be named whose necessary co-existence, or repugnance to co-exist, can certainly be known...No one, I think, by the colour that is in any body, can certainly know what smell, taste, sound, or tangible qualities it has, *nor what alterations it is capable to make of receive on or from other bodies.*<sup>36</sup>

This line of critique was not novel with Locke but had long been put forward in the skeptical tradition; for example, Sextus Empiricus argued that:

[S]ince...so much divergency is shown to exist in objects, we shall not be able to state what character belongs to the object in respect of its real essence, but only what belongs to it in respect of this particular rule of conduct, or law, or habit, and so on...[such that] we are compelled to suspend judgment regarding the real nature of external objects.<sup>37</sup>

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<sup>35</sup> Ibid., 500. A little later Locke reiterates this point with a useful example, arguing that “could any one discover a necessary connexion between malleableness and the colour or weight of gold, or any other part of the complex idea signified by that name, he might make a certain universal proposition concerning gold in this respect; and the real truth of this proposition, that ‘all gold is malleable,’ would be as certain as of this, ‘The three angles of all right-lined triangles are equal to two right ones.’” (*Loc. cit.*)

<sup>36</sup> *Essay*, IV, vi, §10, 500; emphasis added. It is worth noting that while modern chemistry might be able to explain such connections, because the problem here is logical and metaphysical, such explanations do not resolve the fundamental difficulty so much as kick the can down the hill a bit further. That is to say, if a chemist were to explain the connection between salt’s crystallinity and solubility in terms of its molecular structure, this would only raise the question of why such a molecular structure has that effect rather than another, to which an atomic explanation would have to be sought, etc., *ad infinitum* with the arbitrary contingency of nature always remaining.

<sup>37</sup> *PH*, i. 163

For Sextus, this was primarily an *epistemological* point, while Locke extended it into a general critique of causal explanation.

Malebranche further advanced Locke's criticism of substance metaphysics by arguing that we have no experience of 'force' or 'power' in bodies whatsoever,<sup>38</sup> a point reiterated by Hume:

In reality, there is no part of matter, that does ever, by its sensible qualities, discover any power or energy, or given us ground to imagine, that it could produce any thing, or be followed by any other object, which we could denominate its effect. Solidity, extension, motion; these qualities are all complete in themselves, and never point out any other event which may result from them.<sup>39</sup>

What Hume means by this rather odd assertion that the properties of body "are all complete in themselves" is that every one of them are distinct and epistemologically isolate ideas, and thus are capable of separation by the intellect. Given his insistence that power may only be defined "by connexion," in order for a body to have such a power, one of the properties of said body would have to "point out" or be connected to some external consequent, to which that property would be an antecedent. This possibility Hume rejects on logical grounds, for reasons that will be addressed shortly. The epistemological point Hume wishes to drive home at this juncture is, given that we have no impression of any "power" in objects, and given that all ideas are derived from impressions, "the power, by which one object produces another, is never discoverable merely from their idea;" from which Hume concludes: "tis evident *cause* and *effect* are

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<sup>38</sup> *Recherche*, 660

<sup>39</sup> *Enquiry*, VII.1, 63. Like Malebranche, Hume also references the ideal nature of body in making his point. He also follows this argument by noting: "The scenes of the universe are continually shifting, and one object follows another in an uninterrupted succession; but the power or force, which actuates the whole machine, is entirely concealed from us, and never discovers itself in any of the sensible qualities of body." (*Loc. cit.*)

relations, of which we receive information from experience, and not from any abstract reasoning or reflexion.”<sup>40</sup> That is to say, we recognize causes as such not on the basis of any *empirical or inferential* insight into their powers to produce effects, but rather only on the sequential *relation* between the two present in experience,<sup>41</sup> the upshot of which is: *causal explanations must be premised on event-relations rather than hidden substantial attributes or capacities of things*. From this epistemological reduction, the Aristotelian ‘bottom-up’ metaphysic based on real causal relations *in re* is completely overthrown.

Before turning to principle three, I should like to note two objections Hume entertains to this line of reasoning. The first concerns the question: ‘is it possible that such notions derive not from object-perception, but rather from self-perception?’<sup>42</sup> In the appendix to the *Treatise*, he notes that, “Some have asserted, that we feel an energy, or power, in our own mind; and that having in this manner acquir’d the idea of power, we transfer that quality to matter, where we are not able immediately to discover it.”<sup>43</sup> Whom Hume is referring to is unclear. One candidate is Peter Browne, who declares: “the best Idea or Conception we have of Power, is from Strength of Body, or a *Mighty Arm*;<sup>44</sup> yet, Browne fails to complete the argument to which Hume refers. Another possibility is

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<sup>40</sup> *Treatise*, 69

<sup>41</sup> I say “sequential” because Hume denies we ever experience such a causal relation directly, but only the sequential conjunction of *associated* phenomena.

<sup>42</sup> This argument essentially amounts to a causal analogue of the “argument from analogy” against solipsism in the philosophy of mind, but reverses that order of that argument, seeking to infer from mental states to physical states.

<sup>43</sup> *Treatise*, 632. As B.F. Skinner notes: “Man’s first experience with causes probably came from his own behavior: things moved because he moved them. If other things moved, it was because someone else was moving them, and if the mover could not be seen, it was because he was invisible.” (*Beyond Freedom and Dignity*, 7)

<sup>44</sup> III. viii. 451

William Wollaston, who argued (fifteen years before the publication of Hume's *Treatise*):

It is plain I can *move* my hand upward or downward or horizontally, faster or slower or not at all, or stop it when it is in motion, *just as I will*... If then I have (as I am sensible I have) a *power of moving* my hand in a manner, which I would not move by those laws, that mere bodies already in motion or under the force of gravitation would observe, this motion depends solely upon *my will*, and *begins* there.<sup>45</sup>

While this is clearly a claim that Hume took issue with, Wollaston here is appealing to the “power” of the will in contradistinction to those “effects...*determined* by rules of mechanism” in order to defend human freedom against the vicissitudes of Newtonian mechanics and the conservation of motion which opposed to such a capacity. This is thus rather the opposite of claiming an epistemic “transfer” of our (supposedly sensed) volitional “power of moving” to inanimate bodies.<sup>46</sup> Thus it seems likely that Hume is merely reiterating an argument made against this “transfer” by Malebranche, who avers: “The main proof adduced by philosophers for the efficacy of secondary causes is drawn from man’s will and his freedom.” though it seems likely he is reiterating an argument made against this “transfer” by Malebranche, who avers that “The main proof adduced by philosophers for the efficacy of secondary causes is drawn from man’s will and his freedom.”<sup>47</sup> A later philosopher to directly make this claim in response to Hume’s critique of causation was Reid, who argues in his *Essays on the Active Powers of Man*: “It is very probable that the very conception or idea of active power, and of efficient

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<sup>45</sup> *The Religion of Nature Delineated*, §IX, v. 346-347

<sup>46</sup> *Ibid.*

<sup>47</sup> *Recherche*, 668

causes, is derived from our voluntary exertions in producing effects.”<sup>48</sup> However, Hume had proleptically occluded such a response:

[T]o convince us how fallacious this reasoning is, we need only consider, that the will being here consider'd as a cause, has no more a discoverable connexion with its effects, than any material cause has with its proper effect. So far from perceiving the connexion betwixt an act of volition, and a motion of the body; 'tis allow'd that no effect is more inexplicable from the powers and essence of thought and matter... The effect is there distinguishable and separable from the cause, and cou'd not be foreseen without the experience of their constant conjunction.<sup>49</sup>

Hume refutes this argument in greater detail in the *Enquiry*, again asking if “there is any principle in all nature more mysterious than the union of soul with body,” as well as noting the inexplicable nature of the will itself, by which we are “empowered, by a secret wish, to remove mountains, or control the planets in their orbit.”<sup>50</sup> Hume also points out

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<sup>48</sup> *Essays*, IV.2 604

<sup>49</sup> *Treatise*, 632. Like many of the Scottish “common-sense” philosophers (as well as their contemporary American pragmatist heirs), Reid fundamentally failed to grasp and appreciate Hume’s critique. This is particularly obvious in his argument, *pace* Hume, that “theory ought to stoop to fact, and not fact to theory. Every man who understands the language knows that neither priority, nor constant conjunction, nor both taken together, imply efficiency.” (*Essays*, IV.2 604) Reid apparently regards this as a refutation of Hume, but he is only reinforcing Hume’s overarching claim that *we have no idea of causal efficacy*—a point appreciated by his compatriot, Thomas Brown. (*Lectures*, vi. 71) The point is, if all of our ideas are derived from impressions, and there are never any impressions of efficacy but only of temporal priority, contiguity, and conjunction between phenomena, then any *real* idea of efficacy we possess must necessarily be complex and derived from a comparison of these impressions. Which is to say, it must be *implied* by them. Now, if temporal priority and constant conjunction did indeed “imply” causal efficacy, then, on the experience of the former, we would be logically impelled to an idea of the latter, on the basis of the “necessary connexion” between the two. Yet, Hume is adamant that if this were so, “Such an inference wou’d... imply the absolute contradiction and impossibility of conceiving any thing different. But as all distinct ideas are separable, 'tis evident there can be no impossibility of that kind.” (*Treatise*, 1.3.6, 86-87) Reid buttressed his claim with the uninspiring cavil: “The very dispute, whether we have the conception of an efficient cause, shews that we have.” (*Essays*, IV.2 604) Hume likewise anticipated and responded to this argument indirectly but succinctly in the *Treatise*, claiming: “If it be a sufficient proof, that we have the idea of a vacuum, because we dispute and reason concerning it; we must for the same reason have the idea of time without any changeable existence; since there is no subject of dispute more frequent and common. But that we really have no such idea, is certain. For whence shou’d it be deriv’d? Does it arise from an impression of sensation or of reflexion? Point it out distinctly to us, that we may know its nature and qualities. But if you cannot point out *any such impression*, you may be certain you are mistaken, when you imagine you have *any such idea*.” (*Treatise*, 64-5)

<sup>50</sup> *Enquiry*, 65



that our will only has partial control over the operations of the body, which, if we had some direct perception into the power by which our will operates, would not be inexplicable, but rather we would be able to “perceive, independent of experience, why the authority of the will over the organs of the body is circumscribed within such particular limits.”<sup>51</sup> While Malebranche’s argument against such a ‘transfer’ had put particular emphasis on the Cartesian doctrine of incommensurability between mind and body<sup>52</sup> (which Hume refuses to commit to<sup>53</sup>), Hume isolates necessary connection as the *sine qua non* of volitional efficacy, noting that “A man, suddenly stricken with palsy in the leg or arm... is as much conscious of power to command such limbs, as a man in perfect health.”<sup>54</sup> Hume thus concludes that “the influence of volition over the organs of the body... is a fact, which, like all other natural events, can be known only by experience, and can never be foreseen from any apparent energy or power in the cause, which connects it with the effect, and renders one and infallible consequence of the other.”<sup>55</sup>

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<sup>51</sup> Ibid.

<sup>52</sup> *Recherche*, 670

<sup>53</sup> *Treatise*, 247-8

<sup>54</sup> *Enquiry*, 66. McCracken claims that Malebranche also employs the example of a paralytic arm to the same end; however, he uncharacteristically only cites *Eclaircissement XV* of the *Recherche* without specifying any particular page. (1983, 260) Similarly, and perhaps under his authority, Kail makes the same claim in two articles, again only generally citing *Eclaircissement XV*, and even goes so far as to claim that “Both thinkers, in rejecting the thesis that we can observe efficacy in the operations of the will, centre their discussion on the example of a paralyzed man attempting to move his arm.” (2008, 321; cf. Kail 2007, 6) It is thus somewhat awkward to relate that I have been completely unable, even after a thorough reading of the chapter in question, to find any such reference. To be sure, Malebranche is certainly of the same mind as Hume, but nowhere does he offer the example of a paralytic impotently willing to move any appendage. The only Cartesian occasionalist I have found to employ such an example was Geulincx (See *Ethica*, 232)

<sup>55</sup> *Enquiry*, VIII.1 64-5. See also *Recherche*, 670-671

The second objection Hume considers concerns the question: ‘could we not infer the existence and operation of causal powers on the basis of the observation of regular relations between objects or events?’ Such an inference was propounded by Avicenna as the “hidden syllogism” underlying causal judgments, by which, after an observed sodality (sc. the consumption of scammony and the purgative effect) is “repeated many times, it stops being a case of something that occurs by chance...[but] is a characteristic of scammony to purge bile.”<sup>56</sup> Hume holds no quarrel with Avicenna’s first claim,<sup>57</sup> but rejects the latter insofar as such a judgment of the mind can be only *psychological* and *habitual* but never *inferential*. He is adamant that our experience of the conjunction of two objects or events, no matter how many times it be repeated, can never elucidate or inform us of anything beyond their recurring sequentiality:

There is...nothing new either discover’d or produc’d in any object by their constant conjunction, and by the uninterrupted resemblance of their relations of succession and contiguity. But ‘tis from this resemblance, that the ideas of necessity, or power, and of efficacy are deriv’d. These ideas, therefore, represent not any thing, that does or can belong to the objects, which are constantly conjoin’d.<sup>58</sup>

Here Hume clearly understands “derive” in a psychological rather than logical sense: all of our ideas of causal powers, which we impute to things are a type of animistic or superstitious projection that converts past *experience* of conjunction into a *conception* of efficacy or power. While such a conception may possess practical utility, like any other conceptions the mind applies to experience, they are completely without *rational or*

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<sup>56</sup> *al-Burhan*, 45

<sup>57</sup> *Treatise*, 4

<sup>58</sup> *Treatise*, 164

*empirical* warrant. Thus, “the simple view of any two objects or actions, however related, can never give us any idea of power, or of a connexion betwixt them.”<sup>59</sup>

3) *We cannot infer causal connections on the basis of past experience.*

Hume’s reasoning behind this principle is an extension of his aforementioned argument against Avicenna’s “hidden syllogism.” Suppose we follow Hume in requiring that causal explanations be premised on relations rather than capacities. The previous question concerning the inference of ‘causal power’ on the basis of regularity is then re-instantiated in terms of ‘causal relation,’ namely: ‘could we not then infer the existence of such causal relations on the basis of prior experience?’ That is to say, even if we forgo claims of ontological insight into the real properties of objects by which they produce their effects, could we not infer causation as a relation between phenomena that have occurred with sequential regularity in our past experience? Hume first responds by noting that sequential regularity is insufficient for an adequate notion of causal relation, for “An object may be contiguous and prior to another, without being consider’d as its cause.”<sup>60</sup> On this basis, Hume insists that, “We must distinctly and particularly conceive the connexion betwixt the cause and effect, and be able to pronounce, from a simply view of the one, that it must be follow’d or preceded by the other.”<sup>61</sup> Hume thus concludes that,

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<sup>59</sup> *Treatise*, 166. To say that our conception of power is without rational warrant is not to say that it is *irrational*, for that would mean that the conception would imply some fallacy or contradiction. Rather such a notion is merely *a-rational*.

<sup>60</sup> *Treatise*, 77

<sup>61</sup> *Treatise*, 161

“There is a *necessary connexion* to be taken into consideration; and that relation is of much greater importance, than any of the other two above-mention’d.”<sup>62</sup>

Hume’s definition of causation in terms of “necessary connexion” was undoubtedly influenced by Malebranche, who avers: “A true cause as I understand it is one such that the mind perceives a necessary connexion [*une liaison nécessaire*] between it and its effect.”<sup>63</sup> While this debt has been noted in the literature,<sup>64</sup> it should not be overstated, for the conception of causation in terms of necessary connection was not novel to Malebranche or even modern philosophy in general. In his enormously influential *Consolatio Philosophae*, Boethius—essentially and historically summarizing the tradition of ancient philosophy—claims that “causes are made to concur and flow together by that order which, proceeding with inevitable connexion [*inevitabili conexione*], and coming down from its source in providence, disposes all things in their proper places and times.”<sup>65</sup> Similarly, al-Ghazali describes the neo-Platonic ‘Philosopher’s’ conception of causation as “a necessary connexion [*luzuman daruriyan*] that God cannot be imagined to sever, and which is like the connexion between the

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<sup>62</sup> *Treatise*, 77

<sup>63</sup> *Recherche*, 6.2.3, 450

<sup>64</sup> See McCracken 1983: “It is not in Locke, Berkeley, or even Descartes, that one finds emphasis placed on the indispensable role *necessary connection* plays in our idea of causation; of all the authors Hume urged Michael Ramsay to read, it is Malebranche alone who lays great stress on the doctrine that causality consists essentially in a necessary connection of things.” (262)

<sup>65</sup> *Consolatio*, 5.1. The reason Boethius uses the term “inevitable connexion” is likely due to his extensive arguments in the *Consolatio* in support of future contingents and against the doctrine that the future (or past) is *existentially* necessary. Boethius thus accepts that causes necessitate their effects, but denies that the existence of any particular cause is necessary *se ipsum*. Events in the past (e.g. Caesar crossing the Rubicon) necessitate certain events in the present, but that causal necessity should not be mistaken for logical necessity: Caesar could have chosen to obey Roman law and keep his legions on the north bank of the river.

shadow and the man.”<sup>66</sup> I would argue that, while Malebranche’s emphasis on a *liaison nécessaire* was largely strategic,<sup>67</sup> Hume seems to recognize “necessary connexion” as the implicit standard of the conception of efficient causality endemic to Western philosophy; particularly as it uniformly regarded causes to be causes insofar as they were (either alone or in plenary association) *sufficient* to produce their effects. The plain upshot of this, as was repeatedly expounded by Alexander of Aphrodisias, Galen, Avicenna, Averroes, Aquinas, Suarez, Molina, and a litany of other major and minor figures, is that, to quote Hobbes:

An entire cause is always sufficient for the production of its effects, if the effect be at all possible. For let any effect whatsoever be propounded to be produced; if the same be produced, it is manifest that the cause which produced it was a sufficient cause...[and] the effect cannot but follow.<sup>68</sup>

Such a standard of causation is clearly predicated on a necessary connection between cause and effect and the acceptance of this endemic standard is precisely what drives Hume to reject mere contiguity and succession as sufficient for a notion of causation; for what we mean when we claim that ‘ $\Phi$  causes  $\Psi$ ’ is not simply that ‘ $\Phi$  is prior to and contiguous with  $\Psi$ ,’ but rather ‘ $\Phi \rightarrow \Psi$ ,’ which is to say: ‘given  $\Phi$ ,  $\Psi$  *must* follow, all else being equal.’<sup>69</sup>

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<sup>66</sup> Averroes, *Tahafut*, 150

<sup>67</sup> He continues the aforementioned quote with: “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.” (*Op. cit.*, 6.2.3, 450)

<sup>68</sup> *De corpore*, 2.9.5

<sup>69</sup> Hume thus fully concurs with Cicero’s insistence that “‘cause’ is not to be understood in such a way as to make what precedes a thing the cause of that thing, but what precedes it effectively.” (*De fato*, xv. 34) Reid, however, cites this claim against Hume, arguing against his constant conjunction *epistemological* model of causation: “theory ought to stoop to fact, and not fact to theory. Every man who understands the language knows that neither priority, nor constant conjunction, nor both taken together, imply efficiency.” (*Essays on the Active Powers of Man*, iv. 2, 2:604) While Reid regards this as a refutation of Hume, he is

Returning to the problem at hand, the question according to the above standard of causation is: can we not infer such a necessary connection between two objects or events from their sequential regularity in past experience? Hume's negative answer to this question, viz. 'the problem of induction,' is famous and I shall not belabor it.<sup>70</sup> Before turning to Hume's analysis, though, a digression into the history of the problem is warranted. In antiquity the problem of induction was first formulated by the Stoics and the *dogmatici* (a sect of rationalist physicians) and pressed in service of their rationalist epistemology,<sup>71</sup> and was first revived in the early-modern period in support of the same ends. While this may be surprising to contemporary readers who strongly associate the problem with Hume and British empiricism, as in antiquity, the most strident and expansive elaborations of the problem of induction came from rationalist philosophers; and the British empiricists from Bacon to Berkeley had almost nothing to say about it.<sup>72</sup> For example, Arnauld and Nicole criticize empiricism by arguing that "philosophers who hold that all our ideas come from the senses" cannot account for necessary truths such as

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actually reinforcing Hume's claim: *we have no idea of causal efficacy*. If all our ideas are derived from impressions, and we have no impression of efficacy but only of temporal priority and constant conjunction between phenomena, then any idea of efficacy we might possess must needs be complex and derived from an analysis of these ideas themselves, i.e. be *implied* by them. Now, if temporal priority and constant conjunction did indeed "imply" causal efficacy, then, on the experience of the former, we would logically come to an idea of the latter, as well as the "necessary connexion" between the two, and thus could reason securely from the former to the latter *à la* Avicenna's "hidden syllogism." Yet, Hume is adamant that this is never the case.

<sup>70</sup> Ironically, as J. R. Milton notes, Hume uses the term "induction" only once in the *Treatise* and again in the *Enquiry*; and in neither case does it conform to its modern usage. (Milton, 1985, 50)

<sup>71</sup> Philodemus, *On Methods of Inference*, Col. 2-8; Galen, *On Medical Experience*, 96-97.

<sup>72</sup> Milton 1987, 60-61. Locke does offer the following: "whilst we are destitute of senses acute enough to discover the minute particles of bodies, and to give us ideas of their mechanical affections, we must be content to be ignorant of their properties and ways of operation; not can we be assured about them any farther than some few trials we make are able to reach. But whether they will succeed again another time, we cannot be certain. This hinders our certain knowledge of universal truths concerning natural bodies, and our reason carries us herein very little beyond particular matter of fact." (*Essays*, Bk. IV, Ch. III, §25)

“the whole is greater than its part” other than “from the various observations we have made since childhood.”<sup>73</sup> Yet, in this case:

[W]e would be sure only of its probability, since induction is a certain means of knowing something only when we are sure that the induction is complete. Nothing is more common than discovering the falsity of something we thought was true based on inductions that appeared so general that we could no imagine finding any exception to them...this shows that mere inductions cannot give us complete certainty of any truth, unless we are sure that they are general, which is impossible.<sup>74</sup>

The upshot for rationalists like Arnauld and Nicole is that “the consideration of singular things serves only as an occasion for the mind to pay attention to its natural ideas, by which it judges the truth of things in general.”<sup>75</sup>

Similarly, in a 1702 letter to Queen Sophia Charlotte of Prussia,<sup>76</sup> Leibniz interprets the problem in a strict fashion, arguing that:

There are in fact *experiments* which succeed countless times in ordinary circumstances, yet instances are found in some extraordinary cases in which the experiment does not succeed. For example, if we have shown a hundred thousand times that iron sinks to the bottom when placed in water, we are still not sure that this must always happen. *Without appealing to the miracle of the prophet Elisha, who made iron float,*<sup>77</sup> we know that an iron pot can be made so hollow that it floats and can even carry a considerable load besides, as do boats made of copper and of tinplate.<sup>78</sup>

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<sup>73</sup> Arnauld and Nicole 1662, 316. See previous footnote where Locke essentially concedes as much.

<sup>74</sup> Arnauld and Nicole 1662, 316-317

<sup>75</sup> Arnauld and Nicole 1662, 259

<sup>76</sup> Sophia Charlotte was the daughter of Princess Sophia of Hanover, another famous friend and correspondent of Leibniz, who herself was the younger sister of Princess Elizabeth of Bohemia. Aside from being a famous correspondent of Descartes, Elizabeth also, in her later years, corresponded with and met a young Leibniz.

<sup>77</sup> 2 Kings 6:6

<sup>78</sup> Leibniz 1969, 551; emphasis added

Leibniz compares this to induction in mathematics, noting that while “experience teaches us that the odd numbers when added together continuously in their order produce the square numbers in order,”<sup>79</sup> this experience (i.e. calculation) does not constitute a mathematical proof—one which provides “the demonstrative reason for it” and assures that there can be no instances to the contrary.<sup>80</sup>

Leibniz is quite candid about what he takes as the upshot of the problem of induction. The existence of “necessary truths” and our knowledge of them, combined with the logical inadequacy of inductive inferences, “shows that there is a *light which is born with us*,” as “it is universally true that we know them only by this natural light and not at all by sense experiences. For the senses can indeed help us after a fashion to know what is, but they cannot help us to know what *must* be or what cannot be otherwise.”<sup>81</sup> Thus, we cannot know that the principle “every heavy body falls toward the center of the earth...is necessary until we have grasped some *reason* for it;”<sup>82</sup> and this reason cannot come simply from sufficient iterations in experience.<sup>83</sup> In this way Leibniz is exploiting the problem of induction in the same way the Stoic rationalists of antiquity had.

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<sup>79</sup> Leibniz 1969, 550

<sup>80</sup> Similarly, Leibniz notes the proposition “that two lines which approach each other continuously finally meet,” is so seemingly self-evident that “many people would be quick to swear that it could never happen otherwise.” Yet, asymptotes provide an exception to this rule. (Ibid. 551)

<sup>81</sup> Leibniz 1969, 550

<sup>82</sup> Leibniz 1969, 550; emphasis added

<sup>83</sup> As a possible counterexample to the universal force of gravity, Leibniz offers the theory of Gassendi and his followers who held that gravity is or is equivalent to a form of magnetism, and “whose attractive force does not, they think, extend very far, any more than the ordinary magnet attracts a needle some distance away from it.” (Ibid.) In this case, given sufficient altitude above the earth, the force of gravity would cease to act.



Returning to Hume, he argues that the attempt to derive a necessary connection from past experience is no different than the attempt to derive a notion of power: “From the mere repetition of any past impression, even to infinity, there never will arise any new original idea, such as that of a necessary connection; and the number of impressions has in this case no more effect than if we confin’d ourselves to one only.”<sup>84</sup> Nothing more is ever contained in our experience of any sequential regularity beyond that regularity—the congruence of two things posits no *tertium quid*.<sup>85</sup> Moreover, no notion of necessity or any other supposed principle governing said regularity may ever be inferred from it for inferences are the purview of the understanding and involve a *demonstration* from premises to conclusion. No such demonstration is possible between the premise of sequential regularity and the conclusion of necessary connection as the two involve fundamentally distinct modalities (sc. the contingent and the necessary): and thus the inference from the former to the latter fails for want of any entailment. The only way such an entailment could be affected is by the addition of a minor premise that unites the two modalities by constricting the domain of the possible to that contained within the first premise, i.e. by supposing that nothing else could ever happen other than what we have observed to happen in the sequence under question. That is, this minor premise would suppose “*that instances, of which we have had no experience, must resemble those, of which we have had experience, and that the course of nature continues uniformly the same.*”<sup>86</sup> Having drawn the problem in such a manner, Hume then springs the trap,

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<sup>84</sup> *Treatise*, 88

<sup>85</sup> “These two propositions are far from being the same, *I have found that such an object has always been attended with such an effect, and I foresee, that other objects, which are, in appearance, similar, will be attended with similar effects.*” (*Enquiry*, 34)

<sup>86</sup> *Treatise*, 89

insisting that all we can ever do is *suppose* as much, for: “there can be no *demonstrative* arguments to prove *that those instances, of which we have had no experience, resemble those, of which we have had experience.* We can at least conceive a change in the course of nature; which sufficiently proves, that such a change is not absolutely impossible.”<sup>87</sup>

A common misconception of Hume’s reasoning regarding the problem of induction hinges on his demand for a “*necessary connexion*” as well as his insistence that “a change in the course of nature...is not *absolutely* impossible,” from which (by the italicized terms) it is interpreted that Hume is taken with the typical early-modern epistemological fixation on apodictic certainty—the implication being that, if one foregoes this epistemic requirement, Hume’s problem of induction likewise disappears. This interpretation (while largely accurate in terms of the aforementioned rationalist arguments concerning the problem), is mistaken in terms of Hume’s argument for two important reasons. First, of all early-modern philosophers, Hume is perhaps the least concerned with certainty, and indeed, prior to the above quote he had already accepted “algebra and arithmetic as the only sciences, in which we can carry on a chain of reasoning to any degree of intricacy, and yet preserve a perfect exactness and certainty.”<sup>88</sup> Second, as Hume makes clear, the problem does not concern certainty but rather *circularity*. Any positive epistemic claim concerning matters of fact that is true but not at the level of certainty, must therefore be true at some level of *probability*. Yet, the

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<sup>87</sup> *Treatise*, 89.

<sup>88</sup> *Treatise*, 71. Hume even goes so far as to deny geometry the standard of certainty as he regards it as stemming from, and thus infected by inexactness of, experience. (*Treatise*, 39-53) This claim was later abandoned in the *Enquiry*.

reduced standard of probability does not offer an escape from the problem so much as it manifestly begs the question:

[P]robability is founded on the presumption of a resemblance betwixt those objects, of which we have had experience, and those, of which we have had none; and therefore 'tis impossible this presumption can arise from probability. The same principle cannot be both the cause and effect of another; and this is, perhaps, the only proposition concerning that relation, which is either intuitively or demonstratively certain.<sup>89</sup>

4) *We cannot deduce causal connections on the basis of a 'necessary connection.'*

Hume's real debt to occasionalism lies in his adamant insistence that no necessary connection holds between any two distinct things. This insistence follows from what is sometimes referred to as the 'distinctness principle,' which posits that whatever is distinct is *logically capable* of independent existence and thus cannot *existentially* entail or be entailed by another distinct thing. Therefore, regarding the early-modern definition of 'substance' as "*something which may exist by itself*," Hume notes that:

[T]his definition agrees to everything, that can possibly be conceiv'd...since all our perceptions are different from each other...they are also distinct and separable,<sup>90</sup> and may be consider'd as separately existent, *and may exist separately*, and have no need of anything else to support their existence.<sup>91</sup> They are, therefore, substances, as far as this definition explains a substance.<sup>92</sup>

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<sup>89</sup> *Treatise*, 90. Thus, the claim that 'we can know by probability that the course of nature will continue uniformly the same,' resolves itself to: 'we know that the course of nature will continue uniformly the same because, at every point of reference in the past, the course of nature has continued uniformly the same.'

<sup>90</sup> As Montaigne notes in his essay *Of Experience*, "Nature has committed herself to make nothing separate that was not different." (*Selected Essays*, 292)

<sup>91</sup> Hume here is clearly indebted to Berkeley, who, while famously denying that simple ideas are capable of dismemberment (e.g. separating extension from color—a point which Hume rejected), allows that "associated" ideas can be separated at will: "I may indeed divide in my thoughts or conceive apart from

This is as close to a *logico-existential* formulation of the ‘distinctness principle’ as is to be found in Hume. Such a formulation was common in medieval occasionalism and nominalism (sc. in al-Ghazali and Autrecourt), but was supplanted in the early-modern period by an *epistemological* derivation of the principle. This derivation was also common in the medieval period (sc. with al-Ghazali and Ockham, but not Autrecourt) and was known as the ‘maxim of admissibility’ (*tajwiz*) by which “whatever is possible in reason is possible for God.”<sup>93</sup> This maxim entails that, as Maimonides (disparagingly) notes: “that which can be imagined is...something possible, whether something existent corresponds to it or not.”<sup>94</sup>

This epistemological formulation is famously repeated (almost *ad nauseum*) by Hume: “Whatever is distinct, is distinguishable; and whatever is distinguishable, is separable by the thought or imagination. All perceptions are distinct. They are, therefore, distinguishable, and separable, and may be conceiv’d as separately existent, and may exist separately, without any contradiction or absurdity.”<sup>95</sup> Given that all ideas are derived from impressions, the independence of the latter entails the independence of the former; and the fact that our impressions are absolutely distinct entails that our ideas are

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each other those things which, perhaps, I never perceived by sense so divided. Thus I imagine the trunk of a human body without limbs, or conceive a smell of a rose without thinking on the rose itself. So far I will not deny I can abstract... which extends only to conceiving separately such objects, as is possible may really exist or be actually perceived asunder.” (*Principles*, I, §5; 78)

<sup>92</sup> *Treatise*, 233; emphasis added. As will be seen in later chapters, particularly concerning the dispute between al-Ghazali and Averroes and between Malebranche and Fontenelle, the full acceptance of the logic of the critique of causation forces an annihilation of any notion of substance.

<sup>93</sup> Fakhry, 32

<sup>94</sup> *Guide*, 1.73, 207. Maimonides rejection of the maxim hinges on his acceptance of Aristotle’s ontological formulation of the law of non-contradiction, whereas the maxim hinges on a strictly modal formulation of the law.

<sup>95</sup> *Treatise*, 634

absolutely fungible. This principle accounts for “*the liberty of the imagination to transpose and change its ideas,*” which Hume insists will not “appear strange, when we consider, that all our ideas are copy’d from our impressions, and that there are not any two impressions which are perfectly inseparable.”<sup>96</sup> Thus Hume concludes, “Where-ever the imagination perceives a difference among ideas, it can easily produce a separation.”<sup>97</sup> The liberty of the imagination to separate and transpose distinct ideas is the basis of the ‘maxim of admissibility,’ which in the *Treatise* rapidly becomes Hume’s favorite shibboleth: the “establish’d maxim in metaphysics,” which proposes “*That whatever the mind clearly conceives includes the idea of possible existence, or in other words, that nothing we imagine is absolutely impossible.*”<sup>98</sup> While the establishment of this ‘establish’d maxim’ will be addressed in subsequent chapters, suffice it to say that, for Hume, it felicitously justifies the central claim of his epistemology, namely the discreteness of ideas:

There is no object, which implies the existence of any other if we consider these objects in themselves, and never look beyond the ideas which we form of them. Such an inference wou’d amount to knowledge, and wou’d imply the absolute contradiction and impossibility of conceiving any thing different. But as all distinct ideas are separable, ‘tis evident there can be no impossibility of that kind.<sup>99</sup>

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<sup>96</sup> *Treatise*, 10

<sup>97</sup> *Ibid.*

<sup>98</sup> *Treatise*, 32

<sup>99</sup> *Treatise*, 1.3.6, 86-87. It might be objected that, insofar as Hume defines impressions as intrinsically distinct from each other, he is thus caught in a circle when he claims that cause and effect are likewise distinct given the distinctness of their ideas. Yet this is only a seeming circularity. Impressions are distinct only insofar as any one can be broken asunder and recombined with any other without contradiction. I.e. any impression may be followed by any other. Similarly, we can rest assured that cause and effect are, in fact, perfectly distinct by surveying our minds and noting that, in any conceivable causal interaction, we can always conceive of an alternate outcome—indeed a veritable infinity of alternate outcomes—than what typically takes place. This possibility is, in itself, sufficient to establish the distinctness between cause and effect.

Thus, Hume's appeal to the "established maxim" amounts to an epistemological criterion by which to posit the contingency of the world, insofar as the opposite of every matter of fact is possible (i.e. conceivable). Given that "every effect is a distinct event from its cause,"<sup>100</sup> such a criterion has a direct bearing on the possibility of necessary connection, which Hume was eager to cash out:

The mind can always *conceive* any effect to follow from any cause, and indeed any event to follow upon another: whatever we *conceive* is possible, at least in a metaphysical sense: but wherever demonstration takes place, the contrary is impossible, and implies a contradiction. There is no demonstration, therefore, for any conjunction of cause and effect.<sup>101</sup>

Before turning to Hume's positive account of causation, it is worth relating that Hume's 'establish'd maxim' was not entirely established. As noted, Maimonides regarded it as metaphysically extravagant and, more importantly, identified the maxim as coextensive with its inversion, viz. "everything that cannot be imagined is impossible,"<sup>102</sup> which he rejects on the basis that *creation ex nihilo* dogma.<sup>103</sup> This inverse formulation of the maxim had been opened by the Epicureans<sup>104</sup> and even employed by al-Ghazali.<sup>105</sup> Descartes made use of the maxim's underlying 'distinctness principle,' in the

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<sup>100</sup> *Enquiry*, VI.1, 31

<sup>101</sup> *Abstract*, 130

<sup>102</sup> *Guide*, 1.73, 207

<sup>103</sup> Maimonides argues that "the bringing into being of a corporeal thing out of no matter whatever belongs—according to us—to the class of the possible, and to the class of the impossible—according to the philosophers." (*Guide*, 3.15, 460) If God bringing something into existence out of nothing is at least as inconceivable as "bring[ing] into being a square whose diagonal is equal to one of its sides," (Ibid.) and if Maimonides accepts the doctrine of creation *ex nihilo*, as he says he does, then he is required to reject the inversion of the maxim. Yet, he refrains from this claim and bemoans: "Would that I know whether this gate is open and licit, so that everyone can claim and assert with regard to any notion whatever that he conceives: This is possible." (Ibid.)

<sup>104</sup> See Philodemus, Col. 33

<sup>105</sup> *Tahafut*, 195

*Meditations*,<sup>106</sup> but adamantly rejects its inverse as a kind of *argumentum ad ignorantiam*.<sup>107</sup> Maimonides and Descartes had good reason to be suspicious of this inverse formulation of the maxim insofar as it entails that conceivability is not merely *indicative* of possibility (in the positive sense), but *coextensive* with possibility (in both the positive and negative sense), a principle fundamentally incompatible with at least two points foundational to Abrahamic theology and one specific to Christian theology, all of which were regarded as blatantly inconceivable by human reason:

- 1) The dogma of creation *ex nihilo*<sup>108</sup>
- 2) The definition of God as *causa sui*<sup>109</sup>
- 3) The doctrine of the Trinity<sup>110</sup>

While acceptance of the inversion of the ‘establish’d maxim’ creates theological problems for al-Ghazali, it creates epistemological problems for Hume, who seems to appeal to the inverse as well:

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<sup>106</sup> “[A] lifespan can be divided into countless parts, each completely independent of the others, so that it does not follow from the fact that I existed a little while ago that I must exist now.” (CSM, 2 33) Descartes’ avoids using the maxim itself, as does Malebranche, somewhat surprisingly given its suitability for causal skepticism. This is likely due to epistemological tension between the modal logic of the ‘establish’d maxim’ and the classical logic of the Cartesian ‘clarity and distinctness’ principle.

<sup>107</sup> “I do not think that we should ever say of anything that it cannot be brought about by God... I merely say that He has *given me such a mind that I cannot conceive* a mountain without a valley, or an aggregate of 1 and 2 which is not 3, and that such things involve a contradiction *in my conception*.” (29 July 1648, CSMK, III 358; emphasis added.)

<sup>108</sup> “The first principle of our study we will derive from this, that no thing is ever by divine power produced from nothing... [for] nothing can be created from nothing.” (Lucretius, *De rerum natura*, 1.149-57)

<sup>109</sup> “The *causa sui* is the best self-contradiction that has ever been conceived, a type of logical rape and abomination.” (Nietzsche, *Beyond Good and Evil*, §21)

<sup>110</sup> “As the Trinitarian dogma of Nicaea had announced, the Christian ethic was to deify mystery and to chasten man’s presumptuous claim of rational knowledge... sovereignty supplants intelligence... The universe became the creation of an inscrutable and suprarational deity who desired not comprehension but worship.” (Herschel Baker, *The Dignity of Man*, 172-73)

Wherever ideas are adequate representations of objects, the relations, contradictions and agreements of the ideas are all applicable to the objects; and this we may in general observe to be the foundation of all human knowledge... The plain consequence is, that whatever *appears* impossible and contradictory upon the comparison of these ideas, must be *really* impossible and contradictory, without any farther excuse or evasion.<sup>111</sup>

This principle (the inverse of the ‘establish’d maxim’) serves as the major premise of Hume’s argument for the finite disability of space and time. Hume’s arguments in this regard are unique because they are *ontological* and thus stand in strong tension (perhaps as a euphemism for ‘contradiction’) to a methodological claim he makes in the Appendix of the *Treatise*, which was intended to be inserted into the end of the section on space and time:

As long as we confine our speculations to *the appearances* of objects to our senses, without entering into disquisitions concerning their real nature and operations, we are safe from all difficulties, and can never be embarrass’d by any question... [However,] If we carry our enquiry beyond the appearances of objects to the senses, I am afraid, that most of our conclusions will be full of scepticism and uncertainty.”<sup>112</sup>

In his most direct explication of the “establish’d maxim,” Hume only claims that, concerning something of which we “can form no idea,” we “therefore *regard* it as impossible.”<sup>113</sup> This, I maintain, must be taken as Hume’s considered view, for—aside from the logical error of regarding the inversion of a proposition to correspond in truth value with its original which could not possibly have escaped a mind such as Hume’s—nowhere else in the *Treatise* or the *Enquiry* does Hume make such a negative ontological

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<sup>111</sup> *Treatise*, 29

<sup>112</sup> *Treatise*, 638-9

<sup>113</sup> *Treatise*, 32; emphasis added



asseveration.<sup>114</sup> Moreover, such an asseveration is simply incompatible with Hume’s overall epistemology, which resolutely (but not without exception) refrains from ontological principles and denies any knowable relationship between our ideas and the real.<sup>115</sup> That is, if the major premise of Hume’s rejection of the infinite divisibility of space and time is the inverse of the ‘establish’d maxim’ (“Wherever ideas are adequate representations of objects... whatever *appears* impossible and contradictory upon the comparison of these ideas, must be *really* impossible and contradictory”), the minor premise is precisely the supposition that ‘ideas are adequate representations of objects.’

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<sup>114</sup> While not noting the distinction between positive and inverse formulations of the ‘establish’d maxim,’ John Wright argues that, in his treatment of the paradox of absolute space, “Hume clearly *rejects* the ‘establish’d maxim in metaphysics’ and allows for the possible existence of that which is conceived to be absolutely impossible—namely, absolute space.” (Wright, 103) To claim that Hume “rejects” a principle to which he appeals almost *ad nauseum* and upon which he bases a large part of his epistemology from a single interpretive difficulty strikes me as overly rigorous. First, there is only one instance in which Hume advances the inverse of the ‘establish’d maxim,’ and, in doing so, contradicts one of the most important principles of his epistemology. Second, Hume (following Leibniz) does not regard absolute space to be conceptually impossible but indeed argues, *pace* Bayle and the Cartesians, that the conceptual possibility of the void is “what results from the concurrence of...[the] possible ideas of *rest* and *annihilation*” and indeed defies the “metaphysicians to conceive [of] matter according to their hypothesis.” (*Treatise*, 54-5) Hume’s argument behind this position is problematic in that he fails to realize that the Cartesians regard a body as coextensive with its internal place; thus the annihilation of a body-B between bodies A & C, would alter their external place and bring them closer together, but would not change their internal place; and thus any movement resulting from this annihilation would be only relative rather than absolute as Hume assumes. Then again, if Hume’s argument here is problematic, so is Cartesian plenist mechanics, which has extraordinary difficulty explaining how movement is possible in the first place. (See Lennon 2007) Regardless, it is true, as Wright notes, that Hume sees “no very decisive arguments on either side” (*Treatise*, 639) of the plenum-vacuum debate, but that impasse is precisely the result of the fact that *both can be independently conceived and are thus possible*—which brings us back to the ‘establish’d maxim.’

<sup>115</sup> In his *Examination of P. Malebranche’s Opinion*, Locke encourages the reader to “consider the weakness of our minds, and the narrowness of our capacities, and have but humility enough to allow, that there may be many things which we cannot fully comprehend, and that God is not bound in all he does to subject his ways of operation to the scrutiny of our thoughts, and confine himself to do nothing but what we must comprehend.” (§2) On these grounds he rejects the ontological conceit of the Cartesian clarity and distinctness principle, noting that: “To say there can be no other, because we conceive no other, does not, I confess, much instruct.” (§8)

Yet, as Hume himself (following Berkeley) is adamant, such an adequacy is something of which we can never know.<sup>116</sup>

### *Hume's Positive Account of Causation*

Before turning to Hume's critique of occasionalism, I should like to briefly address Hume's positive theory of causal explanation. Hume outlines four criteria he sees as essential to the relation of causation;

- 1) The temporal priority of 'cause' to 'effect'<sup>117</sup>
- 2) The contiguity of 'cause' and 'effect'<sup>118</sup>
- 3) A constant conjunction between 'cause' and 'effect'<sup>119</sup>
- 4) A "necessary connexion" between 'cause' and 'effect'<sup>120</sup>

Criterion four is, as Hume acknowledges, the master of the group, but Hume has demonstrated that the assignment of a necessary connection between two events can never be justified, and thus that we have no *reason* for regarding anything to be the cause of anything else. Yet, the other three criteria remain and, *pace* Malebranche, Hume does not believe that we can simply will our judgments of causation away. Even though the relation of causation is fundamentally *a*-rational, we believe it all the same and:

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<sup>116</sup> I would venture that this problem, more than anything else in Hume's infamous ruminations on discrete geometry and time, is responsible for 'Part II' of the first book of the *Treatise* being left out of the *Enquiry*.

<sup>117</sup> *Treatise*, 76

<sup>118</sup> *Treatise*, 75. It's worth noting that Hume ultimately rescinds this criterion.

<sup>119</sup> *Treatise*, 87

<sup>120</sup> *Treatise*, 77

Thus, we remember to have seen that species of object we call *flame*, and to have felt that species of sensation we call *heat*. We likewise call to mind their constant conjunction in all past instances. Without any farther ceremony, we call the one *cause* and the other *effect*, and infer the existence of the one from that of the other.<sup>121</sup>

This unstoppable propensity of the mind raises two questions:

- 1) Why do we believe in such things?
- 2) What exactly *is* this belief?

For Hume, the answer is both simple and brutally deflationary. Belief is not a conceptual additament: it is not itself an idea that could be freely associated with other ideas since “if belief consisted in some idea, which we add to the simple conception, it would be in a man’s power, by adding this idea to it, to believe anything, which he can conceive”<sup>122</sup> Belief is in a certain sense synthetic since it “implies a conception,”<sup>123</sup> and yet it “super-adds nothing to the idea, but only changes our manner of conceiving it, and renders it more strong and lively.”<sup>124</sup> Hume notes, as “a general maxim” of his epistemology, “*that when any impression becomes present to us, it not only transports the ideas as are related to it, but likewise communicates to them a share of its force and vivacity.*”<sup>125</sup> On this basis Hume concludes that:

[A]s we call every thing custom, which proceeds from a past repetition, without any new reasoning or conclusion, we may establish it as a certain

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<sup>121</sup> *Treatise*, 1.3.6, 87

<sup>122</sup> *Abstract*, 132

<sup>123</sup> *Abstract*, 132

<sup>124</sup> *Treatise*, 101. This would explain why it is difficult if not impossible to disbelieve the content of a direct impression. Such doubt is easier with ideas of the memory, and as these decay and lose their force and vivacity, may be mistaken for ideas of the imagination and disbelieved entirely.

<sup>125</sup> *Treatise*, 98

truth, that all the belief, which follows upon any present impression, is deriv'd solely from that origin. When we are accustom'd to see two impressions conjoin'd together, the appearance or idea of the one immediately carries us to the idea of the other.

Such is the nature of belief and of all our judgments of cause and effect, which, as “in all matters of fact arises only from custom.”<sup>126</sup>

In spite of this deflationary and skeptical conclusion, Hume did, however, offer a half-hearted attempt to account for the association of ideas and the neurological mechanism by which repeated experience of conjunctions between impressions could induce the assignment of a connection between them. The model of early-modern neurological theory was hydraulic: nervous fluids or ‘animal spirits’ were excited by cognitive or volitional activity and rushed down nerve channels to produce their effects. In terms of cognition, sensory organs activated these spirits when impacted by objects of experience, which rushed down the nerve channel to the brain where they carve out a ‘cerebral trace’ of the object in the soft cerebral tissue which occasions a perception in our mind.<sup>127</sup> These cerebral traces offer, by something akin to riparian erosion, a hypothetical and *mechanical* explanation of the mind’s tendency to associate ideas “not allied by nature.” As Locke describes it:

Custom settles habits of thinking in the understanding, as well as of determining the will, and of motions in the body; all which seem to be but trains of motion in the animal spirits, which, once set a-going, continue in the same steps they have been used to, which, by often treading, are worn into a smooth path, and the motion in it becomes easy, and as it were natural.<sup>128</sup>

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<sup>126</sup> *Abstract*, 132

<sup>127</sup> It would be mistaken to assume that cerebral traces replicated the shape or form of the object of sensation in miniature, for Descartes and his followers held a symbolic conception of cognition.

<sup>128</sup> *Essays*, 2.33.6

For Locke, this channeling and inertia of the animal spirits between ideas accounts for why, when hearing the first few notes in a tune, the rest spring from our minds as if it were a music box.<sup>129</sup> These smooth paths worn between associated ideas have a lasting effect on the brain itself such that, if two particular phenomena are constantly conjoined in our perception, such a repetition creates deep channels between each conjoined trace. Such channels provide the mechanism for the association of ideas in that, as Malebranche argues, “the brain traces are so well tied to one another that none can be aroused without all those which were imprinted at the same time being aroused.”<sup>130</sup> Not only does Malebranche regard these channels as tending to connect ideas on the basis of their resemblance,<sup>131</sup> but he sees in this neurological theory the perfect model by which to explain the foremost ‘natural judgment’ of human cognition: the assignment of cause and effect in instances of temporally contiguous phenomena: “The cause of this connection of many traces is the *identity* of the times at which they were imprinted in the brain. For it is enough that many traces were produced at the same time for them all to rise again

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<sup>129</sup> Ibid.

<sup>130</sup> *Recherche*, 2.1.5, 105. Here Malebranche (almost) explicitly endorses a view that was to be a hallmark of Empiricism—meaning as the association of ideas: “the mutual connection of the traces and consequently of the ideas with one another is not only the basis for all rhetorical figures but also for an infinity of other things of greater importance in morality, politics, and generally in all the sciences having some relation to man...” (Ibid.)

<sup>131</sup> “[T]he animal spirits that were directed by the action of external objects...to produce certain traces in the brain often produce others that truly resemble them in some things, but that are not quite the traces of these same objects...because the animal spirits, finding some resistance in the parts of the brain whence they should pass, and being easily detoured crowd into the deep traces of the ideas that are more familiar to us.” (*Recherche*, 2.2.2, 134-5)

together.”<sup>132</sup> That is, the logical criterion of *identity* required for necessary connection is *simulated* or *effected* neurologically.<sup>133</sup>

This theory of Cartesian mental physiology Hume initially ridicules as an “imaginary dissection of the brain,”<sup>134</sup> but such a mechanism for explaining the connection of ideas in terms of the effects of “resemblance,” “custom,” and “habits,” proved simply too illecebrous not to indulge in. Hume complains that “tho’ I have neglected any advantage, which I might have drawn from this topic in explaining the relations of ideas, I am afraid I must here have recourse to it, in order to account for the mistakes that arise from these relations.”<sup>135</sup> He then proceeds to describe the *exact same* neurological account of causal judgments as Malebranche:

I shall therefore observe, that as the mind is endow’d with a power of exciting any idea it pleases; whenever it dispatches the spirits into that region of the brain, in which the idea is plac’d; these spirits always excite the idea, when they run precisely into the proper traces, and rummage that cell, which belongs to the idea. But as their motion is seldom and direct, and naturally turns a little to the one side or the other; for this reason the animal spirits, falling into the contiguous traces, present other related ideas in lieu of that, which the mind desir’d at first to survey... This is the cause of many mistakes and sophisms in philosophy.<sup>136</sup>

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<sup>132</sup> Ibid., 106

<sup>133</sup> While he makes no effort to account for it, this notion of psychological necessary connection between cause and effect had been noted by Avicenna in his discussion of causal priority, where he argues that “if the existence of either [cause or effect] has occurred in the mind, then the existence of the other must occur in the mind.” (*al-Ilahiyyat*, 4.1.13, 128)

<sup>134</sup> *Treatise*, 60

<sup>135</sup> *Treatise*, 1.2.5, 60

<sup>136</sup> *Treatise*, 1.2.5, 61

### 3. Hume's Critique of Occasionalism

Hume's particular debts to occasionalism have been noted or alluded to repeatedly thus far in the chapter, and indeed the latter chapters of this dissertation serve as a large-scale continuation of that analysis. This being so, I shall not examine further inheritances or commonalities between the two further here, but shall at present turn to Hume's criticism of occasionalism and the remarkable way in which he turns occasionalist principles, and indeed the very logic of occasionalism itself, against occasionalist *metaphysics* with profound results. Hume's analysis and critique of occasionalism comes in two very distinct forms. In the *Treatise* Hume offers a charitable and appreciative analysis of occasionalism that lends itself to a devastating internal critique of its most sacred principles; but later in the *Enquiry* Hume's analysis is mocking and his critique shallow and external.

*Hume's critique of occasionalism in the Treatise.*

Malebranche offered two causal arguments in favor of occasionalism. The first is from the Cartesian doctrine of the essential inertness of body:

It is clear that no body, large or small, has the power to move itself. A mountain, a house, a rock, a grain of sand, in short, the tiniest or largest body conceivable does not have the power to move itself. Thus, since the idea we have of all bodies makes us aware that they cannot move themselves, it must be concluded that...All natural forces are therefore nothing but the will of God, which is always efficacious.<sup>137</sup>

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<sup>137</sup> *Recherche*, 448-9.

As we have seen, while Hume aligns himself with this occasionalist critique, he does so on the basis of very different reasoning and denies its ultimate conclusion. Malebranche and “the Cartesians” had rejected causal explanation grounded in, or even the existence of forces and powers, on the basis of our clear and distinct idea of the essence of body which *a priori* excludes such things: “As the essence of matter consists in extension, and extension implies not actual motion, but only mobility; [the Cartesians] conclude, that the energy, which produces motion, cannot lie in extension.”<sup>138</sup> That is to say, nowhere contained in our clear and distinct idea of extended substance is there any idea of efficacy or motive force. Insofar as Hume refuses to commit to the Cartesian clarity and distinctness principle by denying the divine guarantee doctrine underlying it, he likewise rejects the ontological upshot of that principle, viz. “everything we clearly and distinctly understand is true in a way which corresponds exactly to our understanding of it.”<sup>139</sup> For Hume, clear and distinct ideas tell us nothing about ontology, but only about possibility, such that “*whatever the mind clearly conceives includes the idea of possible existence, or in other words, that nothing we imagine is absolute impossible.*”<sup>140</sup>

Thus Hume’s rejection of forces and powers is epistemic rather than ontological and is predicated not on veridical insight into the nature of body but rather on the lack of such insight: “the ultimate force and efficacy of nature is perfectly unknown to us.”<sup>141</sup> This skeptical argument is based, as with so many others in Hume, on the empiricist

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<sup>138</sup> *Treatise*, 159

<sup>139</sup> CSM, II 9

<sup>140</sup> *Treatise*, 32. For Hume, it is entirely unclear that we have knowledge of the essence of body sufficient for Descartes’ sweeping claims.

<sup>141</sup> *Treatise*, 159



claim that we lack an impression underlying the disputed idea (sc. of forces or powers).<sup>142</sup>

On this basis Hume insists that:

[W]hen we talk of any being, whether of a superior or inferior nature, as endow'd with a power or force, proportion'd to any effect; when we speak of a necessary connexion betwixt objects, and suppose, that this connexion depends upon an efficacy or energy, with which any of these objects are endow'd; in all these expressions, *so apply'd*, we have really no distinct meaning, and make use only of common words, without any clear and determinate ideas.<sup>143</sup>

Hume's argument here is almost identical to Malebranche's, but superadded with the caveat: "whether of a superior or inferior nature." That is, Hume regards talk of a divine power as equally vacuous to talk of corporeal powers, as follows from his insistence that we have no impression of any such things:

[T]he principle of innate ideas being allow'd to be false, it follows, that the supposition of a deity can serve us in no stead, in accounting for that idea of agency... For if every idea be deriv'd from an impression, the idea of a deity proceeds from the same origin; and no impression, either of sensation or reflection, implies any force or efficacy, 'tis equally impossible to discover or even imagine any such active principle in the deity.<sup>144</sup>

Such fundamental differences on this point between Malebranche and Hume extend from their rationalist/empiricist disagreement as to the origination of concepts, particularly concerning 'the divine' and 'the infinite.' Malebranche accepted and elaborated on Descartes' claim that the infinite has epistemic priority over the finite, by arguing, with Plato, that our perceptual acquaintance of finite beings was a *via negativa* derivative of our underlying acquaintance with the infinite through pure intellection, and

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<sup>142</sup> *Treatise*, 157-8

<sup>143</sup> *Treatise*, 162

<sup>144</sup> *Treatise*, 160

thus that “the ideas of the senses and of the imagination are distinct only to the extent that they conform to the ideas of pure intellection.”<sup>145</sup> That is to say, and central to his infamous thesis of vision in God, Malebranche maintained that our finite perceptual awareness was a confused but nonetheless real perception of the infinite.<sup>146</sup> In this he followed Descartes, who likewise privileged the infinite and viewed the finite as derivative.<sup>147</sup> Hume, by contrast, held to the empiricist view, extending from Locke and Gassendi, that we have no perceptual acquaintance with—and thus clear idea of—the infinite whatsoever, but only with discrete objects and their finite qualities.<sup>148</sup> Therefore, our notion of the infinite being is but a theoretical abstraction by which we amplify and combine finite predicates and thus come to some metaphysical conception of an infinite being through a kind of theogonic differential summation.<sup>149</sup> But, inherent to this calculus, we can never generate anything not contained in the original units. Hume thus concludes that the Cartesian principle that “nothing can be the cause of another, but

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<sup>145</sup> *Recherche*, 3.2.3, 224.

<sup>146</sup> McCracken 1983, 267

<sup>147</sup> AT VII, 45-46; CSM II, 31

<sup>148</sup> As Locke caustically notes in his *Examination* of Malebranche: “we are told that we have ‘not only the idea of infinite, but before that of finite.’ This being a thing of experience, every one must examine himself; and it being my misfortune to find it otherwise in myself, this argument, of course, is like to have the less effect on me, who therefore cannot so easily admit the inference... And I cannot but believe many a child can tell twenty, have the idea of a square trencher, or a round plate, and have the distinct clear ideas of two and three, long before he has any idea of ‘infinite’ at all.” (§34) Similarly, in his *Remarks Upon Some of Mr. Norris’s Books*, Locke concedes the claim made by Norris (an English Malebranchean) that: “We have a ‘distinct idea of God,’ whereby we clearly enough distinguish him from the creatures; but I fear it would be presumption for us to say, we have a clear idea of him, as he is in himself.” (§5)

<sup>149</sup> “The idea of God, as meaning and infinitely intelligent, wise, and good Being, arises from reflecting on the operations of our own mind, and augmenting, without limit, those qualities of goodness and wisdom.” (*Enquiry*, 19) On this point Hume is clearly indebted to Peter Browne. In *The Procedure, Extent, and Limits of Human Understanding*, published 1728 eleven years before Hume’s *Treatise*, Browne is adamant that “we have no *Idea* of God... but from the observation and reasoning of the Mind upon the Ideas of Sensation.” (I. iii. 81; cf. III. viii) This “reasoning” involves “removing from him all the Imperfections of the Creatures; and attributing to him all their Perfections, and more especially those of our own Minds.” (*Ibid.*, 82)

where the mind can perceive the connexion in its idea of the objects” cannot but imply “that there is no such thing in the universe as a cause or productive principle, not even the deity himself; since our idea of that supreme Being is deriv’d from particular impressions, none of which contain any efficacy, nor seem to have *any* connexion with *any* other existence.”<sup>150</sup>

If we follow Hume in dropping all talk of power of efficacy, even in the divine, what follows for necessary connection? As noted earlier, Malebranche denied that minds have the power to move bodies, for “when we examine our idea of finite minds, we do not see any necessary connection between their will and the motion of any body whatsoever. On the contrary, we see that there is not and that there can be none.”<sup>151</sup> Malebranche’s master argument for occasionalism was defining causation in terms of necessary connection and then insisting that only the will of an infinitely powerful and omnipotent being is capable of bestowing a necessary connection, for:

[W]hen one thinks about the idea of God, i.e. of an infinitely perfect and consequently all-powerful being, one knows there is such a [necessary] connection between His will and the motion of all bodies, that it is

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<sup>150</sup> *Treatise*, 248. This line of reasoning was anticipated by Averroes in his *Kitab fasl al-amqal* [*On the Harmony of Religions and Philosophy*], where he argues: “It should be known that [to deny] the effect of the causes on the results of them... is to deny the Creator, not seen by us. For the unseen in this matter must always be understood by a reference to the seen.” (*Kitab fasl al-amqal*, 16-17) That is to say, under the occasionalist denial of ‘natural causes,’ any inference from the visible to the invisible, or from the observed to the unobserved, cannot be substantiated. Averroes, as a fanatical defender of natural religion and the cosmological argument, considers this (i.e. the problem of induction) to be a patent absurdity and heresy, saying that: “if we ignore the causes and their effects, then there remains nothing to refute the arguments of those who believe in the creation of the universe by chance alone, that is, those who say that there is no Creator at all, and that which has come into being in this universe is the result of material causes.” (Ibid., 8-9) From the other side of the looking glass Hume embraces such a conclusion in spite of, or perhaps, *because* of its atheistic implications. Indeed, he advances it a step further, arguing, most famously in the *Dialogues Concerning Natural Religion*, that there is nothing to refute the arguments of those who believe in the creation of the universe by no cause whatever. (*Dialogues*, viii; cf. Sextus, *Adversus mathematicos*, ix.197-199)

<sup>151</sup> *Recherche*, 448

impossible to conceive that He wills a body to be moved and that this body not be moved...because it is a contradiction that He should will and that what He wills should not happen.”<sup>152</sup>

Thus, even granting that we lack any distinct idea of power, force, or efficacy, insofar as we have an idea of God and omnipotence (which Hume does not deny, he just does not believe it to be innate), we still *analytically* understand the necessary connection between the God’s will and its effect.<sup>153</sup>

Hume objects to the claim that whatever God wills is logically necessary by saying that we lack any notion of the *means* by which God can bring about such effects, and thus the concept of necessary connection remains ephemeral.<sup>154</sup> Yet this criticism misses the point. While our ignorance of *how* our volitions bring about our bodily effects was central to Malebranche’s rejection of mind-body causation, Malebranche insisted that: “God needs no instruments to act; it suffices that He wills in order that a thing be.”<sup>155</sup> Yet, as Hume notes, the occasionalist insistence on this point is deeply unsatisfying precisely in that the argument here is entirely analytic and thus *definitional*.<sup>156</sup> Simply because we have the concept of omnipotence tells us nothing about the nature of reality and, in this sense, by demanding that the omnipotence of God’s will necessarily connects with its effects, occasionalism violates the deeper logic

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<sup>152</sup> *Recherche*, 6.3, 450

<sup>153</sup> Radner 1978, 41

<sup>154</sup> *Treatise*, 249

<sup>155</sup> *Recherche*, 6.3, 450

<sup>156</sup> *Treatise*, 248-249

of the critique of causation regarding the separability of cause and effect;<sup>157</sup> its founding conviction is little more than a circular asseveration, for, as Hume points out: “in saying that the idea of an infinitely powerful being is connected with that of every effect, which he wills, we really do no more than assert, that a being, whose volition is connected with every effect, is connected with every effect.”<sup>158</sup>

In isolating out the logical kernel of the occasionalist critique, namely the principle of separability between cause and effect, Hume *offers the possibility* of turning this maxim against occasionalism itself. As Charles McCracken argues in his seminal *Malebranche and British Philosophy*:

To Hume, it is quite possible for us to imagine that God wills something, and also to imagine that that thing does not occur. God’s will and the event he wills are separate things, and if two things are separate, we can imagine one to exist or to occur without having to imagine that the other does, too. Thus we can imagine God’s decreeing that it rain today and at the same time imagine that all day the sky remains clear.<sup>159</sup>

While this *logical* argument represents perhaps the most profound objection to occasionalism, puncturing the very core of occasionalism’s master argument with the stiletto of its own master principle, it does not, in fact, belong to Hume. McCracken does not quote or cite Hume in the above interpretation and I have been completely unable to locate such an argument, even after an intensive search of Hume’s philosophical works. It is nowhere in the *Enquiry*; and the sections of the *Treatise* where one would expect it to

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<sup>157</sup> Indeed, it flirts with Spinozism as it requires, through the principle of identity inherent to all relations of necessity, that God must *contain* His creation. This problem Malebranche was never able to effectively resolve and is endemic to all Platonic metaphysical systems.

<sup>158</sup> *Treatise*, 1.4.5, 248-9

<sup>159</sup> McCracken, 267

come up,<sup>160</sup> Hume at most reiterates the *epistemological* argument that our notion of God is derived from experience, we have no experience of power, efficacy, or connection, and therefore appeal to divine power is vacuous. While McCracken's interpretation goes beyond the text, I would readily concede that such an argument may be facilely inferred from Hume's foregoing claims, as well as his infamous rejection of the necessity of a cause for existence. Indeed, it would not be surprising that Hume was aware of the argument, but refrained from pursuing the argument in such terms given its inflammatory nature (i.e. insofar as it proposes that logical coherency of divine impotence) and his reputation as an acediasist.<sup>161</sup> Regardless, this extension of Hume's argument is devastating to occasionalist metaphysics to an extent only matched by Fontenelle. Unless one accepts a pantheism, one is committed to the view that the divine, including the divine will, is ontologically distinct from the creation; and it is therefore *possible* to conceive of a divine volition not followed by its effect given the (*onto*)*logical* fact that the volition and the effect are distinct and non-identical. As such, one is forced to concede, *pace*

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<sup>160</sup> Viz. 157-169, 248-250, and 632-3.

<sup>161</sup> Hume seems to have been decidedly concerned with charges of atheism and this concern crops up precisely in those sections of the *Treatise* where he is attacking occasionalism. Thus after his second and most strident set of arguments against occasionalism, Hume concedes: "There is only one occasion when philosophy will think it necessary and even honourable to justify herself, and that is, when religion may seem to be in the least offended...If any one, therefore, shou'd imagine that the foregoing arguments are any ways dangerous to religion, I hope the following apology will remove his apprehensions...If my philosophy...makes not addition to the arguments for religion, I have at least the satisfaction to think it takes nothing from them, but that every thing remains precisely as before." (250) Likewise, in the Appendix to the *Treatise*, Hume wished to add an elucidation to his first set of arguments against occasionalism (pg. 161) that explains his rejection that we can derive a notion of power from introspection on the minds control of the body, at the end of which he includes a footnote explaining that: "The same imperfection attends our ideas of the Deity; but this can have no effect either on religion or morals. The order of the universe proves and omnipotent mind...Nothing more is requisite to give a foundation to all the articles of religion, nor is it necessary we shou'd form a distinct idea of the force and energy of the supreme Being." (633) The difference here between the timid young Hume eager for university employment and the older, perhaps bitter, Hume of the *Dialogues* is striking. Yet, even in that later work, Hume does not have Philo or Cleanthes expound McCracken's argument, so perhaps he never saw it to begin with.

Malebranche, that it can be no logical contradiction to affirm the former and yet deny the latter. Here, then, we have reached something of a horizon in occasionalist metaphysics, for we are forced into the recognition that a metaphysical impossibility, namely the failure of the divine will (the impotence of omnipotence), is nonetheless logically possible.

*Hume's critique of occasionalism in the Enquiry*

Aside from the not so minor fact that Malebranche (along with Bayle) went from being one of the most celebrated philosophers in Europe at the beginning of the eighteenth-century, to a virtual unknown in the nineteenth, perhaps the main reason why Hume's debt to occasionalism escaped notice for so long was as the result of his active attempt to suppress and downplay the debt later in life. He advised Michael Ramsay in 1737 "read...over la Recherche de la Verite of Pere Malebranche" before reading his own *Treatise*,<sup>162</sup> described occasionalism therein as an "opinion...well worth our attention,"<sup>163</sup> cited Malebranche favorably, and, a previously noted, even lifted entire passages from the work to make his own point.<sup>164</sup> However, by the time we reach the *Enquiry*, Hume offers nothing but ridicule and aspersion when considering the doctrine of occasional causes, and derogates the advancements of occasionalism underlying his own project, as can be seen when he claims that:

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<sup>162</sup> Popkin 1964, 774-775

<sup>163</sup> *Treatise*, 160

<sup>164</sup> *Treatise*, 158

[P]hilosophers, who carry their scrutiny a little farther [than the vulgar], immediately perceive that, even in the most familiar events, the energy of the cause is as unintelligible as in the most unusual, and that we only learn by experience the *Conjunction* of objects, without being ever able to comprehend anything like *Connexion* between them.<sup>165</sup>

This “scrutiny,” which Hume fatuously ascribes to the immediate perception of “Philosophers,” was, in fact, one of the major achievements of occasionalism in the history of philosophy, a point Hume had all but acknowledged in the *Treatise*.<sup>166</sup> To be sure, in the *Treatise* Hume rejected the ultimate conceit of occasionalism as well its central “distinction betwixt *cause* and *occasion*,”<sup>167</sup> a point he dutifully reiterates in the *Enquiry*;<sup>168</sup> but what is different in the *Enquiry* is that these points are simply averred—the insightful arguments behind them being almost entirely extirpated, as if Hume would not deign to provide occasionalism with the labor of refutation—and instead replaced with the sneering ridicule of occasionalism as a “fairy land.”<sup>169</sup> In a footnote to the Section VII, Part I of the *Enquiry*, Hume also avers that occasionalism “had...no authority in England. Locke, Clarke, and Cudworth, never so much as take notice of it.”<sup>170</sup> As Charles McCracken has exhaustively demonstrated, this is patently untrue; and to an extent that would have been impossible for Hume to remain unaware of.<sup>171</sup> Indeed,

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<sup>165</sup> *Enquiry*, 69-70

<sup>166</sup> *Treatise*, 158

<sup>167</sup> *Treatise*, 171. That is to say, occasionalists distinguish between the true “primary” cause (i.e. God) and illusory “secondary” causes which serve only as occasions for the efficacy of the latter. Hume rejects this distinction entirely.

<sup>168</sup> *Enquiry*, 70

<sup>169</sup> *Enquiry*, 72

<sup>170</sup> *Ibid.* Noticeably absent from this list is Berkeley, whom we now know Hume read, and who was profoundly indebted to Malebranche. (See Popkin 1964)

<sup>171</sup> See McCracken, Ch. 5 “English Malebrancheans,” 156-204.



such a harsh remark is ironic in light of Hume's attempt to "reconcile" the views of "Father Malebranche" and "Mr. Locke" in his anonymous 1740 *Abstract of A Treatise of Human Nature*.<sup>172</sup> After all, one generally would not attempt to reconcile views one finds absurd with those which form the basis of one's own philosophy. Regardless, Locke had most certainly "taken notice" of occasionalism; his *Remarks upon Some of Mr. Norris's Books, wherein he asserts P. Malebranche's opinion of our seeing all Things in God*, as well as his more direct *An Examination of P. Malebranche's Opinion of Seeing all things in God*, published p.m.a. in 1720 and 1706 respectively, were both available to Hume. What is revealing about these essays, though, is that Locke purposely withheld them from publication during his lifetime because "he looked upon [occasionalism] to be an opinion that would not spread, but was to die of itself, or at least do no great harm."<sup>173</sup> This contemptuous but prescient opinion seems to have been adopted by Hume in the years following the composition of the *Treatise*.

While he glosses over his arguments against occasionalism from the *Treatise*, Hume does offer two "new" arguments against it that are, nevertheless, rather familiar. As ironic as it might be, it seems likely that, at some point between 1739 and 1748, Hume had either been related or had opportunity to read Leibniz's critiques of occasionalism,<sup>174</sup>

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<sup>172</sup> As he never took credit for the work himself, there is scholarly disagreement over whether or not Hume is indeed the author of the *Abstract*, though the consensus is in the affirmative.

<sup>173</sup> Letter from Locke to Peter King, 25 October 1704; printed by King in the preface to the *Examination* in Locke's *Posthumous Works*, 210. It should be noted that Locke opens the *Examination* with: "The acute and ingenious author of the *Recherche de la Verité*, among a great many very fine thoughts, judicious reasonings, and uncommon reflections..." (§1) This type of encomium was typical of seventeenth-century politesse, but it was also an admission on Locke's part of the great stature Malebranche held at the time. Moreover, Locke was typically inclined to avoid controversy and public disputes with other philosophers, as evident in his "correspondence" with Thomas Burnet and Leibniz.

<sup>174</sup> Likely from Leibniz's public disputes with Arnauld (particularly the 4/30/1687 letter) and Bayle (Clarification of Bayle's Difficulties," GP, IV, 522)

for in the *Enquiry* he advances two quintessentially Leibnizian arguments against occasionalism. Hume explains that “the generality of mankind” are wont to assume that they perceive forces and powers in the connection of ordinary events and that:

It is only on the discovery of extraordinary phaenomena such as earthquakes, pestilence, and prodigies of any kind, that they find themselves at a loss to assign a proper cause, and to explain the manner in which the effect is produced by it. It is usual for men, in such difficulties, to have recourse to some invisible intelligent principle as the immediate cause of that event which surprises them...[and] many philosophers think themselves obliged by reason to have recourse, on all occasions, to the same principle, which the vulgar appeal to but in cases that appear miraculous and supernatural.<sup>175</sup>

This argument essentially reiterates Leibniz’s deprecation of occasionalism as entailing a “perpetual miracle.”<sup>176</sup> A page later he pushes the Leibnizian critique further, claiming that:

[The occasionalists] rob nature, and all created beings, of every power, in order to render their dependence on the Deity still more sensible and immediate. They consider not that, by this theory, they diminish, instead of magnifying, the grandeur of those attributes, which they affect so much to celebrate. It argues surely more power in the Deity to delegate a certain degree of power to inferior creatures than to produce every thing by his own immediate volition. It argues more wisdom to contrive at first the fabric of the world with such perfect foresight that, of itself, and by its proper operation, it may serve all the purposes of providence, than if the great Creator were obliged every moment to adjust its parts, and animate by his breath all the wheels of that stupendous machine.<sup>177</sup>

The Leibnizian nature of this argument is irrefragable, serving as it did as the primary claim made by him in favor of the pre-established harmony over occasionalism: namely that a system in which God must continually intervene to preserve the continued

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<sup>175</sup> *Enquiry*, 70

<sup>176</sup> “Letter to Arnauld,” April 30, 1687

<sup>177</sup> *Ibid.*, 71

progression of the world is the mark of an inferior craftsman compared to a system which is perfectly arraigned from the beginning and requires no intervention.<sup>178</sup> Such an argument had previously been made by Aquinas<sup>179</sup> and was reiterated by Locke in his polemics against occasionalism.<sup>180</sup> While it would seem much more likely that Hume received this line of criticism from Locke rather than Leibniz, evidence to the contrary can be gleaned from a footnote Hume appended to his above critique which notes that: “Descartes insinuated that doctrine of the universal and sole efficacy of the Deity, without insisting on it.”<sup>181</sup> Nowhere does Locke offer such an interpretation; rather, the most prominent philosopher to make such a perspicuous point—confirmed by modern scholarship—was Leibniz, a studious reader of Descartes’ *oeuvre*.<sup>182</sup>

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<sup>178</sup> Letter to Arnauld,” April 30, 1687.

<sup>179</sup> *Summa theologiae*, 1a. 105, 7

<sup>180</sup> “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 perfect power; to make a machine, a watch, for example, that when the watchmaker 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 hours, minds him of it, he should strike twelve upon the bell?” (*Remarks upon Mr. Norris’s Books*, §15)

<sup>181</sup> *Enquiry*, 73

<sup>182</sup> See *Système nouveau*, 143. Leibniz was not, however, the first to point this out. In 1687, eight years before Leibniz, Pierre de Villemandy (a scholastic professor and critic of Cartesianism) noted that Descartes was responsible for initiating the development of skepticism concerning the efficacy of secondary causes—and occasionalism by extension—even though he himself did not deny the real activity of such causes. (*Traité de l’efficace*, 7-8. See Clarke’s “Introduction” to La Forge’s *Treatise on the Human Mind*, xx)

## CHAPTER III

### HELLENIC PHILOSOPHY AND THE GOD OF ABRAHAM

With what is too much for you meddle not, and do not search out the things which are beyond you.

—Solomon, (Sir. 3.22-23)

There are fools who seek to understand the secrets of nature and the far more difficult secrets of God, with supercilious pride, instead of accepting them in humble faith. They cannot approach them, let alone reach them. These fools imagine they can grasp the heavens with their hands. Moreover, they are content with their erroneous opinion and actually imagine to have grasped truth.

—Petrarch, *Dell'ignoranza sua e d'altrui*

#### 1. Reconciling Plato with Moses

Intellectual golden ages are often identified as concurrent with political golden ages, yet the greatest fruits of Ancient Greek Philosophy were borne after the devastation of the Peloponnesian War, Byzantine scholasticism after Yarmouk, Italian natural philosophy after the Renaissance, and Venetian arts in the *Settecento*. So it was in the world of Islam, which produced its three greatest philosophers not at its political zenith in the eighth and ninth centuries, but rather in the eleventh and twelfth-centuries when the Caliphate had fractured in three, local emirs carved out essentially independent fiefdoms, and the armies of Christendom were on the advance in Iberia and the Levant. These philosophers hailed from the farthest flung corners of what was once the Islamic Empire: Avicenna and al-Ghazali (along with al-Burundi and al-Farabi) from Khorasan and Transoxiana in the Far

East, and Averroes from al-Andalus in the far West.<sup>1</sup> Yet, in spite of this, they were collectively the foremost representatives of a wide-ranging and remarkably conversant dispute that was to become the touchstone of Western philosophy for nearly six centuries.

The dispute fundamentally centered on the deeply problematic relationship between rationalistic Greek philosophy and the dogmas of the Abrahamic religions that seemed incommensurable with this tradition, namely the doctrine of creation *ex nihilo* and the possibility of miracles. There was a pervasive tendency in later antiquity among those Jews, Christians, and Muslims educated in Greek philosophy to be embarrassed by the ‘abominations of reason’ latent in their religious creeds; and thus impelled to attempt a synthesis between their dissonant beliefs.<sup>2</sup> Early representatives of this synthesis were Philo of Alexandria and Origen on behalf of Judaism and Christianity, and al-Kindi on behalf of Islam.<sup>3</sup> These attempts to harmonize Abrahamic monotheism with the philosophy of the pagans invariably provoked a reaction from those who sought to uphold the dogmas of orthodoxy without philosophical equivocations and rationalizations they inevitably employed.

The most notorious and recalcitrant of the ‘abominations’ was the *creatio ex nihilo* doctrine; and thus I shall endeavor to examine the history of the dispute

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<sup>1</sup> A situation not unlike philosophy in classical and Hellenistic antiquity: the place-surnames of its luminaries trace the fringes of the Greek world, from Italy, Thrace, and the Euxine, to Alexandria and the far flung Hellenic settlements of the Selucid realm.

<sup>2</sup> Lovejoy colorfully describes this synthesis: “Perhaps the most extraordinary triumph of self-contradiction, among many such triumphs in the history of human thought, was the fusion of [the Platonic-Aristotelian] conception of a self-absorbed and self-contained Perfection...at once with the Jewish conception of a temporal Creator and busy interposing Power making for righteousness through the hurly-burly of history.” (157)

<sup>3</sup> It should be noted that all three of these figures remained orthodox in their views on the creation.

surrounding it as a particular instantiation and representative of the overall global tension between the systems of pagan philosophy and Abrahamic religion. In the opening centuries of the Common Era, the *ex nihilo* doctrine quickly hardened into a point of contention just below Christology in early-Christian debates, largely due, as in the case of Christology, to the lack of explicit scriptural testimony. Even though the Old Testament makes no explicit reference to God's creation of the world out of nothing, such an occurrence was insisted upon by the earliest church Fathers, who cited the ambiguous passage in Maccabees 7:28 as justification: "I beg you, my child, to look at the heaven and the earth and see everything that is in them, and recognize that God did not make them out of things that existed. And in the same way the human race came into being." Now, *prima facie*, this appears like a fairly direct and explicit statement of the *ex nihilo* doctrine. Nonetheless, the notion of "existing things" could be interpreted expansively to include *anything whatever*, or (as it was by some Church Fathers) strictly in terms of *material things*, which thus excludes intelligible entities. More importantly, the comparison of the creation of the world to the creation of the human race is problematic, for in Genesis Adam is said to have been created out of earth<sup>4</sup> while Eve was made from Adam's rib.<sup>5</sup> The New American Bible provides a footnote to this passage explaining: "God did not make them out of existing things: that is, God made all things solely by his omnipotent will and his creative word; cf. Hebrews 11:3." Clearly, "solely" here is intended in the expansive sense, i.e. to exclude any matter or form external to the divine will, but Hebrews 11:3 says only that: "By faith we understand that the universe was

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<sup>4</sup> 2:7

<sup>5</sup> 2:22

ordered by the word of God, so that what is visible came into being through the invisible.” If anything, this passage, speaking of an “invisible” through which God orders the universe, seems to suggest that creation was not *ex nihilo* but instead rendered from some pre-existent form, if not material.<sup>6</sup> Lastly, the Apocryphal and thoroughly Hellenized “Book of Wisdom”<sup>7</sup> explicitly describes God as creating the world out of “formless matter,”<sup>8</sup> a point repeated by the Hellenized Jew, Philo of Alexandria.<sup>9</sup>

Regardless, in the absence of direct scriptural support for the doctrine of creation *ex nihilo*, it was justified by the second and third century Church Fathers as necessary for the coherence of other Christian dogmas, such as the equality of the three persons of the Trinity (a notion that also lacks scriptural support) which was interpreted to deny the existence of anything coeternal with triune.<sup>10</sup> Thus, Tatian the Assyrian, one of the earliest Christian authors to definitively support the *ex nihilo* doctrine, argues that “matter is not, like God, without beginning, nor, as having no beginning, is of equal power with God; it is begotten, and not produced by any other being, but brought into existence by

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<sup>6</sup> Other passages that have been quoted in support of the *ex nihilo* doctrine include Colossians 1:16, 1 Corinthians 1:28, Hebrews 1:2, Isaiah 44:24, Jeremiah 32:17, John 1:3, Nehemiah 9:5-6, Psalm 33:6, Proverbs 3:19, Revelation 4:11, and Romans 4:17. All of these, in addition to the early “Apostles Creed,” are ambiguous in that they refer to God as the creator of the world, but are never explicit as to the metaphysics of the creation. Only the apocryphal *Shepard of Hermas*, which was bound with the New Testament in the *Codex Sinaiticus*, is definitive on this point, extolling “God, who dwells in the heavens, and made out of nothing the things that exist.” (Vision 1.1). This line was later cited by Origen, Athanasius, Methodius, and Irenaeus of Lugdunum in support of the *ex nihilo* doctrine.

<sup>7</sup> Also known as “The Wisdom of Solomon.”

<sup>8</sup> 11:17

<sup>9</sup> See *Quis rerum divinarum heres sit*, 140; *De specialibus legibus*, 328. Whether Philo intended to deny the doctrine of creation *ex nihilo*, or was merely speaking in (Middle Platonic) terms likely to be appreciated by his Greek speaking audience is unclear. (See Wolfson, *Philo*, I. 300-309)

<sup>10</sup> Wolfson, “Twice-Revealed Averroes,” in *Inquires into Medieval Philosophy*, 217

the Framers of all things alone.”<sup>11</sup> Likewise the Platonist convert to Christianity, Athenagoras of Athens, in his apologetic epistle to Marcus Aurelius and Commodus, maintains that Christians: “distinguish God from matter, and teach that matter is one thing and God another, and that they are separated by a wide interval (for that the Deity is uncreated and eternal, to be beheld by the understanding and reason alone, while matter is created and perishable).”<sup>12</sup> Or, as Augustine argued in the fifth century: if things were generated *of or from* God, rather than made *by* God, this would irrevocably undermine the divine transcendence for “they would be equal to Thine Only-begotten, and thereby even to Thee.”<sup>13</sup> This principle then formed the ground of a distinction made by the Church Fathers (against the Gnostic and Arian heresies, who likewise rejected the *ex nihilo* dogma) between the creation of the world *ex nihilo* or “from things non-existent” (*non fit ex aliquo*) and the creation of the Word “from the true Father himself.”<sup>14</sup> Thus, Tertullian, widely credited as the father of the Latin Church for his elaboration of the doctrine of the Trinity and other doctrines, denounced the Platonist doctrine of the first century bishop Hermagoras of Aquileia, which held God to have shaped the world out of preexistent matter.<sup>15</sup> He insists on the *ex nihilo* doctrine as a *regula fidei* integral to the creed of all true believers:

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<sup>11</sup> *Oratio ad Graecos*, §5

<sup>12</sup> *Apologia pro Christianis*, §4

<sup>13</sup> *Confessions*, Bk. XII, Ch. 7

<sup>14</sup> Alexander of Alexandria, *To Alexander Bishop of the City of Constantinople*, §11. Similar arguments were made by Athanasius of Alexandria, John Damascene, and Hippolytus of Rome. (Wolfson, “The Meaning of *Ex Nihilo* in the Church Father, Arabic and Hebrew Philosophy, and St. Thomas,” 208)

<sup>15</sup> *Adversus Hermogenem*, §33; see also *De Resurrectione Carnis*, §11



Now, with regard to this rule of faith—that we may from this point acknowledge what it is which we defend—it is, you must know, that which prescribes the belief that there is one only God, and that He is none other than the Creator of the world, *who produced all things out of nothing through His own Word*.<sup>16</sup>

Similarly, Irenaeus of Lugdunum inveighs against the Gnostics:

They do not believe that God...created matter itself, inasmuch as they know not how much a spiritual and divine essence can accomplish...For, *to attribute the substance of created things to the power and will of Him who is God of all*, is worthy both of credit and acceptance. It is also agreeable [to reason], and there may be well said regarding such a belief, that ‘the things which are impossible with men are possible with God.’ While men, indeed, cannot make anything out of nothing, but only out of matter already existing, yet God is in this point preeminently superior to men, that He Himself called into being the substance of His creation, when previously it had no existence.<sup>17</sup>

Irenaeus, therefore, binds the doctrine of the divine omnipotence to the doctrine of creation *ex nihilo*, a point that was to be of some importance in the development of occasionalist theology and metaphysics.

However, all of these Church Fathers wrote during the second and early third centuries, while the major impetus of Christian neo-Platonism was provided by the *Enneads* of Plotinus in mid third century. Plotinian neo-Platonism proved uniquely compatible with Abrahamic theology insofar as it navigated a new metaphysics concerning the relation of Creator and creation. Unlike the Old Platonic doctrine in the *Timaeus* of an eternal matter that God provides form to,<sup>18</sup> or the Aristotelian doctrine of

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<sup>16</sup> *De praescriptione haereticorum*, §13; emphasis added

<sup>17</sup> *Adversus Haereses*, 2.10.3; emphasis added

<sup>18</sup> 48-51b. Many Christians had been wont to interpret the story of creation in the *Timaeus* as *ex nihilo*, but the first philosopher to advance this position was the pagan neo-Platonist Hierocles of Alexandria, who, somewhat uniquely, attempted a synthesis of Greek philosophy and Christianity from the vantage of a pagan philosopher. (Photius, *Bibliotheca*, §251; cf. Grant, 39)

an ontologically complete world operating of its own accord with God only as its final cause,<sup>19</sup> Plotinus conceived of the creation as an eternal emanation from the divine essence.<sup>20</sup> This metaphysics of creation was appealing to early Christian and Islamic philosophers for two reasons. First, as Harry Wolfson notes: “With the appearance of this new conception of the origin of the world the question was raised whether...the traditional belief in creation *ex nihilo* could not be interpreted to mean the temporal generation of the world from the essence of God.”<sup>21</sup> That is to say, Plotinus and his successors offered a sophisticated metaphysical model by which to understand the *temporal* generation of the world, which, while not perhaps strictly *ex nihilo*, still denied any preexistent eternal matter or the independence of the material world to God. Second, the Plotinian model also had the advantage of granting God the status of the continual *efficient* cause of creation, rather than merely its final cause. As will be seen, this conception of God as the continual *efficient* cause was to be an issue of considerable importance in the development of both Islamic neo-Platonism, *as well as* the rival Ash’arite tradition—not to mention the later Thomistic concurrentist and Cartesian occasionalist traditions.

The fourth century Cappadocian Father Gregory of Nyssa was the first true Christian neo-Platonist in that he was the first to identify creation *ex nihilo* with

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<sup>19</sup> See *Metaphysics* 1072b1-13, *Physics* 258b10-15

<sup>20</sup> While Plotinus rejects the Platonist notion of matter external to and preexisting the One, he also follows them in identifying matter as non-being. (*Enneads*, iii. 6.6) This identification must have been an old one among the Platonists of the Academy insofar as it is related by Aristotle. (*Physics*, 192a5) It was also a fecund source of confusion when viewed in terms of the *ex nihilo* doctrine, particularly among early Islamic philosophers under the influence of Plotinus. (Wolfson, *op. cit.*, 213)

<sup>21</sup> Wolfson, *op. cit.*, 208

emanation.<sup>22</sup> The groundwork of this logical contortion had been well prepared by Plotinus himself: In explaining “the origin and order of the beings which come after the First,” Plotinus avers:

It is because there is nothing in it that all things come from it...the One is not being, but the generator of being. This, we may say, is *the first act of generation*: the One, perfect because it seeks nothing, has nothing, and needs nothing, overflows, as it were, and its superabundance makes something other than itself.<sup>23</sup>

While this inversion of Parmenides’s dictum is clever, it must be admitted that it is metaphysical nonsense.<sup>24</sup> Precisely how, much less *why* non-Being is impelled on the basis of its own nothingness to generate Being—and not just ‘Being’ but singular, distinctive, token *beings*—is left entirely unexplained by Plotinus, undoubtedly because such an existential transmutation is fundamentally inexplicable.<sup>25</sup> From Gregory’s perspective, however, this was all the better: Not at liberty to identify God literally with ‘nothing,’ Gregory creatively interpreted the concept of ‘nothing’ or ‘non-existence’ to signify rational incomprehensibility. Given the wide Christian acceptance of the inscrutability of the divine nature, Gregory presents his interpretation as one of orthodox

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<sup>22</sup> This identification, along with his open (not tacit like Gregory of Nazianzus) embrace of the apocatastatic teachings of Origen, is likely what kept Gregory from being canonized or declared a Doctor of the Church in 1568 along with the other two Cappadocian Fathers; though he has been so elevated by the Eastern Chaldean and Syro-Malabar Catholic Churches.

<sup>23</sup> *Enneads*, v. 2.6-10; emphasis added

<sup>24</sup> This view, that the superabundance of the demiurge was responsible for the creation of the cosmos, is nonetheless inherited from Plato’s *Timaeus*, albeit with the notable exception of becoming out of nothing: “Now why did he who framed this whole universe of becoming frame it? Let us state the reason why: He was good, and one who is good can never become jealous of anything. And so...he wanted everything to become as much like himself as was possible...this, more than anything else, was the most preeminent reason for the origin of the world’s coming to be. The god...brought [all that was visible] from a state of disorder to one of order, because he believe that order was in every way better than disorder.” (29e-30a) This conception of a god who orders a preexisting chaos is, it must be admitted, vastly more intelligible than Plotinus’ conception. However, by Plotinus’ day in the third-century, the *ex nihilo* requirement had taken hold.

<sup>25</sup> Cf. Filippenko and Pasachoff, ([http://www.astrosociety.org/pubs/mercury/31\\_02/nothing.html](http://www.astrosociety.org/pubs/mercury/31_02/nothing.html))

piety, maintaining that creation *ex nihilo* is simply the way finite human minds understand emanation *de essentia Dei*.<sup>26</sup>

Even though this interpretation allows Gregory to pay lip service to the *ex nihilo* doctrine, it was not merely rhetorical, but rather designed to resolve a central ambiguity in that doctrine pervading early Christian thought, as well as resolve a pernicious problem in neo-Platonist metaphysics. On the first point, as noted earlier, the Christian Fathers were almost universal in their rejection of God creating the world out of pre-existent matter co-eternal with Him; yet the question of what Plotinus called “intelligible matter” was more ambiguous. Justin the Martyr, in his letter to Antoninus Pius, maintained that the Platonic doctrine of creation in the *Timaeus* was taken from Moses, in which God “altered matter which was shapeless.”<sup>27</sup> His student, Theophilus of Antioch, rejected the Middle-Platonic doctrine of pre-existent matter as violating the sovereignty of God, insofar as anything uncreated is immutable, and thus equal to God. He also argues that, were God to have created the universe out of pre-existent material rather than *ex nihilo*, his act of creation would have been no more remarkable than that of a human artisan.<sup>28</sup> Yet, Theophilus ambiguously defines the *creatio ex nihilo* thus: “all things God has made out of things that were not into things that are.”<sup>29</sup> Assuming Justin’s “matter which was shapeless” refers not to actual physical matter, but rather to Forms or intelligible matter, these two statements are compatible; for the notion, common among the second-century Church Fathers, that God created from ‘things non-existent’ left open the status

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<sup>26</sup> Wolfson, “The Identification of *Ex Nihilo* with Emanation in Gregory of Nyssa,” 205.

<sup>27</sup> *Apologia prima*, 59

<sup>28</sup> *Apologia ad Autolyicum*, ii. 4

<sup>29</sup> *Apologia ad Autolyicum*, i. 4

of intelligible entities.<sup>30</sup> Gregory exploits this ambiguity, rejecting those like Hermagoras who believe “matter is co-eternal with [i.e. outside] God,” and insists on the Plotinian interpretation of matter as an emanation from the divine essence.

Moreover, Gregory wished to avoid the customary arguments against emanationism, such as those posed by his coeval Basil of Caesarea, that, even though the neo-Platonists believed that God was the cause of the world, they regarded Him as “but an involuntary cause, as a body is the cause of the shadow and flame is the cause of the brightness,” which entailed that “the world co-existed with God from eternity.”<sup>31</sup> Diverting from neo-Platonic doctrine, Gregory insisted that the divine emanation was both volitional and, unlike God Himself, had a temporal origin.<sup>32</sup> More importantly, Gregory attempted to address the problem (which is intrinsic to all forms of rationalism) of, as Plotinus puts it: “How...do all things come from the One, which is simple and has in it no diverse variety?”<sup>33</sup> In the Christian tradition this metaphysical quandary is theologically particular, insofar as it poses the question, as summarized by Gregory: “If

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<sup>30</sup> Whether Theophilus or other authors in the second century understood any meaningful distinction between creation “from nothing” or “from non-existence” and creation from “things that were not” or “things non-existent” is unclear, though the former formulation was preferred by later writers following Tatian the Assyrian and Hippolytus of Rome. Indeed there appears to be something of a development in early Christian thought from the notion that God created the world out of a pre-existent matter, to creation from *things* non-existent, to a definitive doctrine of creation from *no-thing*. A definitive doctrinal rejection of creation from eternal forms or intelligible matter does not come until the second Ecumenical Council of 381 and its revision of the Nicene Creed into the Nicene-Constantinopolitan Creed, which declared that: “We believe in one God, the Father Almighty, Maker of *heaven and earth*, and of all things visible and invisible.” (*Symbolum Nicaenum*)

<sup>31</sup> Wolfson, *op. cit.*, 200.

<sup>32</sup> Wolfson, *op. cit.*, 201. Gregory’s reasoning, as well as the nebulous concept of emanation being temporal and volitional, is rejected by John of Damascus, who insists that emanation must be understood as “without beginning and everlasting, being the work of nature and produc[ed] out of His own essence...while creation in the case of God, being the work of will, is not co-eternal with God. For it is not natural that that which is brought into existence out of nothing should be co-eternal with what is without beginning and everlasting.” (*De Fide Orthodoxa*, 1.8)

<sup>33</sup> *Enneads*, v. 2.5

God is in His nature simple and immaterial...in what way can matter be born from the immaterial, or a nature which is dimensional from that which is non-dimensional?”<sup>34</sup>

Gregory responds that the various material forms or “intelligible objects” emanated from the divine essence, while lacking corporeality themselves, are combined in particular ways to produce the material substratum undergirding corporeal existence. In this way God, while containing these material forms eminently as ‘intelligible matter,’ remains transcendent to the creation in terms of its ontic corporeality.<sup>35</sup>

Regardless of its philosophical and theological difficulties, this identification of *creatio ex nihilo* with emanation *de essentia Dei* was to become the touchstone of all Abrahamic neo-Platonism. An extremely important transitional figure in this tradition was pseudo-Dionysius the Areopagite,<sup>36</sup> who held that God “produces substances by an outgoing from essence.”<sup>37</sup> While pseudo-Dionysius did not elaborate on the metaphysics of creation entailed by such a conception, his great commentator and expositor in the West, Johannes Scotus Eriugena, not only recapitulated Gregory’s identification of *ex nihilo* with emanation, but also his argument for it, namely the definition of *nihil* as that

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<sup>34</sup> qtd. by Wolfson, *op. cit.*, 202

<sup>35</sup> Wolfson, *op. cit.*, 203. This obvious problem with this argument, of which Spinoza was particularly aware, is that it does not explain how the ontological gulf between the material and the immaterial can be bridged in such a fashion: How can a corporeal object be produced by an agglomeration of intelligible objects, none of which possess corporeality? As John Damascene notes, contradicting Plotinus: “generation means that the begetter produces out of his essence offspring similar in essence.” (*De Fide Orthodoxa*, 1.8) Baring such an explanation, any appeal to intelligible objects or matter represents an *obscurum per obscurius*. Gregory should not be faulted excessively: this problem, along with the wider issue of diversity within unity, proved utterly intractable and remained with the rationalist tradition down to Leibniz and Hegel.

<sup>36</sup> A sixth century philosopher and theologian—whose proposed identity represents a virtual who’s who list of late-antique luminaries—whose works were spuriously attributed to the first century Athenian disciple of the Apostle Paul.

<sup>37</sup> qtd. by Wolfson, “The Meaning of *Ex Nihilo* in the Church Father, Arabic and Hebrew Philosophy, and St. Thomas,” 209

which is beyond “all that can be said or thought.”<sup>38</sup> This definition of *nihil* “necessarily means God...[a] being utterly beyond all that is.”<sup>39</sup> In this way the square of Moses was constructed equal to the circle of Plato.

Such was the development of Christian neo-Platonic theology in the early-middle ages. If the transmutation of pagan neo-Platonism into Christian neo-Platonism had been a protracted and rancorous project requiring centuries of creative interpretations and reinterpretations of Abrahamic dogma, the transmutation of Christian neo-Platonism into Islamic neo-Platonism was a ready-made affair: the system and its justifications had already been developed, the major doctrines and conception of God were largely the same, and the primary scholars of the Umayyad and Abbasid Caliphates were Greek and Syrian Christians.<sup>40</sup> Moreover, the doctrine of creation *ex nihilo* was never as dogmatically entrenched in Judaism or Islam as it was in Christianity. In Judaism and Islam the *ex nihilo* doctrine was certainly the position of orthodoxy, for example in the *Fiqh al-Akhbar*, but contrary views were also widespread and not considered specifically heretical.<sup>41</sup>

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<sup>38</sup> *De divisione naturae*, 686. This was not the only doctrine of Gregory’s that Eriugena revived. He also promoted apocatastasis, which was the main reason for his eventual condemnation..

<sup>39</sup> Ibid. Cf. Wolfson, 210

<sup>40</sup> Even though Islam, unlike Christianity, was united with political power from its inception, like Christianity, many of its cardinal doctrines, such as Islamic fatalism or the requirement of absolute submission to God were not fully adumbrated until three centuries after the Prophet’s death—largely as a result of the Kalam rejection of Mutazalite neo-Platonism. (Fakhry, *Islamic Occasionalism* 14)

<sup>41</sup> The Qur’an is not entirely clear on the doctrine and seems to imply that that the world was made of smoke. (41:11. Cf. 2:117)

## 2. Islamic Rationalism and the *Falsafa*

The thought of the Arab polymath and father of Islamic philosophy, al-Kindi (Alkindus), marks the tentative beginning of a syncretism of Islam and Greek philosophy. Indeed, al-Kindi's great contribution to Islamic history was cracking the seal of Arab religious and cultural chauvinism and aversion to foreign or pagan ideas,<sup>42</sup> and his attempt to bridge the gulf between the dictates of reason and the dictates of faith, which laid the foundation of the rationalist Mu'tazilite school of Islamic philosophy and theology—collectively known as the *falsafa* [Philosophers].<sup>43</sup> However, gulfs may be bridged in different ways and al-Kindi, like Philo and Origen, was resolved to bridge the gulf between reason and faith from the bank of reason—that is, it was the job of reason and philosophy to reach abreast the chasm and support revealed Truth—and thus stood at some distance from his Mu'tazalite successors. Far from the *duplex veritas* [two truths] doctrine of Averroes, al-Kindi believed both that Islamic dogma could be demonstrated syllogistically *and* that the revealed truth of the prophets held a privileged *but not incommensurable* position over human reason.<sup>44</sup> He also unreservedly defended the doctrine of creation *ex nihilo* against its ancient critics, but through appeal to (highly abstruse) rational arguments rather than revealed truth. In particular, al-Kindi rejected the existence of the “actually infinite” and formulated a barrage of arguments against it which served both to protect the creation of

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<sup>42</sup> An attitude evident in the infamous reasoning of the Rashidun Caliph Umar, who, following the battle of Yarmouk and the conquest of Byzantine Egypt in 641, ordered the destruction of the ancient Library of Alexandria under the justification that the texts there would either support the Koran, in which case they were superfluous, or would contradict the Koran, in which case they were heretical.

<sup>43</sup> Fakhry, *A History of Islamic Philosophy*, 83-85

<sup>44</sup> *Ibid.*, 85-86



the world *ex nihilo* as well its prophesized destruction *ab nihilo*.<sup>45</sup> While such arguments mark the genesis of Islamic rationalism (insofar as he advances rational/metaphysical arguments in support of theological dogma), al-Kindi upheld what was to be the major metaphysical doctrine of the later Kalam theologians: that God, through his *ex nihilo* creative action as the supreme author of the world, is the only real causal agent therein, and that all the supposed activity of creatures (or secondary causes) is merely “passion” by which they receive and transmit the divine efficacy.<sup>46</sup> Such a principle was to become the metaphysical shibboleth of occasionalism all the way down to Malebranche in the early eighteenth-century.

In spite of his own pious orthodoxy, al-Kindi’s seemingly innocuous introduction of Greek philosophy into the Islamic intellectual scene was the spark that ignited a theological war similar to those within Judaism and Christianity, but far more intense and acrimonious. The Mu’tazalite successors of al-Kindi in the ninth and tenth centuries became far more enamored of classical learning and correspondingly far less willing to demand concessions from it in order to accord with the dictates of their faith. Indeed, they flirted openly with heresy at the very center of Muslim power. Al-Kindi’s disciple al-Sarakhi was the tutor of an Abbasid Caliph and was supposed to have espoused heretical views in his court and even inveighed against the prophets in written works.<sup>47</sup>

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<sup>45</sup> Such arguments against the possibility of the actually infinite, or the universe as eternal *eo ipso*, conveniently open the door for a causal proof of God’s existence, for if there is something actual, “it must therefore be generated of necessity. Now what is generated is generated by a generator, since generator and generated are correlative terms. The world as a whole must be generated out of nothing.” (Ibid., 93) As Fakhry notes, the likely source of this argument was John Philoponus, the great philosophical defender of creation *ex nihilo* in late-Antiquity. (Ibid.)

<sup>46</sup> Ibid., 95

<sup>47</sup> Ibid., 114. This, in addition to his undue familiarity, ultimately led to al-Sarakhi’s downfall and execution on orders of the Caliph.

Ibn al-Rawandi was even more radical. One authority claims that he rejected miracles, prophesy and revelation, and upheld eternity of the world as well as Manichaeism and the view that reason unaided was capable of comprehending God. Another claims that he rejected the very possibility of any understanding of God's existence or nature.<sup>48</sup> Such views were taken to their extreme by the heterodox radical al-Razi, who upheld traditional neo-Pythagorean doctrines, such as metempsychosis, that were usually passed over by other Christian and Islamic neo-Platonists.<sup>49</sup>

The tradition of Islamic rationalism was taken to its apogee in tenth and early eleventh century in the elaborate metaphysical systems of the "Baghdad Peripatetics,"<sup>50</sup> the premiere representatives of which were al-Farabi (Abunaser/Alpharabus) and Ibn Sina (Avicenna). While most of al-Farabi's work was lost following the denunciation of the *falsafa* in the eleventh century, it seems likely that he upheld the identification of *ex nihilo* with emanation as the fountainhead of his neo-Platonic system—an idea he likely appropriated from the anonymous but influential Arabic exposition of Plotinian

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<sup>48</sup> Ibid., 114. Clearly these two reports are conflicting: the former views (minus Manichaeism) were common among of the Mu'tazalites, while the latter seem indicative of either a fideistic piety, or a position of general theological skepticism, or both. This contradiction would seem compatible with a common account of al-Rawandi as having begun his studies as a Mu'tazalite but having grown disenchanted with revealed religion later in life. Manicheism has, after all, proven an attractive creed for other philosophers with similar intellectual biographies, such as Voltaire.

<sup>49</sup> Ibid., 119. Al-Razi pushed rationalism beyond neo-Platonism in other ways, regarding the world to be created and temporal but grounded on an eternal substratum that informs it, and expounded a curious argument against the doctrine of creation *ex nihilo* that amounted to an inversion of the principle of plenitude: "if God had been able to create *anything* out of nothing, He would have been bound in reason to create *everything* out of nothing." (Ibid., 121) From what I can tell, this interpretation presumes that "everything" here refers to everything that is possible.

<sup>50</sup> The "Baghdad Peripatetics" were a philosophical school in the capital of the Abbasid Caliphate founded in the early tenth century by Abu Bishr Mattá, a Syriac Nestorian Christian who translated the *Prior Analytics* into Arabic and was the teacher of al-Farabi. See McGinnis, *Classical Arabic Philosophy*, 121-122.

metaphysics known as the *Theology of Aristotle*.<sup>51</sup> While al-Farabi is at pains to emphasize that “in that work it is made clear that God, be He exalted, has created matter from nothing,”<sup>52</sup> Wolfson notes that this is simply not the case, and infers that al-Farabi’s ascription of the *ex nihilo* doctrine to a thoroughly Plotinian treatise “undoubtedly means that in his opinion creation *ex nihilo* meant the same as creation from the essence of God.”<sup>53</sup> This creative interpretation of the *ex nihilo* dogma fits with al-Farabi’s defense of the eternity of the world, for if the world is an emanation from the essence of God, it necessarily emanates from him *ab aeterno*.<sup>54</sup> While al-Farabi’s work was little known to the West in the Middle Ages, Latin translations of works of Avicenna were of considerable importance and the primary source of Aristotelian philosophy in the century prior to the Fourth Crusade (1202-1204). This is a point of some importance because while Avicenna and al-Farabi are typically regarded as neo-Platonist exemplars, their metaphysical work, particularly on causality and the nature of creatures, was emblematic of a *synthesis* of Aristotelianism and neo-Platonism beginning in late-antiquity and the early middle-ages.<sup>55</sup>

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<sup>51</sup> This was an Arabic translation of extracts and paraphrases of Plotinus’ *Enneads* together with Porphyry’s commentary spuriously attributed to Aristotle.

<sup>52</sup> qtd., Wolfson 210

<sup>53</sup> Ibid., 211

<sup>54</sup> Plotinus himself is clear on this point: “Now if there was a time from which he began to be, ‘he has made’ would be used in the strict and proper sense; but now, if he was what he is before eternity existed, this ‘he has made’ must be understood to mean that making and self are concurrent; for the being is one with the making and what we may call the eternal generation.” (*Enneads*, vi. 8.21.23-27)

<sup>55</sup> Perhaps the most outstanding example of this attempted synthesis are the influential commentaries on Aristotle of Simplicius of Cilicia, the last of the pagan neo-Platonists, student of the last scholar of the Academy, and thus likely the last philosopher of antiquity. Aside from the *Theology of Aristotle*, there is an Arabic translation/paraphrase of *De Anima* significantly altered along Plotinian lines, as well as al-Farabi’s treatise on the *Agreement Between the Two Philosophers*, in which he avers that any supposition of philosophical differences between Plato and Aristotle is due solely to ignorance. (Fakhry, 50)

The difficulty presented to Abrahamic monotheists by the classic Aristotelian model of causation was twofold:

- 1) It held that the *primum movens* acted in the world only as a final cause, for the efficient cause of things comes solely from the internal principles of their natures, not from an external imposition.
- 2) Aristotelian cosmology was thus a ‘bottom-up’ construction composed, regulated, and ordered by the individual natures of the things themselves.

Both of these points had already been identified as problematic by pagan neo-Platonists who regarded them as incompatible with their hierarchical cosmology descending from the One. Proclus and Ammonius argued, *pace* Aristotle, that it was not enough to merely explain change in the order of existents, but one should also, at least in principle, be able to explain this order itself. Such a conceit they interpreted as to require God to be the efficient as well as the final cause of the universe; viz. an active intellect that impresses the specific forms of the celestial realm into terrestrial matter.<sup>56</sup> This view was spuriously attributed by Ammonius to Aristotle himself and his “interpretation” was to be of significant importance in the development of Arab philosophy.<sup>57</sup> The attraction of this neo-Platonic reconfiguration of Aristotle to the *falsafa* (as well as their Jewish and Christian predecessors) is not difficult to appreciate, for the understanding of God’s relation to the world purely in terms of final causation is a point at odds with the deepest

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<sup>56</sup> McGinnis, 9. Such a view also requires, again *pace* Aristotle, that form and matter be actually distinct.

<sup>57</sup> *Ibid.*

tenets of Abrahamic deiology.<sup>58</sup> Thus, while al-Farabi's identification of creation *ex nihilo* with emanation irrevocably upheld the pagan doctrine of the world's eternity (Gregory of Nyssa's dissimulative claims notwithstanding), the embrace of this emanationist metaphysic allowed him and the other *falsafa* to avoid what they saw as the only other *philosophical* alternative: the view, embraced by al-Razi, that the world was pre-existent rather than created, and thus in some sense beyond God's control.<sup>59</sup>

This metaphysical system was taken to its apogee in the early eleventh-century by Ibn Sina (Avicenna). Avicenna is also notable for providing the most systematic examinations of the causal model underlying it. Michael Marmura provides a terse description:

God is the supreme efficient cause, the necessary and sufficient condition for the existence of the world, the effect. The causal conditions are ideal. There is and can be no impediment. Hence the effect follows necessarily. For, according to Avicenna... God necessitates the world's existence. Since God, the necessitating cause, is eternal and changeless, the world, the necessitated effect, is eternal. Cause and effect coexist, God's priority to the world being non-temporal.<sup>60</sup>

This description is apposite, for it evinces clearly the metaphysical requirements under which causation is defined in terms of necessary connection: God and the world, as cause and effect, are necessarily connected. For Avicenna and the *falsafa*, this bond extends from the divine essence such that the existence of God necessitates the existence of the world—conceived in terms of series of successive emanations from the first intelligence

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<sup>58</sup> Leibniz, who was otherwise attracted to the Aristotelian model, nonetheless felt compelled to deny that God was “the soul of the world.” He noted: “God is the continuous producer of the world, but the soul is not the producer of its own body.” (Akademie Edition, VI.4, 1643)

<sup>59</sup> Goodman, 204

<sup>60</sup> Marmura, 175

to the manifold species of the terrestrial realm. While the Aristotelian model was nebulous concerning (albeit ultimately committed to) the necessity of causal relations, the neo-Platonic system of the *falsafa* makes this requirement absolutely clear. As al-Ghazali explains: “according to the philosophers the world stands in relation to God as the effect to the cause, in a necessary connexion which God cannot be imagined to sever, and which is like the connexion between the shadow and the man, light and the sun.”<sup>61</sup> While al-Ghazali and the Kalam occasionalist theologians agreed that God was the efficient cause of the existence of the world, for them it was the *will* of God that stood in a necessary connection with its effect, whereas for the *falsafa*, the world is an emanation of the divine essence or intellect.

The Ash’arites regarded the latter emanative conception to entail, insofar as God is not only the necessary but *sufficient* condition for the existence of the world, that He is stripped of will and deliberation in any meaningful sense and the Creation is not a brute fact but as necessary of existence as God Himself. Moreover, it is not just ‘Creation’ in general that is necessary, but every token fact within it, insofar as they all emanate from the divine intellect; and for God to change the world in some way would require a change in his own essence, which was deemed absurd. This was standard neo-Platonic doctrine; as Plotinus reasoned:

Could he then make himself anything else than he did?...[No,] for to be capable of the opposites belongs to incapacity to remain with the best.<sup>62</sup>  
But his making which we speak of must be once and for all...[and] all the

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<sup>61</sup> *Tahafut al-Tahafut*, 150

<sup>62</sup> The inversion here of Aristotle’s reasoning concerning the rational principle and openness to the opposites describe in Chapter One is notable. (See *Metaphysics*, 1046b2-18)

other things that exist are held together by this; for they exist by some kind of participation in him.<sup>63</sup>

The Islamic occasionalists responded to this unmistakable challenge to the divine liberty not by rejecting the necessary connection model of causation, or its metaphysical basis in the necessary connection of God and the world: Avicenna insisted “there is and can be no impediment to the divine creative act,”<sup>64</sup> and six centuries later, Nicholas Malebranche concurred.<sup>65</sup> The dispute instead centered on who was a causal agent in the first place as well as the nature of the “creative act.”

Avicenna draws an important distinction between efficient causation understood metaphysically and efficient causation understood in terms of natural philosophy. While the latter concerns agents that produce change in terms of “one of the forms of motion,” the former concerns “the cause which bestows an existence that is other than itself.”<sup>66</sup> This power Avicenna interprets as divine, for “metaphysicians do not mean by agent only the principle of motion, as the naturalists do, but they mean the principle and bestower of existence as in the case of God with respect to the world.”<sup>67</sup> This metaphysical notion of efficient causation in terms of divine creation represents a refinement of a point implicit to the emanationist system of neo-Platonism, insofar as the emanative infusion of the

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<sup>63</sup> *Enneads*, vi. 8.21.1-20)

<sup>64</sup> Marmura, 176

<sup>65</sup> *Recherche*, 6.3, 450

<sup>66</sup> *al-Ilahiyyat*, 6.1.2, 194

<sup>67</sup> *Ibid.*, 195

divine essence into the world and the generation of forms must be understood, at least in some sense, in terms of efficient causality and not just final causality.<sup>68</sup>

Insofar as natural causes operate through the emanative infusion of the divine efficacy, the necessary connection inherent to divine causality permeates downstream into the domain of natural causality—which concerns not just the bestowal of existence, but the principles of motion and material change as well. Causes are *sufficient* to produce their effects once all causal conditions (i.e. *necessary* conditions) are fulfilled. Moreover, an axiom of the metaphysics of causation from Parmenides to Hume, such sufficient causes *must* produce their effects at the moment such conditions are met and are thus coexistent and cotemporal with said effects.<sup>69</sup> The ‘cotemporality requirement’ follows from the governing principle of sufficient agency: the principle of sufficient reason. Assuming a cause to be sufficient, in the logical or substantial sense, to produce its effect, it must do so immediately, for there can be no *reason* for it to refrain from  $E_{t-1}$  and instead produce  $E_{t-2}$ , given that  $t-1$  and  $t-2$  are *qualitatively* identical. As the principle of sufficient reason notoriously cannot handle choices of qualitative identity, all sufficient causes must produce their effects immediately and thus are temporally coexistent with them. For Avicenna, causes are ‘prior’ to their effects, but this priority is not temporal but logical and metaphysical. The movement of the key is cotemporal with the hand that turns it, but we do not attribute the movement of the latter to the movement of the former

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<sup>68</sup> A conception of divine causality purely in terms of final causation is compatible with a solely mechanistic natural causality, as in Leibnizian metaphysics, where the universe is constructed by God as an elaborate machine that operates unaided in accordance with its own principles, all of which are directed towards a final end. Insofar as neo-Platonism views divine confluence with the world as more substantial than this, its model of divine causality must be so as well.

<sup>69</sup> *Treatise*, 76; Simplicius, *Commentary on the Physics*, 145



on the basis of the distinction between of necessary and sufficient conditions. The movement of the hand (as cause) is sufficient for, and thus necessitates its effect, but the movement of the key (as effect) is not sufficient for the movement of the hand.<sup>70</sup>

This temporal continuity of causes with their effects informs Avicenna's emanationist conception of 'continuous creation,' as is evident in his inference from God's sufficiency for the existence of the world to the eternity of the world on the basis of the eternity of God. As Michael Marmura notes, the "supreme example" of the cotermporal coexistence of cause and effect is the eternity of the world entailed by emanationism.<sup>71</sup> This model of causation postulates a continuous creation that is temporally continuous on the basis of its *metaphysical* continuity. Avicenna explains that, "if something by virtue of its essence is a cause for the existence of something else that is permanent, then it is its permanent cause as long as its essence exists. If [the cause] exists permanently, then its effect exists permanently."<sup>72</sup> That is to say, as required by an emanative-entailment model of causation where the consequent is contained within and thus substantially identical with part of the antecedent, if the antecedent exists continuously, then so must the consequent. Avicenna continues:

Such a thing among causes would then have the higher claim to causality<sup>73</sup> because it prevents the absolute nonexistence of the thing. It is the one that gives complete existence to the thing. This, then, is the meaning that, for

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<sup>70</sup> *al-Ilahiyyat*, 4.1.6, 126; cf. Marmura, 176. Avicenna allows that certain causes precede their effect in time, but insists that these are not "true causes," but contribute to their effect "either accidentally or as helpers." (*al-Ilahiyyat*, 6.2.5, 202)

<sup>71</sup> Marmura, "Islamic Philosophy and Mysticism," 67

<sup>72</sup> *al-Ilahiyyat*, 6.2.9, 203

<sup>73</sup> I.e. a "true cause" as opposed to merely an "accidental" or "helper" cause

the philosophers, is termed “creation.” It is the giving of existence to a thing after absolute nonexistence.<sup>74</sup>

Here it seems as if Avicenna is embracing an *ex nihilo* model of creation, insofar as the creature is brought into existence “after absolute non-existence.” Yet ‘after’ is not the same as ‘from’ or ‘out of,’ as Avicenna makes immediately clear:

For it belongs to the effect in itself to be nonexistent and [then] to be, by its cause, existing. That which belongs in the thing intrinsically is more prior in essence for the mind (*[though] not in time*) than that which belongs to it from another. Hence, every effect constitutes an existence after nonexistence, in terms of *essential posteriority*.<sup>75</sup>

The “absolute nonexistence” of the creature prior to its cause is thus not truly ‘absolute,’ but refers only to its ontic existence, i.e. to its status as an independent instantiated being within the emanative scheme. However, it receives its essence from its creator, to whom it is essentially/logically inchoate and thus essentially posterior. Its existence therefore cannot be understood as a creation ‘from’ or ‘out of’ nothing, but rather as an emanative instantiation out of a pre-existing essence.<sup>76</sup>

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<sup>74</sup> Ibid.

<sup>75</sup> Ibid., emphasis added

<sup>76</sup> Avicenna entertains an objection to his description of emanation as proper creation following absolute nonexistence: “There is the person [however] who would not make everything that has this description a created thing but would say: If we imagine that something has come into existence from a first cause through the mediation of an intermediary efficient cause, even if it does not come to be from matter...but its existence is from the first true cause after another existence to which it is led, then its coming into existence is not from absolute nonexistence but from an existence, even if not [a] material [one]. (*al-Ilahiyyat*, 6.2.12, 204) This objection Avicenna downplays as a quibble over “names,” and insists that “everything not coming into existence from a previous matter [should be called] not ‘generated’ but ‘created’...” (*al-Ilahiyyat*, 6.2.13, 204) This definition of “creation” serves Avicenna’s neo-Platonist ontology insofar as it regards the creation/emanation of the world actualized not through the corporeal mediation of a pre-existent matter (as in the classical Platonic scheme of the *Timaeus*), but rather through the formal mediation of the divine essence.

### 3. Al-Ghazali and the Ash'arite School

The Ash'arite school, founded by Abu al-Hasan al-Ash'ari (874-936), was an extraordinarily influential fundamentalist and fideistic movement in Islamic philosophy and theology. It was an ardent enemy of the Mutazalite school of al-Farabi and Avicenna and its primary critical aim was attacking and undermining the Hellenizing of the Islamic Faith by the *falsafa*. As would be expected of an intellectual opposition to the neo-Platonic rationalism of the Mutazalites, Ash'arite philosophy was deeply skeptical, insisting on the feebleness of human reason, the absolute transcendence of God, and thus the utter inability of the former to comprehend the latter. Aside from their inveterate skepticism, two Ash'arite doctrines are of central concern to this survey. First is their atomism, which will be discussed in detail at a later point. Second is their denial of efficacy to finite creatures, humans included, and their commensurate insistence that all causal activity is produced *directly* by God. This view has rightfully earned their school the sobriquet: 'Islamic occasionalism.'

The Ash'arites' fundamentalist ire was directed primarily against two of Avicenna's causal principles:

- 1) That causes are logically sufficient for the production of their effects and thus necessitate their existence.
- 2) That causes (i.e. 'real' as opposed to 'helper' causes) must be cotemporal with their effects, such that the effect exists only so long as the cause continues to exist.

In the first case, the Ash'arites ire is not difficult to understand: a natural order that operates on the basis of causes that logically necessitate their effects is simply impossible to reconcile with the existence of miracles, which almost invariably imply a break in the natural causal order (e.g, the burning of the bush does not cause the consumption of its material); but, if causes necessitate their effects, this break would mark a formal logical contradiction. Likewise, such a conception of nature seems to fatally compromise the divine omnipotence: God is only free in the contemplation of the world prior to its creation; once He initiates the causal structures therein, His ability to intervene thereafter is rendered logically impossible. This latter problem is especially pernicious in Avicennan neo-Platonic theology where God is not merely the designer and final cause of the world, but is its continual efficient cause as an outpouring of His own essence. Under this conception, there is no contemplation prior to creation, for the world coexists with God from eternity, and thus the very notion of the divine will is stripped of meaning.<sup>77</sup> This point then leads to the Ash'arite criticism of the second principle; for, as previously noted, the eternity of the world heresy is the most fundamental instantiation of the requirement that cause and effect temporally coexist.

On the basis of these problematic entailments, the Ash'arites rejected both principles unequivocally. Against (1) they insisted that all causal relations are directly<sup>78</sup>

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<sup>77</sup> Even Thomas Aquinas, who struggled mightily to avoid the heresy of emanationism (Eriugna's *De divisione naturae* had been condemned by Honorius III in 1225) by insisting on a distinction between the divine intellect and the divine will, seems incapable of avoiding the force of neo-Platonic logic. In spite of this distinction, Aquinas was adamant that the divine will was absolutely constrained by the intellect. Moreover, he regarded the Aristotelian essences as internal to the divine intellect. This entails, as Aquinas quite frankly admits, that "God in willing himself wills all the things which are in himself; but all things in a certain manner pre-exist in God by their types." (*Summa Contra Gentiles*, 1.75)

<sup>78</sup> There is an ongoing dispute in the scholarly literature as to just how direct this dependence was (i.e. Does God employ causal intermediaries or are they just figments of our habituation?), particularly in the case of

dependent on the voluntary will of God, which acts utterly without constraint. God can produce effects without their causes, and causes without their subsequent effects; as al-Ghazali maintains: “He has the power to create the satisfaction of hunger without eating, or death without the severance of the head, or even the survival of life when the head has been cut off, or any other thing from among the connected things (independently of what is supposed to be its cause).”<sup>79</sup> As will be seen, this principle that God has the power to contravene and/or produce directly anything that is produced by secondary causes (or its very opposite), was to become a central axiom of nominalism and later occasionalist traditions. Against (2) the Ash’arites insisted that causes need not be cotemporal with their effects; a point precluded, for the most part,<sup>80</sup> by their doctrine that God recreates the world and everything in it *ex nihilo* at every moment. This recursive metaphysics of creation entails an atomic conception of time that undermines the very possibility of causal necessitarianism, as well as a static punctiform ontology that undermines the existence of substantial agents. This ontological critique of causation will be examined in a later chapter. This section will focus on the Ash’arites’ logical and epistemological critique of causation against principle (1).

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al-Ghazali. Though this dispute requires mentioning, and will reappear in literature on later occasionalist philosophers, it is ultimately not relevant to the topic under consideration and will not be addressed here.

<sup>79</sup> *Tahafut*, 185.

<sup>80</sup> The activity of the human will being a notable exception. (Marmura, 81)

*Al-Ghazali and the Ash'arites' Empirical Critique*

The most rigorous attack on the rationalist conception of causation prior to Hume, and the most elaborate defense of an occasionalist metaphysic prior to Malebranche, was developed and expounded by the Persian Ash'arite philosopher-theologian al-Ghazali in his polemic *Tahafut al-Falasifah* [*The Incoherence of the Philosophers*]. Al-Ghazali is a unique and remarkable figure in the history of philosophy, in many ways close to Pierre Bayle: a devout believer in the omnipotence of God and the mystery of His ways—and thus an avowed skeptic of all metaphysical systems that seek to rationalize and explain said ways. Also like Bayle, al-Ghazali was no merrily ignorant fundamentalist who measured his critique by the force with which he pounded Holy Scripture, but rather an extraordinarily erudite scholar and critic who dissected and devastated the doctrines of his opponents by understanding them better than they did themselves. Indeed, one of al-Ghazali's major contributions to Islamic philosophy was his defense and legitimization of Aristotelian logic among his fellow Ash'arites.<sup>81</sup> This point should be kept in mind, for while al-Ghazali's polemic against the *falsafa* was motivated by theological considerations, the critique itself was of impeccable logical rigor—and thus easily transferable to other thinkers regardless of motive.

Al-Ghazali's critique of causal necessitarianism comes in chapter seventeen of the *Tahafut*, the title of which makes explicit what is at stake: "Refutation of their Belief in the Impossibility of a Departure from the Natural Course of Events." This metaphysical principle of the *falsafa* was a major source of animus for the Ash'arites insofar as it

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<sup>81</sup> McGinnis, 23

placed untenable constraints on the divine omnipotence and was deemed to preclude the possibility of miracles. As adumbrated in the previous section, the *falsafa* understood causality in a hybrid Aristotelian/neo-Platonic scheme in which things possessed and were ontically defined by their substantial natures or dispositions, the activity of which was essentially causal, but the actualization of which required the infusion of the divine *concursum*. Now, insofar as this infusion was a given, the nature of the agent *entailed* its effect subject to the nature of the patient. While the nature of the patient allowed for effect diversity, what remained impossible was for a properly infused agent to have no effect whatever; if God wished for an agent to not produce its characteristic effect (i.e. that which characterizes its disposition) on the patient, he was *required* to either simultaneously activate an impediment to the agent's efficacy, or change the nature of the patient such that it was no longer receptive to the agent's activity.<sup>82</sup> This requirement was understood by the Ash'arites as relegating the omnipotence of Creator to the constraints of His' creation,<sup>83</sup> which was deemed theologically unacceptable. Thus, a primary focus of the *Kalam* critique was on the existence of substantial natures and their supposed necessary connection with their productions or effects.

This critique was an aim of the early Ash'arite theologian al-Baqillani, a contemporary of Avicenna.<sup>84</sup> While most of the *falsafa* (all the way down to Averroes) regarded the existence of substantial natures as self-evident following the asseveration of

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<sup>82</sup> Of course even speaking of God's activity in this deliberate and volitional manner was to the *falsafa* and unintelligible anthropomorphism.

<sup>83</sup> Or His power *de potentia absoluta* to *de potentia ordinata* in the Latin scholastic terminology.

<sup>84</sup> McGinnis, 24

Aristotle,<sup>85</sup> the irrepressible iconoclast al-Razi rejected this view, claiming that only the effects of natures are perceivable and that their existence did not follow from any first principle of the intellect.<sup>86</sup> Avicenna conceded that while the existence of natures could be established by first principles, the particular features of natures as well as their effect on other natures could only be ascertained by experience.<sup>87</sup> Al-Baqillani seized on this ambiguity, sneering:

Concerning what [the philosophers] are in such a stir, namely that they know by sense perception and necessarily that burning occurs from fire's heat and intoxication from excessive drink, it is tremendous ignorance. That is because that which we observe and perceive sensibly when one drinks and the fire comes into contact [with a body] is only a change of the body's state from what it was, namely, one's being intoxicated or burnt, no more. As for the knowledge that this newly occurring state is from the action of whatever, [such a causal relation] is not observed; rather it is something grasped through rigorous inquiry and examination.<sup>88</sup>

That is to say: if (according to al-Razi) we only perceive the effects of natures, and if (according to Avicenna) we only know the nature of natures by the experience of their effects, then we are in something of an epistemic quandary in which experience *is of no use at all*, for all it is capable of providing is temporal congruence of events, but *never epistemic access to natures as the principles of change*.<sup>89</sup> Thus, as it was with

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<sup>85</sup> "That nature exists, it would be absurd to try to prove; for it is obvious that there are many things of this kind, and to prove what is obvious by what is not is the mark of a man who is unable to distinguish what is self-evident from what is not." (*Physics*, 193a)

<sup>86</sup> McGinnis, 35

<sup>87</sup> Ibid.; In this regard, Avicenna agrees with Hume when he points out that, "as the power, by which one object produces another, is never discoverable merely from their idea, 'tis evident *cause* and *effect* are relations, of which we receive information from experience, and not from any abstract reasoning or reflexion." (*Treatise*, 69)

<sup>88</sup> *Tamhid*, 43; qtd. By McGinnis, 35

<sup>89</sup> McGinnis, 26



nominalism and Cartesian occasionalism, Islamic occasionalism found its inception in the critiques of Aristotelian substantial natures and causal explanation.

This point of al-Baqillani's was developed to a much higher degree of rigor and became one of the touchstones of the systematic attack on Mu'tazalite metaphysics propounded a generation later by al-Ghazali. Al-Ghazali begins his critique of Mu'tazalite necessitarianism in chapter seventeen of the *Tahafut* with the simple phenomenological observation that our acquaintance with objects (both perceptual and conceptual) is discrete and thus incapable of providing any notion of necessary connection: "In our view, the connection between what are believed to be the cause and the effect is not necessary. Take any two things. *This* is not *That*; nor can *That* be *This*."<sup>90</sup> This remark may seem trivial, but it is actually a profound insight that forms the touchstone of the critique of causation. It is a point with two prongs: one empirical and the other logical and epistemological. Developing the empirical prong, al-Ghazali considers al-Baqillani's example of "the burning of a piece of cotton at the time of its contact with fire," making clear the distinction between his conception the world and that of the *falsafa*: "Firstly, the opponent may claim that fire alone is the agent of burning, and that being an agent *by nature* (not by choice), it cannot refrain from doing what it is its nature to do."<sup>91</sup> It is precisely this conception of an active physical universe operating of *necessity* according to set natures that al-Ghazali oppugns, insisting:

Fire, which is an inanimate thing, has no action. How can one prove that it is an agent? The only argument is from the observation of the fact of

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<sup>90</sup> *Tahafut*, 185

<sup>91</sup> *Tahafut*, 186, emphasis added

burning at the time of contact with fire. But observation only shows that one is *with* the other, not that it is *by* it and has no other cause than it.<sup>92</sup>

If all we ever experience of objects is their discrete sensible qualities, then it is impossible that we could ever empirically account for causation as an *activity* or *concept of relation*. As noted, this limitation had been accepted by Avicenna, who acknowledges that, “As for sensation, it leads only to concomitance. And it is not the case that, if two things are concomitants, it then follows necessarily that one of them is the cause of the other.”<sup>93</sup> However, Avicenna postulates an inductive<sup>94</sup> “kind of demonstration” or “hidden syllogism” [*qiyas khafiyy*] tacit within causal judgments that allows for the inference of natures and necessary connection:

[M]ethodic experience is like our judging that the scammony plant<sup>95</sup> is purgative for bile; for since this is repeated many times, it stops being a case of something that occurs by chance, and the mind then judges and grants that it is characteristic of scammony to purge bile... Since it is verified that purging bile so happens to belong to scammony... Then one knows that this is something scammony *necessarily brings about by nature*, since *there is no way it can be an act of choice*.<sup>96</sup>

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<sup>92</sup> *Tahafut*, 186

<sup>93</sup> *al-Ilahiyyat*, 1.1.16, 6

<sup>94</sup> Though Avicenna denies that it is inductive. (*al-Burhan*, 45)

<sup>95</sup> Scammony is a bindweed native to the eastern Mediterranean basin. An extract of its roots was commonly used in antiquity and the middle-ages as a purgative that also killed roundworms and tapeworms in the intestine. Along with fire and cotton, it is one of the most common examples of causal interaction employed in philosophical discussions of the period.

<sup>96</sup> *al-Burhan*, 45-46; cf. Kogan, 87-88. Avicenna’s argument here seems to be an explication of a claim made tacitly by Aristotle in *Physics* 196b, where he notes that: “we observe that some things always come to pass in the same way, and others for the most part. It is clearly of neither of these that chance, or the result of chance, is said to be the cause—neither of that which is by necessity and always, nor of that which is for the most part.” Rather, according to Aristotle, things in nature that happen always or for the most part are efficient causes “for the sake of something,” and not merely accidental. They are linked to the teleology of final causation which is the operating principle of nature. The distinction between what Avicenna extracts from congruence in repeated observation, and what Aristotle does, hinges on Avicenna’s inheritance of the neo-Platonic interpretation of Aristotle that insists that God is not just the final, but also the efficient cause of nature.

Avicenna's ambiguity regarding the correct conclusion of this "kind of demonstration" and the source of necessity between scammony and its purgative effect (a power, or property, or relation?) is revealing. Regardless, Al-Ghazali is adamant that Avicenna's 'demonstration' underlying causal judgments is not a demonstration at all for it lacks any manner of entailment: "existence *with* a thing does not prove being *by* it."<sup>97</sup> In an analogue to Hume's thought experiment concerning Adam,<sup>98</sup> al-Ghazali hypothesizes: "Suppose there is a blind man whose eyes are diseased, and who has not heard from anyone of the difference between night and day. If one day his disease is cured, and he can consequently see colours, he will guess that the agent of the perception of the forms of colours which has now been acquired by his eyes is the opening of the eyes."<sup>99</sup> In his mistaken belief that his eyes have the power of generating colors, the blind man demonstrates the fallacy of Avicenna's hidden syllogism: he can open and close his eyes as many times as he likes, but this repetition in no way renders his mistaken belief more secure. Rather, it is only with the setting of the sun (while his eyes remain open) that the blind man realizes his error.<sup>100</sup> There is no epistemological alchemy by which the philosopher can transmute observed association—no matter how many times repeated—into "a necessary accident," for the setting of the sun (i.e. a change in the laws of nature)

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<sup>97</sup> *Tahafut*, 186

<sup>98</sup> *Enquiry*, VI.2, 27

<sup>99</sup> *Tahafut*, 186

<sup>100</sup> And then proceeds to make a new mistake, according to the occasionalists, assuming he concludes that the sun is the cause of his experience of color.

is an abyss that subtends all induction. Thus, Avicenna's supposed "demonstration" or "hidden syllogism" is nothing but a *vitium subreptionis*.<sup>101</sup>

Avicenna gets into further trouble with his "hidden syllogism" insofar as he maintains that we come to know the activity of causes on their effects, and thus the distinction between the two, not through the analysis of concepts, but through *empirical* observation.<sup>102</sup> That is to say, our knowledge that scammony purges bile is not an innate idea, but rather learned through repeated experience. However, for the reason discussed earlier, Avicenna is also adamant that causes are coexistent and cotemporal with their effects, which raises the question: how is the observer to separate out and identify the activity of the cause/agent from the receptivity of the effect/patient? As noted in the previous section, Avicenna regards causes and their effects to be distinguished logically on the basis of necessary and sufficient conditions. In this way:

The mind is not repelled at all by our saying, "When Zayd moved his hand, the key moved," or, "Zayd moved his hand, then the key moved,"<sup>103</sup> but is repelled by our saying, "When the key moved, Zayd moved his hand," even though [the mind rightly] says, "when the key moved, we knew that Zayd moved his hand." The mind, *with respect to the temporal coexistence of the two movements*, assigns a priority to one and a posteriority to the other, since it is not the existence of the second movement that causes the existence of the first, but it is the first movement that is the cause of the existence of the second."<sup>104</sup>

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<sup>101</sup> A *vitium subreptionis* is a Wolffian term employed by Kant that refers to ideas of misleading empiricity, such as when I regard my will as having the power to effect bodily movements on the basis that, whenever I will to move a particular part, it indeed moves. However, all I actually experience is the conjunction of my will and the movement of the intended part. The supposed power by which my will effects such a movement is nowhere present in my experience.

<sup>102</sup> McGinnis, 35

<sup>103</sup> This second formulation seems to imply a temporal priority, but it has been established that Avicenna would reject such an interpretation.

<sup>104</sup> *al-Ilahiyyat*, 4.1.7, 126; emphasis added

Well and good; but what is left unexplained in this explication is how the mind makes this “assignment” in the first place. How do we know that the movement of the “first” causes the movement of the “second”?

Along these lines, Avicenna entertains an objection from al-Baqillani which claims: “If each of the two things [is such that], if one exists, the other exists, and if one is removed from existence, the other is removed, then one is not the cause, nor the other the effect, since neither has a better claim than the other to be the cause of existence.”<sup>105</sup> Note that this objection concerns the ontology rather than the empiricity of causal priority. As such, Avicenna’s response is predictable: “it is [only] one of them—namely, the cause—which [is such] that, if it occurs, the occurrence of the other, after being possible, follows necessarily from it. Regarding the effect, its occurrence does not necessitate the occurrence of the cause; rather, the effect would occur only *after* the cause has occurred.”<sup>106</sup> But “after” here does not signify a temporal, and thus empirically observable, posteriority, but rather and logical and ontological posteriority. If, as Avicenna maintains, we derive our knowledge of causal relations from experience, he must be able to explain how we are able to distinguish the movement of the hand and key into “first” and “second” *on empirical grounds*. That is, if a cause is a cause due to its priority, and an effect is an effect due to its posteriority in the relationship between the two, we must be able to *see* this hierarchy in order to have any notion of causation to begin with. Given their “temporal coexistence,” this is simply not possible, and thus any metaphysical distinctions in terms of bestowing of existence and existential dependence

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<sup>105</sup> *al-Ilahiyyat*, 4.1.12, 128

<sup>106</sup> *Ibid.*, 4.1.14, 128

is epistemologically unwarranted, for *we see no such things*. The “hidden syllogism,” even if one were to grant it *arguendo*, is otiose here, for repeated observation of causal phenomena would only be useful if one is able to distinguish the cause from the effect *empirically* in the phenomenon itself. But, such a distinction is only possible given a temporal diastem between the two.<sup>107</sup>

### *Al-Ghazali’s Logico-Existential Critique*

Returning to al-Ghazali, this empirical critique leads to the epistemological prong of his argument—the insistence on necessary connection: supposing that we have a complete understanding of the quiddities of fire and pieces of cotton, *which amount to subject-predicate relations of identity*, al-Ghazali asks: “how can we conceive that one of them should burn, and the other should not? There is no alternative for the other piece.”<sup>108</sup> That is to say, the very fact that cause and effect are epistemologically distinct—and, for al-Ghazali it is impossible to comprehend them otherwise—means that we can consider the one without the other; and subject to that mere possibility, no logically necessary relation can exist between the two. This psychological principle, which was to be employed almost *ad nauseum* by Hume, was known as the ‘maxim of admissibility’ (*tajwiz*) by the

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<sup>107</sup> One should not be beguiled by the common sense response that: ‘Causes can be empirically distinguished from effects insofar as one may observe the cause without its effect, but never the effect without its cause.’ Even if this principle were true (it is not), an epistemological appeal to it would only undermine Avicenna’s model insofar as it would entail effects are sufficient for their causes. Aristotelian causal explanation is possible only because causes are specific even though effects are diverse. Herbicide will kill a plant, but a dead plant, in itself, does not entail herbicide as the cause of its condition.

<sup>108</sup> *Tahafut*, 188

Islamic occasionalists and posited “whatever is possible in reason is possible for God.”<sup>109</sup> This psycho-epistemological criterion for logical possibility (as well as its entailment that separable ideas are non-deducible) proved of remarkable recrudescence in the history of causal skepticism.

Yet, unlike Hume, who only considers this point in terms of epistemology,<sup>110</sup> al-Ghazali and his successors (sc. Autrecourt) extended it further to the ontic independence of causes and their effects. This door had been conveniently opened by Avicenna, who insisted that the metaphysical hallmark of efficient causes is their ontological distinctness from their effects—a point he was almost harpingly adamant about, presumably to avoid the danger of pantheism implicit to neo-Platonism.<sup>111</sup> Al-Ghazali follows Avicenna on this point, but then poses the question: what does this ontological distinctness entail? A necessary connection requires that one event is logically bound to another, such that the cause is *sufficient* to bring about the effect. Yet how is this logical connection possible? “*This is not That*” precisely because two distinct things, *as distinct things*, cannot be bound *of themselves* by any necessary connection: “The affirmation of one does not imply the affirmation of the other; nor does its denial imply the denial of the other. The existence of the one is not necessitated by the existence of the other; nor its non-existence by the non-existence of the other.”<sup>112</sup> For example, it is impossible to conceive of a dog while not also conceiving of an animal precisely because there is a necessary relationship between the two—the antecedent entails the consequent as a *modus ponens*. This is the

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<sup>109</sup> Fakhry, 32; cf. Wright, 136, Maimonides, *Guide*, 1.73, 207.

<sup>110</sup> A limitation implicit to his reification of the epistemological.

<sup>111</sup> Marmura, 173

<sup>112</sup> *Tahafut*, 185

type of standard that relations of necessity demand. Yet, the relationship between the concept ‘dog’ and the concept ‘animal’ is not causal but rather definitional, the subject being contained in the predicate. This is the fundamental principle of the analysis of concepts itself. Causation, on the other hand, is not a definitional relationship, but rather one that takes place between two otherwise discrete things, and thus cannot include under it any notion of necessity. It is thus apparent that al-Ghazali is extending the ‘difference principle’ from the domain of epistemology to the domain of ontology—*with the upshot remaining the same*. The occasionalist conclusion he draws from this is that, if two distinct events are to be necessarily conjoined, they can only be so “as the result of the Decree of God, which preceded their existence. If one follows the other, it is because He has created them in that fashion, not because the connection *in itself* is necessary and indissoluble.”<sup>113</sup> Moreover, this “fashion” is not guaranteed or immutable, for God’s will is not constrained by the limits of His creation, and thus could be altered or rescinded at any moment.

Given the complete lack of grounds for causal judgments, how exactly is one to account for their seeming effectiveness and hold over the mind? Conversely, if we are to forgo all judgments of cause and effect, how can we avoid ascribing *equal* intelligibility to endless flights of fancy such that, to use al-Ghazali’s colorful example:

One who sees a man whom he had not seen until now might hesitate to guess whether that man was born at all. He might say: ‘Maybe this man was one of the fruits sold in the market. But now the fruit has been transformed into a man, because God has power over every thing, and all such transformations are therefore possible. Hence my hesitation.’<sup>114</sup>

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<sup>113</sup> *Tahafut*, 185; emphasis added.

<sup>114</sup> *Tahafut*, 189



This objection is found in Sextus<sup>115</sup> and hinges on the Peripatetic ‘*like* → *like*’ principle of natural generation. Al-Ghazali’s responds to this ancient objection against the denial of causality by first conceding what is at stake: “If you could prove that in regard to things which ‘can exist’ there cannot be created for man a knowledge that they ‘do not exist,’ then these absurdities would be inescapable.”<sup>116</sup> That is to say, if, to assume the rationalist premise, judgments of causation are grounded in the modality of the possible, then the existence of an omnipotent God would indeed result in an acataleptic universe. Yet al-Ghazali rejects this in two ways. First, he rejects as incompatible with the divine omnipotence the rationalist principle of plenitude (that by which, to quote Spinoza: “Whatsoever is within God’s power...necessarily exists.”<sup>117</sup>), for it requires that the divine will be exhausted in the Creation; and declares: “God has created for us the knowledge that He would not do these things, although they are possible. We never asserted that they are necessary. They are only possible—i.e., they may, or may not, happen.”<sup>118</sup> Second, he posits a *non-metaphysical* criterion for knowledge capable of *sufficing* for such judgments: “It is only when something possible is repeated over and over again (so as to form the Norm), that its pursuance of a uniform course in accordance with the Norm in the past is indelibly impressed upon our minds.”<sup>119</sup> That is to say, causal episteme does not reference the modality of the possible, but rather that of the

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<sup>115</sup> *PH*, iii. 18; cf. *Adversus mathematicos*, ix. 202

<sup>116</sup> *Tahafut*, 189

<sup>117</sup> *Ethics*, I, 35, pp. 238

<sup>118</sup> *Tahafut*, 189

<sup>119</sup> *Tahafut*, 189-196, emphasis added

actual, such that when possibilities are repeated in experience, their situation is ‘impressed’ upon the mind in the form of a *judgment*.

While al-Ghazali’s epistemological principle bears a certain resemblance to Avicenna’s hidden syllogism, the constant conjunction epistemology it is predicated on requires severe metaphysical concessions and a sharp limitation of the horizon of knowledge beyond anything Avicenna would have accepted. Al-Ghazali anticipates an objection to these concessions as entailing that: “all distinction between voluntary and spasmodic movement will disappear.”<sup>120</sup> This notion (a bodily movement not preceded by a volition) is inversely identical to Hume’s hypothetical of the willful paralytic (a volition not followed by a bodily movement).<sup>121</sup> His response to this objection is also identical: “we will say that we know such a [distinction] from ourselves. When, in our own case, we observe a distinction between the two states, we designate the cause of the distinction as power.”<sup>122</sup> What is notable in this response is al-Ghazali’s concession that there can be no metaphysical difference between a voluntary and spasmodic movement, but rather only an empirical and subjective one.<sup>123</sup> Lacking any innate intuition of power as the criterion for such a discrimination, we *observe* (as ‘a fact’ to use Humean

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<sup>120</sup> *Tahafut*, 194

<sup>121</sup> *Enquiry*, VII.1, 66

<sup>122</sup> *Ibid.*, 196

<sup>123</sup> Malebranche entertains a similar objection from Suárez (*DM*, 18.1.6) in the *Recherche*: “If secondary causes did nothing... we could not distinguish [living] things from those not living, for neither of them would have an inner principle of their actions.” Malebranche accepts that there can be no metaphysical distinction between the living and the non-living (indeed he challenges “the Peripatetics to give... a clear idea of what they call *bestial life*...”) but insists that this is unnecessary: “I reply that men would still have the same sensible proofs that have convinced them of the distinction they make between living things and those not living. They would still see animals perform certain actions such as eating, growing, crying, running, jumping, and so forth, and they would see nothing similar in stones.” (661) That is to say, what makes a living thing a living thing is not some “inner principle,” but rather a set of empirically describable (e.g behavioral) qualities.

language) a distinction between willed—as an antecedent condition—and unwilled movements in our body and *designate* the presumed cause of the distinction as the power of our will. Yet, as al-Ghazali is quick to note, this type of causal designation is *inductive* and thus: “Knowledge of this kind can only tell us of the existence of one of the two possible things. But it does not prove the impossibility of the other alternative.” And thus, as the ultimate dénouement: “this knowledge is one of those cognitions... which depend upon the continuance of the regular course of events.”<sup>124</sup>

This point requires clarification in order to avoid confusion with al-Ghazali’s emphasis on will as the determinant of causal potency—evident is his contention that: “Fire, which is an inanimate thing, has no action.”<sup>125</sup> At the end of chapter seventeen of the *Tahafut*, al-Ghazali considers “the case in which God causes the hand of a dead man to move, and places him on the footing of a living man, so that he may sit up and write, till the movement of his hand results in coherent writing,” noting that “we must say that in itself it is not impossible.”<sup>126</sup> However, al-Ghazali denies the claim of the *falsafa* that such a possibility is inimical to possibility of knowledge, arguing that “it is God who is the agent; He makes the adjustment, and performs the action—through the dead man.”<sup>127</sup> The problem here is that al-Ghazali also insists that the dead man’s writing is not impossible, “For we ascribe *all* temporal events to the will of One who acts by choice.”<sup>128</sup> This clearly seems to undermine any *metaphysically real* distinction between the writing

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<sup>124</sup> *Tahafut*, 196

<sup>125</sup> *Tahafut*, 186

<sup>126</sup> *Tahafut*, 196

<sup>127</sup> *Ibid.*

<sup>128</sup> *Ibid.*, emphasis added

of a living man and the writing of a dead man: in each case both serve as a marionette for the will of God. However, al-Ghazali does not himself make this latter point, thus leading some scholars to conclude that he himself did not accept it.<sup>129</sup> Regardless, this contention was a common supposition of the Ash'arites as well as later occasionalist schools, who, insofar as they didn't outright deny free-will altogether, maintained that while the will of man is free, it is also finite and thus impotent. Therefore, like any other finite "agent," it could at most only be *conjoined* with its effect, serving only as an occasion for the will of God to accomplish its desired tasks.<sup>130</sup>

Now al-Ghazali's emphasis on *divine* "choice" or "will" is intended to undermine the *sine qua non* of rationalism: the principle of sufficient reason. It forms the basis of the "most clever"<sup>131</sup> argument against the temporal origin of the world going back at least to Parmenides, who asks:

[W]hat creation of [What Is] will you look for? How, whence (*could it have*) sprung? Nor shall I allow you to speak or think of it as springing from Not-Being; for...what necessity impelled it, if it did spring from Nothing, to be produced *at a later time rather than an earlier?*<sup>132</sup>

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<sup>129</sup> See Frank 1994 and McGinnis (Unpublished). While al-Ghazali is unclear on this point, I find it difficult to make sense of his claim that "we ascribe all temporal events to the will of One who acts by choice" in any way other than an admission of complete occasionalism.

<sup>130</sup> The seeming subservience of an infinite will to the dictates of a finite will was a serious problem with a free-will model of occasionalism that was never resolved.

<sup>131</sup> *Tahafut*, 1.1 15. Recall that Aristotle had described an argument of Anaximander's that made a similar appeal to the principle of sufficient reason as "ingenious." (*De caelo*, 295b30)

<sup>132</sup> Frag. B8. Cf. Simplicus, *Commentary on the Physics*, 145. While I primarily use Freeman's translation, the last italicized clause is taken from Kirk & Raven's translation as it strikes me as more forcefully capturing the thrust of Parmenides' question. (347)

As al-Ghazali summarizes this coruscating argument: “if the origin of the world is ascribed to God’s action, the question remains: Why now, and why not before?”<sup>133</sup> Al-Ghazali’s response to this argument (“Problem 1: Refutation of Their Belief in the Eternity of the World”) is twofold, involving both a positive and a negative component. The latter takes the form of the *reductio ad absurdum* that would become known as “Buridan’s Ass”:<sup>134</sup>

Let us suppose that there are two equal dates before a man who is fond of them, but who cannot take both of them at once. So he will only take one of them. . . . As regards the causes of a special character being possessed by the object of actual choice—viz., the causes mention by [the philosophers], such as prettiness, or nearness, or handiness—we can suppose their absence; and still the possibility of one of the two dates being taken will remain. Here you will have to chose one of the two things: (1) Either you can say that the equal relation of a man’s purpose [i.e. his reason for preferring one to the other] to the two dates is inconceivable. But this is nonsense; for the equality can be supposed. (2) Or you might say that, the equality having been supposed, the excited man will keep fondly and helplessly gazing on forever, and will not be able to take either date *by mere will or choice* which is devoid of purpose. But this is also impossible; and the absurdity of such an assumption is self-evident.<sup>135</sup>

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<sup>133</sup> *Tahafut*, 1.1 15

<sup>134</sup> Somewhat mysteriously as, according to the testimony of such avid readers as Schopenhauer and Bayle, the example of an ass appears nowhere in any of Buridan’s extant works. (See Rescher 1960)

<sup>135</sup> *Tahafut*, 1.1 27. Al-Ghazali offers another argument in favor of this point that has the advantage of barring “special characters” by necessity rather than supposition: “As regards the poles. . . out of what they would call an infinite number of opposite points, any two could conceivably be the poles. Why, therefore, did the two points in north and south happen finally to be chosen as the poles? Why not did the elliptic pass through some other (two) points, so that as opposite points on the elliptic they should have been the poles? There may be a wisdom latent in the size or the shape of heaven. But what is it that distinguished the place of the pole from any other place? What caused one particular point, as set over against all other points and parts, to be chosen as the pole? Are not all the points similar; are not all the parts of a round body equal? The philosophers cannot find a way out of this difficulty.” (*Tahafut*, 1.1 29) Lest these philosophers attempt to respond by claiming that poles are equal only mathematically (i.e. ideally) but never in actuality, such that “the point of the poles is distinct from other points by virtue of a property which is suited to that point’s being the point of the pole [e.g. a center of gravity],” al-Ghazali points out that: “All the parts of the sphere are, *qua* body which receives forms, evidently similar. This property cannot be claimed by *this* position, merely because of the latter’s being body or heaven. For that character is shared in common by all the parts of heaven.” (Ibid., 30) That is to say, if the philosophers argue that the center of gravity of the mass of the sphere determines the points of the poles, even though—as points—they are mathematically

On the basis of this apagogic critique of the principle of sufficient reason, al-Ghazali advances his positive argument, viz.: “it follows that whoever discusses the nature of volitional action—whether with reference to empirical facts, or on theoretical grounds—will have to affirm an attribute of which the function should be to distinguish something from its like.”<sup>136</sup> That is to say, the metaphysics of Will—whether human, divine, or equine—involves a faculty capable of arbitrary choice *sine ratione*.<sup>137</sup> Anything bereft of such a faculty is incapable of this discrimination, such “that fire [that] is so created that when it finds two pieces of cotton which are similar, it will burn both of them, as it cannot discriminate between two similar things.”<sup>138</sup> On this basis he asks the *falsafa*:

How will you disprove one who says that the world came into being because of the eternal will which demanded its existence at the time at which it actually came into existence, and which demanded the non-existence (of the world) to last as long as it lasted, and (demanded) the

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identical, one could simply ask: ‘Why does the center of gravity align along these points rather than others?’ And finally: ‘Why is the matter that composes this sphere and determines the alignment of its center of gravity situated at this point rather than another?’ The only rationalist philosopher that ever took this problem (sc. ‘Why didn’t God create the world two feet to the right?’) seriously was Leibniz, who notoriously rejected the existence of absolute—or even ‘real’—space and regarded the concept as a hypostatization of the order or relation between individuals. (“Fourth Letter to Clarke,” 13)

<sup>136</sup> *Tahafut*, 1.1 27

<sup>137</sup> The freedom of the will to choose *sine ratione* was an old Epicurean justification for the existence of the swerve, as Plutarch relates: “Some philosophers, thinking to provide [our] impulses with release from the constraint of external causes, contrive within the ruling faculty a kind of adventitious motion which becomes manifest especially in the case of indistinguishable alternatives. They argue that, when it is necessary to accept one of two things that are alike and of equal import, there being no cause directing us to one of the two, since it is no different at all from the other, this adventitious force in the soul takes a swerve of itself and resolves the perplexity.” (*De stoicorum repugnantiis*, 1045b) This was also a concern of Aristotelians, such as Alexander, who concedes that, without the introduction of a “motion without a cause” it follows “that, when all the external circumstances are similar, *either* [i] someone will choose, or even do, the same things *or* [ii] something will be without a cause, and that of these [ii]... is impossible, while [i]... shows that external causes have control over the things that we do.” (*De anima libri mantissa*, xxiii. 174.3-7)

<sup>138</sup> *Tahafut*, 190. This is an old claim in the metaphysics of causation. As Aristotle insisted: “the same cause must necessarily have the same effect on the same things.” (*De caelo*, 295a) Similarly, Alexander of Aphrodisias argued: “nature itself has given to those things which are and come to be of necessity no fitness for the opposite... [since] they cannot be otherwise [than they are].” (*De anima libri mantissa*, xxiii. 184.15-18)

existence to begin where it actually began...What can prevent us from believing such a thing, and what is the contradiction involved in it?<sup>139</sup>

This voluntarism has an important upshot that became characteristic of occasionalist metaphysics: the abolition of “natures” and the hollowing out of the created world.

*Al-Ghazali’s Critique of ‘Natures’ and the Occasionalist The Rabbit Hole*

According to al-Ghazali, the *falsafa* believed that the disposition of substances informs or directs God’s infusion of them with specific forms that condition their activities:

The capacity to receive the forms is derived from *these* causes which are observed, and which exists *here*. Emanation from the Principles themselves takes place by way of necessity and nature...And the receptive subjects are distinguished from one another by their different capacities.<sup>140</sup>

Moreover, even though “the principle is one,” the *falsafa* account for the fact that “its effects are diverse”—i.e. “the Sun whitens one thing (e.g. the washerman’s clothes), but blackens another (e.g. the washerman’s face)” —by appeal to “different capacities in the receptive subjects.”<sup>141</sup> Thus, any failure of a cause to produce its effect “must be attributed to the recipients.”<sup>142</sup> Assuming that, in accordance with al-Ghazali’s above reasoning, any coherent notion of will (divine or finite) requires: 1) the possibility of choosing more than a single option, and 2) the possibility of choosing between identical

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<sup>139</sup> *Tahafut*, 1.1 16

<sup>140</sup> *Tahafut*, 17 187

<sup>141</sup> *Ibid.*, 17 187-88. Cf. Sextus, *Adversus mathematicos*, ix. 247

<sup>142</sup> *Ibid.*

options,<sup>143</sup> if God can act creatively out of will, his action cannot be homogenous in the sense of the essential efficient cause.<sup>144</sup> That is to say, God is not constrained to act merely out of His essence (as the active intellect continually endowing matter with the forms that fit its disposition) with the world as its necessitated product, and which He has no choice but to create (and continue to create so long as He Himself exists). On this point al-Ghazali is unequivocal:

We do not agree that the Principles do not act by choice, or that God does not act by will...once it is proved that the Agent creates by His will the burning of a piece of cotton at the time of its contact with fire, Reason will consider it to be possible that He may not create the burning while the contact has taken place.<sup>145</sup>

If God does act by will, such that He is not required to produce burning in the case of contact with fire, but is able to produce another reaction entirely, then what exactly does it mean to describe a thing such as fire in terms of its dispositional characteristics or capacities? If fire as an agent-cause does not inform or direct God's production of burning as an effect, then what exactly *is* fire? What role does the ontic order play in its own productions and development? If any cause can produce—or, what is the same: be associated with—any effect, then the agents of these causes and the patients of these effects lack any meaningful or substantial ipesity and exist merely as *fundamentally interchangeable* instances for the operation of the divine omnipotence; their supposed dispositions are reduced solely to the disposition to act according to how God makes

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<sup>143</sup> That is to say, a coherent notion of will requires the ability to choose arbitrarily without a governing purpose or reason. This is particularly true of the divine will, as al-Ghazali insists: "In the case of God, we cannot speak of a purpose." (*Tahafut*, 1.1 26)

<sup>144</sup> See Marmura, 186-187

<sup>145</sup> *Tahafut*, 188



them act.<sup>146</sup> As we shall see, this entailment (sc. the destruction of any meaningful concept of ‘Nature’) was central to the response to Islamic occasionalism propounded by Averroes and Aquinas, as well the final collapse of occasionalism in the eighteenth century.

Another *metaphysical* upshot of al-Ghazali’s critique of causation concerns the very concept of “necessity.” Insofar as effects are distinct from their causes, they can never be necessitated by their causes, and thus nothing that is the effect of a cause or requires a cause can be necessary, leading al-Ghazali to conclude: “necessity has no other sense than that of being uncaused.”<sup>147</sup> While the *falsafa* had rejected such a reductive notion of necessity in the sublunary realm, they had, following Aristotle, understood it as a necessary precondition of all eternal entities; and thus understood it as a metaphysical requirement of God’s definition as a being who is “necessary of existence,” [*Wajib al-Wujud*].<sup>148</sup> Taking up such a definition, al-Ghazali formulates his “Refutation of Their Thesis that God’s... Necessary Existence is to Him what Quiddity is to Any Other Being.”<sup>149</sup> Supposing that “it is said: His reality is that He is necessary. So this is the quiddity [of God],” al-Ghazali retorts: “‘Necessary’ only means the denial of cause. And that is a negation which cannot constitute the reality of a being.”<sup>150</sup> That is to say, a being

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<sup>146</sup> Moad, “Al-Ghazali’s Occasionalism and the Nature of Creatures,” 6-7.

<sup>147</sup> *Tahafut*, 135. In antiquity this was a common understanding of the status of eternal objects, as well as the past in general. For example, Aristotle claims: “what is of necessity coincides with what is always, since that which must be cannot not be. Hence a thing is eternal if it is of necessity; and if it is eternal, it is of necessity.” (*De generatione et corruptione*, 337b34-338a2)

<sup>148</sup> Ivry, 162

<sup>149</sup> *Tahafut*, Pr.8, 132

<sup>150</sup> *Tahafut*, Pr.8, 135

is necessary only insofar as it lacks a cause, but this alone is tantamount to mere “Existence, but no existent;”<sup>151</sup> the latter possibility requires some quiddity as an essence capable of individuating a substance out of Being-*qua*-Being. On this point, and seven centuries prior to Kant, al-Ghazali adamantly declares: “Existence is not quiddity.”<sup>152</sup> He thus concludes of the *falsafa*:

They thought that they had arrived at a pure idea of God; but, in fact, the ultimate result of their investigations is pure negation. The denial of quiddity is the denial of reality. When reality is denied, nothing remains but the word ‘existence,’ to which no object corresponds.<sup>153</sup>

In spite of the remarkable prescience of al-Ghazali’s reasoning, there is a dangerous *tu quoque* lurking beneath his claim that the “denial of quiddity is the denial of reality.” While he uses this principle to accuse the *falsafa* of denying the Creator, the *falsafa*, and particularly their final eminence, Averroes, appeal to it to accuse al-Ghazali and the Ash’arites of denying the Creation. Regardless of the typical employment of counterarguments of this type, this particular *tu quoque* was not a rhetorical manoeuvre, but a profound accusation that would culminate six centuries later as *the* fundamental problem precipitating the collapse of occasionalist metaphysics.

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<sup>151</sup> Ibid., 134

<sup>152</sup> Ibid., 135

<sup>153</sup> *Tahafut*, Pr.8, 134

## CHAPTER IV

### THE REVIVAL OF ARISTOTELIAN CAUSAL METAPHYSICS

Yes, Aristotle, dear Peripatetic! Yes indeed, the fundamental elements of reality are matter, form, and privation. All I ask is that, using these, you explain to me the essence of just one thing in nature, even the least little thing, and its true origin, and the cause of so many actions and properties observed in it.

—*Gassendi, Exercitationes paradoxicae adversus Aristoteleos*

Nor should any god intervene unless a knot show up that is worthy of such a liberator.

—*Horace, Ars poetica*

#### 1. The Recovery of Western Europe

During the High Middle Ages (c. 1000-1300), Latin European civilization developed from an insular backwater that had little changed since the fall of the Western Roman Empire five centuries earlier, to a burgeoning interlinked world; economic and technological advancements allowed it to go on the offensive against neighboring civilizations for the first time since Charlemagne's conquest of Barcelona and establishment of the Spanish Marche in 795-7. These expansionist military campaigns against the Saracens<sup>1</sup> and Byzantines<sup>2</sup> shattered the cultural and intellectual insularity of

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<sup>1</sup> These include not just the Crusades and Reconquista, but also the Norman conquest of Sicily (c. 1061-1091) as well as the wresting of control of the Mediterranean from Arab pirates largely achieved by the navies of the various Italian republics.

<sup>2</sup> This most famously includes the Fourth Crusade and capture of Constantinople, but was presaged by the Norman conquest of Byzantine Southern Italy in the later eleventh century as well as their nearly successful invasion of the Empire proper in 1081. The Normans were also instrumental to the astonishing success of the First Crusade and were the primary foreign troops serving during the early years of the Reconquista.

Western Europe. The importation of Arab and Greek texts from southern Iberia and the conquered Byzantine Empire opened windows in philosophy that had remained shuttered since the execution of Boethius in 525, or, at the very latest, since the death of Isidore of Seville in 636 (whose *Etymologiae* was nearly the sole source of ancient knowledge available to the West in the Early Middle Ages).<sup>3</sup> The incredible, rapid, and massive expansion in knowledge during the twelfth and thirteenth centuries is all the more striking due to the depths of ignorance the preceded it. Aristotle had been completely lost<sup>4</sup> and the available Platonic corpus was limited to Calcidius' partial translation of the *Timaeus*.<sup>5</sup> Such were the deprivations suffered by Latin philosophy following the collapse of antiquity, and yet, in a relatively short period during the late-twelfth and thirteenth century, ancient philosophy underwent a phoenix-like rebirth. Virtually the entire Aristotelian corpus became available to Western scholars under the excellent translations of William van Moerbeke,<sup>6</sup> who also produced translations of scientific works by Archimedes and Hero of Alexandria. The effect of this rediscovery of Aristotle

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<sup>3</sup> It should be noted that, unlike Boethius, Isidore was ignorant of Greek and his knowledge of ancient philosophy and science was almost entirely second hand.

<sup>4</sup> Even if fragments remained they would have been largely useless as Latin translations did not exist. Boethius had intended to translate the works of Plato and Aristotle into Latin, but this project was cut short by Theodoric. Moreover, no Western philosopher of note between the death of Eriugena (c. 877) and the Renaissance had any meaningful knowledge of Greek.

<sup>5</sup> Henry Aristippus, a Greek in the service of the Norman Kingdom of Sicily, had produced Latin translations of the *Meno*, *Phaedo*, and part of Aristotle's *Meteorologica* in the mid twelfth-century, but these were not widely disseminated. (Klibansky 1939, 27)

<sup>6</sup> See Bernard G. Dod, "Aristoteles latinus," in *The Cambridge History of Later Medieval Philosophy*, ed. Norman Kretzmann *et al.* (Cambridge: Cambridge University Press, 1982), 45-79.

on Latin philosophy was so profound that translations of Plato were largely neglected for a century and a half.<sup>7</sup>

The veritable explosion of Western philosophical activity and advancement during the thirteenth through the fifteenth centuries was a development in two movements essentially analogous to the development of Islamic philosophical activity during the tenth through the twelfth centuries. The first movement was an agog appropriation of ancient philosophy originating from the recovery of Aristotle (sc. Latin Averroism). The second was a sharp and sweeping counter-reaction against Aristotelianism (sc. nominalism). Aquinas, often considered as the seminal figure of Latin medieval philosophy, belonged to neither movement *sensu stricto*, but rather stood as a transitional figure between the two. The Averroists were as openly heretical as many of the *falsafa*; and, like their master, made recourse to the *duplex veritas* doctrine so as to not deign to render their philosophy (e.g. monopsychism, belief in the eternity of the world, etc.) compatible with Christian dogma. By contrast, the nominalists made little effort towards a systematic theology or philosophy and increasingly devoted their efforts to problems in logic and epistemology. Thus, this peculiar stance of Aquinas,' perhaps

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<sup>7</sup> Leonardo Bruni produced translations of the *Apology*, *Crito*, *Phaedo*, and *Phaedrus* in the early fifteenth-century, but it was at the Council of Ferrara in 1438 (transferred to Florence the next year), which was attended by several Byzantine scholars including Plethon, that the Western rediscovery of Plato began in earnest. Cosimo de 'Medici attended Plethon's lectures and shortly after founded the *Accademia Platonica*, which, aside from serving as the locus of the Florentine Renaissance, sponsored translations of all of Plato's works into Latin (undertaken primarily by Ficino), as well as works of Plotinus and other neo-Platonists. See Raymond Klibansky, *The Continuity of the Platonic Tradition during the Middle Ages* (London: Kraus International Publications, 1982), 27

more than anything else, explains his stature along with Augustine as the official philosopher-theologian of the Catholicism.<sup>8</sup>

While the development and succession of intellectual traditions in Latin medieval philosophy are *analogous* to that of Islamic medieval philosophy, a key difference needs be emphasized. The attacks of al-Ghazali and the Ash'arite theologians were directed against the neo-Platonist *falsafa* and were followed by Averroes' rehabilitation of classic Aristotelianism as a response to *both* (viz. Ash'arite skepticism as well as Mutazalite necessitarianism). In the West this later sequence was effectively reversed. The indigenous neo-Platonic tradition of Eriugena, Anslem, and Abelard was replaced with Averroism and Thomistic scholasticism influenced by the influx of Arabic treatises and commentaries imported from *al-Andalus* as a result of the capture of Islamic centers of learning during the Reconquista,<sup>9</sup> as well as the recovery of the Greek Aristotelian corpus from Byzantine libraries following the capture of Constantinople by the Fourth Crusade in 1204. The more enthusiastic branch of Aristotelian scholasticism, Latin Averroism, was checked in a series of condemnations from 1270 to 1277, and only then, in the early fourteenth century, did recognizably Ghazalian ideas begin to be advanced. However, these Ghazalian ideas were cultivated through the quintessentially Latin realism/nominalism dispute<sup>10</sup> and were thus directed not against the indigenous neo-

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<sup>8</sup> The *Summa Theologica* was held in rank with the Bible and the Decretals at the Council of Trent (1545) as foundational to the Catholic confession and Thomism was codified as the *philosophia perennis* of the Catholic Church at the Second Vatican Council (1965). (*Optatam Totius*, 15)

<sup>9</sup> The Reconquista was largely complete by the middle of the thirteenth century. Cordoba was taken in 1236, Valencia in 1238, Seville in 1248, and the Islamic presence in Spain was reduced to the Emirate of Granada, a rump state and vassal of the Kingdom of Castile that was to survive, fittingly, until 1492.

<sup>10</sup> While philosophers of the Islamic world had access to Porphyry and were aware of the problem, their engagement with the it lacked the obsessive intensity characteristic of their Latin brethren.

Platonic tradition, but rather against the insurgence of Aristotelian scholasticism. Thus, with the end of the Islamic golden age and the rapid decline of Islamic intellectual activity in the thirteenth century, it was Christian philosophers of the West who were to answer Averroes and take up al-Ghazali's attack against his posthumous opponent.

## 2. Averroes and Classical Aristotelianism

While the revival of Aristotelianism gained significant impetus from al-Ghazali's devastating attacks against Avicenna and the neo-Platonist *falsafa*, it was also organic to the philosophy of Moorish Spain. Unlike the aforementioned "Baghdad Peripatetics," who were followers of the Proclean and Ammonian tradition which endeavored to synthesize the Platonic and Aristotelian traditions by regarding God as both the final and efficient cause of the world, the "Andalusian Peripatetics," such as Ibn Bajja and Ibn Tufayl, had never particularly concerned themselves with such a mediative synthesis, and Averroes astutely denounced it as perversion of Aristotle's position.<sup>11</sup> Such a denunciation came at a price though, and Averroes well understood the attraction of this 'perversion' to the *falsafa*: "it was an opinion very much like the account upon which the practitioners of *kalam* in our religion rely, namely that the agent of all [generated] things is one and that some of the [generated] things do not bring about an effect in others."<sup>12</sup> The denial of this "opinion" likewise entailed a denial of a single agent who generates all

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<sup>11</sup> McGinnis, "Arabic Impressions of Tabi'a (Nature)," 17

<sup>12</sup> qtd., in McGinnis, 19

things, a point that Averroes explicitly concedes,<sup>13</sup> and which provides the foundation for his non-emanationist, non-occasionalist model of natural efficient causality.

Averroes criticizes al-Ghazali's claim that only agents (i.e. those with choice and a will) can be causes and insists that "a person who throws a shadow [is not] an agent...because the shadow cannot be separated from the man."<sup>14</sup> What Averroes means by "separated" is unclear, but it seems apparent that he did not understand it in the logico-existential sense as did Avicenna and al-Ghazali. Kogan offers that "Averroes' assertion that agents and acts are really separate means, at the very least, that they are detached or detachable from one another."<sup>15</sup> Given that "detached" and "separated" are effectively synonymous, this tautegorical explanation does little to clarify the matter.<sup>16</sup> It seems to me that Averroes is insisting on separability as the distinguishing mark between 'natural efficient causes' and 'volitional agent causes.' He regards the former as *not* detachable from their effects (e.g. "luminosity and the sun, and the downward rolling in relation to the stone"<sup>17</sup>) because they are bound to them *essentially*. By contrast, agents produce acts non-essentially but on the basis of choice, and thus their acts are metaphysically detachable from them insofar as they *could have done otherwise while*

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<sup>13</sup> Ibid.

<sup>14</sup> *Tahafut al-Tahafut*, 151

<sup>15</sup> Kogan, 36

<sup>16</sup> This ambiguity is further compounded by Averroes claim that "by common consent the agent can be separated from its object and the philosophers certainly believe that God is separated from the world." (*Tahafut al-Tahafut*, 151) In accordance with the philosopher's emanationist metaphysics, this is quite simply untrue. As van den Bergh reasons, Averroes must be using "separated" here equivocally in the sense of transcendence. (*Tahafut al-Tahafut*, II. 64; see Kogan, 37) That is to say, if the world is an emanation of the divine essence, then God cannot be *ontologically* "separated" from it, but He may be understood in such a manner insofar as He surpasses and transcends His particular emanations—in the same sense that I transcend my liver, even though I could not literally be separated from it (and live).

<sup>17</sup> *Tahafut al-Tahafut*, I. 150



*remaining the same*. This is a key point, for, in denying al-Ghazali's concatenation of agents with causes, Averroes is attempting to stake out a domain of natural efficient causation wherein causes are not metaphysically detachable from their effects insofar as they *cannot refrain from producing them, or produce their contraries, while remaining the same*. Under this interpretation, Averroes regards Avicenna—on the basis of his emanationist overflowing/bestowal-of-existence model of causality—as having conceded something he should not have, viz. the ontic separability of cause and effect. It is precisely this new 'concatenated' conception of efficient causality that forms the basis of his response to al-Ghazali.

The crucial point to be kept in mind here is that both Avicenna and al-Ghazali share the same logico-existential entailment model of causation, i.e. logical relations and causal relations are, if not one and the same, at least structurally coextensive. Moreover, both regarded God as the primary (or only) agent and the Creation as his act. Yet, as previously noted, Averroes argues that agents are always separable from their acts. This point is not a problem for al-Ghazali, who agrees that God creates on the basis of will and, in doing so, remains ontologically transcendent from His Creation; yet, the point is devastating for Avicenna and the *falsafa*, whose God creates from an emanation of essence and is thus eternally and metaphysically coexistent with the Creation and cannot be separated from it, nor from any of its particular effects, on pain of contradiction. In order to avoid such a trap, Averroes rejects the Ammonian synthesis of the *falsafa* and reverts to the classically Aristotelian position whereby God provides only the formal and final causes in the world, which Averroes accepts as necessitating their effects.<sup>18</sup> That is

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<sup>18</sup> *Tahafut al-Tahafut*, I. 171

to say, Averroes rejects the fundamental posit of both neo-Platonism and occasionalism that God is the continual efficient cause of the world as well as its final cause; and instead insists on a domain of *nature* that operates on the basis of its own material causal powers and principles independent of the direct activity of God—though, of course, engineered and coordinated by God as its final cause.<sup>19</sup>

This conception of God’s activity in, and God’s relation to, the creation leads Averroes to posit a new model of necessity distinct from logical necessity. Under this model, causes do not entail their effects in the way understood by al-Ghazali and the *falsafa*. Faithful to Aristotle, Averroes insists that an effect “does not necessarily follow from its efficient cause, for the efficient cause frequently exists without the effect’s existing.”<sup>20</sup> On this basis, Kogan claims that Averroes is “distinguishing...between logical necessity on the one hand, and causal necessity, as applied to efficient causes, on the other... That is, [an efficient cause] may be fully in act and yet not produce its proper effect.”<sup>21</sup> While this interpretation is most certainly correct, an examination of why Averroes believes this belies Kogan’s conclusion (in opposition to my own) that: “Cause and effect are, in principle, separable, and Averroes recognizes no less than al-Ghazali—and Hume centuries later—that one may assert the ‘cause’ and deny the ‘effect’ without

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<sup>19</sup> This extraordinary revival of a classically Hellenic cosmology and theology was not to last but died in the Muslim world with the death of Averroes himself and in the West a century later with the condemnation of the Latin Averroists. Aquinas and his legion followers never accepted it, but sought a conditional return to the Ammonian position under the notion of “divine concurrence.” It wasn’t until Leibniz that Averroes’ and Aristotle’s position would return to Western philosophy, though by then in starkly different terms.

<sup>20</sup> *Tahafut al-Tahafut*, I. 171; *Physics*, 196b10

<sup>21</sup> Kogan, 67

contradiction.”<sup>22</sup> Moreover, this point serves to undermine any distinction, made by Averroes or others, between logical and so-called ‘causal necessity’ (i.e. what I refer to as ‘material necessity,’ as it is quite different than the ‘causal necessity’ of Democritus and the Stoics).

Averroes’ response to al-Ghazali’s famous argument against necessary connection,<sup>23</sup> is both dismissive and made with considerable scorn.<sup>24</sup> Indeed, at first reading, his response seems decidedly asseverational as well as betraying an ignorance of the actual problem. Averroes first attempts to avoid the fate of the *falsafa* by, *pace* Avicenna, rejecting the claim of al-Baqillani and al-Ghazali that we lack any direct perception of efficient causation.<sup>25</sup> Two points must always be made to assertions of this sort. First, if we do indeed have direct perception of causal relations (what I have referred to as ‘empirically veridical insight’), how then are we to account for effects whose cause is not perceived? While Averroes deems skepticism as to the empiricity of causation on this basis “illogical,” he provides no meaningful explanation but only insists that such things “are still unknown and must be investigated, precisely because their causes are not perceived.”<sup>26</sup> But “investigated” how? By looking harder? One either *sees* the causation taking place, or one does not; and thus Averroes’ response is a kind of special pleading.

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<sup>22</sup> Kogan, 67. It’s worth reiterating that, at least under my interpretation, the whole point of Averroes’ distinction between ‘agent’ and ‘natural’ efficient causes hinges on his belief that the former are separable from their effects while the latter are not.

<sup>23</sup> “Problem XVII: Refutation of their Belief in the Impossibility of a Departure from the Natural Course of Events,” 185-196.

<sup>24</sup> He declares: “everything Ghazali says in this passage is sophistical” (*Tahafut al-Tahafut*, I. 520)

<sup>25</sup> *Tahafut al-Tahafut*, I. 519-20, 526, 528-9

<sup>26</sup> *Tahafut al-Tahafut*, I. 520

Second, this insistence on directly perceivable causality is, *pace* Kogan's interpretation, sufficient to refute any claim to a separation between cause and effect for Averroes. Recall Hume's argument that an empirically veridical insight into a causal interaction is tantamount to insight into the means, manner, or power by which the cause produces its effect. Given such an insight, it would be impossible to conceive of any alternative outcome without at the same time supposing a change in the ideas under consideration.<sup>27</sup> Indeed, this is precisely Averroes' argument against al-Ghazali on necessary connection: a cause and its effect are not separable, for such a separation would amount to a privation of substance.<sup>28</sup>

This latter point should be kept in mind when considering Averroes' response to al-Ghazali; for Averroes argues that specific aspects of being (diversity, potential for change *or* constancy, mobility/immobility, etc) are simply self-evident and thus either understood or not, essentially asserting that power or activity is essential to being-as-such and that anything inert is therefore non-existent.<sup>29</sup> Averroes' efforts to explain how a supposedly necessary connection between cause and effect might not occur seem to amount to little more than a series of attempts to escape the conditions of al-Ghazali's conceptual experiment.<sup>30</sup> He poses the question: "are the acts which proceed from all things absolutely necessary for those in whose nature it lies to perform them, or are they

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<sup>27</sup> *Treatise*, 111

<sup>28</sup> Cf. Aristotle: "For of the contraries...one is a privation—and a privation of substance; and privation is the denial of a predicate to a determinate genus." (1011b17-20)

<sup>29</sup> *Tahafut al-Tahafut*, I. 520; See Kogan, 111

<sup>30</sup> Cf. Kogan, 129-132

only performed in most cases or in half the cases?”<sup>31</sup> Now Avicenna had accepted the absolute necessity of causes producing their effects and al-Ghazali had accepted this definition of causation in terms of necessary connection as the object of his critique. While Averroes attempts to deny such a necessity between causes and their effects, it seems evident from his efforts to account for the “in most cases or in half the cases” effects that he tacitly accepts this model as well, for (like Aristotle) he can only explain such “cases” by introducing extraneous conditions (i.e. a change in the ideas under consideration):

[S]ince one single action-and-passivity between two existent things occurs only through one relation out of an infinite number...it happens often that one relation hinders another. Therefore it is not absolutely certain that fire acts when it is brought near a sensitive body, for *surely it is not improbable* that there should be something which stands in such a relation to the sensitive thing as to hinder the action of the fire, as is asserted of talc and other things.”<sup>32</sup>

That is to say, a cause might fail to produce its essential effect due to the presence of some *impediment* that interrupts their continuity and interaction. Surely this is not improbable, nor impossible, but al-Ghazali’s conceptual experiment *assumed no such thing*. Similarly, in his *Long Commentary on the Physics*, Averroes argues that causes might not always produce their effects due to some internal deficiency in the cause:

[T]hat which occurs in the majority of cases [*but not always*] is something whose nature possesses a possibility for its action being deficient in the minority of cases, and therefore an external impediment exists in that case. But because that which occurs by necessity does not have this [deficiency] in its nature, it likewise [*can have*] no external impediment.<sup>33</sup>

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<sup>31</sup> *Tahafut al-Tahafut*, I. 521

<sup>32</sup> *Tahafut al-Tahafut*, I. 521; emphasis added

<sup>33</sup> *In II Physicorum*, t.c. 48, 66; trans. by Kogan, 131

For example, scammony may fail to produce its abstersive effect due to its becoming (in a *mot juste* description) “de-natured.”<sup>34</sup> Now this is, as Averroes himself concedes, really nothing more than an elucidation of the impediment objection: a sufficient cause cannot be impeded purely *ab extra*, but must be receptive to such an impediment *ab intra*, in terms of its own nature. Such a requirement is in keeping perfectly with a necessitarian model of causation—as Averroes again concedes—for any necessary relation, as a logical entailment, can only be negated if its components are open to, and thus dependent upon, some *necessary* conditions. That is to say, if  $\Theta$  is necessary for  $\Phi$  to produce  $\Psi$ , then  $\neg\Theta$  presents an impediment to  $\Psi$  on the basis of  $\Phi$ ’s own haecceity. Under such a model any completely *ab extra* impediment, where  $\Phi$  is completely sufficient to produce  $\Psi$  without condition (or with all the necessary conditions met), but is somehow impeded, *can only take the form of a logical contradiction*.<sup>35</sup>

Now such a fully sufficient cause without any *ab intra* deficiency or *ab extra* impediment is precisely what al-Ghazali is assuming in his conceptual experiment; and thus Averroes’ *ignoratio elenchi* amounts to him attempting to deny the undeniable by conjuring up hypothetical complexities that are irrelevant to the problem under consideration: ‘*All else being equal*, can we conceive the fire coming in contact with the cotton and yet not igniting?’ The answer is yes, which is why Averroes simply cannot

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<sup>34</sup> Kogan, 130

<sup>35</sup> Thus, when Averroes claims that an effect “does not necessarily *follow* from its efficient cause, for the efficient cause frequently exists without the effect’s existing,” (*Tahafut al-Tahafut*, I. 171; emphasis added) he is equivocating between ‘efficient cause in potentiality’ (which is prior to its effect) and ‘efficient cause in actuality’ (which is simultaneous with its effect), and thus between temporal posteriority and causal implication, as is evident from the section of Aristotle’s *Metaphysics* (1070a21-5) he bases this claim on: A father is an efficient cause of his son, but prior to the birth of his son, the cause exists without the effect. (cf. *Physics*, 194b31) This equivocation avoids the crux of al-Ghazali’s hypothetical and frankly seems designed to confuse the issue and inveigle the reader.

entertain the question. His objections therefore all reduce to the assertion that all else cannot possibly be equal in such a circumstance, thereby denying the conditions of al-Ghazali's hypothetical, and refusing to consider it on its own terms by instantiating impediments or unmet conditionals; for only such fetters—*produced by a change in the terms under consideration*—are capable of disrupting the necessity between cause and effect. This point is openly admitted by Suárez who, in considering precisely the point at issue (sc. the necessary connection between fire and burning) says:

To be sure, natural causes can...impede one another through resistance or through a contrary action...But once those things have been posited, natural causes cannot prevent the action of a necessary agent, since *they do not have the power to change the nature of things or to remove wholly intrinsic properties*...For how can a natural action be prevented if no impediment is posited?...once the presupposition [of no impediment]...has been made, the action arises with such a strong necessity that it cannot be impeded *except by removing some part of what has been presupposed*.<sup>36</sup>

Averroes was not so open, but would only offer: “because of external causes the procession of acts from agents may not be necessary, and it is not impossible that for instance fire may sometimes be brought near cotton without burning it, when something is placed with the cotton that makes it non-inflammable.”<sup>37</sup> The ‘and’ in the above quote should really be read: ‘as’; for al-Ghazali’s point, which he stubbornly refuses to consider, is: ‘It is not impossible that fire may be brought near cotton without burning it, *even when there are no internal or external oppilations present which renders it non-inflammable.*’

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<sup>36</sup> *DM*, 19.1.14; emphasis added

<sup>37</sup> *Tahafut al-Tahafut*, I. 538

What such dialectical maneuvers betray is that, all of his assurances to the contrary, and *pace* Kogan and others who interpret Averroes as offering a distinction between ‘logical’ and ‘natural necessity,’<sup>38</sup> like Aristotle himself, Averroes assumes the very logical necessitation model of causation that al-Ghazali is criticizing; viz. that a fully-sufficient cause, *sans* impediment, could ever fail to produce its effect. But, under al-Ghazali’s reasoning, if a cause *must* produce its effect in a given situation, then any failure—even *if only a conceptual possibility*—to do so immediately and completely falsifies its supposed sufficiency to do so, not merely in the particular token cause under consideration, but globally: all become implicated in the same deficiency. The distinction between ‘logical’ and ‘natural necessity’ is otiose here as there are only two available responses: Averroes and his contemporary defender must either declare it impossible that, upon removing every possible impediment to the activity of a cause, it still can fail to produce its effect—in which case they concede the necessity of the connection; or, they must admit the possibility—in which case the assumed link underlying the causal connection, ‘*necessary*’ or ‘*natural*,’ disintegrates in the literal sense of the term.

The diallelus in Averroes’ argument against al-Ghazali can be seen in his confident assertion, following Aristotle, that “it is self-evident that things have essences and attributes which determine the special functions of each thing and through which the essences and names of things are differentiated.”<sup>39</sup> While Averroes is apparently unaware of the glaring question begging in the assumption that: ‘Things have essences which determine their productions, which in turn form the criterion by which we can identify

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<sup>38</sup> See Madden, 1981

<sup>39</sup> *Tahafut al-Tahafut*, I. 520



and differentiate said essences,<sup>40</sup> this *petitio principii* would not escape the notice of the Latin nominalists, and would become an issue which early-modern anti-Aristotelians were almost malevolently fond of exposing.

Yet, in spite of its circularity, Averroes' reasoning also carries within it an *ontological* claim that, as intimated at the end of chapter three, was ultimately to lead to the destruction of occasionalist metaphysics. As Kogan summarizes this point: "If all things ceased to manifest their distinctive acts, they could no longer be said to have their specific natures. By subalternation, it follows that if any given particular fails to produce its characteristic effect, we have *prima facie* evidence for concluding that it does not have the specific nature to do so."<sup>41</sup> That is to say, under Averroes' causal ontology, any substance that does not produce its characteristic effect must be either impeded in some way or is simply is not that substance. Two points need to be made here. First, this response is an instance of a formal logical fallacy sometimes referred to as the "no true Scotsman" fallacy,<sup>42</sup> at least insofar as it subsumes the necessary connection between cause and effect into the definition of the causal entity itself; and thus the effect follows logically given the cause, but only by way of a stipulative definition. Second, this is

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<sup>40</sup> On this point van den Bergh argues, in defense of Averroes: "All conceptual thought implies the idea of identity, and all identity in the real implies a conformity to law, a sameness of action under the same conditions, i.e. that in such-and-such conditions a certain entity will necessarily act in such-and-such a way." (*Notes*, 177) However, this declaration assumes that we have such an idea of identity, that it is self-evident, and that it is fundamentally connected with the real. Yet, such assumptions are precisely what the empiricist tradition calls into question, which is presumably why van den Bergh deprecates it as regarding "the only function of the mind [as] the registration of isolated sense-impressions," under which "there could be no investigation, no search for explanation or causes, since nothing could be known but the experienced and the given." (*loc. cit.*) Any philosopher with an adequate familiarity with Locke's *Essays* or Hume's *Treatise* (which were profoundly influential to the development of modern Science) will recognize just how asinine such a representation of empiricism is.

<sup>41</sup> Kogan, 129

<sup>42</sup> See Anthony Fley, *Thinking about Thinking* (London: Collins Fontana, 1975).

precisely what al-Ghazali denounced the *falsafa* for in their innovative account of miracles, such as Nebuchadnezzar's fiery furnace:

From this idea, they come to disbelieve the story that when Abraham was thrown into fire, burning did not happen, *although fire continued to be fire*. They assert that this cannot happen, unless fire should be devoid of heat (*which would put an end to its being fire*), or unless Abraham's person or body should turn into stone or something else which might resist the influence of fire.<sup>43</sup>

Al-Ghazali accuses the *falsafa* of taking interpretive liberties with the Koran, which speaks of no oppulations preventing the burning of the fire, nor of any anti-pyrotic quality impressed upon the youth.<sup>44</sup> Moreover, in requiring God to employ one of these in accomplishing the miracle, the *falsafa* relegate his omnipotence to the use of instruments (i.e. secondary causes). Averroes attempts to avoid this problem by refusing to discuss it;<sup>45</sup> yet he all but concedes the philosophers' claim by accepting that the fire could only

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<sup>43</sup> *Tahafut al-Falsafa*, 188; emphasis added. In a manner unsurprising given his naturalistic interpretation of miracles, Augustine seems to agree with the *falsafa*'s interpretation. In defense of the doctrine of eternal *corporeal* damnation, he was required to assert that the flesh of the damned is not consumed by the fires of Hell. According to Augustine, this is possible because "suitable properties will be communicated to the substance of the flesh by Him who has endowed the things we see with so marvelous and diverse properties." (*De civitate Dei*, xxi. 4) Which is to say: teeth will be provided.

<sup>44</sup> Concerning the story in question, Josephus (a famously Hellenized Jew) seems to take the Aristotelian line, remarking that: "the fire did not touch them; and indeed it was, I believe, in consideration of their being thrown into it without having done any wrong that it did not touch them, and it was powerless to burn the youths when it held them, *for God made their bodies too strong to be consumed by fire*." (*Jewish Antiquities*, x. 215)

<sup>45</sup> "As to the objection which Ghazali ascribes to the philosophers over the miracle of Abraham, such things are only asserted by heretical Muslims. The learned among the philosophers do not permit discussion or disputation about the principles of religion, and he who does such a thing needs, according to them, a severe lesson... Of religious principles it must be said that they are divine things which surpass human understanding, but must be acknowledged although their causes are unknown." (*Tahafut al-Tahafut*, I. 527) This claim might seem ironic in light of Averroes later accusation that al-Ghazali's fideistic skepticism leads to the breakdown of knowledge, but it is really an expression of the double truth doctrine that was an attempt by Averroes and his Latin followers to liberate philosophy from the constraints of theology by bisecting the two at the most fundamental level possible. Averroes claim against al-Ghazali is thus rather disingenuous. He knows his philosophy cannot account for the miracle of Abraham on its own terms, so he thus refuses to consider or discuss it and, in doing so, presumes to avoid being identified as one of those "heretical Muslims."

be prevented from burning the youths under the instantiation of an impediment.<sup>46</sup> Indeed, after denouncing those who would constrain God’s miraculous activity as “heretics [who] must be killed,”<sup>47</sup> Averroes essentially embraces their sentiment three pages later:

When the theologians admit that *the opposite of everything existing is equally possible*,<sup>48</sup> and that it is such in regard to the Agent [i.e. God], there is no fixed standard for His will either constantly or for most cases, according to which things must happen... For true knowledge is the knowledge of a thing as it is in reality. And if in reality there only existed, in regard both to the substratum and to the Agent, the possibility of the two opposites, there would no longer, even for the twinkling of an eye, be any permanent knowledge of anything, since we suppose such an agent to rule existents like a tyrannical prince who has the highest power... [and] for whom no standard or custom is known which reference might be made.<sup>49</sup>

Averroes is being exceedingly careful in his wording here but is quite clearly accepting the premise that God’s freedom to act is constrained by the nature of the Creation, such that, in the performance of a miracle, God must work not arbitrarily but through the natural order. Indeed, this requirement is inherent to Aristotle’s onto-theological model under which the *primum movens* ‘moves’ only as a final cause (i.e. as the source of natural motion) and is not an efficient cause of anything in the world.<sup>50</sup>

What Averroes wished to defend is the classically Aristotelian conception of nature as an active medium of ontologically distinct *substances* that nonetheless interact

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<sup>46</sup> *Tahafut al-Tahafut*, I. 538

<sup>47</sup> *Tahafut al-Tahafut*, I. 527

<sup>48</sup> The italicized clause is startlingly close to Hume’s famous declaration: “The contrary of every matter of fact is still possible.” (*Enquiry*, 21)

<sup>49</sup> *Tahafut al-Tahafut*, I. 530-1; emphasis added

<sup>50</sup> While Averroes will not admit as much, such a view is fundamentally incompatible with the existence of miracles—a problem that later led Leibniz, who concurred with Averroes’ metaphysics, to redefine the very notion of ‘miracle’ itself. (See *Théodicée*, §207)

with each other and produce effects in regular patterns determined by the very ontic nature of the substances themselves—which in turn is what serves to ontologically distinguish them. He correctly identifies both the *falsafa* and the Ash'arites as opposed to this metaphysic and conception of creatures. The *falsafa* reject it on the basis of their overflowing/bestowal-of-existence model of causation which regards all causes as fundamentally synectic, i.e. a cause that must be continuously present for the continued existence of the effect. Recall the champagne glass pyramid model of emanative causation. If liquid stops overflowing from one glass in the pyramid, all of the glasses downstream from it (i.e. as effects) cease to overflow as well. Averroes rejects this model because, as Kogan puts it, “the only conclusion to be drawn...is that the world belongs to the category of relation, not to the category of substance.”<sup>51</sup> That is to say, none of the glasses in the pyramid have their own substantial identity or can stand apart from each other as they are only empty vessels for the activity of the fluid, which, in fact, *does everything*.

The God of al-Ghazali and the Islamic occasionalists similarly does everything, but in a way even more devastating to the possibility of substance and nature, as even the notion of vessels becomes meaningless. As Averroes perspicuously notes:

If a thing had not its specific nature, it would not have a special name nor a definition, and all things would be one—indeed, not even one,<sup>52</sup> for it might be asked whether this one has one special act or one special passivity or not, and if it had a special act, then there would indeed exist special acts proceeding from special natures, but if it had no single special act, then the one would not be one. But if the nature of oneness is denied,

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<sup>51</sup> Kogan, 61

<sup>52</sup> As will be recalled from Chapter 2, Aristotle's conception of substantial natures was developed and propounded specifically to rebut Eleatism.

the nature of being is denied, and the consequence of the denial of being is nothingness.<sup>53</sup>

Beyond occluding the possibility of a necessary connection, the ontic dehiscence of causes from their effects fundamentally destroys the very possibility of Aristotelian substantial natures as it properly requires that there can be no *intrinsic* connection between the nature of the cause and the nature of any effect that might be presumed follow from it. The ontic essence of substance is predicated unconditionally on such a connection and thus its denial entails that, as Averroes had warned and Hume famously expounded: “any thing may be the cause or effect of any thing.”<sup>54</sup> Such an upshot was a favorite *reductio* of Aristotelians, such as the sixteenth-century Jesuit Luis de Molina, who argued:

Since God is just as able to make a given thing cold in the presence of fire and to make it hot in the presence of water as vice versa, fire could just as easily be a cause of cooling and water of heating... Indeed, since God could create an angel or some other thing in the presence of a rock, a rock could be a cause of creation—which... is obviously as absurd as can be.<sup>55</sup>

It was precisely this metaphysical absurdity that informed Leibniz’s deprecation of occasionalism as the physics of a “perpetual miracle.”<sup>56</sup> If there is really no intrinsic connection between a thing and its activities, then the very notion of *things* (i.e. conditionally stable identities) is nonsensical. This specific problem, and the devastating

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<sup>53</sup> *Tahafut al-Tahafut*, I. 520-1

<sup>54</sup> *Treatise*, 249-250. The looking glass nature of the dispute is evident in Hume’s pronouncement that this absolute diffusion of causes and effects “evidently gives the advantage to the materialists above their [Scholastic] antagonists.” (Ibid.)

<sup>55</sup> *Concordia*, 161; qtd. by Freddoso, 8

<sup>56</sup> *Système nouveau*, §13

threat it posed to occasionalism, will be examined again in relation to Malebranche in Chapter 5.

### 3. Aquinas on the Powers of God and Nature

The outstanding feature of Aquinas' thought on the problem of divine omnipotence and the metaphysics of causation is his attempt, following Averroes, to stake out a classically Aristotelian position, superadded with concepts of Abrahamic theology, that presents a naturalistic intermediary between neo-Platonism and occasionalism.

#### *Background: The Origins of Aristotelian Scholasticism*

While Aquinas is often interpreted as a prototypical intellectualist-rationalist, he was actually part of a critical reaction against the importation of neo-Platonic philosophy into Christian theology that had been ongoing since the condemnation of Origen.<sup>57</sup> This critical reaction was significantly energized in the late twelfth-century by the definitive condemnation of Eriugena,<sup>58</sup> as well as the fortuitous recovery of the Aristotelian corpus from Byzantium and Averroes' commentaries from *al-Andalus*. The Thomistic critique of neo-Platonism was very different from the anti-philosophical fideistic stance taken by Gottschalk, al-Ghazali, and Peter Damian; for it was concerned not with striking down the pretensions of philosophy in favor of faith, but rather substituting an old ossified

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<sup>57</sup> Origen was condemned by Mennas, the Patriarch of Constantinople in 543 and again by the Fifth Ecumenical Council in 553.

<sup>58</sup> Eriugena was condemned by Honorius III in 1225.

philosophy with a newly discovered one. Moreover, while neo-Platonism had, since Plotinus,<sup>59</sup> been a hybrid of philosophy and theology that was readily amalgable with Abrahamic religion, classical Aristotelianism often stood so askance from the dogmas of the Abrahamic faith that the *duplex veritas* doctrine of the Averroists seemed an inevitable result. While this doctrine—which held that there were two incompatible sets of “Truths,” those concerning philosophy, and those concerning theology—was thoroughly denounced in the course of the thirteenth century, including by Aquinas, it nonetheless succeeded in its primary task: forcing a foundational and Church approved break between philosophy and theology for the first time since late-antiquity.<sup>60</sup>

This point is worth reiterating as it cuts directly against a prototypical interpretation of Thomism as embodying the pinnacle of medieval metaphysics, the most systematic union of philosophy with Christian theology ever produced, and the ultimate product of the rationalization of the Christian faith that stood as the *raison d’etre* of medieval Scholasticism.<sup>61</sup> Such an interpretation is not incorrect so much as it is anachronistic in that it understands Thomism and Aristotelian scholasticism in terms of the “school metaphysics” of the early-modern scholastics (e.g. Suárez and Molina), whose philosophy was indeed a revival of Thomism, but in response to an exceptionally different intellectual climate.

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<sup>59</sup> As noted in the previous chapter, when Plotinus’ *Enneads* was translated into Arabic in the ninth century for the son of the Abbasid Caliph, it was spuriously identified as a work of Aristotle’s entitled *Theologia*.

<sup>60</sup> This break was quite clearly anticipated by Abelard in his *Sic et non*, which is a compendium of seeming contradictions on the topic of theology taken from various Church Fathers.

<sup>61</sup> For a prominent example of this interpretation see Etienne Gilson, *History of Christian Philosophy in the Middle Ages*, 365-6

In 1210 the bishops of Paris and Sens declared: “Neither the books of Aristotle on natural philosophy nor their commentaries are to be read at Paris in public or secret, and this we forbid under penalty of excommunication.”<sup>62</sup> Five years later, the University of Paris followed suit, decreeing that faculty “shall not lecture on the books of Aristotle on metaphysics and natural philosophy or on summaries of them.”<sup>63</sup> These were, at least initially, no idle threats, but, in the case of one ‘Master Amaury,’ involved not only excommunication, but posthumous exhumation and reburial in unconsecrated ground.<sup>64</sup> Yet, these efforts at censorship were a typical failure and in 1231 a more flocculent edict was promulgated, this time by Pope Gregory IX, which conceded:

Since, as we have learned, the books on nature which were prohibited at Paris...are said to contain both useful and useless matter, lest the useful be vitiated by the useless, we command your discretion...so that, what are suspect being removed, the rest may be studied without delay and without offense.<sup>65</sup>

This Papal license granted, and in spite of lingering resistance,<sup>66</sup> by 1255 most of the Aristotelian corpus had joined Porphyry and Boethius as part of the canon of instruction at the University of Paris.<sup>67</sup> The most immediate beneficiaries of this liberal attitude were the Latin Averroists; yet, faced with their heretical teachings and virtual takeover of the

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<sup>62</sup> *Chartularium universitatis Parisiensis*, I, 70. See “The Condemnation of 1210” & “Rules of the University of Paris, 1215,” in *University Records and Life in the Middle Ages*, trans. Lynn Thorndike (New York: Columbia University Press, 1944), 26-30.

<sup>63</sup> *Chartularium universitatis Parisiensis*, I, 78

<sup>64</sup> *Chartularium universitatis Parisiensis*, I, 70

<sup>65</sup> *Chartularium universitatis Parisiensis*, I, 144

<sup>66</sup> Notably by Humber de Romans, general of the Dominican order, who denounced such studies as “Seeking to know the incomprehensible, which cannot be clearly understood either by philosophical reasons or from holy scripture.” (See Thorndike, §34, 73)

<sup>67</sup> *Chartularium universitatis Parisiensis*, I, 277-79



University of Paris, mainstream theologians undertook the mastery of Aristotle as well in order to establish themselves in a position to defend Christian dogma by refuting the metaphysical doctrines of Aristotle and other ancient philosophers.<sup>68</sup>

Such was the project of William of Auvergne, the first Western philosopher of the Middle Ages to systematically study and attempt to reconcile the works of Aristotle with Church Doctrine, who wrote in the first half of the thirteenth century before the ascendancy of the Averroists. Towards the end of his *De anima*, William considers the doctrine of apocatastasis<sup>69</sup> and concedes that “from the sacred and divine scriptures it is not completely clear how long [damnation<sup>70</sup>] is permitted.”<sup>71</sup> After rather tepidly rejecting the doctrine, William informs the reader that:

You ought, however, to know that in the statements of the prophets you will find some that seem to intelligent people to be opposed to this<sup>72</sup>...[Thus] it will be necessary to pay attention to the explanations and statements of the sacred teachers and to depart in no way from their faith, nor should you ever prefer my statements to theirs, for you see that my

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<sup>68</sup> By the early 1270's the Averroists were apparently winning this contest, leading the suspension of classes in early 1272 and the attempted enforcement of orthodoxy by the theological faculty, who declared: “if any master or bachelor of our faculty reads or disputes any difficult passages or any questions which seem to undermine the faith, he shall refute the arguments or text so far as they are against the faith or concede that they are absolutely false and erroneous.” (*Chartularium universitatis Parisiensis*, I, 499-500) See also Moody, “Empiricism and Metaphysics,” 295

<sup>69</sup> Alluded to in the previous chapter, apocatastasis was a doctrine in early Christianity that affirmed universal salvation, i.e that damnation was temporal rather than eternal and that all free creatures would eventually be reconciled with God's Grace. After much debate, apocatastasis was condemned (along with its earliest proponent) as Anathema at the Synod of Constantinople in 543 and again in 553 at the Second Council of Constantinople.

<sup>70</sup> William is specifically referring here to a particular psychological torment of damnation by which “the souls that are or are going to be in hell see the glory of the blessed souls,” (i.e. in heaven) which presumably serves to amplify the duress of their less than copacetic condition.

<sup>71</sup> *De anima*, II 225; Teske 485

<sup>72</sup> This is a bit of an understatement. Major early Church Fathers who affirmed the apocatastastic doctrine include Clement of Alexandria, Origen, Gregory of Nyssa and possibly Ambrose of Milan, as well as less know figures associated with the School of Antioch such as Diodore of Tarsus and Theodore of Mopsuestia.

aim and intention is directed only to this, namely, *to defend the truth of those statements by the paths of proofs and to destroy what is opposed to the same.*<sup>73</sup>

This had, it will be remembered, been both the aim and tactic of al-Ghazali, who was not content to merely denounce the *falsafa* as heretics, but cunningly employed his knowledge of philosophy to pick apart their doctrines from the inside. Following his lead, the task of medieval philosophy after the recovery of Aristotle was, as Ernest Moody argues:

to set up a clear-cut line of demarcation between the proper domains of theology and philosophy in respect of purposes, methods, and type of evidence admitted. The doctrines proper to theology could not be proved philosophically but were matter of faith. On the other hand, these doctrines could not be refuted by philosophy. It thus became necessary to show that the metaphysical doctrines of the Greek and Arab philosophers, which conflicted with the teachings of Christian theology, were not philosophically demonstrable or logically valid.<sup>74</sup>

This is a strikingly apposite description of Aquinas' project in the *Summa Theologiae*, the dialectical stratagem of which consists in Aquinas presenting a particular question relevant to Christian theology, providing a synopsis of views from philosophers ancient or contemporary which conflict with Church teaching on the matter, and then providing his own responses, typically employing tools provided by Aristotle, Augustine, and the Church Fathers to reconcile this disagreement *in favor of* established Catholic doctrine.

Such a project was intrinsically critical and, inspired by and conjoined with Aristotelian epistemology, served to revive philosophical empiricism for the first time since the decline of Epicureanism in late-antiquity. This tendency is evident (albeit

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<sup>73</sup> *De anima*, II 225

<sup>74</sup> Moody, "Empiricism and Metaphysics in Medieval Philosophy," 296

nascent) in Aquinas' agreement with Aristotle that all knowledge arises from the senses.<sup>75</sup> This epistemological commitment was developed by Aquinas into several strikingly empiricist arguments, such as his claim, *contra* Platonism, that "however much our intellect abstract the quiddity of material things from matter, it could never arrive at anything akin to immaterial substance."<sup>76</sup> This empiricist feature of Aquinas' thought is often overlooked for several reasons: the subtlety (bordering on incoherence) of his own middle position; the fact that he himself became implicated in the nominalist reaction against theological metaphysics (which rejected any such middle position), as well as Aquinas' deep influence on early-modern and neo-Scholasticism. While Aquinas had found Aristotelian epistemology useful in justifying theology, after the condemnations of Aristotelianism in 1270 and 1277, later philosophers took a harder stance and instead adopted a program of skeptical logical analysis of the claims of philosophy as the surest defense of the Christian faith—essentially inventing modern epistemology in the process. Thus the revival of Thomistic scholasticism in the sixteenth-century marked something of a reversal, for it was intended to rebut not the excesses of rationalist neo-Platonism and Averroism, but the excesses of anti-metaphysical nominalism and occasionalism. It was, as Moody argues, "concerned to show *not* that philosophy as such has no competence in the sphere occupied by theology, but that it *does*."<sup>77</sup> Later scholastic traditions stemmed from a very different intellectual background in which philosophy (the handmaiden) was no longer seen as a threat to theology (the queen of the sciences), but rather had

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<sup>75</sup> see *Summa Theologiae*, 1a. 84, 7

<sup>76</sup> *Summa Theologiae*, 1a. 88, 2. This argument Aquinas extends to the nature of the soul, which Aquinas insists we can understand "through its own act of understanding," but rejects, like al-Ghazali, Malebranche and Hume, that such acts grant insight into the nature of an immaterial soul. (Ibid.)

<sup>77</sup> Moody, "Empiricism and Metaphysics in Medieval Philosophy," 302-3

proclaimed itself as the new queen and threatened to leave theology behind with little more than its sacred texts and fideism. Thus early-modern scholasticism of the sixteenth and seventeenth centuries was a reaction to the Protestant rejection of systematic and metaphysical theology in the same way the neo-Scholasticism of the nineteenth-century was a reaction to positivistic natural science.

### *Aquinas' on Causation and Divine Concurrence*

Aquinas' use of the aforementioned dialectical strategy in the *Summa Theologiae* shows him, *prima facie*, to be a surprising and erudite defender of the occasionalist position. Aquinas consistently defends God's capacity for immediate activity and production of effects in the nature without the necessity of intermediaries and, in the case of miracles, *in opposition to the normal causal order*. Given the evident scriptural basis for such divine powers, it might seem obvious that a theologian, particularly of Aquinas' stature, would endeavor to buttress them on philosophical grounds. However, Aquinas' position in this regard marks a turn, rebuke, and, in large part, an abandonment of the autochthonous neo-Platonic tradition endemic to the West from Boethius to Eriugena to Abelard. While the Ash'arite theologians delivered a similar rebuke to the Eastern neo-Platonist school of al-Farabi and Avicenna, Aquinas was deeply indebted to "the Commentator" (sc. Averroes) and "Rabbi Moses" (sc. Maimonides), and thus distanced himself from the occasionalism and radical voluntarism of the Ash'arite school as well. Moreover, while he and Aristotle are inextricably bound together in the history of philosophy, Aquinas was a devout Christian who held concepts of Abrahamic theology

much more dearly than Averroes<sup>78</sup> and thus would not rest content with a propaedeutic ‘return to Aristotle’ *contra* Platonism or occasionalism. Rather, Aquinas was driven to pronounced theological and philosophical innovations to reconcile two fundamentally incompatible worlds: the autonomous, self-governing, and irrevocably ordered Nature of Aristotelian metaphysics, and the created, utterly dependent, and *violable* Nature of the Holy Scriptures.

Against the strictures of an autonomous Aristotelian natural order, Aquinas insisted that “God has the power to move matter towards form without an intermediary.”<sup>79</sup> He defended this possibility from scriptural authority<sup>80</sup> and regarded it as intrinsic to the nature of God as first cause: “having created matter, God’s power extends over it,”<sup>81</sup> the upshot being that “as he appoints other causes for determinate effects, [God] has also the power to bring about these effects on his own.”<sup>82</sup> What is notable here is Aquinas’ acceptance of what was the ultimate shibboleth of occasionalism and what was to become the key theological principle of nominalism: the ability of God to produce immediately any effect that could otherwise be brought about by secondary causes.<sup>83</sup>

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<sup>78</sup> Averroes and his Latin followers (e.g. Siger of Brabant and Boetius of Dacia) were implicated in several heresies (most famously their acceptance of the eternality of the world and monopsychism, as well as their rejection of individual salvation and corporeal resurrection), all of which were stridently denounced by Aquinas and officially condemned in 1270 and 1277.

<sup>79</sup> *Summa Theologiae*, 1a. 105, 1

<sup>80</sup> E.g. Genesis 2:7, Genesis 1:9, Isaiah 26:12.

<sup>81</sup> *Summa Theologiae*, 1a. 105, 1

<sup>82</sup> *Summa Theologiae*, 1a. 105, 1

<sup>83</sup> *Summa Theologiae*, 1a. 105, 1. The Avicennian position on God’s causal activity, which was never completely abrogated in the scholastic tradition, holds that God, as a simple being, produces but one simple effect; and through this effect all other causes, acting autonomously or under the divine conservation, produce their natural effects. Under this scheme it is quite impossible for God to intervene and produce

Aquinas pursues this principle into an examination of the mutability of the natural order and poses the question: “whether God has the power to do anything outside the order inherent in creation.”<sup>84</sup> That is to say, ‘can God produce immediately any effect that could *not* otherwise be brought about by secondary causes?’ Rejecting neo-Platonic justifications for a negative answer (e.g. the insistence, integral to emanationist metaphysics, that a change in the natural order entails an impossible change in the divine essence itself), Aquinas seizes on the seemingly contradictory answers given by Augustine,<sup>85</sup> and formulates his own response along these lines:

[I]f we look to the world’s order as it depends on the first cause, God cannot act against it, because then he would be doing something contrary to his foreknowledge, his will or his goodness. But if we take the order in things as it depends on any of the secondary causes, then God can act apart from it; he is not subject to that order but rather it is subject to him, as issuing from him not out of a necessity of nature, but by a decision of his will.<sup>86</sup>

This position, while presented by Aquinas as essentially Augustine’s, nonetheless advances well beyond him by basing itself on the seminal medieval distinction between God’s freedom *potentia absoluta* and *potentia ordinata*.

This distinction was to a large extent an attempt to theologially conceptualize the difference between ‘logical’ and ‘material’ necessity required by Peripatetic metaphysics. The distinction itself rests on a distinction between two types of necessity:

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diverse effects immediately, much less upset or gainsay the natural order and produce effects in declination from its customary inclination. (See Maurer, 247)

<sup>84</sup> *Op. cit.*, 1a. 105, 6

<sup>85</sup> See *Contra Faustum Manichaeum* 26.3

<sup>86</sup> *Loc. cit.*,

- 1) Absolute necessity, or those truths which are necessary in *any* created world.
- 2) Hypothetical necessity, or those truths which, having been willed into fact, “cannot be otherwise.”<sup>87</sup>

These two levels of necessity relate diagonally to two levels of divine power: *potentia Dei absoluta* and *potentia Dei ordinata*.<sup>88</sup> I say ‘diagonally’ because, given Aquinas’ acceptance that God cannot flaunt the law of non-contradiction, God’s *potentia absoluta* does not extend to *absolute* necessity, viz. truths which, as binding in all possible worlds, are part of God’s uncreated intellect and thus incapable of being changed or negated. Rather, God’s *potentia absoluta* represents His antemundane capacity to determine hypothetical necessity by creating the world in fact, thus impelling it with its own internal necessity relative to the determinations of His will. After the moment of Creation the freedom of God’s will becomes constrained by the hypothetical necessity of the Creation into *potentia Dei ordinata*: power within the ordained limits of the Creation. As Aquinas puts this distinction in the *Summa theologiae*: “Granted that God wills whatever he does from eternity the inference is not that he has to, *except on a supposition that he does*.”<sup>89</sup> Or perhaps more directly from the *Summa contra gentiles*: “God cannot do the contrary of what He has decreed to do.”<sup>90</sup> That is to say, God’s will “in the divided sense” is unconstrained in contemplation of Creation (except by the inherencies of his essence), but once he wills to create, his own immutability (the necessity of his understanding)

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<sup>87</sup> *Summa theologiae*, 1a. 19, 3

<sup>88</sup> See W. J. Courtenay, “The Dialectic of Divine Omnipotence,” in *Covenant and Causality in Medieval Thought* (London: Variorum Reprints, 1984), 60-76

<sup>89</sup> *Summa theologiae*, 1a. 19, 3, emphasis added

<sup>90</sup> *Summa Contra Gentiles*, 2.25

constrains his will “in the composite sense,” preventing him from changing the hypothetical necessity of the world he has created, and thus his power can operate only within the ordained limits therein.

On the basis of this distinction in the divine capacity, Aquinas concludes: “Because...order is established in nature by God, should he effect anything not in keeping with this order, it would not be contrary to nature.”<sup>91</sup> While this argument seems uninspiringly definitional, it is really a structural restatement of the very notion of God’s *potentia ordinata*: should God intervene and produce effects in nature contrary to its usual order, he does so on the basis his establishment of the potentiality of such deviation from within his design of nature in the Creation.<sup>92</sup> One remarkable feature of Aquinas’ interpretation is its striking anticipation<sup>93</sup> of Leibniz’s later response to the same difficulties, viz. that all deviations from the established order are never spontaneous but always done for a reason (i.e. are derived from God’s intellect rather than mere will) and thus part of God’s providential plan and design of the universe *ab origine*.<sup>94</sup> As Aquinas argues, “God so fixed the definite order in nature [*de potentia absoluta*] that he still reserved to himself what at times he was to do differently [*de potentia ordinata*] for good

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<sup>91</sup> *Loc. cit.*

<sup>92</sup> As Leibniz says, faithful to Augustine: “since nothing can happen which is not in the order [sc. of God’s plan], one can say that miracles are as much within the order as are natural operations, operations which are called natural because they are in conformity with certain subordinate maxims that we call the nature of things.” (*Discourse on Metaphysics*, §7)

<sup>93</sup> ‘Anticipation’ is perhaps an anachronistic term as it seems to me quite probable that Leibniz was directly influenced by Aquinas on this matter. He was, after all, one of the moderns most willing to praise and embrace Scholastic ideas. (See *DM*, §11)

<sup>94</sup> As Aquinas says: “God does not change his will when he does anything contrary to natural causes: because from eternity he foresaw and decreed that he would do what he does in time. Wherefore he so ordered the course of nature, that by his eternal decree he preordained whatsoever he would at some time do independently of that course.” (*De potentia*, q.6 a.1)



reason. He is, then, not changed when he acts apart from that order.”<sup>95</sup> This connection is more evident in Aquinas’ treatment of miracles, which is virtually identical to Leibniz’s.

Aquinas argues that:

A miracle is described as difficult not because of the worth of the matter about which it occurs, but because *it surpasses the capabilities of nature*. It is termed unusual, not because it may not occur repeatedly, but because it is outside the normal pattern. Something is said to surpass the capacities of nature not only on the basis of the kind of thing done, but also of the manner and order of its doing.<sup>96</sup>

That is to say, “something is termed a miracle by reference to the capability of nature that it surpasses;”<sup>97</sup> i.e. when a creature produces effects that go beyond the customary causal powers that substantially define it.<sup>98</sup> The metaphysics by which creatures can “surpass” their own natures is not fully explicated in the *Summa Theologiae*, but rather in *De potentia Dei*, which will be examined shortly.

Before turning to Aquinas’ views on occasionalism, I would like to touch on one intriguing question considered by him: “Can there be anything that is not created by God?” Aquinas provides an extraordinary argument for the affirmative response:

“Since the cause is more powerful than its effect, that which is possible to our intellect which takes its knowledge from things would seem yet more possible to nature. Now our intellect can understand a thing apart from understanding that it is from God, because its efficient cause is not part of a thing’s nature, so that the thing can be understood without it. Much more therefore can there be a real thing that is not from God.”<sup>99</sup>

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<sup>95</sup> *Loc. cit.* This position is designed to provide a response to the neo-Platonic objection that God’s immutability precludes any change in the order he has created.

<sup>96</sup> *Op. cit.*, 1a. 105, 7

<sup>97</sup> *Ibid.*, 1a. 105, 7

<sup>98</sup> See *Système nouveau*, §13

<sup>99</sup> *De potentia*, q.3, a.5

Aquinas, of course, ultimately rejects this claim, but that is not relevant so much as the logic of the claim itself. Where Aquinas' encountered this argument is unclear but a few points can be made about it. First, the premise is essentially a version of the 'establish'd maxim' (a.k.a. the 'maxim of admissibility') which Aquinas' likely encountered *via* "Rabbi Moses."<sup>100</sup> Second, the main thrust of the argument clearly appeals to what became the Humean 'difference principle,'<sup>101</sup> whereby anything the fancy can clearly and distinctly conceive apart, is capable of independent existence. Indeed, not only does the argument appeal to Hume's principle, but from it derives the very same conclusion: the logical possibility of a causeless existence.<sup>102</sup> Third, Aquinas responds to this argument in the only way possible. He denies the distinctness of individuals:

[I]f in a number of things we find something that is common to all, we must conclude that this something was the effect of some one cause... Seeing then that being is found to be common to all things, which are by themselves distinct from one another, it follows of necessity that they must come into being not by themselves, but by the action of some cause.

While this response, *pace* al-Ghazali, clearly regards existence as a predicate, the more obvious danger lies in the ready response: 'Does this principle apply to God as well?' Aquinas does not seem to have been aware of this problem when writing *De potentia Dei*, but by the *Summa Theologiae* he does attempt (albeit unconvincingly) to provide an

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<sup>100</sup> *Guide*, 1.73, 207

<sup>101</sup> I say "Humean" because Hume's 'difference principle' is, while formally identical to al-Ghazali's, nonetheless distinct in terms of emphasis. That is, al-Ghazali emphasizes the lack of any entailment or necessary connection between two different things while Hume emphasizes the capacity for independent existence between different things. (See *Treatise*, 233)

<sup>102</sup> *Treatise*, 79-80

answer.<sup>103</sup> Fourth, while he does not actually conflate the two, Aquinas presents this argument in the *Summa Theologiae* seriatim with its logical opposite:

[A] thing requires an efficient cause in order to exist. Therefore whatever cannot but exist does not require an efficient cause. But no necessary thing can not exist, because whatever necessarily exists cannot but exist. Therefore as there are many necessary things in existence, it appears that not all beings are from God.<sup>104</sup>

This argument (which again Aquinas obviously rejects) predicates itself on the necessity rather than the contingency of matters of fact (i.e. “in existence) as its minor premise.

This is particularly clear in Aquinas’ response, where he argues that: “This objection has led some to say that what is necessary has no cause.”<sup>105</sup> While he cites Aristotle, the claim, it will be remembered, was also made much more forcefully by al-Ghazali *against* the supposition of a necessary connection between cause and effect. Indeed, al-Ghazali essentially presents the above argument as a *reductio*: Any necessary existence would be causeless and thus not created by God; yet, this is absurd and heretical and therefore there must not be anything (besides God Himself) who’s existence is necessary.<sup>106</sup> While Aquinas likewise denounces the supposition of non-created existences, he rejects al-Ghazali’s (and Aristotle’s) identification of necessity with causelessness, claiming: “this is manifestly false in the demonstrative sciences, where necessary principles are the

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<sup>103</sup> “Though the relation to its cause is not part of the definition of a thing caused, still it follows, as a consequence, on what belongs to its essence: because from the fact that a thing has being by participation, it follows that it is caused. Hence such a being cannot be without being caused, just as man cannot be without having the faculty of laughing. But, since to be caused does not enter into the essence of being as such, therefore is it possible for us to find a being uncaused.” (1a. 44, 1) Besides the rather odd and patently false analogy to laughing as metaphysically essential to “man,” Aquinas’ argument is clearly circular in that it is based on a distinction between “being by participation” and “being as such,” which *define* the very categories under consideration (i.e. between creatures and Creator).

<sup>104</sup> *Summa Theologiae*, 1a. 44, 1

<sup>105</sup> *Ibid.*

<sup>106</sup> See *Tahafut*, 135

causes of necessary conclusions...[and] the reason why an efficient cause is required is not merely because the effect is not necessary [i.e. necessary of existence *se ipsum*], but because the effect might not be if the cause were not.”<sup>107</sup>

Even though Aquinas is conflating two distinct modalities here (i.e. ‘nothing is necessary unless its opposite entails a contradiction,’ with ‘nothing is required (i.e. logically necessitated) by what “might” be the case otherwise’), it must be admitted that his general conclusion is correct. In defining necessity to imply the lack of a cause of existence, al-Ghazali commits himself by contraposition to the thesis that any causeless existence must be necessary.<sup>108</sup> In doing so, al-Ghazali corrupts his own modal conception of possibility by essentially re-grafting it onto Aristotle’s ontological conception. That is to say, al-Ghazali defines existence (i.e. finite contingent existence) as *requiring* (i.e. positing) a cause, yet this is counter to his own reasoning concerning necessary connection and existential dependence, which fundamentally maintained that the existence of any one thing posits no *secundum quid*—such as a cause of its existence.<sup>109</sup> It wasn’t until Hume that this upshot of al-Ghazali’s reasoning would be recognized and the old Epicurean ‘heresy’ of causeless effects or existences would be vindicated—logically anyway—after two millennia of ceaseless opprobrium.

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<sup>107</sup> *Summa Theologiae*, 1a. 44, 1

<sup>108</sup> Apart from how it may seem *prima facie*, this attribution is not an instance of affirming the consequent, for al-Ghazali is quite clear that ‘necessary’ is not merely a class of ‘causeless,’ but rather that the two are identical. Thus the contraposition is one of identity and a tautology.

<sup>109</sup> It might be responded that anything lacking a cause is *causa sui*, but then this begs the question of the requirement of a cause.

### *Aquinas' Critique of Occasionalism*

Before examining Aquinas' arguments against occasionalism, it is worth considering the extent to which Aquinas was aware of Islamic occasionalism outside of (critical) summaries provided by Maimonides. No definitive answer to this question has been settled, but textual evidence suggests that he had almost no awareness at all. The first definitive date at which sections of al-Ghazali's *Tahafut al-Falasifah* appeared in the West was in 1328, in Kalonymus ben Kalonymus' translation (from the Arabic) of Averroes' *Tahafut al-Tahafut*, which contains extensive block quotations from al-Ghazali's *Tahafut* along with Averroes' refutations. It seems extremely unlikely that Aquinas had access to an earlier and currently unknown translation of this work. Not only does he appear to be ignorant of the stature of "Algazel" as the main philosophical defender of the views of the "Moselm theologians," but he even attributes emanationist and necessitarian views to him, seemingly conflating his views with Avicenna's.<sup>110</sup> This was apparently a common conflation in the thirteenth century. Giles of Rome avers in his *Errores philosophorum* (c. 1270) that "Algazel, agreeing with Avicenna for the most part and being his summarizer,"<sup>111</sup> upheld doctrines such as the eternity of the heavens and that "all things come into existence of necessity and that nothing other than what is actually produced can be produced by God in this sublunary world, because God, according to him, acts only in conformity with the predispositions of matter."<sup>112</sup> The reason for this confusion seems to be that the only work of al-Ghazali's available to the

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<sup>110</sup> E.g. *De potentia*, q.3, a.4

<sup>111</sup> *Errores Philosophorum*, VIII.1

<sup>112</sup> *Ibid.*, VIII.7

West at this time was the 1150 Latin translation of his *Maqasid al-Falasifa* [*Intentions of the Philosophers*] which was written early in his life and, as Giles describes and the title implies, is essentially a summary of their views.

However, Harry Wolfson has argued that knowledge of al-Ghazali's *Tahafut* was "somehow available to Latin Schoolmen before the Latin translation of Averroes" on the basis of citation of Maimonides that Albertus Magnus (Aquinas' teacher) makes in his *Physicorum*.<sup>113</sup> In the cited passage Maimonides provides a summary (bordering on quotation) of an argument made by al-Ghazali in the *Tahafut* against the eternity of the world, yet credits it anonymously to "the intelligent latest Mutakallimun."<sup>114</sup> However, when Albertus introduces this argument from Maimonides, he explicitly credits it to "Algazelus," leading Wolfson to conclude that he "could not have known that the anonymous Mutakallim referred to by Maimonides was Ghazali unless he had a knowledge of the *Tahafut al-Falsifah*."<sup>115</sup> If Wolfson is correct and Albertus had knowledge of al-Ghazali's *Tahafut*, it must have been quite exiguous and limited to a few such arguments; otherwise he surely would have saved his great student from making such errors concerning al-Ghazali's views. The point (as will be evident in Aquinas' critique of occasionalist doctrines) is that he almost certainly lacked a clear and adequate comprehension of the arguments behind them—arguments that his nominalist successors almost certainly did possess. Thus, Aquinas was, by virtue of the texts available to him at

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<sup>113</sup> Wolfson, "Nicholas of Autrecourt and Ghazali's Argument Against Causality," 234

<sup>114</sup> Ibid. Nowhere in the *Guide* does Maimonides ever specifically mention or reference al-Ghazali by name.

<sup>115</sup> Ibid., 235. It's worth noting that the extent to which Maimonides was familiar with al-Ghazali's *Tahafut al-Falasifa* is uncertain as well, though Schlomo Pines argues in his translator's introduction to the *Guide* that Maimonides was familiar with the text. (cxxvii)

this time, stuck in the difficult position—well appreciated by modern scholars of ancient philosophy—of attempting to critique a philosophical position while knowing only its bare outline and conclusion, but almost none of the arguments or reasoning behind it.

Even though he accepted, against “the Philosopher” and his “Commentator,” that God can produce effects immediately without intermediaries, Aquinas adamantly rejects that “God is active in every agent cause.”<sup>116</sup> While in the *Summa Contra Gentiles*, *Summa Theologiae*, and *De potentia Dei*, he is primarily concerned with rebutting the materialist or Aristotelian position that regards nature and the causal order as autonomous and divested of God’s continual involvement,<sup>117</sup> Aquinas is careful to distance himself from the occasionalist position, as well. In the *Summa Contra Gentiles* Aquinas unleashes a barrage of objections against “the opinion of those<sup>118</sup> who withdraw from natural things their proper actions,”<sup>119</sup> almost all of which can only be described as glancing blows and often beg the question by assuming the very Aristotelian metaphysic and doctrine of

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<sup>116</sup> *Summa Theologiae*, 1a. 105, 5

<sup>117</sup> As Aquinas summarizes this view: “Nature neither fails in necessary things nor abounds in the superfluous. Now the action of nature requires nothing more than an active force in the agent, and passivity in the recipient. Therefore there is no need for the divine power to operate in things.” (*De potentia*, q.3 a.7) The fact that Aquinas makes this his primary target of criticism with occasionalism coming as an afterthought stands as something of a marker in the history of ideas. There was, of course, considerable tradition behind this type of Christian *apologia*, from the sermons of the Church Fathers to Origen’s synthesis to Philoponus’ battles with Damascius and Simplicius during the final pagan counteroffensive in the sixth-century. Yet, Aquinas lived not in late-antiquity but the High Middle Ages, where paganism was a chthonic relic of the Baltic and most Christians had never met a heathen in their lives. Moreover, nominalism, which was profoundly indebted to Islamic occasionalism, was not to become a serious philosophical movement until after the condemnations of 1277, three years after Aquinas’ death. Therefore, it seems that Aquinas’ fixation on rebutting heretical Aristotelian views was in response to Averroes and particularly the Latin Averroists, who reached their acme during the thirteenth-century at the University of Paris, and indeed were the major impetus behind the 1277 condemnations there.

<sup>118</sup> Here Aquinas is referring to the Islamic theologians, as is made clear in *De potentia Dei*. (3.7) Occasionalist ideas did not take hold in the Latin West until the fourteenth-century, though Durandus of *Saint-Pourçain* is a possible exception. (See Iribarren, 275)

<sup>119</sup> *Summa Contra Gentiles*, 3.69

causal explanation that occasionalism calls into question. Aquinas' strongest objections to occasionalism are those that impugn it for undermining the perfection of the creator. As with his positions on the metaphysics of miracles and divine intervention, Aquinas' objections in this regard are strikingly Leibnizian in tenor and encompass three related arguments:

- 1) Occasionalism contradicts the divine wisdom because, "if creatures did nothing at all towards the productions of effects, and God alone wrought everything immediately, other things would be employed by him in vain for the production of effects."<sup>120</sup>
- 2) A purely passive, inert, marionette world of occasionalism is inferior to an active world of substantial natures: "if no creature exercises an action for the production of an effect, much is detracted from the perfection of the creature; because it is due to the abundance of its perfection, that a thing is able to communicate to another the perfection that it has."<sup>121</sup>
- 3) Similarly, the elimination of efficient causality *in re* undermines and essentially negates "the order of the universe: for the whole is always better than the parts, and is their end. Now if we subtract action from things, the order among things is

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<sup>120</sup> *Loc. cit.* It is worth noting that this objection assumes a real intrinsic connection between a thing and its effect, such that God could employ it "in vain," yet such a connection is precisely what the occasionalist denies.

<sup>121</sup> *Loc. cit.* This argument likewise assumes Aristotelian principles of causal interaction that the occasionalist would reject.



withdrawn: because, things differing in nature are not bound together in the unity of order.”<sup>122</sup>

In addition to the above, Aquinas’ includes an additional argument that is unique among criticisms of occasionalism:

- 4) Given that God is simple and immutable, he is not changed in the production of effects. Therefore, in accordance with the principle that a diversity of effects requires a diversity of causes, there could be no diversity of effects were all causality strictly reduced to God. Aquinas regards the latter as “evidently false to the senses.”<sup>123</sup>

Aquinas’ point here seems to be: If everything is produced by a single cause, how can there be such diversity in the natural order? This argument, as with the foregoing, assumes a natural order fundamentally defined by causal relationships, a conceit recognized by al-Ghazali, who appears to have been aware of the issue, noting that, according to the *falsafa*: “The capacity to receive the forms is derived from *these* causes which are observed, and which exist *here*. Emanation from the Principles themselves takes place by way of necessity and nature... So the principle is one; but its effects are diverse, because of different capacities in the receptive subjects.”<sup>124</sup> Al-Ghazali’s response is to deny the assumption of the *falsafa* that “God does not act by will.”<sup>125</sup> Even

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<sup>122</sup> *Loc. cit.* Note that this argument assumes that unity among a multiplicity of things requires real ontic-substantial interaction between them as part of a larger causal scheme. Contrast this with the modern notion of unity in nature as provided by essentially epistemic principles of law.

<sup>123</sup> *Loc. cit.* See Chapter 5 for Descartes’ use of this argument.

<sup>124</sup> *Tahafut*, 187-8

<sup>125</sup> *Tahafut*, 188

a completely simple being, if possessed of a will, can produce a diversity of effects insofar as al-Ghazali regards will as fundamentally arbitrary and not intrinsically connected to intellect and thus requiring a reason.<sup>126</sup> Aquinas' above argument is thus logically inconsistent insofar as he believes, *pace* neo-Platonic emanationism, that God (*de potentia absoluta*) could have willed to create any word that is logically possible.<sup>127</sup> The plain upshot of this view is that God, even though an absolutely simple Being (*non variatur*), could nonetheless, by his omnipotent will, produce an infinitely diverse number of potential creations/creatures. Even if there is indeed a single simple God who created the world, this principle cannot hold *metaphysically* in the way Aquinas uses it, for as he himself concedes, as he must: "every operation of a thing is reducible to [God] as its cause."<sup>128</sup> That said, even Hume, in his arguments in the *Treatise* against chance, makes use of Aquinas' principle in its contrapositive, claiming that "a contrariety of effects always betrays a contrariety of causes."<sup>129</sup> It should be noted that Hume's appeal to this principle likewise comes in an argument (alone in the entire *Treatise*) that bases itself on the supposition of real active causes governing the operations of nature.<sup>130</sup>

The above principle (sc. "every operation of a thing is reducible to [God] as its cause"), which is fundamentally an expression of Aquinas' concurrentism, was the metaphysical grounds for his intermediary position between Averroes and al-Ghazali, but also, as intimated, stood at considerable tension with his general acceptance of

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<sup>126</sup> *Tahafut*, 1.1 27

<sup>127</sup> *Summa Theologiae*, 1a. 25, 3

<sup>128</sup> *Op. cit.*, 3.67; Cf. *Summa Theologiae*, Q. 44

<sup>129</sup> *Treatise*, 132

<sup>130</sup> *Treatise*, 132

Aristotelian metaphysics. This tension is evident in his examination of the doctrine of occasionalism in the *Summa Theologiae*, where he notes: “There are some who have taken God’s working in everything that acts to mean that no created power effects anything in the world, but that God alone does everything without intermediaries. For example, it would not be the fire giving heat, but God in the fire, and similarly in all other instances.”<sup>131</sup> Aquinas rejects this view for two reasons therein:

- 1) Such vertically immediate causation “would deprive creation of its pattern of cause and effect, which in turn would imply lack of power in the creator, since an agent’s power is the source of its giving an effect a causative capability.”<sup>132</sup>
- 2) Similarly, it would abnegate the natural order, for “if the active powers that are observed in creatures accomplished nothing...Indeed if all creatures are utterly devoid of any activity of their own, then they themselves would seem to have a pointless existence, since everything exists for the sake of its operation.”<sup>133</sup>

Now the second argument is incisive and essentially confirms Averroes’ argument against al-Ghazali which, as noted, was to become the central problem leading to the downfall of occasionalism in the early-modern period. The same cannot be said for the first argument, which is purely definitional insofar as it defines power as the ability to create further causes. This argument/definition, though unpersuasive on its own, does, however, raise an interesting conceptual question against occasionalism, viz. ‘Isn’t a God who can create creatures who have powers of their own superior to a God who cannot?’

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<sup>131</sup> Ibid.

<sup>132</sup> Ibid. This is basically an elaboration of objection one from the *Summa Contra Gentiles*.

<sup>133</sup> Ibid.

The problem with this argument is that if the conclusion is ‘yes,’ as Aquinas insists, then he must also be able to conclude ‘no’ in the case of God creating creatures independent of himself.<sup>134</sup> That is to say, Aquinas must be able to provide tenable reason to refrain from going over to either full occasionalism or the Aristotelian metaphysic where God is only the final cause.

This problem is emblematic of the middle ground Aquinas was attempting to navigate between Aristotelianism and occasionalism, or between philosophy and theology in general. He endeavored to defend a concurrentist position that requires *both* that God be present in and concur with every agent cause, such that nature is not independent of him, *and* that God’s presence in and concurrence with the agent cause does not stand in place of its own activity, thereby depriving it of its being. The thinness of the Aquinas’ tightrope is evident in his deft deflection of an Aristotelian argument against his own concurrentism—sc. “if [God] is active in everything that acts, his action suffices. Accordingly it would be useless for any created cause to act at all”<sup>135</sup>—into an argument against occasionalism (sc. number two above). But how does Aquinas’ avoid this error as well? That is to say, how does God “act” in secondary causes while not replacing them? This question was never satisfactorily answered in Aquinas’ own writing and would become an issue of great concern among the early-modern scholastics; one which, I would claim, was never properly resolved.<sup>136</sup> Moreover, the logic of Aquinas’

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<sup>134</sup> I.e. ‘Isn’t a God who can create fully independent creatures that he does not need to preserve *in esse* superior to a God that cannot?’ Aquinas’ concurrentist insistence that God is the continual efficient (as well as final) cause of all creature, as well as more basic theological concerns, requires him to deny this conservationist claim.

<sup>135</sup> Ibid.

<sup>136</sup> See Chapter 5 for my own argument against concurrentism.

premise in objection number one (sc. that the power of a creator is manifest in the power of his creatures) would seem to force the opposite conclusion, viz. the Leibnizian presumption that a God who has to constantly intervene and “preserve” his creation is inferior to a God who can establish a clockwork universe from which he can effectively step away. Indeed, the ultimate logical conclusion would seem to entail that the greatest God is one who can create other gods.<sup>137</sup>

### *Aquinas on the Power of God*

Aquinas’ only definitive answer to the foregoing dilemma is found in his treatise *Quaestiones disputatae de potentia Dei*, a middle work composed between the two *Summae*, which contains his most in-depth and sustained examination of the nature and limits of the divine power and the metaphysics of causation. In this treatise Aquinas considers the questions: “Are those things possible to God which are impossible to nature?” and “Can God do anything in creatures that is beyond nature, against nature, or contrary to the course of nature?”<sup>138</sup> These questions are rather uncomfortable for Aquinas because the logic of Aristotelian causal metaphysics (as evident in the previous section on Averroes) would seem to require a negative answer, viz. that “things that are contrary to the course of nature are impossible in nature, for instance that a blind man be

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<sup>137</sup> Aquinas (predictably) rejects this, arguing that as “being and non-being are infinitely apart... an infinite power is required to create: so that the creative power cannot be communicated to a creature.” (*De potentia Dei*, q.3, a. 4) This avoids the question of why an infinitely powerful God could not communicate infinite power to a creature. Given that, in the Abrahamic tradition, God did *in fact* render being out of non-being, the possibility is not self-evidently absurd as Aquinas seems to believe. Regardless, among the articles condemned by Bishop Tempier in 1277 was the proposition: “the first cause would be able to produce an effect equal to itself if it did not limit its power.” (§26)

<sup>138</sup> *De potentia*, q.6, a.1

made to see, or a dead man to live.”<sup>139</sup> Aquinas is aware that this is clearly contradicted in scripture, citing Matt 11:5,<sup>140</sup> and he accepts that sometimes “God does something contrary to the order of nature.”<sup>141</sup>

As is typical when he is pitted against ‘the Philosopher,’ Aquinas’ strategy for resolving this contradiction is intriguing and innovative. He first examines three positions that deny the possibility of God producing an event contrary to the course of nature: an Anaxagorean position in which the universe exists uncreated and operates beyond the influence of the gods, a neo-Platonic position in which every event is a necessary emanation from the divine essence, and an Averroist position of autonomous natural necessity. Aquinas proceeds to reject each of these conceptions of Nature and, of the three, his criticism of the latter is the most interesting as it is the position closest to his own. Recall that, for Averroes, if a cause is not followed by its necessary effect (i.e. the effect which it is *sufficient* to produce), it must have either met with an impediment that blocked its efficacy, or is simply not the cause we took it for. The problem with this response is that it inherently either allegorizes or makes unsupported assumptions concerning Scriptural testimony of miracles central to the Faith. Aquinas rejects such interpretations, insisting: “Although God produces an effect without the action of its natural cause, he does not destroy the relation between cause and effect. Thus the fiery

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<sup>139</sup> *De Potentia Dei*, q.6, a.1

<sup>140</sup> “The blind see, the lame walk, lepers are cleansed, the deaf hear, the dead are raised, and the poor have good news proclaimed to them.”

<sup>141</sup> *De Potentia Dei*, q.6, a.1

furnace retained its relation to burning, although it burned not the three children in the furnace.”<sup>142</sup>

Aquinas’ response to these questions hinges on “The (ordinary) gloss on Romans xi, 24<sup>143</sup> [which] says that since God is the author of nature he cannot do what is contrary to nature. Now things that nature cannot do are contrary to nature. Therefore God cannot do them.”<sup>144</sup> This gloss comes from Augustine in his *Contra Faustum Manichaeum*.<sup>145</sup> Aquinas’ responds by (correctly) noting that such a conclusion is contrary to Augustine’s intention: “Augustine’s words quoted in the gloss mean, not that God is unable to do otherwise than nature does, since his works are often contrary to the wonted course of nature; but that whatever he does in things is not contrary to nature, but is nature in them, forasmuch as he is the author and controller of nature.”<sup>146</sup> Thus, in cases where events proceed contrary to the usual course of nature, this contravention does not imply a break with nature itself, but rather that another cause has produced the effect contrary to said typical course. Effects produced by this alternate cause (sc. the divine will) are not contrary to the operations of nature itself since “God can work in creatures independently of created causes...and by working independently of created causes he can produce the same effects in the same order as he produces them by their means: or even other effects in a different order: so he is able to do something contrary to the common and customary

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<sup>142</sup> *De Potentia Dei*, q.6, a.1

<sup>143</sup> “For if you were cut off from what is by nature a wild olive tree, and grafted, contrary to nature, into a cultivated olive tree, how much more will these natural branches be grafted back into their own olive tree?”

<sup>144</sup> *De potentia*, q.1, a.3. This gloss also appears in the first objection and response to q.6, a.1

<sup>145</sup> 26.3

<sup>146</sup> *De Potentia Dei*, q.1, a.3

course of nature.”<sup>147</sup> Therefore, “in all creatures, what God does in them is quasi-natural to them.”<sup>148</sup>

This position requires that a distinction be made in things between “a natural potentiality in respect of their proper operations and movements, and another, which we call obediential, in respect of what is done in them by God.”<sup>149</sup> While Aquinas fudges the distinction with poor word choice, the point is that *both* potentialities are “natural” insofar as they relate to a specific *inbuilt* receptivity of the agent to act in a specific manner provided specific causal conditions. This was *precisely* the Stoic-cum-Neoplatonic *solution* advanced by Augustine, who argued that “causal reasons have a double potentiality” such that:

[They] exercise their causality in either one way or the other: by providing for the ordinary development of new creatures in appropriate periods of time, or by providing for the rare occurrence of a miraculous production of a creature, in accordance with what God wills as proper for the occasion.<sup>150</sup>

The problem with Aquinas’ (and Augustine’s) solution here is that, though it attempts to preserve the integrity of substantial natures required by Aristotelian metaphysics and causal explanation when reconciled with Abrahamic requirement of divine intervention and the miraculous, it fails insofar its innovation (sc. “obediential potentiality”) is a vitiating distinction that abases that which it is proposed to safeguard. That is to say, for Aquinas, the regular course of nature is determined by the natural potentialities of causal

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<sup>147</sup> *De Potentia Dei*, q.6, a.1

<sup>148</sup> *De Potentia Dei*, q.1, a.3

<sup>149</sup> *De Potentia Dei*, q.1, a.3

<sup>150</sup> *De genesi ad litteram*, VI.14



agents therein, but exceptions to this regular course are also determined by obediential potentialities within said agents that allow their usual tendencies to be superceded and directed to producing an unusual effect. However, Aristotelian causal explanation (indeed substance metaphysics itself) is only meaningful given effect specificity, i.e. the ability of agents to produce specific effects on the basis of specific potentialities they possess; but this effect specificity is precisely what “obediential potentiality” forgoes insofar as it imagines a capacity of agents to “independently” do whatever God wills them to do (i.e. to produce any effect He wishes contrary to their natural potentialities).

While such an innovation seems well designed to rebut the Ghazalian claim that God can suspend the natural order at any time by insisting that such suspensions are, in fact, perfectly natural, the introduction of an “obediential potentiality” by Aquinas only reveals just how incompatible the Aristotelian notion of substantial natures are in any metaphysic that must account for miracles. If any agent can produce any effect (regardless of its supposedly natural potential) solely on the basis of its natural obedience to God’s will, then not only is effect specificity occluded, but the very notion of natural potentiality is rendered otiose: *why make a distinction at all between “natural” and “obediential potentiality?”* There is no *metaphysical* difference between the two, only an *empirical* difference that is reified (by Aristotelianism) as metaphysical. Natural potentiality refers to nothing more than the regularly observed causal order, a point that was understood by Augustine in the gloss itself: “Contrary to nature [means] contrary to human experience of the course of nature.”<sup>151</sup> For Aquinas, this natural potentiality itself belongs to the larger set of obediential potentiality that also includes exceptions to this

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<sup>151</sup> *Contra Faustum Manichaeum*, 26.3

regular order as attested to in scripture.<sup>152</sup> If one simply reduces these two sets (i.e. refuses to reify the regular order metaphysically on the basis of its regularity), one is then left with the far more parsimonious occasionalist position that the regularity of nature is not a ‘bottom-up’ metaphysical *product* of substantial natures, but rather a ‘top-down’ *function* of the regularity of the divine will. That is to say, given the power of God to produce directly any effect from any agent on the basis of its “obediential potentiality,” the *raison d’être* of Aristotelian substantial natures (sc. the function they provide in explaining the regularity of nature and causal interactions) is superfluous. One need not posit an active and consistent natural order, but only an active and consistent Sovereign. As Lady Philosophy instructs Boethius: “The generation of all things, and the whole development of changeable natures, and whatever moves in any manner, are given their causes, order and forms from the stability of the divine mind.”<sup>153</sup>

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<sup>152</sup> Aquinas’ commitment to this hierarchical containment can be seen in the following passage, so long as it is understood that “particular nature” corresponds to “natural potentiality” while “universal nature” corresponds to “obediential potentiality,” as seems apparent: “particular nature denotes the relation of a particular cause to a particular effect, while universal nature denotes the relation of the first agent in nature, which is the heavens, to all agents in the lower world. And seeing that none of the lower bodies acts save by virtue of the heavenly body, it is impossible for any natural body to act against universal nature: while the very fact that anything acts against a particular nature, is in accord with universal nature. Now just as the heaven is the universal cause in respect of lower bodies, so God is the universal cause in respect of all beings, and in comparison with him even the heaven is a particular cause. . . Accordingly just as by the power of the heavens something can happen that is contrary to this or that particular nature, and yet not contrary to nature simply, since it is in accord with universal nature: even so by the power of God something can occur that is contrary to universal nature which is dependent on the power of the heavens; without being contrary to nature simply, since it will be in accord with the supremely universal nature, dependent on God in relation to all creatures. It is in this sense that Augustine in the gloss quoted says that God does nothing contrary to nature.” (*De potentia*, q.6, a.1)

<sup>153</sup> *Consolatio*, 4.6

## CHAPTER V

### NOMINALISM AND THE BARREN WORLD

[W]e say that we see and hear and understand aright, and yet we believe that what is warm becomes cold, and what is cold warm; that what is hard turns soft, and what is soft hard; that what is living dies, and that things are born from what lives not; and that all those things are changes, and that what they were and what they are now are in no way alike. We think that iron, which is hard, is rubbed away by contact with the finger; and so with gold and stone and everything which we fancy to be strong, and that earth and stone are made out of water; so that it turns out that we neither see nor know realities.

—Melissus of Samos, Frag. B8

#### 1. Introduction

Before considering the impetus and development of nominalism in late-medieval philosophy, it is propaedeutically necessary to note that the accepted epistemic relation of reason and experience to religious dogma was very different in this period than as typically stands today. As Julius Weinberg explains:

In the Middle Ages, reason, revelation, and experience were regarded as reliable sources of knowledge, and while revelation took precedence over the others, no fundamental conflict among them was considered possible. Accordingly, any challenge of the claims of reason or experience or any genuine conflict among them would have been sternly rejected and suppressed.<sup>1</sup>

The Latin Averroists thus challenged Christian theology not only by arguing for manifest heresies (e.g. the eternity of the world), but *also* by attempting to bracket and back away from such heresies by recourse to the *duplex veritas* doctrine, whereby such heretical contentions were deemed irrefragable from the philosophical vantage of reason

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<sup>1</sup> Weinberg, 6

and experience, but explicitly contradicted from the theological vantage of revelation and faith. This doctrine was explicitly condemned in 1277 when Étienne Tempier, the bishop of Paris, declared: “They say that things are true according to philosophy but not according to the Catholic faith; as if there could be two contrary truths.”<sup>2</sup>

As noted in the last chapter, the primary project of Peripatetic scholasticism from William of Auvergne onwards was to correct the errors of Aristotle and his enthusiasts, thereby demonstrating that the dogmas of the Christian faith were not incompatible with the lessons of experience or reason. This project was of itself something of a retreat, for the preceding neo-Platonic tradition had endeavored to create a complete system of philosophy-*cum*-theology in which reason and faith were coextensive (rather than merely ‘not contradictory’) in their truths. By the time of Aquinas, this project had been completely abandoned and the notion that systems of reason and faith stood askance, but not inherently at odds, had become the orthodox paradigm. However, the critical stance and skeptical analysis (even in modicum) that was intrinsic to the establishment of the paradigm proved its own undoing. In seeking to cordon Faith from the incursions of reason and experience, Aquinas’ fourteenth-century successors pursued increasingly skeptical investigations into the nature of epistemology itself, thus unraveling that tenuous synthesis between Aristotle and the Church Fathers, which had been so extensively and resolutely negotiated in the course of the thirteenth-century. Indeed, they ended up turning full circle. The best example of this is Nicholas of Autrecourt, who not only defended the eternity of the world doctrine (albeit on different terms than the Averroists), but defended himself at his trial for heresy in 1347 by echoing the Averroist

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<sup>2</sup> *Chartularium universitatis Parisiensis*, I 543

*duplex veritas* doctrine, insisting “that all his assertions were made disputatively rather than definitively and that, whatever he said, his readers or hearers should adhere strictly to the Catholic Faith.”<sup>3</sup> The breaking of this assumed epistemic synchronicity between reason/experience and faith—and thus the founding of the modern antagonistic relationship between the two—was perhaps the chief dénouement of late-medieval nominalism.

## 2. Peter Damian on Divine Omnipotence and Natural Necessity

Such cordial relations had not always existed between philosophy and theology. As has already been recounted, the two stood in considerable tension in late-antiquity and in the Islamic medieval tradition, where philosophical appeals to the mandates of reason were seen as almost intrinsically opposed to dogmas of Faith.<sup>4</sup> Such was the state of affairs in Christendom even at the beginning of the High Middle Ages (1000-1300), as can be seen clearly in Manegold of Lautenbach’s<sup>5</sup> (c.1030-c.1103) anti-philosophical polemic against the Platonist Wolfhelm of Brauweiler.<sup>6</sup> But, the exemplar of this eleventh-century anti-

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<sup>3</sup> Weinberg, 6. While Cardinal Curti, who was in charge of Autrecourt’s trial and condemnation at Avignon, dismissed this appeal as a “foxy excuse,” it was in large part a reiteration of the intention and methodology of William of Auvergne. Yet, in the intervening years, matters had changed considerably and William’s project had borne fruit that the Church was not keen to let spoil.

<sup>4</sup> Indeed, in late antiquity “philosophy” was viewed as effectively synonymous with paganism, and not without reason. When Justinian I finally shuttered the Platonic Academy at Athens in 529, it was due to its reputation (like the Roman Senate) as an enclave of paganism in a now exclusively Christian Empire.

<sup>5</sup> Manegold was an Augustinian master of theology from the Alsace who was a strident opponent of any Christian deference to pagan philosophical ideas.

<sup>6</sup> Wolfhelm (†1091) was a Benedictine abbot from Brauweiler Abbey outside of Cologne. His dalliances in philosophy did not prevent him from being canonized.

philosophical attitude was Peter Damian's epistolary treatise *De divina omnipotentia*.<sup>7</sup> Damian, a senior contemporary of Manegold, was an Italian monk who spent his earlier years studying and teaching at the proto-universities of Parma and Ravenna before, around 1035, abandoning his post to become a hermit at the Fonte Avellana in the Marche of Ancona. Due to his reforming zeal, Damian became the prior of the hermitage and was later appointed as a Papal legate in 1059, a position he held until his death in 1072.<sup>8</sup>

*De divina omnipotentia* concerns the issue of whether or not God has the power to alter or undo events in the past and, by extension, the essence and place of necessity in the natural order. The rejection of the mutability of the past, by God or otherwise, has a prominent lineage in the history of philosophy. In particular, Aristotle extended Plato's rather prosaic claim in the *Laws* (justifying punishment for the sake of future deterrence) that "what's done can't be undone"<sup>9</sup> into a causal and metaphysical axiom.<sup>10</sup> In his treatment of Diodorus Chronus' paradox of future contingents, Aristotle concedes the necessity of past events,<sup>11</sup> and thus declares in the *Nichomachean Ethics* that "what has happened cannot be made to not have happened," and approvingly cites Agathon's claim that "For this alone is lacking even to God, To make undone things that have once been

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<sup>7</sup> Damian notoriously denounced philosophy by declaring that the Devil was the first grammarian, who taught Adam to decline "*deus*" in the plural.

<sup>8</sup> Damian was later canonized and made a Doctor of the Church.

<sup>9</sup> 934a

<sup>10</sup> Averroes followed Aristotle in this, arguing that causes must be either prior to or coexist with their effects, for, if effects could precede their causes, this would entail the mutability of the past. (Kogan, 3)

<sup>11</sup> *De interpretatione*, 19a23-4: "What is, necessarily is, when it is; and what is not, necessarily is not, when it is not."

done.”<sup>12</sup> Agathon’s point was codified in the Christian tradition by Jerome, who famously lamented in his epistle to Eustochium, on the occasion of the Visigoth sack of Rome in 410, that “although God can do all things, he cannot raise up a virgin when once she has fallen.”<sup>13</sup>

The apparent contradiction in Jerome’s remark was noted by Damian in a discussion with Desiderius (the future Pope Victor III) at the abbey of Monte Cassino sometime in the 1060’s. During this discussion, Damian demurred from Jerome’s claim, confessing “that this opinion has never satisfied me...[for] It seems altogether unbecoming that impotence be so lightly ascribed to him who can do all things.”<sup>14</sup> As evidence of this claim, Damian reports the story of two friars from Bologna who carved up a chicken for dinner. Apparently impressed by his carving skills, one of them declared that “if Christ himself should order it, this bird would never rise again;” at which point “the cock suddenly came alive, jumped up completely covered in feathers, beat its wings and crowed, shook its feathers and splattered all the gravy over those who were at the table.”<sup>15</sup> While this colorful story may seem fanciful, it was actually a very specific reproach against neo-Platonist philosophers of the day (e.g. Berengar of Tours) who denied the possibility of *corporeal* resurrection as violating the established laws of

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<sup>12</sup> 1139b7

<sup>13</sup> “Cum omnia Deus possit, suscitare virginem non potest post ruinam.” (Epistula 22.5)

<sup>14</sup> *De divina omnipotentia*, §3

<sup>15</sup> *De divina omnipotentia*, §70. If this display were not enough of a divine reproach, Damian reports that both men were also struck with leprosy, supposedly from the pepper that had been sprinkled on the chicken. (Ibid.)

nature.<sup>16</sup> As Manegold describes this view: “judging that the body is composed of the elements, [the philosophers] were of the opinion that the heavy part of it would return to the earth by an inevitable necessity,” from which they concluded “that the restoration of bodies to eternal life is impossible.”<sup>17</sup> Manegold responds by denouncing “the doctrine that ‘all heavy bodies shall be dragged into the earth by their own inclination,’” and reiterates the Augustinian argument (re-appropriated by Aquinas) that such notions of natural necessity are “offensive to the creator of the elements, who *did whatever He willed*, and who most certainly finds it as easy to place an element above its natural position as He found it easy at the first moment of creation to stabilize the jostling chaos by separating the elements.”<sup>18</sup>

For his own part, in letter to Desiderius following their discussion, Damian attempted to justify his disagreement with Jerome over the much more radical (and Scripturally ambiguous) issue of the mutability of the past; and in the process provided one of the most notorious arguments in favor of the divine omnipotence. As Damian presents the position of his opponents:

If God is omnipotent in all things, can he act so that things that were made become things that were not made? He can certainly destroy all things so

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<sup>16</sup> Such a concern was not novel to eleventh century, but extended back to antiquity. The early Christian author Marcarius Magnes considers the possible resurrection of men who have met grizzly fates and whose body parts have been scattered and consumed by wild animals, and relates the view of the philosopher that: “You will tell me that this is possible with God, but this is not true. For all things are not possible with Him...even if He could easily make them rise in a comely form, it would be impossible for the earth to hold all those who had died from the beginning of the world, if they were to rise again.” (*Apocritus*, 4.24) This view apparently resurfaced among the Latin Averroists of the mid-thirteenth century, at least as can be inferred from the one of the thirteen errors condemned by the bishop of Paris in 1270, viz. “That God cannot give immortality or incorruptibility to a corruptible or mortal thing.” (*Chartularium* §13) This specific condemnation was reiterated in 1277. (§25)

<sup>17</sup> *Liber contra Wolfelmum*, XXII, 62

<sup>18</sup> *Liber contra Wolfelmum*, XXII, 62



that they no longer exist, but it is impossible to understand how he can cause things that were made to become unmade. One might grant that it is possible that from this moment on and thereafter, Rome does not exist, since it can be destroyed; but there is no way to explain how it is possible that it was not founded in antiquity.<sup>19</sup>

Damian's response<sup>20</sup> to this attack on the divine omnipotence was twofold:

- 1) God is an atemporal being<sup>21</sup> who apprehends the entire history of His creation *totum simul*.<sup>22</sup> The division of time into past, present, and future is perspectival and binding only to temporal beings such as us.<sup>23</sup> Therefore, there can be no meaningful difference between God changing the present or future and changing the past.<sup>24</sup>
- 2) Notions of necessity, possibility, and impossibility hinge either upon the structure of language *or* the nature of things. The former is an arbitrary and artificial human

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<sup>19</sup> *De divina omnipotentia*, §21

<sup>20</sup> It should be noted that Damian dismisses scriptural passages that seem to suggest divine impotence (such as Genesis 19:22) as having only an "allegorical significance" that should not be interpreted "boldly and freely in a literal sense." (*De divina omnipotentia*, §6)

<sup>21</sup> The conception of God as atemporal was first propounded in the fourth by Ambrose, who declares in his *De fide* "that with God nothing is impossible, [and] that God exists not in time." (1.2.14) This position was adopted by Boethius by and the pagan neo-Platonist Ammonius Hermiae in their sixth-century commentaries on *De interpretatione* (ix. 136,18). It seems likely that Damian would have had Boethius as his source, either through his commentary, or, more likely, *via* his reiteration of this thesis in the *Consolatio*. (v. 6).

<sup>22</sup> "[A]lmighty God possesses neither a yesterday nor a tomorrow but an everlasting today, from whom nothing is added, from whom nothing is at variance, and with whom nothing is in conflict." (*De divina omnipotentia*, §37)

<sup>23</sup> "Time, that for us moves along outside in relation to external things, for him is something internal and does not pass." (Ibid.)

<sup>24</sup> "[I]n respect to his eternity, whatever God could do, he also can do, because his present never turns into the past, his today does not change into tomorrow or into some other alteration of time." (*De divina omnipotentia*, §77)

construct,<sup>25</sup> while the latter are wholly dependent upon the will of their Creator.<sup>26</sup>

Therefore, the majesty of God can be constrained neither by the artifices of human language, nor the nature of the creation he created by pure will out of nothing.<sup>27</sup>

These two arguments are linked together by Damian's interpretation of the problem of future contingents.<sup>28</sup> Unlike Diodorus Cronus and the Stoics, Damian regards the problem and its necessitarian upshot as binding only to "the logic of words" and not in any way to ontology.<sup>29</sup> However, its secondary upshot, viz. the annihilation of time as a

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<sup>25</sup> Damian's interpretation of dialectic arguments as concerning on the relation of words was previously advanced by Carneades against Stoic necessitarianism. It is exceedingly unlikely that Damian had Carneades (through Cicero) as his source, and the issue at hand concerned the Stoic and Megarian doctrine of the necessity of the future, rather than the necessity of the past, but Cleanthes response is nonetheless identical or Damian's: "those who say that things that are going to be are immutable and that a true future event cannot be changed into a false one, are not asserting the necessity of fate but explaining the meaning of terms." (Cicero, *De fato*, ix. 20)

<sup>26</sup> *De divina omnipotentia*, §49, §50, §56-7

<sup>27</sup> Damian is sometimes interpreted as advancing a Wittgensteinian position that logical possibility and impossibility (and even the problems of philosophy itself) are relative only to the structure of language, and he does seem to suggest as much. However, Damian later warns the philosophers to "air their questions according to the manner and rules of dialectic, so long as by their circumlocutions and the trifling song of their school days they do not outrage the Creator, and let them know that the impossibility of which they speak lies in the very nature of things and in the logical consequence of words resulting from this art, that it does not belong to divine power and that nothing can escape the capacity of divine majesty. (*De divina omnipotentia*, §67) "Here Damian clearly regards "impossibility" as binding to "the very nature of things," as well as to language. Yet this ultimately makes no difference, for both are equally arbitrary and utterly dependent upon the divine will.

<sup>28</sup> "[A]ccording to the natural order of inconstant phenomena, it can happen that today it may rain, and it can also happen that it may not rain; but by the logic of words, if it is going to rain, it is absolutely necessary that it rain, and consequently, altogether impossible not to rain. Likewise, what is said of past events may be applied with equal cogency to present and to future things; in this sense, that, just as everything that happened, necessarily had to happen, so also everything that exists must exist so long as it exists, and everything that will happen, must happen in the future. And so, in relation to the logical order of speech, for whatever was, it is impossible not to have been; for whatever is, it is impossible not to be; and for whatever will be, it is impossible that it will not be." (*De divina omnipotentia*, §24)

<sup>29</sup> It's worth noting that Damian did not have access to Aristotle's *Nicomachean Ethics*, and thus his claims concerning the immutability of the past therein, but instead cited *De interpretatione* (probably through Boethius' commentary), which was available in the West prior to the sack of Constantinople. (Oakley, 133-4) This fact is evident in his treatment of the problem, for the paradox of future contingents is nowhere addressed in the *Ethics*, but plays a major and influential role in *De interpretatione*. By contrast,

determinant of possibility, remains the same. Damian's argument thus functions as a *reductio* of those "pseudo-intellectuals" who seek to apply the entailments of dialectical argument to the divine, "boldly attributing to God those things that refer to the art of rhetoric," and thereby causing "him to become completely impotent and deprived of strength, not only regarding things past, but also relating to things present and to come."<sup>30</sup>

Like his contemporary al-Ghazali, Damian extensively documents how the necessity of nature assumed by the "dialecticians" is incompatible with scripture:

So it is that divine power often destroys the armored syllogism of the dialecticians and their subtleties and confounds the arguments of all the philosophers that are judged by them to be so necessary and inevitable. Listen to this syllogism: If wood burns it is surely consumed; but it is burning, therefore it is consumed. But notice that Moses saw the burning bush that was not consumed.<sup>31</sup> And to this other: if wood is cut from the tree it does not bear fruit; but it was cut off, therefore it does not bear fruit, Yet notice that the rod of Aaron is found in the meeting tent, having borne almonds<sup>32</sup> *contrary to the order of nature*.<sup>33</sup>

In addition to these examples Damian notes: the miracles of Exodus,<sup>34</sup> the flowing of water from an arid rock,<sup>35</sup> the destruction of the walls of Jericho by trumpets,<sup>36</sup> the sun

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Ockham, writing two and a half centuries later, had access to the *Ethics* and thus cites Aristotle's argument against the mutability of the past therein. (*Tractatus de Praedestinatione et de Praescientia Dei et de Futuris Contingentibus*, Q.1.A)

<sup>30</sup> *De divina omnipotentia*, §25

<sup>31</sup> Exodus, 3:2

<sup>32</sup> Num, 17:23

<sup>33</sup> *De divina omnipotentia*, §50; emphasis added

<sup>34</sup> Exodus, 14 & 17

<sup>35</sup> Josh, 6

<sup>36</sup> Josh 10:12-13

standing still at Joshua's command,<sup>37</sup> its reversal at Hezekia's,<sup>38</sup> Nebuchenezzer's fiery furnace that could not burn the three youths,<sup>39</sup> Daniel's deliverance from the lion's den,<sup>40</sup> the corporeal ascension to heaven by Enoch and Elijah,<sup>41</sup> the resurrection of Lazarus,<sup>42</sup> as well as the creation of Adam and Eve<sup>43</sup> from inert matter.<sup>44</sup> Also like al-Ghazali, Damian argues that the lack of predictable regularity and symmetry between causes and their effects undermines any inference that bases itself on the supposition of natural powers or forces. Notably, the examples Damian uses are taken directly from *De civitate Dei*:

How is it that straw is so cold that it preserves for the longest time snow that is covered by it, and so warm that it matures unripened fruit?"

[And] for lime to expel the force of its latent fire, one must douse it with water, and while before it was cold, it now begins to boil by the same agent that causes all other boiling things to cool. But if in place of water, one should use oil, which is obviously an incentive to fire, not the least bit of heat is generated when it is used.<sup>45</sup>

Given such a radical diversity of effects produced from similar causal powers, or similar effects produced by what appear to be antipodal causal powers, the conception of causation in terms of internal powers necessitating external effects seems ambiguous at best.

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<sup>37</sup> Josh 10:13

<sup>38</sup> 2 Kings 20:8-11; Isa 38:8

<sup>39</sup> Dan 3:46-50

<sup>40</sup> Dan 6:17-25

<sup>41</sup> Sir 44:6; 2 Kings 2; Heb 11:5

<sup>42</sup> John 11

<sup>43</sup> Gen 1-2

<sup>44</sup> *De divina omnipotentia*, §51, §58, §64

<sup>45</sup> *De divina omnipotentia*, §60-61. Cf. *De civitate Dei*, xxi. 4

Yet, what is remarkable about Damian's position (as opposed to al-Ghazali, Ockham, Autrecourt, and Malebranche) is that he *accepts* natural necessity: that is, necessary relations *within* the nature of things.<sup>46</sup> This can be seen in his reiteration of Aristotle's ontological derivation of the law of non-contradiction:

In respect to nature this is certainly true...it is impossible for one and the same thing to have happened and not to have happened; for, indeed, they are mutually contrary in the sense that, given the one, the other cannot exist. For assuredly what was, cannot in truth be considered not to have been, and antithetically, what was not cannot rightly be said to have been: *for things that are contrary cannot coincide in the same subject.*<sup>47</sup>

Damian is able to square this circle and accept necessity in Nature while maintaining that it does not affect the supreme liberty of the divine will because, unlike al-Ghazali and virtually every other philosopher of note before or after, Damian maintains the radically voluntarist position that God can flaunt and violate relations of necessity.<sup>48</sup> Thus, immediately after granting the above impossibility, Damian argues that:

This impossibility, moreover, is properly maintained in reference to the needs of nature. But God forbid that is be applied to divine majesty; for he who brought nature into being, at will easily abrogates the necessity of nature. For the need that governs created things, by law is subject to the creator; but he who created nature has power to change the natural order at his pleasure; and *while ordaining that all created things should be subject*

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<sup>46</sup> See *De divina omnipotentia*, §49, §50, §56-7

<sup>47</sup> *De divina omnipotentia*, §56; emphasis added

<sup>48</sup> While other medieval philosophers, such as Pierre d'Ailly, Gregory of Rimini, and John of Mirecourt agreed with Damian that God could alter or annul the past, (See Courtenay, "John of Mirecourt and Gregory of Rimini on Whether God can Undo the Past," *Recherches de Théologie ancienne et médiévale* 39 (1972): 224-253; 40 (1973): 147-174) the only other Western philosophers of whom I am aware that explicitly maintained that God's omnipotence allowed him to violate even logical or mathematical truths were Gottschalk of Orbais and, quite infamously, Descartes. Like Damian, Descartes' doctrine of the created eternal truths was deemed scandalous by his successors (and even by modern scholars) and stridently rejected by all other philosophers of the modern period. Even Hume, who is typically reticent to proffer any manner of theological asseveration, declares uncharacteristically in the concluding paragraph of his *Enquiry* that: "The standard of [reason], being founded on the nature of things, is eternal and inflexible, even by the will of the Supreme Being." (*Enquiry*, 294)

*to the dominion of nature, reserved to the dominion of his power the obedience of a compliant nature.*<sup>49</sup>

This position, justifying God's capacity to contravene the natural order on the basis of his status as its creator, is very close to the Augustinian doctrine that was adopted and developed by Aquinas into the natural/obediential potentiality distinction. Like Augustine and Aquinas, Damian accepts the existence of real secondary causes and natural necessity, yet avoids the problem of miracles not *via* distinction, but by insisting that such natural necessity can be flaunted or disbanded at will by the divine omnipotence. In this way Damian is able to grant God the capacity to effect works (e.g. altering the past) that Augustine and Aquinas cannot allow even under the accommodations of nature's obediential potentiality.<sup>50</sup>

Inchoate to Damian's reasoning is the tension that would be developed by his successors into the seminal medieval distinction between *potentia Dei absoluta* and *potentia Dei ordinata*, as discussed in the previous chapter. Yet, it is clear that Damian himself would accept no such distinction, for he is adamant that "it is quite apparent that

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<sup>49</sup> *De divina omnipotentia*, §57; emphasis added

<sup>50</sup> Damian's position is closer to that advanced by Tertullian in the early third century, who argued that God's ability to recreate and restore nature (e.g. in the incarnation and resurrection of the flesh) is dependent on his omnipotence and ability to change and remake the natural order. (*De resurrectione carnis*, 11) While the resurrection clearly involves a violation of the established order of nature, Tertullian notes that the incarnation involves a deeper violation concerning the metaphysics of change, and thus a more profound proof of God's omnipotence. (Resnick, 28) Tertullian summarizes the reasoning of the Marcionites who rejected the incarnation because "a being who is without end is also of necessity incapable of change. For being changed into something else puts an end to the former state. Change, therefore, is not possible to a Being who cannot come to an end." (*De carne Christi*, 3) That is to say, contrary to the dual nature dogma that would be codified at the Council of Nicaea, if God changes to become man, he can no longer remain at the same time God. Tertullian responds by accepting the metaphysical principle of the argument, but only insofar as it applies to natural creatures and exempts God: "Without doubt, the nature of things which are subject to change is regulated by this law, that they have no permanence in the state which is undergoing change in them, and that they come to an end from thus wanting permanence, while they lose that in the process of change which they previously were. But nothing is equal with God; His nature is different from the condition of all things." (Ibid.) While this may seem to be little more than special pleading, to place the divine nature under the same laws as that of natural things would be, as Tertullian insists, to place God "on the same level" ontologically with such things, which is tantamount to pantheism.

from the very moment the world was born, the Creator of things changed the laws of nature in any way he pleased, and even, I might say, *made nature itself to a certain extent against nature.*”<sup>51</sup> In this way Damian anticipates Ockham and Autrecourt by rejecting the Thomistic supposition of a domain of divine power *de potentia ordinata*; God is always and continually free to contravene the laws of nature:

What should one wonder, therefore, if he who prescribed for nature its law and order should exercise his right of decision over nature herself, without natural necessity rebelling against him, but instead serving in the role of handmaid submissive to his laws. Indeed, the very nature of this has its own nature, namely, the will of God, in the sense that, just as any created things observe her laws, so also she, upon command and forgetting her own rights, reverently obeys the divine will.<sup>52</sup>

Again, Damian here appears to be appealing to and effectively reiterating the Augustinian position, perhaps even anticipating the Thomistic notion of obediencial potentiality. Yet, such an appearance is misleading, for Damian, the divine will is both supreme and *completely autonomous*. Under Aristotelian causal metaphysics, for an agent to act upon a patient, said patient must be *se ipsum* receptive to the agent’s causal influence. Hence the need for Aquinas to posit an ‘obediencial potentiality’ *in re* as the condition of the possibility for God’s effecting miracles. Damian recognized no such need and instead appeals directly and immediately to the will of God as self-sufficient to accomplish (as agent) anything it wishes *regardless* of any supposed receptivity or potentiality in the substrate (as patient).

In the above quote Damian appears close to an occasionalist position (“nature...has its own nature, namely, the will of God”); but, insofar as Damian allows

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<sup>51</sup> *De divina omnipotentia*, §58; emphasis added

<sup>52</sup> *De divina omnipotentia*, §59

for a domain of natural causality and even natural necessity, he must reject the ultimate metaphysical concatenation of “nature” with “the will of God” foundational to occasionalism. The ambiguity of Damian’s position lies in his failure to follow the logic behind his reasoning to its inevitable conclusion—namely by rejecting the very notion of natural necessity and secondary causality as such, and subsuming all of Creation immediately to the will of God. Regardless of the similarities between Damian and the nominalists or occasionalists, *all* of the latter followed al-Ghazali in restricting the divine omnipotence to the logically possible, i.e. they denied that God could do that which is impossible. As discussed in Chapter 4, this rejection of radical voluntarism was an extremely important conceit that effectively stood as the *sine qua non* of any theologically inspired attack on causal determinism. If such attacks were *impelled* by a general voluntarist commitment to the divine omnipotence, the freedom of the divine will, and the possibility and Scriptural testimony of the existence of miracles, it was the concession that God could not do the impossible that drove al-Ghazali and his intellectual heirs to reject that natural relations are ever necessary, for, in that case, God could not interrupt or violate them, as that would engender or be tantamount to a logical contradiction. Such was simply not considered a problem by Damian. What is noteworthy here, then, is that Damian’s radical voluntarism actually *stunts* his critique of causal determinism as, in the place of a rigorous epistemological examination of supposed necessary relations in nature (as was provided by the aforementioned figures), Damian instead denounces dialectical investigation itself and appeals to the ineluctable mystery of the divine majesty as subtending all relations.<sup>53</sup> The upshot here is very similar to

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<sup>53</sup> “Truly, who is wise enough to enumerate the mighty deeds of divine power that occur contrary to the universal order of nature and which, surely, are not to be explained away by human arguments, but should



Aquinas and his *deus ex machina*<sup>54</sup> appeal to an ‘obediential potentiality’ to resolve the problem of miracles, while still maintaining the system of Aristotelian causal metaphysics otherwise unchanged, which protected this overall system, but did so by obfuscating the problem and thus the possibility for further critical innovations. More immediately, though, was the reaction of Damian’s successors against his radical voluntarist interpretation of the divine omnipotence, which formed the primary impetus behind the development of distinction between *potentia Dei absoluta* and *potentia Dei ordinata*.

### 3. The Condemnations of 1277 and the Development of Nominalism

By the late thirteenth and early fourteenth century, the indigenous neo-Platonic tradition of the West was dead and largely forgotten. Moreover, the intellectual scene had evolved to such an extent that Damian’s theological hostility to philosophy was not just quaint, but borderline heretical. Western philosophy and theology had been effectively merged for the second time, this time under the auspices of “the Philosopher,” “the Commentator,” and the man who endowed them with such epithets.<sup>55</sup> Late-medieval nominalism thus emerged in the century following Aquinas as a reaction to this Aristotelian takeover of philosophy and theology, and its critical lens was, much like early-modern philosophy, directed resolutely at Aquinas and his legion followers, as well as against Aristotelian metaphysics in general.

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rather be left to the power of the Creator?” (*De divina omnipotentia*, §63)

<sup>54</sup> Given that occasionalism is perhaps the ultimate *deus ex machina*, the irony here is difficult to escape.

<sup>55</sup> Viz. Aristototele, Averroes, and Aquinas.

This critical offensive was aided and perhaps impelled by a series of condemnations promulgated in 1270, 1272, and most definitively in 1277, when the bishop of Paris, Étienne Tempier, condemned 219 propositions of theological faculty at the University of Paris. While these condemnations were largely directed at Averroism,<sup>56</sup> many of Aquinas' own teachings were implicated as well, although not by name.<sup>57</sup> They also came not three years after the death of Aquinas and at the institution where he was active for much of his life. Moreover, the majority of the condemnations concerned rationalistic interpretations of Aristotle that placed restrictions on God's free will and implied elements of necessity in the Creation—thus implicitly calling into question many more of Aquinas' teachings. This slight did not go unnoticed and a year later the Dominican order defended its illustrious member and publically upheld his philosophical views.<sup>58</sup> Moreover, in 1323 Aquinas was canonized by John XXII and, in 1325, perhaps out of filiality with (now Saint) Aquinas, or as a reaction to the burgeoning nominalist school, the 1277 condemnations were officially revoked.<sup>59</sup>

In his introduction to the condemned propositions, Tempier fittingly quotes Paul's first epistle to the Corinthians where he cites Isaiah describing the miracles of God: "I

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<sup>56</sup> Particularly Averroes' doctrine of the eternity of the world and espousal of monopsychism, the latter of which was at odds with the Christian doctrine of individual salvation and was heavily criticized by Aquinas. (See *De unitate intellectus contra Averroistas*)

<sup>57</sup> Specifically, propositions §44, 87, and 217 (among others and to the extent of my own familiarity and recollection) are strikingly close to claims made by Aquinas.

<sup>58</sup> Ironically, it was the Dominicans who, a century earlier, had been the most strident opponents of Gregory IX's decision to allow the study of Aristotle. (See Thorndike, §34, 73)

<sup>59</sup> Grant, 47. It is worth noting that Fortin and O'Neill (the original English translators of the 1277 condemnation) argue that Tempier's sweeping condemnation "exceeded the mandate he received from Rome." (336)

will destroy the wisdom of the wise, and I will thwart the cleverness of the intelligent.”<sup>60</sup>

Among the propositions thereafter condemned are:<sup>61</sup>

§21) That nothing happens by chance, but everything comes about by necessity...

§46) That just as nothing can come from matter without an agent, so also nothing can come from an agent without matter, and that God is not an efficient cause except with respect to that which has its existence in the potency of matter.

§48) That God cannot be the cause of a newly-made thing and cannot produce anything new.

§147) That what is impossible absolutely speaking cannot be brought about by God or by another agent.—This is erroneous if *we mean what is impossible according to nature*.

§185) That it is not true that something comes from nothing or was made in a first creation.

§198) That, among the efficient causes, the secondary cause has an action that it did not receive from the first cause.

§199) That, among the efficient causes, if the first cause were to cease to act, the secondary cause would not, as long as the secondary cause operates according to its own nature.

As is evident from the above, the thrust of the condemnations were against the philosophical constraints of a deterministic causal metaphysics (sc. Aristotelianism), that was regarded as degrading the divine omnipotence, denying established Church dogma, and hypostatizing God’s causal agency to the extent that it effectively exceeded His will and required Him to work through these very hypostatizations in order to be efficacious. The hypostatization of God’s causal activity was not considered as problematic in itself or impossible by Tempier and his compilers (as it was by the occasionalists)—God did create a natural world after all. Rather, the objection was to the Aristotelian presumption

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<sup>60</sup> *Chartularium universitatis Parisiensis*, I, 544; I Cor 1:19, Isa 29:14

<sup>61</sup> I have used the original article numbers as opposed to Mandonnet’s regrouping.

that, having done so, God was thereafter constrained to work *exclusively* through and within the capacities and limitations of the natural world He had created.

Such was the origin of nominalism, which, as Ockham himself acknowledges, was fundamentally “based [on] the famous maxim of the theologians: ‘Whatever God can produce by means of secondary causes, He can directly produce and preserve without them.’”<sup>62</sup> Whom exactly these “theologians” Ockham cites are is unclear, but as was noted in the last chapter, such a capacity had been accepted by Aquinas, who argued: “The fact that secondary causes are ordered to determinate effects is due to God; wherefore since God ordains other causes to certain effects He can also produce certain effects by Himself without any other cause.”<sup>63</sup> For his part, Ockham ascribes this capacity more directly and *logically* to the divine omnipotence, citing the Apostles’ Creed: “I prove this by the article of faith ‘I believe in God the Father almighty,’ which I understand in the following sense: Anything is to be attributed to the divine power, when it does not contain a manifest contradiction.”<sup>64</sup> The historical providence of these new, more radical appeals to faith is not difficult to see. As Edward Grant describes the aftermath of the 1277 condemnations:

[U]nder penalty of excommunication, many deterministic arguments drawn from, or based on, Aristotle’s philosophy had of necessity to be modified and qualified. Alternatives, previously thought to be silly or absurd, had now to be entertained as at least possible—even if only by virtue of God’s infinite and absolute power.<sup>65</sup>

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<sup>62</sup> *OTh* 9: 604.17-20; *Philosophical Writings*, 25

<sup>63</sup> *Summa Theologiae*, 1a. 105, 1

<sup>64</sup> *Ibid.*

<sup>65</sup> Grant, §13, 46

In this way, and with no small dose of irony, nominalism was a development and continuation of the project of Aristotelian scholasticism. As explained in the last chapter, the original goal of Scholasticism was to integrate Aristotle with the Faith, part of which required proving that Christian dogmas that Aristotle deemed impossible (e.g. creation *ex nihilo*, miracles) were not, in fact, impossible. While nominalism remained deeply concerned with this latter requirement, in the process it largely gave up on integrating Aristotle into a Christian philosophy.

### *Ockham on Causation*

While the project of nominalism was, both in motive and doctrine, clearly aligned with, if not indebted to, al-Ghazali and Ash'arite occasionalism, it was also much more epistemologically oriented (even proto-idealist/phenomenalist) in a way that quite pronouncedly resembles Humean empiricism, as has been remarked on by several commentators.<sup>66</sup> It was the Aristotelian conception of ontology as an active, pluralistic, and substantial structure composed of both things as well as real principles internal to them—principles that define the natural order in a deep, interwoven, and rational way, which serve to provide philosophy direct access to this order as well as the possibility of offering a systematic and all-encompassing explanation of its operations—that was the primary object of the nominalists' ire. By contrast, the nominalists regarded the real as composed of discrete individual singulars. On this basis, Armand Maurer, in his

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<sup>66</sup> See Gilson 1938, and Moody 1958

monograph on Ockham,<sup>67</sup> notes that: “in Ockham’s world of radically individual beings there is no communication in form between any of them. Each is an essence of its own, sharing with no other an intelligible form or essence.”<sup>68</sup> He thus concludes: “In breaking [the Aristotelian] ontological bond between cause and effect, Ockham began a new concept of cause whose influence would be pervasive in modern empiricism.”<sup>69</sup>

Ockham defines an efficient cause in his *Summula philosophiae naturalis* as “that at whose real existence something has a new different being completely distinct from that cause.”<sup>70</sup> While this definition of causation and the nominalist ontology of discrete singulars rather strongly harkens back to al-Ghazali’s (and towards Autrecourt’s) logical rejection of any necessary connection between the two merely on the basis of their logico-existential non-identity, such an upshot seems, *pace* Maurer’s claim, not to have particularly impressed Ockham, for he restricts his skepticism over efficient causation to epistemological concerns, viz. over inductive inference and the disruptive potential of divine intervention.<sup>71</sup> Likewise, Ockham does not demure from describing efficient causality in terms of internal powers [*virtute propria*] by which the nature of a cause is connected with the natural effect that follows it in being.<sup>72</sup> Thus he concludes that cause

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<sup>67</sup> Maurer, *The Philosophy of William of Ockham in the Light of its Principles* (Toronto: Pontifical Institute of Mediaeval Studies, 1999).

<sup>68</sup> *Ibid.*, 407

<sup>69</sup> *Ibid.*

<sup>70</sup> *OPh* 6: 218.26

<sup>71</sup> I obviously do not demure from Maurer’s general conclusion, but I haven’t found any passage in Ockham where he specifically makes the Ghazalian *ontological* point concerning the distinctness of cause and effect. Indeed, not even Autrecourt would take the matter this far.

<sup>72</sup> *OTh* 7: 17.14-16: “Ad aliud de causa et effectu dico quod de ratione causae est quod possit virtute propria ad eam sequi effectus sic esse.”

and effect are bound by a necessary connection insofar as “every *naturally* producible effect by its very nature is determined to be produced by one efficient cause and not by another.”<sup>73</sup> Why did Ockham follow Aristotle in this way and fail to consider the *ontological* conclusions reached by al-Ghazali, as did Hume? First of all, it is worth noting that Hume—who, like Ockham, was primarily concerned with epistemology—failed to completely grasp al-Ghazali’s “*This is not That*” point as well. Second, even though Ockham defines causes in terms of internal powers, in denying (like Hume) the ontological status of causal relations as distinct from the singular terms related,<sup>74</sup> he implicitly abrogates the Aristotelian model of the metaphysics of causation whereby the causal relation amounts to a transference of form, and effectively replaces it with a *sine qua non* model of causality whereby the causal relation is “nothing else than that the effect exists at the presence of the [cause].”<sup>75</sup> Thus, Ockham’s theory of efficient causation is a confusing intermediary between Aquinas and a full-blown skepticism. He still conceives of causality (sc. what it is to be a cause or an effect) in Aristotelian terms, but had completely abandoned the Aristotelian substance metaphysics under which such a conception is intelligible.<sup>76</sup>

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<sup>73</sup> *OTh* 9: 629

<sup>74</sup> Maurer, 47-9, 406

<sup>75</sup> *OTh* 9: 156.148-50

<sup>76</sup> This is evident from Aquinas’ eminently Aristotelian reasoning: “[S]ince the nature of a thing is termed its *form and matter*, if a power of a thing should not be derived from them [i.e. from the transference of form from cause to effect], it will not be a power natural to the thing, and consequently no activity or passion proceeding from such a power will be natural. Now such activities which go beyond nature are not abiding—for example, that water when heated heats; but secret [i.e. private or defining] activities of which we are now speaking are always the same, or as often as possible. Hence the conclusion that powers which are the principles of these actions are essential and proceed from a form according as it exists in such matter.” (*De operationibus occultis*; emphasis added)

In spite of this failure to appreciate the entailments of his metaphysics and conception of causation, Ockham paved new ground in the epistemology of causal explanation due to his almost obsessive concern with the divine omnipotence and the possibility of divine interference in any particular instance of cause and effect. If, as Ockham and the “theologians” declared: “Whatever God can produce by means of secondary causes, He can directly produce and preserve without them,”<sup>77</sup> then it follows that:

Every absolute thing [*res absoluta*] distinct in place and subject from another absolute thing can exist without that latter in virtue of divine power...[and] since sensitive as well as intellective intuitive vision is an absolute thing distinct in place and subject from the object...vision [of any one] can remain in existence, [despite any other] having been destroyed.<sup>78</sup>

While this argument contains the germ of later occasionalist theories of perceptual acquaintance, its implications for causal explanation are explicit: if God can create an effect without any antecedent cause and, more importantly, an antecedent ‘cause’ without any consequent effect, then the standard of necessary connection, by which the effect *must* follow from its cause, collapses; and thus any *inference* from one to the other lacks demonstrative warrant:

Between a cause and its effect is a particularly essential order and dependence;<sup>79</sup> nevertheless, the simple knowledge of some one thing does not entail the simple knowledge of some other thing. This is also something that everyone experiences within himself: however perfectly he may know a particular thing, he will never be able to know, with simple

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<sup>77</sup> *OTh* 9: 604.17-20; *Philosophical Writings*, 25

<sup>78</sup> *OTh* 11: 605; trans. by Weinberg, 88. Just as with al-Ghazali, while this argument appeals to divine potency, its logical basis (on which such an appeal is predicated) concerns the separability and independence of ‘sensitive’ or empirical ‘visions’ as well as ‘intellective’ or logical ‘visions.’

<sup>79</sup> Here Ockham is being faithful to Aristotle, not realizing that what he claims following the “nevertheless” renders such fidelity otiose.



and proper knowledge, another thing which he has never previously experienced, either by sensation or intellect.<sup>80</sup>

Moreover, it is impossible to know, logically or empirically, if God produces any particular effect directly or through secondary causes. That is to say, using occasionalist terminology, if  $\beta$  may be produced by God directly without  $\alpha$ , we can never know in any given instance of  $\alpha$  followed by  $\beta$  if  $\alpha$  actually caused  $\beta$ , if  $\alpha$  was merely the occasion for  $\beta$ , or even if the two are connected at all:

[I]t cannot be demonstrated that any effect is produced by a secondary cause, because even though fire always follows when fire is brought close to combustible material, it is possible that the fire is not the cause. For God could have ordained that he alone caused combustion whenever fire is present to a patient close by, just as he has ordained with the Church that when certain words are spoken grace is cause in the soul.<sup>81</sup>

Given such an epistemological lacuna, the positive metaphysical concept of causation collapses and all we are left with is a *phenomenal* account resting on repeated observation and the continuity of nature.<sup>82</sup>

#### 4. Nicholas of Autrecourt

Nicolaus of Autrecourt<sup>83</sup> was a junior contemporary of Ockham and fellow nominalist who spent most of his scholarly life at the University of Paris (c. 1327-1340). While not

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<sup>80</sup> *OTH* 1: 241.15-21; trans. is my own. Quia, sicut prius argutum est, inter causam et effecendum est ordo et dependentia maxime essentialis, et tamen ibi notitia incomplexa unius rei non continet notitiam incomplexam alterius rei. Hoc etiam quilibet in se experitur quod quantumcumque perfecte cognoscat aliquam rem quod numquam cogitabit cogitatione simplici et propria de alia re quam nunquam prius apprehendit nec per sensum nec per intellectum.

<sup>81</sup> *OTH* 5:72.21

<sup>82</sup> It's worth noting that Ockham did not develop or even understand this issue in terms of the problem of induction. He is confident that repeated experience of two conjoined events, if examined in such a way as to exclude extrinsic *natural* influences, can form the basis of causal knowledge. (See Maurer, 410)

strictly an Ockhamist, Nicholas nevertheless developed many of Ockham's arguments and insights into a systematic skepticism and powerful critique of causation that would earn him the moniker: "the fourteenth-century Hume."<sup>84</sup> Like Ockham, Autrecourt aroused the wrath of captious Papal authorities at Avignon, was divested of his post at the University of Paris in 1340, and became the subject of an official investigation under Cardinal Curti in 1342. A 1343 manuscript reports that Nicholas had absconded to Munich and the court of Louis IV of Bavaria (the current Holy Roman Emperor and ardent enemy of the Avignon Pope Clement VI), who had gathered a remarkable coterie of intellectuals at his court (including Ockham, Marsilius of Padua, John of Jandun, and Michael of Cesena) that had fled similar Papal persecution.<sup>85</sup> Regardless, Autrecourt was officially condemned and stripped of his *honor magistralis* in 1346 and forced to formally recant and publically burn his writings at the Papal Curia in Avignon in November of 1347.<sup>86</sup> In contrast to Ockham, Autrecourt's pliability and willingness to retract virtually his entire philosophy did not go unrewarded. By 1350 he was again Dean of Metz, where he was to remain until his death in 1369.

The motivation underlying Autrecourt's condemnation is unclear, as is the particular theological ideology behind them. As noted at the beginning of the chapter, the "theological establishment" of the Late Middle Ages (i.e. post Aquinas) regarded the

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<sup>83</sup> Autrecourt, German Ultricuria and contemporary Autrécourt-sur-Aire, was a village in the diocese of Verdun, one of the three Bishoprics of the Lorraine that were independent States of the Holy Roman Empire until their annexation to France by Henri II in 1552.

<sup>84</sup> See Hastings 1907

<sup>85</sup> Rashdall, 5. Rashdall suggest that, if accurate, this flight might account for the long delay in Nicholas' trial.

<sup>86</sup> Rijk, "Introduction," 2

truths of experience, reason, and Scripture to be structurally covalent and therefore any agitations of discord or disagreement between them were in need of either refutation or suppression. The Latin Averroists were condemned for promulgating a philosophy that gainsaid Scripture. Aquinas had been spared—and indeed celebrated—as he had attacked only those aspects of philosophy that stood against revealed truths of the Faith, and endeavored to provide the complete synthesis of philosophy and theology that was the Church establishment’s desideratum. Ockham and Autrecourt, however, took a much broader critical stance against philosophy (sc. Aristotelianism) and a much more fideistic stance in favor of religion. Yet, much had changed in the two and a half centuries since Damian had ploughed a similar line. While Damian was canonized, Ockham and Autrecourt’s skepticism concerning reason, experience, and ancient philosophy ran afoul of the hard won synthesis of the High Middle Ages, and, by attacking the former, they were seen as attacking Christian religion in the same breath.

This perhaps explains why, as seems apparent from the records of the Avignon trial and his signed recantations, the condemnation of Autrecourt was a blanket condemnation.<sup>87</sup> Obviously Nicholas was a caustic anti-Aristotelian and thus Aristotelian scholasticism stood to receive at least tacit support from many of the recantations. That this benefit was more than tacit and coincidental can be seen in two of the theses he was forced to recant from the *Exigit ad ordo* [“The Universal Treatise”] which are in explicit criticism of Aristotle (and his myrmidions appeal to the *magister dixit*):

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<sup>87</sup> Autrecourt was required to recant even seemingly innocuous doctrines that had been openly accepted even by Aquinas. (See *Quattor articuli confessati*, §2, §5, §20)

- 1) Autrecourt argues that Aristotle’s asseverations in various subjects are only probable while “contrary conclusions could be held with equal probability.”<sup>88</sup>
- 2) Autrecourt expresses surprise “to see that some people study Aristotle and the Commentator until they are worn out with age, and because of the logical discourses of these men abandon moral matters and the concern for the common good.”<sup>89</sup>

Regardless of whether or not a defense of Aristotelian scholasticism was the *motive* behind Autrecourt’s condemnation, such coerced recantations clearly amount to an implicit Papal defense and are a compelling testament to just how far the pendulum had swung from 1210 (when the reading of Aristotle and Averroes was forbidden) to 1346 (when criticism of the reading of Aristotle and Averroes was forbidden).<sup>90</sup>

### *Sources of Autrecourt’s Critique*

As discussed in the last chapter, it seems decidedly unlikely that Aquinas or Giles of Rome, writing in the second half of the thirteenth century, would have had access to or even any specific knowledge of al-Ghazali’s *Tahafut al-Falasifah*. Their information

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<sup>88</sup> §37

<sup>89</sup> §38. This is a somewhat telling reversal of the old concession from anti-philosophical Church Fathers and theologians that held, to quote Manegold: “in matters of moral discretion... there is no discrepancy between philosophical reasoning and the understanding of orthodox opinion. (*Liber contra Wolfelmum*, XXII, 61) For his own part, Autrecourt goes on to note the harsh reaction he received from such scholars (“went for him like people armed for mortal combat”) when he criticized Aristotle.

<sup>90</sup> This remained the case into the early-modern period when many of the central works of Cartesian occasionalism were—in spite of their piety and extreme theocentrism—officially condemned by the Roman Church. For example, Malebranche’s *Recherche de la vérité* as placed on the *Index Librorum Prohibitorum* in 1709.

concerning the Ash'arites and their skeptical views on causation appears to be extracted entirely from Maimonides, who does not specifically list al-Ghazali among the members of this sect, nor include any of his specific arguments from the *Tahafut*. The first certain date at which sections of this work appeared in the West was in 1328. This date was a year after Autrecourt began lecturing at the University of Paris and thus questions have been raised as to whether or not Kalonymus' translation of Averroes' *Tahafut al-Tahafut* was indeed a source used by Autrecourt in developing his epistemology and views on causation.<sup>91</sup>

Weinberg, in his seminal treatise on Autrecourt, expresses doubt that the causal skepticism of the nominalists was ultimately derived from either ancient skepticism or Islamic occasionalism, but rather offers that the “fourteenth century criticism in Christendom was an almost self-contained growth...the sources of [which] are to be found in Christian scholasticism itself.”<sup>92</sup> This is certainly a possibility for, as I have previously argued, the particular doctrines of fourteenth century nominalism were a development and radicalization of doctrines propounded by Aquinas, who almost certainly had no first-hand knowledge of Islamic occasionalism. Moreover, Weinberg notes that Maimonides' description of the occasionalist doctrines of the Mutakallim are largely metaphysical in nature and make no mention of the particular epistemological arguments employed (sc. by al-Ghazali) against causal necessitarianism.<sup>93</sup> However,

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<sup>91</sup> As Weinberg notes: “Here, then, we have a source [*sc. al-Ghazali*] which provides the necessary and sufficient conditions of Nicholas' argument. Unfortunately, however, the date of its Latin translation is too close to that of the introductory lectures of Nicholaus as a Licentiate in Theology at Paris. (86)

<sup>92</sup> Weinberg, 87

<sup>93</sup> Weinberg, 85

Autrecourt adopted essentially wholesale Ash'arite atomism, particularly temporal atomism and the discontinuous account of motion and differential velocity that follows from it, which are described in detail by Maimonides.<sup>94</sup> On this basis it seems possible, as Weinberg concedes,<sup>95</sup> that if Autrecourt had read the *Guide* carefully enough to understand and defend this heterodox piece of physics, he might well have been able to extrapolate certain epistemological principles of al-Ghazali's critique from Maimonides' general summaries.

The strongest evidence of an inheritance from al-Ghazali to Autrecourt is found in a letter (the second) from him to Bernard of Arezzo (a Franciscan theologian active in Paris) where Nicholas denies that "It follows evidently, with evidentness reduced to the certitude of the first principle...[that] 'Fire is brought into contact with hemp; and there is no impediment; therefore there will be heat.'"<sup>96</sup> This has stuck some commentators as being too close to al-Ghazali's famous example of the fire and cotton<sup>97</sup> to be mere coincidence. Indeed, in addition to the arguments related in the last chapter for an earlier Western availability of al-Ghazali's *Tahafut* than 1328, Wolfson provides an interesting and compelling etymological analysis explaining how the substitution of flax (*bombax*) for cotton in Kalonymus' translation makes sense as a Latin translation of *al-kutun* ('cotton') given certain background information about terms used by Westerners to describe cotton, which was not grown in Europe and was thus an expensive and

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<sup>94</sup> *Guide*, I. 73

<sup>95</sup> Weinberg, 93

<sup>96</sup> *Secunda epistola ad Bernardum*, §20

<sup>97</sup> *Tahafut*, 186

mysterious<sup>98</sup> import that would never be used for the purposes of burning. However, Wolfson's explanation is complicated by the fact that the example is first put forward by Bernard, not Nicholas, the term used by Bernard is *stuppe* ("tow" or "hemp") instead of *bombax*, and instead of "burning" (*ardens*), the causal consequent is only "heat" (*calor*), something that fire already possesses on its own and which thus makes the example nugatory.<sup>99</sup> Moreover, as previously quoted, Ockham uses the example as well, but with out any mention of cotton or flax but only "combustible material."<sup>100</sup>

### *Epistolae ad Bernardum*

The primary source of Autrecourt's thought concerning efficient causation is a series of nine letters he exchanged with Bernard sometime between 1335 to 1337,<sup>101</sup> only the first two of which are still extant. The correspondence was initiated by Autrecourt after reading a lecture Bernard gave to the Friars Minor<sup>102</sup> that was disseminated as a pamphlet in the University. While Bernard was an anti-Aristotelian and something of a skeptic, Autrecourt took issue with the tepidity of his skepticism and to particular claims to knowledge he accepted as legitimate. The first letter mostly involves Autrecourt criticizing certain claims propounded by Bernard and probing him for further

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<sup>98</sup> Illustrated depictions of the time imagined cotton as a plant that produced sheep as fruit.

<sup>99</sup> However, Nicholas does not, as might otherwise be expected, point out that the example is otiose as it involves only one of the two terms, but rather reiterates his earlier claims, perhaps not wishing to quibble and aware that what Bernard meant by *calor* was *ardens*.

<sup>100</sup> *OTh* 5:72.21

<sup>101</sup> See Rijk, 5

<sup>102</sup> The "Friars Minor" is another name for the Franciscans, of whom Bernard was a member.

explanation, while the second letter contains the heart of his thought on efficient causation.

Autrecourt opens his second letter to Bernard by immediately appealing to the lowest possible level of consensus: “The first thing that presents itself for discussion is this principle: ‘Contradictories cannot be simultaneously true’ [*Contradictoria non possunt simul esse vera*].”<sup>103</sup> This Autrecourt deems “the first principle”<sup>104</sup> and insists that “Every certitude we possess is resolved into this principle.”<sup>105</sup> After establishing these axioms, Autrecourt defines contradiction itself by essentially reiterating the established Aristotelian definition:<sup>106</sup> “a contradiction is the affirmation and negation of one and the same <attribute>...as the common formula runs.”<sup>107</sup> However, even though Autrecourt envisions himself as grounding his epistemology on this “common formula” of the law of non-contradiction, like Aquinas, he is developing the law into something quite distinct without realizing it. This is evident in three corrolaries Nicholas “infer[s]” from the above axioms:

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<sup>103</sup> *Letter to Bernard*, §2

<sup>104</sup> *Ibid.* “[T]his is the first principle, expounding ‘first’ negatively as ‘than which nothing is prior’...[but also] this principle is first in the affirmative or positive sense as ‘that which is prior to any other.’”

<sup>105</sup> *Letter to Bernard*, §3. Nicholas overstates his contention here, for he also holds that truths of faith as well as that of immediate appearance provide certitude, but are not reducible to the law of non-contradiction. Regardless, this position was not unique to Autrecourt, but was common to medieval philosophy. For example, Aquinas argues: “Among [the] principles there is a certain order, so that some are contained implicitly in others; thus all principles are reduced, as to their first principle, to this one: ‘The same thing cannot be affirmed and denied at the same time,’ as the Philosopher states.” (*Summa theologiae*, 2b. 1, 7)

<sup>106</sup> See *De interpretatione*, 17a33-5, *Metaphysics*, 1019b22

<sup>107</sup> *Letter to Bernard*, §4. Presumably the ellipsis means: “in a substance,” though it is impossible to be sure.



- 1) “[J]ust as there is no power which can make contradictories simultaneously true, so there is no power by which it can happen that the opposite of the consequent simultaneously obtains with the antecedent.”<sup>108</sup> That is to say, if an antecedent is necessarily connected to its consequent, then the existence of the antecedent along with the opposite of the consequent must imply a violation of the first principle and thus impossible.
- 2) “Every syllogistic scheme is immediately reduced to the first principle.”<sup>109</sup> That is to say, every demonstration is of a necessary connection between antecedent and consequent and this necessity can only come from the first principle as its grounds.
- 3) “‘In every inference that is reduced immediately to the first principle, the consequent, and the antecedent either as a whole or in part, are factually identical,’ because, if this were not so, then it would not be immediately evident that the antecedent and the opposite of the consequent cannot simultaneously be true, without contradiction.”<sup>110</sup> That is to say, necessary connection is a relation of identity, in whole or in part, and thus any two distinct things can never share such a relation. One may always affirm one (as antecedent) while not affirming the other (as consequent) without contradiction.

Autrecourt thus concludes that:

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<sup>108</sup> *Letter to Bernard*, §5

<sup>109</sup> *Letter to Bernard*, §8

<sup>110</sup> *Letter to Bernard*, §9

In accordance with these statements, I have laid down... this thesis: ‘From the fact that some thing is known to be, it cannot be inferred evidently, by evidentness reduced to the first principle, or to the certitude of the first principle, that there is some other thing’... [for] ‘In such an inference... the consequent would not be factually identical with the antecedent.’<sup>111</sup>

Two points need be made regarding Autrecourt’s premises and their startling conclusion. First, though he believes he is basing his argument on the common (i.e. Aristotelian) formula of the law of non-contradiction, he is clearly, like al-Ghazali, understanding the law *strictly logically* (e.g. “Contradictories cannot be simultaneously true”<sup>112</sup>) without any reference to the nature or category constraints of Aristotelian ontology. Nowhere in Autrecourt’s argument is there any appeal to privations of substance or the like that provided the basis of Aristotle’s ontological formulation of the law of non-contradiction.<sup>113</sup> Indeed, Autrecourt implicitly rejects—though not apparently to his own understanding—Aristotle’s definition of contradiction in his rejection of Bernard’s claim that “‘There is whiteness; therefore there is something else,’ because there can only be whiteness if some substrate sustains it in being.”<sup>114</sup> As Weinberg puts this point: “Since a contradiction is the affirmation and denial of one and the same thing, the assertion of *a* and the denial of *b* can never be a contradiction if *a* and *b* are not really the same. Thus, if

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<sup>111</sup> *Letter to Bernard*, §11

<sup>112</sup> *Letter to Bernard*, §2

<sup>113</sup> Weinberg claims that Autrecourt’s definition of the law of non-contradiction “is verbally identical with Aristotle’s dictum in *Metaphysics Γ*,” yet he later concedes that “the metaphysical statement of the principle as we find it in Aristotle is in terms of a substance-accident ontology and is only intelligible in such terms in its Aristotelian context. But the principle, although it was perhaps first explicitly stated as such by Aristotle, is universally valid. Hence we may disengage it from the philosophy in which it first made its appearance under its right name, and so apply it without any restriction.” (Weinberg, 13) Weinberg is correct, of course, yet the identity and universal validity of these different formulations of the law of non-contradiction is not self-evident but rather was the product of the historical development of logic and epistemology (as distinct from ontology) during the Middle Ages from Damian to the nominalists.

<sup>114</sup> *Letter to Bernard*, §20

substance and accident are really distinct, inference from one to the other is out of the question.”<sup>115</sup> By advancing this critique, Autrecourt goes beyond even al-Ghazali who argues that “not even God can turn blackness into a cooking pot; for there is no common matter to underlie the transistion from one genus to the other.”<sup>116</sup>

Second, his logical understanding of the nature of contradiction allows Autrecourt to understand, like al-Ghazali before and Hume after him, the fundamental distinctness of every existence or matter of fact, and by extension that the existence of one does not and can never imply the existence of any *other*. That is, in any type of inference along the lines of: “‘A is; therefore B is’ ...[such that] these consequents differ from their antecedents, then...the implication is not evidently known...because the opposite of the consequent would be compatible with whatever is signified by the antecedent, without contradiction.”<sup>117</sup> In this way the logical construction of the law of non-contradiction engenders a logical criterion of relations of necessity, *the determination of which all the various systems of ancient metaphysics may be subjected to*. Such was the project of al-Ghazali and Autrecourt, and the result was devastating. When Autrecourt insists that, in accordance with the law of non-contradiction, “there is no power by which it can happen that the opposite of the consequent simultaneously obtains with the antecedent,” he is, like every other major figure linked to occasionalism, clearly rejecting Damian’s dialethic voluntarism by which God could effect the impossible. This is integral to the

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<sup>115</sup> Weinberg, 31. While Weinberg disagrees, it seems to me that the upshot of this dehiscence between substance and accident is inherently phenomenalist, for we have no warrant, basis, or *reason* to assert some substantial ontology underlying perceptual accidents. Given that this substantial ontology is not granted in our experience, phenomenism (or, at the very least, an intense agnosticism concerning ontology) seems to be the only possible conclusion.

<sup>116</sup> qtd. by McGinnis, 13

<sup>117</sup> *Letter to Bernard*, §15

critique of causation because it requires that, if something *can happen* (i.e. a miracle), it must be *in itself possible* (i.e. does not contain a contradiction). If miracles amount to God suspending the rules of nature to the extent of producing a contradiction, then the miraculous does not pose an issue to the Aristotelian causal scheme or the existence of natural necessity as such. However, the insistence that God cannot produce a contradiction, combined with the acceptance of scripturally attested miracles, is the drop of poison that destroys Aristotelianism or any other necessitarian causal ontology.

### *The Problem of Induction*

While in the letters to Bernard, Autrecourt is concerned primarily with logical matters, he does seem to have been aware of the problem of induction, and indeed the logic of his critique is only one step removed. The veritable totem of Autrecourt's philosophy is the maxim that a singular distinct thing posits no *secundum quid*; while the problem of induction is basically the claim that the congruence of two things posits no *tertium quid*. Indeed, as Weinberg argues, according to strictures of Autrecourt's reasoning, "any distinction between the known and the unknown makes any connection between the known and the unknown open to question," and thus "precludes an inference from one to the other."<sup>118</sup> Yet, this is only the opening gambit of the problem of induction, which fundamentally concerns the possibility of a non-deductive method of inference between the known and the unknown.

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<sup>118</sup> Weinberg, 32. This claim is interpretive for Nicholas never—at least in works still extant—makes precisely that point. Yet it seems highly likely that a logician of Nicholas' caliber would have grasped this point, for, in reducing demonstration to identity relations, Nicholas surely must have been aware that all demonstrations are thereby tautologies and can arrive at no new, previously unknown, information.

Along these lines, in his *Exigit ad ordo*, Autrecourt takes issue with Duns Scotus' account of induction and causal explanation. Scotus had argued:

Even though a person does not experience every single individual, but only a great many, nor does he experience them at all times, but only frequently, still he knows infallibly that it is always this way and hold for all instances. He knows this in virtue of this proposition reposing in his soul: "Whatever occurs in a great many instances by a cause that is not free, is the natural effect of that cause." This proposition is known to the intellect even if the terms are derived from erring senses, because a cause that does not act freely cannot in most instances produce an effect that is the very opposite of what it is ordained by its form to produce.<sup>119</sup>

That is to say, natural causes are governed by the principle of sufficient reason and thus, *ceteris paribus*, cannot be denied their customary effects because these effects extend from their very nature. Following this metaphysical principle, Scotus maintains (in what is effectively a reiteration of Avicenna's "hidden syllogism") that the constants of experience allow us to infer with certitude that the "effect is not the result of what is merely incidental to such a nature but is rather the effect of this nature as such."<sup>120</sup> Scotus defends such inferences on the basis of Aristotelian epistemology: knowledge of "the species abstracted from the thing" is "a concurrent factor in all knowledge" concerning it.<sup>121</sup> In knowledge of species, the particular is subsumed into the universal, part into the whole, such that, "from the very fact that [the intellect] grasps these terms, [it] has present to itself the necessary cause...of the conformity of this proposition with the terms that compose it."<sup>122</sup> While the conformity of terms to the proposition is synthetic, the proposition itself is analytic, for if the intellect were to affirm the terms, yet deny their

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<sup>119</sup> *Exigit*, 109

<sup>120</sup> *Exigit*, 110

<sup>121</sup> *Exigit*, 104

<sup>122</sup> *Exigit*, 106-107

(definitional) implication, the result would be the coexistence of “two mutually repugnant acts of knowledge.”<sup>123</sup> Scotus concedes that the “opposition” between these two mutually repugnant cognitions “is not precisely formal” (i.e. not strictly an instantiation of: ‘ $A \square \neg A$ ’), but insists:

The one act of knowledge would be co-present with the other even though the first is the necessary cause of the very opposite of the second, which is impossible. For just as it is impossible for white to be at the same time black because the two are formally contraries, so it is also impossible to have the white where you have the precise cause of blackness. The necessity in this case is of such a kind that it would be a contradiction to have the one without the other.<sup>124</sup>

Scotus here seems to confuse the logic of contraries with that of contradictories, which was a systemic problem in Aristotelian epistemology. Regardless, we can see the solution to the problem of induction this epistemology provides, for the apprehension of the species attaching to particulars provides “the simple expedient of discovering the definition of the thing known by way of division.”<sup>125</sup> Scotus insists that our knowledge “seems to be complete with this” division of that which is accidental to that which is of the nature of the thing itself, “so that no further knowledge of truth over and above the aforementioned truths seems necessary.”<sup>126</sup> That is to say, we can know that  $\beta$  is a ‘natural effect’ of  $\alpha$  without any further suppositions concerning the conformity of future- $\alpha$  to past- $\alpha$  or unobserved- $\alpha$  to observed- $\alpha$  in regards to  $\beta$ .

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<sup>123</sup> *Exigit*, 107

<sup>124</sup> *Exigit*, 108

<sup>125</sup> *Exigit*, 121

<sup>126</sup> *Ibid.*

Scotus was not entirely satisfied with this solution and quickly backed away from his unadvised claim that causes producing contrary effects represents a “contradiction.” The criterion of such a contradiction in causal inferences lies in the epistemic abstraction of observed phenomena into general “self-evident principles,” such as when, from the observation of the moon’s eclipse, we reason “that when an opaque body is placed between a visible object and the source of light, the transmission of light to such object is prevented.”<sup>127</sup> In such a scenario, the intermedial presence of an opaque body along with the continued illumination of the far surface would, to Scotus’ mind, represent a formal contradiction. Yet, Scotus concedes that often our experience does not afford us access to such self-evident principles, as in the case of our knowledge “that a certain species of herb is hot.”<sup>128</sup> This fact is “a first principle known from experience,” yet we are completely unable to determine “why this attribute belongs to this particular subject;” or, as Locke has it, the necessary or internal connection of this attribute to any other possessed by the subject.<sup>129</sup> Scotus remains convinced that “the uncertainty and fallibility” of our species knowledge of the hotness of the herb still follows from the ‘not-free-cause’ epistemic criterion, but he admits that this case “is the very lowest degree of scientific knowledge.”<sup>130</sup> The reason is that, barring a self-evident principle governing the explanation:

[W]e have here no knowledge of the actual union of the terms but only a knowledge of what is apt to be the case. For if an attribute is an absolute entity other than the subject, it could be separated from its subject without

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<sup>127</sup> *Exigit*, 110

<sup>128</sup> *Exigit*, 111

<sup>129</sup> *Essay*, IV, vi, §10, 500

<sup>130</sup> *Exigit*, 111

involving any contradiction. Hence, the person whose knowledge is based on experience would not know whether such a thing is actually so or not, but only that by its nature it is apt to be so [*ita aptum natum est esse*].<sup>131</sup>

How Scotus believes we can have certain and infallible knowledge of what is only “apt to be the case” is entirely unclear, as is how we have any insight into the “nature” of the subject without a self-evident understanding of it.

The confusion in Scotus’ reasoning, as well as his concession that experienced accidents are not always in accord with their customary subject and moreover can be separated from said subject “without contradiction,” was the open door through which Autrecourt drove his critique. The logical aspect of his critique, based on the principle of separability, had already been addressed. Yet, Autrecourt also takes issue with the claim that repeated and infallible experience of a conjunction between two things is demonstrative of the fact that one is the natural effect of the other. Autrecourt is adamant:

[O]nly conjecturative habit<sup>132</sup> [*habitus conjecturativus*], not certainty, is had concerning things known by experience, in the way in which it is said that rhubarb cures cholera, or that a magnet attracts iron. When it is proven [*sc. by Scotus*] that certitude [comes] from the proposition existing in the mind which states that what is usually produced by a non-free cause is its natural effect, I ask what you call a natural cause. A cause which has produced what has happened usually, and which will still produce in the future if [the cause] lasts and is applied? Then the minor premise is not known. Even if something has been produced usually, it is still not certain whether it must be produced in the future.<sup>133</sup>

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<sup>131</sup> *Exigit*, 111

<sup>132</sup> The English translators of the *Exigit* (Kennedy, Arnold, and Milward) render ‘*habitus conjecturativus*’ as ‘opinion,’ a vague term that fails to fully capture Autrecourt’s meaning as well as its startling similarity to Hume’s later conclusion regarding the problem of induction. I have thus reproduced their translation for the rest of this passage, but replaced this term with a more appropriate metaphor.

<sup>133</sup> *Exigit*, 237



This seems to be the basis of Autrecourt's claim to Bernard that we do not even know if natural agents exist, for we can form no sound argument, either deductive or inductive, that anything is the cause of anything. Thus Autrecourt concludes, "one cannot infer one thing from another thing, or from the non-being of one thing the non-being of another, in an evident way, with the evidentness of the first principle."<sup>134</sup> That is to say, Scotus' argument begins with the *assumption* that  $x$  is a natural (i.e. "not free") cause and then argues that if, out of "a great many things" that could occur from  $\alpha$ , some particular  $\beta$  is always observed to follow  $\alpha$ , we may thus infer that the nature of  $\alpha$  is the cause of  $\beta$ . Now Autrecourt rejects such an inference, at least at the level of certainty that Scotus proposes it to possess; yet the deeper question he is driving at is: 'On what basis should we assume that  $x$  is a natural cause to begin with?' Neither reason nor experience is sufficient to establish this designation.

In "a certain disputation at the Black Friars,"<sup>135</sup> Bernard had conceded the Ockhamist point that a sensation caused directly by God can never allow inference of the existence of the object seen, yet he nonetheless insisted that when a sensation is caused naturally by the object itself without the *direct* influence of God, such an inference is possible; and thus that natural causal knowledge can be attained by supposing the common course of nature [*ex suppositione communis cursus naturae*]. Weinberg interprets Autrecourt's response in the first letter to Bernard on this point as invoking the rather obvious epistemological point made by Ockham that "we can never know when

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<sup>134</sup> *Quattor atriculi confessati*, §3

<sup>135</sup> *Prima epistola ad Bernardum*, §5. The "Black Friars" was a common name for friars of the Dominican Order due to their black cappa.

the presupposition is justified,”<sup>136</sup> and thus Bernard’s principle of causal explanation is otiose as it is predicated on a criterion the truth-value of which is unknowable. This is certainly a valid criticism; yet, in his first letter to Bernard where he addresses this argument, Autrecourt does not take issue with its untenable epistemic foundation, but rather proceeds straight to the logical heart of the matter, arguing:

When from some antecedent, if produced by some agent, a certain consequent could not be inferred by a formal and evident implication, then from that antecedent, *no matter by what other <agent> it be produced*, that consequent could not be inferred either...if whiteness had been produced by some agent A and it could not be formally inferred ‘There is whiteness; therefore there is colour’—likewise this inference could not be made even if it had been produced by another, no matter which, agent.<sup>137</sup>

Autrecourt’s argument here seems to be: if it cannot be inferred that antecedent  $\alpha$  produces consequent  $\beta$  for the reason that God may intercede and produce  $\beta$  immediately without the presence of  $\alpha$  (or  $\gamma$  instead of  $\beta$  even in the presence of  $\alpha$ ), then such an inference cannot be made *in totum*, regardless of conditional suppositions. This argument concerns the logic of inference rather than assumptions of induction. For Autrecourt, either  $\beta$  may be inferred from  $\alpha$  or it may not be. If God (or any agent) is able to produce  $\beta$  without  $\alpha$ , this is only because the two are logically independent of each other, and thus their disjunction logically possible. Therefore, the inferential gap between  $\alpha$  and  $\beta$  is grounded *not* in God’s supervenient will, but *vice versa*. This perspicuous argument reinforces the fact that Autrecourt’s critique of causation, even more so than al-Ghazali’s, is at root *logical* rather than *theological*; religious concerns may have motivated his critique, but they are most certainly not its basis.

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<sup>136</sup> Weinberg, 36. L.M. de Rijk, the translator of the letters to Bernard, seems to concur with Weinberg’s interpretation in his “Explanatory Notes.”

<sup>137</sup> *Prima epistola ad Bernardum*, §6

*Epistola Nicholai ad Egidium*

A certain Egidius<sup>138</sup> was given copies by Autrecourt of his first two letters to Bernard, and wrote a response to Autrecourt defending the philosophy of Aristotle (*tanto philosopho*) from his skeptical attacks. Egidius' counter to Autrecourt's arguments is based on two points:

- 1) An epistemological distinction between “precisive” vs. “coacceptive apprehension.” Precisive apprehension is: “that by which some thing is apprehended with the exclusion of all that which is not this thing; the other is coacceptive, which is more complete than the first one, viz. that by which some thing is apprehended by a simple apprehension and is grasped while some other thing is grasped simultaneously, by the same simple apprehension, which occurs due to some dependence of one thing upon the other...For example, anyone who completely apprehends a relation, by necessity simultaneously grasps the correlate, and there must not be one intellection of the relation and another of the correlate.”<sup>139</sup>
- 2) A metaphysical claim that: “A natural transmutation implies a substrate, for in the complete significante ‘natural transmutation’ ‘substrate’ is implied...’On this

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<sup>138</sup> Egidius (also known as “Master Giles,” though not to be confused with Giles of Rome) is virtually unknown outside his appearance as a correspondent with Autrecourt, though it is possible that he is Giles de Feno.

<sup>139</sup> *De epistola Nicholai ad Egidium*, §3. This is Autrecourt's summary of Egidius' position which I have used because it is clearer and more concise than Egidius' own extended and rather arcane account of the distinction.

argument, agents and patients, in the required circumstances, imply their actions to be,' for the same reason."<sup>140</sup>

The first (epistemological) point is directed at Ockham and Autrecourt's nominalism (to be taken up by Hume), which regards all perception as involving discrete particulars and thus, under Egidius' division, to be precise; whereas Egidius is convinced that there is another modality of perception that cognizes relations between particulars as well as the particulars themselves. This notion of "coacceptive apprehension" was later advanced (though not under such a *nomen* and almost certainly without knowledge of Egidius' distinction) by William James and John Dewey as central to their doctrine of radical empiricism. While Autrecourt doesn't specifically take issue with this distinction, as he is more concerned with logico-metaphysical issues, the problem with the notion of "coacceptive apprehension" has been already addressed in reference to Hume and Averroes in the previous chapter. For his own part, Autrecourt anticipates Hume's criticism of such a notion: "It is not obvious that one thing is grasped more completely due to the fact that some other thing is grasped together with it, since it is not the case either that one thing is cognized due to the fact that some other is cognized. For if they are diverse things, it is not contradictory that one is cognized and the other is not."<sup>141</sup> That is to say, given an empirically veridical insight into the "complete significate" of a thing that is relationally connected to another thing, the two terms connected would be both contained within the significate and thus and cognition of one would require, *on*

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<sup>140</sup> *Epistola Egidii ad Nicholaum*, §§19-20

<sup>141</sup> *De epistola Nicholai ad Egidium*, §10

*pain of contradiction*, cognition of the other. Yet, as Hume and Autrecourt are adamant, *this is never the case*.

This point established, Autrecourt's response to Egidius is directed primarily at the second (metaphysical) point. If the line of reasoning behind Egidius' claim here seems familiar, that's because it was the basis of Averroes' response to al-Ghazali: viz. contained in the "complete significate" [*significato perfecto*] of a thing is its causal productions, and thus agents "imply their actions to be" in the same way that an accident implies a substrate. That is to say, what it is to be a particular agent, what demarcates that agent in the order of Being contains within it the effects it produces and thus the existence of that agent *implies* said effects *analytically*. In response, Nicholas tells Egidius:

[I]t is patently clear that your [distinction is] not to the point. For...when a relation implies a correlate, this occurs when it is signified completely...[and] you say that when a relation is completely signified, it, then, implies its correlate to be, because in such an inference, the consequent is identical with the antecedent, or with part of what is signified by the antecedent.<sup>142</sup>

That is to say, Egidius' own reasoning conforms to Autrecourt's logic: any implication between two terms is predicated on a relation of identity. Yet, Autrecourt is not satisfied with extracting this meager concession. He notes that, by including multiple terms or predications within the complete significate of a thing, such as "describing 'accident' in such a way as to take 'accident' to signify something that is in a substrate,"<sup>143</sup> Egidius is effectively converting *synthetic* propositions/knowledge into *analytic* propositions-

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<sup>142</sup> *De epistola Nicholai ad Egidium*, §§4-5

<sup>143</sup> *De epistola Nicholai ad Egidium*, §12

knowledge. In doing so he safeguards the coherence and certitude of the inference from one to the other, but at the expense of rendering the conclusion tautological.<sup>144</sup> Autrecourt impresses this point on Egidius with a less-than-subtle charientism: “using such a method, I think, one could easily prove anything at all. For if one supposes the word ‘man’ to signify man as inseparable from ass, it is plain that it follows, then ‘There is a man; therefore there is an ass.’”<sup>145</sup>

As noted, this response of Egidius’ (a committed Aristotelian) to Autrecourt’s devastating employment of the ‘distinctness principle’ is structurally identical to the response offered by Averroes to al-Ghazali’s similar appeal to the principle described in the previous chapter. As Weinberg notes: “This is an important doctrine. But it seems that almost every generation of philosophers has to learn it all over again, not as a valid and important part of settled philosophical teaching, but as something new.”<sup>146</sup>

### *Motivations and Conclusions of Autrecourt’s Critique*

The motivations behind Autrecourt’s acerbic anti-Aristotelianism are not entirely clear, though he does pointedly note in the first letter to Bernard that “Aristotle and others, did not...believe that God could impede the effects of natural causes.”<sup>147</sup> As has been previously argued, even if Autrecourt based his skeptical investigations on such

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<sup>144</sup> C.f. the ‘No true Scotsman’ fallacy discussed in Chapter 3, as well as the conclusion.

<sup>145</sup> *De epistola Nicholai ad Egidium*, §13

<sup>146</sup> Weinberg, 35

<sup>147</sup> *Prima epistola ad Bernardum*, §8

theological concerns and principles, like al-Ghazali, he did not end there but instead attempted to develop an epistemology compatible with such theological requirements, i.e. under the supposition that such requirements are *not impossible*. Thus, as Weinberg perspicuously notes: “Nicholaus draws the quite general conclusion that if theological dogmas render natural knowledge suspect, *there are basic logical reasons for this*. He goes on to elucidate these logical reasons and, by so doing, puts the discussion into the setting of pure philosophy.”<sup>148</sup>

Regardless, John of Mirecourt, a sympathetic contemporary of Autrecourt, claimed that:

Autrecourt satisfactorily deduces this: that no demonstration or investigation concerning any effects whatever, whence they come, or concerning *natural* causes or what kind of effect they produce or will produce, is in any way evident or certain; and to assert the opposite would contradict *the divine liberty*.<sup>149</sup>

If Mirecourt is correct, it would seem that the theological motivations underpinning Autrecourt’s critique were identical to the Mutakallim and many of the Cartesian occasionalists. So what, then, is the relationship of Autrecourt to occasionalism? Was he brought, under the force of his rigorous skepticism, to the denial of secondary (i.e. natural) causation and the conclusion that God is the sole cause in the world? Among the articles condemned by Cardinal Curti in 1346, and which Autrecourt was forced to recant, are the following fragments from the fifth letter to Bernard (which has otherwise been lost):

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<sup>148</sup> Weinberg, 12; emphasis added. This is precisely the epistemological insight that Damian was denied due to his voluntarist commitments.

<sup>149</sup> Qtd. by Weinberg, 92; cf. Rijk, “Explanatory Notes,” I,8, 115

I have claimed in the above-mentioned letter that we do not evidently know that anything other than God can be the cause of some effect.

I have claimed in the above-mentioned letter that we do not evidently know that any cause which is not God to act as an efficient cause.

I have claimed in the above-mentioned letter that we do not evidently know that any efficient cause is, or can be, natural.

I have claimed in the above-mentioned letter that we do not evidently know whether there is, or can be, any efficient cause that is produced in a natural way.<sup>150</sup>

Though these articles are ambiguously suggestive of an occasionalist position and, according to Mirecourt, Autrecourt shared some of the theological motivations underpinning occasionalism, all that can be strictly inferred from the above is that, *pace* Aquinas, Autrecourt is willing to concede occasionalism as a metaphysical *and* theological possibility. Perhaps he went further; or perhaps, like Hume, his inveterate skepticism and metaphysical reticence restrained him from doing so. The point remains that, in his extant works, Autrecourt developed these points strictly on the basis of an inquiry into matters of epistemology, never pushing their conclusions into a positive metaphysics.<sup>151</sup> However, what is somewhat strange in the above articles is that, in spite of Autrecourt's adamancy that, to quote another of the condemned articles, "nobody evidently knows that one thing is the end, or the cause, of some other thing,"<sup>152</sup> nonetheless, the first two articles above seem to quite flatly accept that God could be a cause and that we can know this evidently. But what justifies this assertion? As we shall see in the next chapter, an occasionalist argument that was most forcefully propounded by Malebranche goes: only the will of an omnipotent being is capable of forging a

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<sup>150</sup> *Quattor atriculi confessati*, §§15-18

<sup>151</sup> See Weinberg, 66-7

<sup>152</sup> *Quattor atriculi confessati*, §26



necessary connection with that which it wills (and thus being a true cause), for it would be a contradiction that an omnipotent will should be impotent in any of its productions. Yet, not only does Autrecourt nowhere (among his extant works) make such an argument, but indeed seems to reject it.

Recall Autrecourt's argument against Bernard: "When from some antecedent, if produced by some agent, a certain consequent could not be inferred by a formal and evident implication, then from that antecedent, *no matter by what other <agent> it be produced*, that consequent could not be inferred either."<sup>153</sup> As seems evident from the italicized clause, this inferential deficiency would have to implicate the divine agency as well. That is to say, according to the above reasoning, the seemingly unavoidable conclusion would be: not only do we "not evidently know whether there is, or can be, any efficient cause that is produced in a natural way," but we don't know evidently if there is, or can be, *any efficient cause at all*. If we can't infer from fire to burning flax, given their mutual independence, then we can't infer from God's will to burning flax either. The only way to knowledge of God's efficacy is not, then, from evidence reducible to the first principle, but rather only through revelation. This conclusion, which, it will be remembered from chapter one, was only partially grasped by Hume,<sup>154</sup> seems to have also eluded Autrecourt, even though, and even more so than with Hume, it is implicit within his own reasoning.

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<sup>153</sup> *Prima epistola ad Bernardum*, §6; emphasis added

<sup>154</sup> Hume notoriously denied that we have any idea of causal efficacy and, in typical empiricist fashion, extended this claim to the divine as well; yet, as I argued in the first chapter, nowhere does he argue, or even seem to understand, that the distinctness between God's will and its effect occludes any supposed necessary connection between them.

## CHAPTER VI

### CARTESIAN MECHANISM AND OCCASIONALISM

Does [matter] have its own active force? Several philosophers have thought so. Are those who deny it right to deny it? You can't imagine that matter should be anything in itself. But how can you assert that in itself it does not have all the properties it needs? You don't know what its nature is, and yet you deny it modes which are in its nature; for, after all, once it exists, it must be of a certain kind, it must have shape; and, if it necessarily has shape, could not other modes enter in its configuration? Matter exists; you know that only by your sensations. Alas! What good have all these intellectual subtleties been since man began to think? Geometry teaches us a great many truths, metaphysics very few. We weigh matter, we measure it, we decompose it; and if we want to take one step beyond these crude operations, we find impotence within us, and an abyss before us.

—Voltaire, *Dictionnaire philosophique*

All activity regarding things of the world is withheld from us; speculation alone is left.

—Geulincx, *Ethica*

#### 1. The Cartesian Inclination Towards Occasionalism

When Etienne Gilson wrote the lectures that were later published as *The Unity of Philosophical Experience* in 1938, lectures devoted to documenting and tracing the permanence and continuity of particular ideas in this history of philosophy, the occasionalist tradition figured prominently in his presentation. This should come as no surprise, for if ever there was metaphysic suitable as an example of the astonishing longevity and mutability of philosophic ideas, it is occasionalism. Nowhere is this recrudescence more evident than in the possession of Cartesianism (a philosophy which sought to provide a rationalistic foundation for a New Science) by the ghost of occasionalism (a philosophy which sought to defend the miracles of Faith against the

rationalism of Science). Yet, by the time of Descartes, the nature of the occasionalist impulse had changed dramatically. Nowhere among the Cartesian occasionalists does one encounter the hand-wringing concern over the divine omnipotence or of reconciling philosophy with the testimony of Scripture emblematic of medieval philosophers. Even Malebranche, who, alone among his cohort, offered a few (weak) theological arguments in favor of occasionalism, never seemed bothered by the particular theological concerns of his medieval predecessors. Doubtless there were intellectual links between Cartesian occasionalism and its earlier brethren: Malebranche, for example, was aware of “certain theologians” criticized by Averroes who were skeptical of secondary causes;<sup>1</sup> and explicitly cited “Biel and Cardinal d’Ailly” as “possible exceptions” to the general agreement among the “Scholastics” that “the efficacy that produces effects comes from the secondary cause as well as the primary.”<sup>2</sup> Yet, Malebranche was the final rather than the seminal Cartesian occasionalist, and his familiarity with such predecessors was likewise singular among his cohort.

Thus, and as with the origination of Latin nominalism, Cartesian occasionalism was a tendency and development largely *organic* to Cartesianism itself, which the successors of Descartes were driven to pursue exclusively under the pressure of severe problems in the Cartesian systems of physics and metaphysics, and not from any particular religious motivation. Moreover, and more importantly, the particular systems of physics and metaphysics they sought to defend placed them notably at odds with the concerns of their nominalist-occasionalist ancestors, for Cartesian metaphysics was

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<sup>1</sup> *Recherche*, 660

<sup>2</sup> *Recherche*, 680

rationalist rather than empiricist, and Cartesian physics was mechanistic, deterministic, and based on a deductive model of explanation. While Descartes had exhaustively extirpated the foibles of Aristotelian scholasticism from his ‘new philosophy,’ the school he founded was, at least in its underlying metaphysical structure, a kind of Democriteanism *sans* atoms.<sup>3</sup> Democritus advocated a mechanistic and deterministic physics grounded on a strong epistemological distinction between primary and secondary qualities<sup>4</sup> and famously claimed that he would “rather discover one cause than gain the kingdom of Persia.”<sup>5</sup> Descartes advocated likewise and, in a youthful letter to Mersenne, confides:

I have become so rash as to seek the cause of the position of each fixed star. For although they seem very irregularly distributed in various places in the heavens, I do not doubt that there is a natural order among them which is regular and determinate. The discovery of this order is the key and foundation of the highest and most perfect science of material things which men can ever attain. For if we possessed it, we could discover *a priori* [*sc. by reasoning from cause to effect*] all the different forms and essences of terrestrial bodies, whereas without it we have to content ourselves with guessing them *a posteriori* and from their effects.<sup>6</sup>

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<sup>3</sup> This link was obvious to Descartes himself; or at least obvious enough to provoke a defensive reaction typical of him when faced with possible progenitors of his own views. In the *Principia* he insists: “The philosophy of Democritus differs from my own just as much as it does from the standard view <of Aristotle and others>.” (CSM I, 287) Yet, this claim seems greatly exaggerated, for, by his own admission, Descartes only really demurs from Democritus on the predictable issues of atomic indivisibility and the vacuum, as well as his vortical theory of gravity—which is nonetheless rather akin to the Democritean ‘whirl.’ (Ibid.) In his rebuttal of such a similarity, Descartes notably neither mentions nor credits Democritus with inventing the primary-secondary quality distinction. (See next footnote)

<sup>4</sup> “There are two sorts of knowledge, one genuine, one bastard. To the latter belong all the following: sight, hearing, smell, taste, touch. The real is separated from this.” (Frag. B11)

<sup>5</sup> Frag. B118

<sup>6</sup> CSMK III, 38. Even Locke, the arch anti-Cartesian, accepts Descartes’ conviction here: “I doubt not but if we could discover the figure, size, texture, and motion of the minute constituent parts of any two bodies, we should know without trial several of their operations one upon the another, as we do now the properties of a square or a triangle. Did we know the mechanical affections of the particles of rhubarb, hemlock, opium, and a man, as a watchmaker does those of a watch. . . we should be able to tell beforehand that rhubarb will purge, hemlock kill, and opium make a man sleep, as well as a watchmaker can.” (*Essays*, Bk. IV, Ch. III, §25)

Such rationalist-determinist commitments are particularly evident in Descartes' frankly neo-Platonic conviction that the laws of nature could be deduced from the nature of God.<sup>7</sup> While Descartes' successors cautiously backed away from such a presumption, they remained irrevocably bound to his deterministic physics and rationalist metaphysics, both of which were the veritable *bête noir* of medieval occasionalists from al-Ghazali to Autrecourt.

Given the friction generated by such contrary commitments, what were those particular features of Cartesianism that drove it nonetheless to the same metaphysical conclusion? What formed the seeds of the renascent burst of occasionalist philosophy in the seventeenth century after having disappeared almost entirely from the European intellectual scene during the Renaissance of the fifteenth and sixteenth centuries?

### 1) *The Mind-Body Problem*

As Descartes remarks in the *Principia philosophae*:

[W]e understand very well how the different size, shape and motion of the particles of one body can produce various local motions in another body. But there is no way of understanding how these same attributes (size, shape and motion) can produce something else whose nature is quite different from their own...all this [is] unintelligible, but we know [nevertheless] that the nature of our soul is such that different local motions are quite sufficient to produce all the sensations in the soul. What

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<sup>7</sup> CSM I, 240. This conviction stands in direct and rather obvious contradiction to Descartes' notorious modal voluntarism and doctrine of the created eternal truths, viz. that God freely and arbitrarily determined the eternal truths governing the Creation. (See CSM II, 291; CSMK III, 23-5) His nature might determine that he does not change them, having so determined their nature and instantiated their governance, but to claim that God's nature determines their *content* itself is manifestly impossible to reconcile with any notion of their being freely chosen.

is more, we actually experience the various sensations as they are produced in the soul, and we do not find that anything reaches the brain from the external sense organs except for motions of this kind.<sup>8</sup>

Such is the paradox of mind-body interaction that, while hardly unique to Descartes,<sup>9</sup> was nonetheless forced by Cartesian dualism into a more radical and *metaphysical* framework than had been the case previously.<sup>10</sup> Moreover, the problem was reinforced and exacerbated by Descartes' causal principle that "there must at least be as much <reality> in the efficient and total cause as in the effect of that cause."<sup>11</sup> Descartes' appeal to this principle, while propounded in *Meditationes* as the basis of his causal proof for the

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<sup>8</sup> CSM I, 285. N.B., I have altered the meaning of this quote somewhat. Descartes' directs the argument before the ellipsis against the notion of "substantial forms and real qualities" (i.e. how could purely *quantitative* features and local motions produce *qualitative* forms or dispositions?), but, in spite of Descartes' reticence to draw such an inference, his argument clearly applies to the qualia of the mind as well.

<sup>9</sup> While not addressing the issue specifically in terms of mind-body causal interaction, Sextus anticipated the fundamental problem therein: "either...body is the cause of the incorporeal, or conversely that the incorporeal is the cause of body. But this...is impossible; for that which acts must touch the passive matter in order to act, and the passive matter must be touched, in order to be acted on, but the incorporeal is not of such a nature as either to touch or be touched. So then neither is body the cause of the incorporeal nor the incorporeal of body." (*Adversus mathematicos*, ix. 216-217)

<sup>10</sup> While Descartes is often harshly criticized for this commitment—*per impossible*—to interactionism, I find his refusal to countenance the complete physiological separation of mind and body to be a refreshing and unfortunately rare piece of philosophical modesty. Descartes regarded the activity of the mind on the body to be manifestly evident—even though he could not explain it—and refused to deny something so manifestly evident simply out of deference to his own metaphysics; as he told Arnauld in 1648: "That the mind, which is incorporeal, can set the body in motion is something which is shown to us not by any reasoning or comparison with other matters, but by the surest and plainest everyday experience. It is one of those self-evident things which we only make obscure when we try to explain them in terms of other things." (CSMK III, 358) Surely the history of philosophy is replete with enough figures who denied the obvious and upheld the absurd by allowing themselves to become beholden to the entailments of their own speculative reasoning without regard to the dictates of sense. For his own part, Descartes—correctly, at least as the matter currently remains—deemed the nature of the mind and its union with the body to be a deep mystery that had never been adequately explained. In the *Avertissement de l'auteur touchant les cinquièmes objections*, included with the *Méditations métaphysiques* (the 1647 French edition of the *Meditations*), Descartes complains acrimoniously to Clerselier about Gassendi's captiousness, specifically concerning his questions: "how can the soul move the body if it is in no way material, and how can it receive the forms of corporeal objects." (CSM II, 275; See CSM II, 238-9 for Gassendi's formulation) Regarding such inscrutables as the fodder for cheap criticism, he claims: "The most ignorant people could, in a quarter of an hour, raise more questions of this kind than the wisest men could deal with in a lifetime; and this is why I have not bothered to answer any of them." (CSM II, 275)

<sup>11</sup> CSM II, 28

existence, is nonetheless required by his mechanistic physics, which demanded a new conception of the activity of the efficient cause distinct from the received Scholastic view—under which the efficient cause is that which directs the modulation of forms from one substance to another.<sup>12</sup> The difficulty arises insofar as Descartes’ “containment” principle requires (*pace* the Scholastic<sup>13</sup>) that a cause and its effect share common (if not tautoousious) properties such that there is an ‘essential likeness’ between the two; but there can be no such likeness between *res cogitans* and *res extensa*.<sup>14</sup>

Now, as noted in the Introduction, the classic ‘textbook view’ of occasionalism as an *ad hoc* solution to Descartes’ mind-body problem is almost entirely without warrant—a point that, I trust, has by now been firmly established. Nonetheless, the mind-body problem was a particular area of concern for Descartes’ successors and occasionalism provided such a convenient solution that this ‘textbook’ interpretation was advanced early on, most notably by Leibniz and Bernard le Bovier de Fontenelle. In a letter to Arnauld from 1687,<sup>15</sup> Leibniz says:

We are now concerned with knowing how the soul perceives the motions of its body, since we do not see any means of explaining through what channels the action of an extended mass is transmitted to an indivisible being. The common run of Cartesians admit that they cannot give a reason for this union; the authors of the hypothesis of occasional causes consider it a *nodus vindice dingus, cui Deus ex machina intervenire debeat*. [*knot worthy for God to intervene ‘ex machina’*].<sup>16</sup>

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<sup>12</sup> Clatterbaugh 1999, 19; *Physics*, 194b30

<sup>13</sup> See Suárez, *Disputationes metaphysicae*, 18. 9

<sup>14</sup> Clatterbaugh 199, 22-27

<sup>15</sup> I.e. shortly after the publication of his *Discours de métaphysique* (1686), which grew out of their earlier correspondence.

<sup>16</sup> “Letter to Arnauld, 9 Oct. 1687,” *Philosophical Papers*, 522. Leibniz is paraphrasing a claim made by Horace in the *Ars poetica*. It should be noted that Leibniz’s interpretation was not innocent, but designed to

## 2) *The Winnowing of the Peripatetic Model of Causation*

Classical metaphysics followed Aristotle's quadripartite division of causality in *Metaphysics*  $\Delta$  between material, formal, efficient, and final causes; indeed, this division was multiplied extensively in medieval philosophy—with the obvious exception of the nominalist tradition. By the time of Bacon and Descartes, however, ancient and medieval doctrines of causal explanation were suffering considerable critical scrutiny, and this scrutiny naturally extended to the metaphysics of causation itself. Even though the major figures of the early seventeenth century still spoke of and ruminated under the working assumption of the Aristotelian causal division, a transformation was clearly unfolding.

This transformation is most evident in Descartes' embrace of the Democritean mechanistic position that all of the operations of nature can be explained strictly in terms of the local motions of bodies operating under discernable laws of collision. Mechanism is thus bound, on the basis of its own founding shibboleth, to an epistemology of causal explanation focused exclusively on efficient causality, viz. what Aristotle had defined as the "moving cause."<sup>17</sup> While the other three causes remained metaphysically viable for Descartes and his immediate contemporaries, insofar as metaphysics must needs follow epistemology, they were exposed to continual atrophy in philosophical discussions during the course of the early modern period. This was true even early on: Descartes had almost

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emphasize the virtues of the pre-established harmony over those of occasionalism, as well as downplay the similarities between them, as Leibniz was routinely—and to his evident irritation at times—pressed to distinguish his system of pre-established harmony from the system of occasional causes. For Fontenelle's interpretation, see Schmaltz, 9.

<sup>17</sup> *De generatione animalium*, 732a3



nothing to say about material causes, which was unsurprising given his conception of bodies, all of which are materially identical as *rei extensa*, and thereby materially incapable of serving as instigators—much less explanations—of effect diversity. Moreover, in the *Fourth Set of Replies* to Arnauld, Descartes explains his general conception of causation as the bestowal of existence from cause to effect and, just like Avicenna, maintains that “what derives its existence ‘from another’ will be taken to derive its existence from that thing as an efficient cause.”<sup>18</sup> When, in the *Fifth Set of Objections*, Gassendi (characteristically) sought to extend this principle to the material cause as well,<sup>19</sup> Descartes flatly responded: “it is unintelligible that perfection of form should ever pre-exist in a material cause; it can do so only in a formal cause.”<sup>20</sup> Yet, as will be seen shortly, Descartes was also notoriously hostile to the notion of formal causality and in particular to its instantiation in ‘substantial forms.’

Of the four Peripatetic causes, Descartes’ greatest aspersion was reserved for final causality. In the *Meditationes*, he concedes that there are “many instances where I do not grasp why or how certain things were made by [God].”<sup>21</sup> On this basis Descartes concludes:

For since I now know that my own nature is very weak and limited, whereas the nature of God is immense, incomprehensible and infinite, I also know without more ado that he is capable of countless things whose causes are beyond my knowledge. And *for this reason alone* I consider the customary search for final causes to be totally useless in physics; there is

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<sup>18</sup> CSM II, 252, *al-Ilahiyyat*, 6.1.2, 194

<sup>19</sup> CSM II, 201

<sup>20</sup> CSM II, 252

<sup>21</sup> CSM II, 38-9

considerable rashness in thinking myself capable of investigating the impenetrable purposes of God.<sup>22</sup>

It is God's freedom to act and create beyond that which the finite mind can conceive or ever hope to discern a sufficient reason for that consigns teleology to the domain of meaningless speculation.<sup>23</sup> This point Descartes reiterated three years later in the *Principia*: "When dealing with natural things we will, then, never derive any explanations from the purposes which God or nature may have had in view when creating them... For we should not be so arrogant as to suppose that we can share in God's plans."<sup>24</sup> In the *Replies* to Gassendi, Descartes argues that the claims he makes in support of final causes (sc. causation in biology),<sup>25</sup> "should [instead] be applied to efficient causation." He concludes:

In ethics...where we may often legitimately employ conjectures, it may admittedly be pious on occasion to try to guess what purpose God may have had in mind in his direction of the universe;<sup>26</sup> but in physics...such

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<sup>22</sup> CSM II, 39; emphasis added. In his explanation of this passage in the "Conversation with Burman," Descartes notes: "This rule—that we must never argue from ends—should be carefully heeded. For, firstly, the knowledge of a thing's purpose never leads us to knowledge of the thing itself; its nature remains just as obscure to us. Indeed, this constant practice of arguing from ends is Aristotle's greatest fault. Secondly, all the purposes of God are hidden from us, and it is rash to want to plunge into them... It is here that we go completely astray. We think of God as a sort of superman, who thinks up such-and-such a scheme, and tries to realize it by such-and-such a means. This is clearly unworthy of God." (CSMK III, 314)

<sup>23</sup> This voluntarist maxim is the font of the scission in early modern rationalism between the Cartesians and the Leibnizians. All of Leibniz's efforts to preserve particular insights from the Scholastics (sc. the existence of entelechies) and the notion of final causality to which they are bound) hinged on his rejection of Cartesian voluntarism and his intellectualist insistence that the ways of God are metaphysically intelligible and—at least in theory—epistemologically discernable. (*DM*, §2-3, 6)

<sup>24</sup> CSM I, 202

<sup>25</sup> CSM II, 216

<sup>26</sup> This claim contradicts Descartes' moral voluntarism, as expressed in the *Sixth Set of Replies*, where he sides with Euthyphro against Socrates by insisting that morality itself is posterior to and determined by God's will: "If some reason for something's being good had existed prior to his preordination, this would have determined God to prefer those things which it was best to do. But on the contrary, just because he resolved to prefer those things which are now to be done, for this very reason, in the words of Genesis, 'they are good'; in other words, the reason for their goodness depends on the fact that he exercised his will to make them so." (CSM, II 294) If this is the case, then any ethical speculations about "what purpose God may have had in mind in his direction of the universe" necessarily beg the question.

conjectures are futile. We cannot pretend that some of God's purposes are more out in the open than others; all are equally hidden in the inscrutable abyss of his wisdom.<sup>27</sup>

By restricting causality to efficient causality, and defining such in terms of the bestowal or deriving of existence, the stage has clearly been set for an occasionalist synthesis—for there is only one being who is obviously capable of such feats.

### 3) *The Rejection of 'Scholastic Forms' and 'Causal Powers'*

Descartes' notorious hostility to the 'substantial forms' of the Scholastics stemmed from several considerations. In a letter to Regius, he incisively describes such forms as having been "introduced by philosophers solely to account for the proper actions of natural things, of which they were supposed to be the principles and bases."<sup>28</sup> Yet, Descartes is adamant that "no natural action at all can be explained by these substantial forms," insofar as they "account" for the "proper actions of natural things" by metaphysical reification rather than epistemological explanation; and are thus "occult" and inscrutable,<sup>29</sup> and moreover otiose and redundant as explanations of phenomena, which, as Descartes is adamant, may be entirely accounted for strictly in terms of local movements:

For you may posit 'fire' and 'heat' in the wood, and make it burn as much as you please: but if you do not suppose in addition that some of its parts

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<sup>27</sup> CSM II, 258. This claim quite plainly contradicts Descartes' notion in the *Principia* that the laws of nature may be derived from God's nature. (CSM I, 240)

<sup>28</sup> CSMK III, 208

<sup>29</sup> "If they [sc. the Scholastics] say that some action proceeds from a substantial form, it is as if they said that it proceeds from something they do not understand; which explains nothing." (CSMK III, 208-9)

move about and detach themselves from their neighbors, I cannot imagine it undergoing any alteration or change. On the other hand, if you take away the ‘fire,’ take away the ‘heat,’ and keep the wood from ‘burning’; then, provided only that you grant me there is some power which puts its finer parts into violent motion and separates them from the coarser parts, I consider that this power alone will be able to bring about all the same changes that we observe in the wood when it burns.<sup>30</sup>

What is notable here is that this “*some power*” which induces such violent motion is treated entirely in the abstract by Descartes: he certainly does not posit it as inhering intrinsically in the wood itself. Where and by what means such a movement of parts is generated is—*pace* Scholasticism—not of particular consequence to explaining a particular causal interaction in the Cartesian scheme.

The scheme of Cartesian mechanistic physics allowed for (or perhaps even entailed) a novel argument against the possibility of corporeal efficacy: the so-called “inertness argument.” This followed from Descartes’ rejection of Scholastic substantial forms, combined with his insistence that the qualities of body are exhausted by their mere geometric extension and whatever minimal features may be directly derived from as much.<sup>31</sup> The point is, for Descartes, we have a clear and distinct idea of the essence of body as *res extensa*.<sup>32</sup> Nowhere contained in this *purely quantitative* idea is there any notion of *qualitative* powers, forms, disposition, potentialities, and the like.<sup>33</sup> From this minimalist and quantitative conception of matter, Descartes concluded that matter was

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<sup>30</sup> CSM I, 83

<sup>31</sup> CSM II, 20-21; CSM I, 89. The identification of body with bare extension was not novel to Descartes. Sextus Empiricus had pointed out: “while some properties are inseparable from the things [to] which they belong—as are length, breadth and depth from bodies, for without their presence it is impossible to conceive Body,—others are separated from the thing [to] which they belong, and it still remains when they are removed.” (*Adversus mathematicos*, vii. 270-271)

<sup>32</sup> CSM I, 227

<sup>33</sup> CSM I, 224

existentially passive and inert and derided Scholastic-Aristotelian epistemology of causal explanation as fundamentally animistic.<sup>34</sup>

In the *Sixth Replies*, Descartes discusses his youthful conception of gravity or “heaviness,” noting that it was based on a (typically Scholastic) equivocation between notions of mind and notions of body:

[W]hat makes it especially clear that my idea of gravity was taken largely from the idea I have of the mind is the fact that I thought that gravity carried bodies towards the centre of the earth as if it had some knowledge of the centre within itself. For this surely could not happen without knowledge, and there can be no knowledge except in a mind.<sup>35</sup>

While this animistic tendency of Aristotelian causal metaphysics might be assumed to derive from the application of final causality, it is actually just as apparent in discussions of efficient causality as well. As Aquinas says:

[Real relations exist in] those things which by their own very nature are ordered to each other, and have a mutual inclination...as in a heavy body is found an inclination and order to the centre; and hence there exists in the heavy body a certain respect in regard to the centre and the same applies to other things.<sup>36</sup>

If anything, this sort of reasoning makes clear that, within the Peripatetic framework, efficient and final causality cannot be definitively severed; yet, such was possible in the Cartesian framework and indeed was required for the coherency of a strictly mechanistic explanation of gravity. Moreover, this rejection of Aristotelian-Scholastic ‘animism’ was seen to entail occasionalism early on: as Antoine Arnauld and Pierre Nicole pointed out as early as 1662 in the *Logique de Port-Royal*:

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<sup>34</sup> CSM I, 247; Ott 2008, 178

<sup>35</sup> CSM II, 298. See also CSMK III, 216 and CSMK III, 358.

<sup>36</sup> *Summa theologiae*, 1, q. 28, a. 1

[I]t is clear and certain that no body can cause its own motion, because matter is in itself indifferent to motion and rest, so it can be determined to one or the other state only by an external cause. Since this cannot go on to infinity, it is absolutely necessary that God imparted motion to matter, and that he conserves it there.”<sup>37</sup>

That is, unlike conservationism or Thomistic concurrentism, an extended body’s essential indifference to motion or rest—which, for the Cartesians, was the sole mode of causality—required that God impart motion to matter both continuously (*pace* conservationism) and alone, without aid of the body itself (*pace* concurrentism).

#### 4) Cartesian Nominalism

In one of their most marked contrasts with the Scholastics, Descartes and his followers regarded motion to be a mode of body, a view forced by, as Thomas Lennon notes, “their negative response to the first of Porphyry’s famous questions concerning universals.”<sup>38</sup>

That is, “whether genera and species are real or are situated in bare thoughts alone.”<sup>39</sup>

The Cartesians chose door number two, denying the Scholastic presumption of a metaphysically real distinction between a thing and its qualities, and instead insisting that there was no ontic difference between the “modes of being” [*façons d’être*] of a thing and the thing itself.<sup>40</sup> Given this reduction, it would be impossible to conceive of motion—a mode—as being transferred from one body to another body in the Scholastic conception of an accidental property being lost by one substance and absorbed or

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<sup>37</sup> Burkoer, 128

<sup>38</sup> Lennon, 1974, 33-4

<sup>39</sup> *Isagoge* VI.3.1; trans. Bosley 1997, p. 358

<sup>40</sup> Lennon, 1974, 34

reinstantiated by another; and hence motion was incapable of communication between bodies.

The precise reasoning behind this claim is typically unclear in explication and most Cartesians simply asserted rather than argued for it. One way of understanding the issue is: were a mode to be detached from a substance in which it inheres and transferred to another substance, it would necessarily—during the moment of transfer—exist without any subject of inhesion: a metaphysical impossibility. Yet, this rejection of “free properties” was the view of the Aristotelians (in terms of accidents) as much as the Cartesians (in terms of modes).<sup>41</sup> Antione Le Grand offers the best explanation I have found for the doctrine:

Motion is not a *Real Quality*, as the *Peripateticks* suppose, but only a *Mode* which is not distinct from the *Body*. For we cannot conceive it to be any thing else, but the *change* whereby a *Body* is translated, or withdraws from some other *Bodies* that immediately touch it. . . . As we cannot conceive an Application to be made to different *Parts*, without conceiving a *Body* that applies it self to them; therefore we are to judge that *Motion* is not an Absolute *Entity*, as has been said before, but only a Modification of a *Body* that is moved. . . . Whence it appears, that *Motion* and *Quiet* superadd nothing more to a *Body* moved or *Resting*, that *Figure* superadds to a *Body* figured.<sup>42</sup>

Thus, the Cartesian quantitative conception of motion entails that motion cannot involve any transumptive exchange of some accident or property, but rather involves only the

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<sup>41</sup> As Aquinas says: “it is laughable to say that a body does not act because an accident does not pass from subject to subject. For a hot body is not said to give off heat in this sense, that numerically the same heat which is in the heating body passes over into the heated body. Rather, by the power of the heat which is in the heating body, a numerically different heat is made actual in the heated body, a heat which was previously in it in potency. For a natural agent does not hand over its own form to another subject, but it reduces the passive subject from potency to act.” (*Summa contra gentiles*, 3.69) The notable exception here was the case of the Sacrament, which required some special pleading: “even though the common order of nature requires an accident to be in a subject, the order of grace has a special reason for requiring accidents to be without a subject in this sacrament.” (*Summa theologiae*, 3a, q.77 a.1)

<sup>42</sup> LG, I, IV, 14, 116

relational change of position relative to ambient bodies.<sup>43</sup> It is thus no different from the body itself; that is, as a *position* in the plenum of extension.

### 5) *Continual Creation*

Lastly, there is Descartes' acceptance and advancement of the doctrine that God preserves the world via continual creation<sup>44</sup>—a customary supposition of occasionalism since the Ash'arites. While this line of argument has and will not be considered in this dissertation, it is worth noting at this juncture that Descartes' commitment to it is—like so many of his metaphysical views—tepid and insufficiently distinct from what might be maintained by a Thomistic concurrentist to qualify incontrovertibly as occasionalism. His successors, however, would interpret the matter rather differently.

## 2. Descartes' Position on Occasionalism

I do not intend to belabor the question of Descartes' own views on occasionalism. The debate is of considerable age,<sup>45</sup> has been discussed almost *ad nauseum* in the scholarly literature, and it seems apparent at this point in the debate (at least to me) that the only position capable of being coherently defended with regard to Descartes' often cryptic and

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<sup>43</sup> See CSM I, 252

<sup>44</sup> See *Meditationes* CSM II, 33, as well as the *Principia philosophiae*, CSM I, 200.

<sup>45</sup> Rochon—the scholastic critic of occasionalism quoted in the Introduction—claims that “all Cartesians agree that God alone is able to cause motion.” (*Lettre d'un philosophe à un cartésienne*, Art. 32; trans. by Gilson, *The Unity of Philosophical Experience*, 213) But, Leibniz and Villemandy pointed out that this had not been the considered opinion of Descartes himself. (*Système nouveau*, 143; *Traité de l'efficace*, 7-8)



contradictory remarks is that his own views on the metaphysics of causation were deeply internally incoherent.<sup>46</sup> Leibniz's famous complaint in the *Système nouveau* about Descartes' interactionism is (as Leibniz himself notes) apropos of his causal views *tout court*:

[W]hen I began to meditate about the union of soul and body, I felt as if I were thrown...into the open sea. For I could not find any way of explaining how the body makes anything happen in the soul, or *vice versa*, or how one substance can communicate with another created substance. Descartes had given up the game at this point, as far as we can determine from his writings.<sup>47</sup>

It was this very incoherence and 'giving up the game' that inspired Descartes followers—like in the schools of classical antiquity—to “correct” his interactionist corrigenda, render his philosophy more internally coherent, and thus establishing the rules of a new game.<sup>48</sup>

Leibniz explains:

But his disciples, seeing that the common opinion [*sc. interactionism*] is inconceivable, judged that we sense the qualities of bodies because God

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<sup>46</sup> See Clatterbaugh 1999, 26

<sup>47</sup> *Système nouveau*, 142-3

<sup>48</sup> Nowhere is this tendency more evident than in the psudeo-expositional writings of Louis de La Forge and Antoine Le Grand, who actively interpret Descartes as an occasionalist and either ignore or attempt to allegorize and explain away his views to the contrary. Like some Pythagorean, Le Grand even claimed that his “whole work contains nothing else, but [Descartes's] opinions, or what may clearly and distinctly be deduced from them.” Even Malebranche interprets Descartes as an occasionalist noting that: “It is ordinarily supposed that bodies can move each other, and this opinion is even attributed to Descartes, contrary to what he expressly says in articles 36 and 37 of the second part of his *Principles of Philosophy*.” (*Recherche*, 677) Malebranche, however, at least seems aware of passages from Descartes that suggest otherwise and retorts that “Descartes was not given to us by God to teach us everything that can possibly be known, as Averroes says of Aristotle.” (463) Malebranche further notes: “If we believed [Descartes] to be infallible, we would read him without studying him; we would believe what he said without understanding it; we would learn his views as we learn histories, which would not form the mind. He himself warns that in reading his works we must take care that he is not mistaken, and we must believe nothing he says unless we are obliged to do so by the evidence. For he bears no resemblance to those false scholars who, usurping an unjustified domination over minds, want everyone to take them at their word, and who, instead of making men into disciples of internal truth by proposing only clear ideas to them, subject them to the authority of pagans and, through arguments they do not understand, force them into views they cannot comprehend.” (*Ibid.*)

causes thoughts to arise in the soul on the occasions of motions of matter, and that when our soul, in turn, wishes to move the body, it is God who moves the body for it. And since the communication of motions also seemed inconceivable to them, they believed that God imparts motion to a body on the occasion of the motion of another body. This is what they call *the system of occasional causes*.<sup>49</sup>

This tendency of Descartes' "disciples" will not be examined in this dissertation. Rather, I shall limit myself to considering Descartes' own views on the metaphysics of causation.

Though scattered throughout his *oeuvre*, Descartes does clearly commit himself to two primary *metaphysical* principles of causality:

- 1) A cause must be greater than its effect, or, what is the same, a cause cannot give what it does not possess, for otherwise the effect would come from nothing.<sup>50</sup>
- 2) God is the total efficient cause of the world and all secondary causes are dependent on his primary causal activity.<sup>51</sup>

While both of these principles (particularly the latter) are vaguely occasionalist, neither were in any way novel to Descartes.<sup>52</sup> Moreover, from my own reading of his various explanations of causal phenomena, both finite and divine, it seems frankly impossible to systematically defend the claim (as routinely made by his "disciples") that Descartes himself was an occasionalist. Indeed, it seems evident that, while he had little but contempt for the Thomistic model of causal explanation, Descartes fundamentally accepted Aquinas' concurrentist model of causal metaphysics. On this point I am in

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<sup>49</sup> *Système nouveau*, 143

<sup>50</sup> CSM II, 28

<sup>51</sup> CSMK III, 25

<sup>52</sup> Concerning the intellectual history of the first, see: Llody, A. C. "The Principle that the Cause is Greater than its Effect." *Phronesis* 21 (1976): 146.-156.

agreement with Kenneth Clatterbaugh, who points out that: “Many of Aquinas’s remarks on causation bear a striking parallel to those of Descartes; the issues that Aquinas raises are so similar to those which concern Descartes that even their examples overlap.”<sup>53</sup>

Indeed, when Gassendi objects to Descartes’ doctrine of continual creation, Descartes retorts that the matter is *chose jugée*:

When you deny that in order to be kept in existence we need the continual action of the original cause, you are disputing something which all metaphysicians affirm as a manifest truth—although the uneducated often fail to think of it because they pay attention only to the causes of *coming into being* and not the causes of *being itself*.<sup>54</sup>

That the “metaphysicians” Descartes has in mind here are Aquinas and his legion followers is evidenced in his latter explanation, which trades on the seminal Thomistic distinction between a *causa secundum fieri* [cause of becoming] and a *causa secundum esse* [cause of being].<sup>55</sup> Now, in the Thomistic framework, this distinction serves not only to define the need for God’s preservation of the world *in esse*, but also of the real activity of a secondary causes *in fieri*—a point on which Descartes seems to concur.

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<sup>53</sup> 59. This is also true in Descartes’ discussion of the divine omnipotence and his doctrine of the created eternal truths, though he is clearly opposing Aquinas on this point. Cf. CSM, II 291 and CSMK, III 235 to *Summa contra Gentiles*, 2.25.

<sup>54</sup> CSM II, 254. Garber claims that, in rebutting Gassendi’s claims, “he seems to have turned directly to his copy of St. Thomas.” (*Descartes Metaphysical Physics*, 265) Gassendi wasn’t always so dissonant with St. Thomas. In the *Syntagma philosophicum*, he reiterates several of Aquinas’ arguments against occasionalism, such as the principle that God’s immediate causal interference in all of Nature would detract from his greatness and power. (1.239a)

<sup>55</sup> *Summa theologiae*, 1a, q.104 a.1

For example, in his *Notae in programma quoddam* [*Comments on a Certain Broadsheet*], a polemic against his prodigal student Regius (an enthusiastic Cartesian turned empiricist<sup>56</sup>), Descartes appeals to this distinction, noting:

[S]omething can be said to derive its being from something else for two different reasons: either the other thing is its proximate and primary cause, without which it cannot exist, or it is a remote and merely accidental cause, which gives the primary cause occasion to produce its effect at one moment rather than another.<sup>57</sup>

While Descartes is specifically speaking of our idea of God here, this claim has been interpreted to include all of our ideas, for, as the *Meditationes* make clear: we can have ideas of bodies without their actual existence (e.g. when dreaming),<sup>58</sup> but we can have no ideas at all without God;<sup>59</sup> thus God must be considered as the “proximate and primary cause” of our ideas, while bodies can only serve as the “occasion” for the primary cause to produce its respective ideas. Yet, not but a page earlier, Descartes had averred:

There is nothing in our ideas which is not innate to the mind or the faculty of thinking, *with the sole exception of those circumstances which relate to experience*, such as the fact that we judge that this or that idea which we now have immediately before our mind refers to a certain thing situated outside us. We make such a judgment not because these things transmit the ideas to our mind through the sense organs, but because *they transmit something* which, at exactly that moment, gives the mind occasion to form these ideas by means of the faculty innate to it.<sup>60</sup>

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<sup>56</sup> At an earlier point, during the intense controversy between himself and Voetius, Descartes had appealed to through Huygens to the Dutch Stadtholder, Frederik Hendrik, for protection for himself and his student Regius. (Israel, 585) Regius was not the only Cartesian to attempt a reconciliation with empiricism. See Lennon and Easton, *The Cartesian Empiricism of François Bayle* (New York: Garland Publishing, 1992). Notably, neither Regius nor F. Bayle were occasionalists.

<sup>57</sup> CSM I, 305

<sup>58</sup> CSM II, 13-14

<sup>59</sup> CSM II, 48-49

<sup>60</sup> CSM I, 304; emphasis added.

This passage clearly commits Descartes to the opinion that, even if bodies are a “merely accidental cause” and “occasion” for the activity of a higher cause (either God or the mind itself), the existence of such a transmission means that they must play some metaphysically real (sc. causal) role in the production of their associated ideas. That is to say, while corporeal motions impacting the organs of sense are occasions for the autochthonous production of ideas in the mind, they are not *mere occasions*.

Such a confusion is typical of Descartes’ reasoning and of his repeated failure to follow the premises of his own metaphysics to their logical conclusion. I would argue that the ambiguity and incoherence of Descartes’ position is the result of his ignorance of or unwillingness to distinguish between thoroughgoing occasionalism and the traditional theological bromide concerning God’s status as the total cause of everything—both of which may be understood to entail divine preservation of the world through continual creation. While Descartes made many asseverations on the nature of causality that struck his occasionalist successors as fundamentally aligned with their metaphysic, I think it likely that Descartes either lacked any real awareness of occasionalism as a metaphysical option, or did not consider his belief in God “as the efficient cause of all things” to be incompatible with real causality in nature. As will be recalled from Chapter 3, Aquinas was himself often in agreement with certain fundamental principles of occasionalism, even conceding that “every operation of a thing is reducible to [God] as its cause;”<sup>61</sup> yet, like Descartes, he did not view such a concession as incompatible with an order of substantial causality distinct from God’s. This position was reiterated by early-modern

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<sup>61</sup> *Summa Contra Gentiles*, 3.67

Scholastics such as Suárez in his writings on efficient causation and divine concurrence,<sup>62</sup> and although Descartes caustically attacked this conception of causal explanation, it seems evident that he did not consider the need to extend this attack into matters of theological metaphysics, but merely sought to replace an ancient ossified model of natural causation with a modern mechanistic one.<sup>63</sup> Under this interpretation, the ambiguity and incoherence of Descartes' pseudo-occasionalism can be understood as an extension of the ambiguity and incoherence of Thomistic concurrentism, albeit rendered more obvious and glaring due to Descartes' new metaphysics of causation, which was irresolvably inclined towards occasionalism. While this upshot—like its most famous instantiation: the mind/body problem—was either lost on Descartes or intentionally ignored, it was most certainly apparent to his immediate successors.

That said, I must avoid oversimplifying this matter and it needs be noted that Descartes frequently makes claims or uses terminology suggestive of occasionalism; but, under close examination, none of these instances pass muster as being unequivocally advanced beyond Thomistic concurrentism. For example, in the *Principia*, he proposes that “We should...consider [God] as the efficient cause of all things.”<sup>64</sup> Yet, the specific nature of this divine efficient causality is most unclear:

[The cause of the nature of motion] is in fact twofold: first, there is the universal and primary cause—the general cause of all the motions in the world; and second there is the particular cause which produces in an individual piece of matter some motion which it previously lacked. *Now*

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<sup>62</sup> See *Disputationes metaphysicae*, 20-22

<sup>63</sup> This is perhaps unsurprising given Descartes well attested aversion to becoming bogged down in theological disputes.

<sup>64</sup> CSM I, 202

*as far as the general cause is concerned, it seems clear to me that this is no other than God himself.*<sup>65</sup>

Shortly after, Descartes claims that the laws of nature are grounded not in any supposed ‘powers’ and ‘natures’ of creatures, but in the immutable regularity of the divine will:

God’s perfection involves not only his being immutable in himself, but also his operating in a manner that is always utterly constant and immutable... Thus, God imparted various motions to the parts of matter when he first created them, and he now preserves all this matter in the same way, and by the same process by which he originally created it.<sup>66</sup>

This was, of course, a fundamental principle of occasionalist physics from al-Ghazali to Malebranche. But what about the “particular cause” Descartes speaks of? In the *Traité de la lumière*, while attempting to explain the nature of curvilinear motion, Descartes claims that:

God alone is the author of all the motions in the world in so far as they exist and in so far as they are rectilinear; but it is the various dispositions of matter which render them irregular and curved.<sup>67</sup> Likewise, the theologians teach us that God is also the author of all our actions, in so far as they exist and in so far as they have some goodness, but it is the various dispositions of our wills that can render them evil.<sup>68</sup>

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<sup>65</sup> CSM I, 240; emphasis added. This passage was later cited by Louis de La Forge in support of body-body occasionalism and he directs his reader to “pay particular attention” to the section I have italicized. See *Traité*, 149.

<sup>66</sup> *Principa philosophae*, CSM I, 240. Descartes’ allows for the possibility of miracles under such immutability by claiming that “there are some changes whose occurrence is guaranteed either by our own plain experience or by divine revelation, and either our perception or our faith shows us that these take place without any change in the creator; but apart from these we should not suppose that any other changes occur in God’s works, in case this suggest some inconstancy in God.” (Ibid.)

<sup>67</sup> Descartes argues that the motion God imparts to the world is simple due to the fact that it is produced at every instant in His preservation of the world: “This rule [sc. the rectilinear composition of curvilinear motion] is based on the same foundation as the other two: it depends solely on God’s preserving each thing by a continuous action, and consequently on his preserving it not as it may have been some time earlier but precisely as it is at the very instant that he preserves it. So it is that of all motions, only motion in a straight line is entirely simple and has a nature which may be wholly grasped in an instant... By contrast, in order to conceive circular motion, or any other possible motion, it is necessary to consider at least two of its instants, or rather two of its parts, and the relation between them.” (CSM I, 96-7)

<sup>68</sup> CSM I, 97

While most occasionalists might otherwise agree with the second sentence of the above,<sup>69</sup> they would never concede anything like the first, as it seems to quite patently ascribe causal activity to created material things. Indeed, such a position seems decidedly concurrentist, as is evident in Descartes claim:

[I]t follows of necessity, from the mere fact that he continues thus to preserve [matter], that there must be many changes in its parts which cannot, it seems to me, properly be attributed to the action of God (because that action never changes), and which therefore I attribute to nature. The rules by which these changes take place I call the ‘laws of nature.’<sup>70</sup>

This is virtually identical to an argument made against occasionalism by Aquinas; viz. God’s simplicity and immutability would not allow for the diversity of effects observed in the world if it is shorn of natural secondary causes.<sup>71</sup> Thus, it seems that, for Descartes, the immutable will of God serves to establish the bare *universal* laws of nature, while the arraignments and interactions of the material units therein serve as real causes of *particular* changes and activities observed therein.<sup>72</sup> He abandons Aquinas’ potency-activity model of causation and reduces the notion entirely to local motions and collisions, but it is these local motions and collisions that are the real cause of the complex (sc. curvilinear) motions seen in the world, even though they are operant only upon the underlying contribution of simple rectilinear motion provided by God.

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<sup>69</sup> With the exception of Le Grand.

<sup>70</sup> CSM I, 92-3

<sup>71</sup> “[I]f no lower cause, and especially no bodily one, performs any operation, but, instead, God operates alone in all things, and if God is not changed by the fact that He operates in different things, then different effects would not follow from the diversity of things in which God operates... Therefore, the causality of the lower type of effects is not to be attributed to divine power in such a way as to take away the causality of lower agents.” (*Summa Contra Gentiles*, 3.69)

<sup>72</sup> This point is all but confirmed in Descartes’ claim: “From God’s immutability we can also know certain rules or laws of nature, which are the *secondary* and particular causes of the various motions we see in particular bodies.” (CSM I, 240) This is essentially an inversion of the occasionalist position.



Yet, as always with Descartes, this interpretation is complicated by other passages. The place at which Descartes seems most clearly to commit himself to occasionalism is in his famous October 6<sup>th</sup>, 1645 letter to Princess Elizabeth, where he considers the problem of substance dualism that Elizabeth had raised:

I must say at once that all the reasons<sup>73</sup> that prove that God exists and is the first and immutable cause of all effects that do not depend on human free will prove similarly, I think, that he is also the cause of all the effects that do so depend. For the only way to prove that he exists is to consider him as a supremely perfect being; and he would not be supremely perfect if anything could happen in the world without coming *entirely* from him...[thus] philosophy by itself is able to discover that the slightest thought could not enter into a person's mind without God's willing, *and having willed from all eternity*, that it should enter. The scholastic distinction between universal and particular causes is out of place here. The sun, although the universal cause of all flowers, is not the cause of the difference between tulips and roses; but that is because their production depends also on some other particular causes which are not subordinated to the sun. But God is the universal cause of everything in such a way as to be also the *total cause* of everything; and so nothing can happen without his will.<sup>74</sup>

In this complex passage, Descartes' use of the terms "entirely" and "total cause" seem quite clearly of an occasionalist mindset; yet, even such strong language is not sufficient to settle the matter as Aquinas and the Scholastic concurrentists employed similar terms.<sup>75</sup> Indeed, when Descartes explains his reasons for holding God in such high terms, he does so not by arguing against the efficacy of finite secondary causes, as did all of his occasionalist successors, but rather by distinguishing between the unique natures of divine and created powers: "God is quite different from finite powers. They can be used

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<sup>73</sup> Presumably Descartes is referring here to his previously discussed statements that are ambiguous in upshot. That he links the conclusion of God's status as first cause to the proof of His existence implies that the causal containment argument from *Meditatio III* is what he has in mind for the latter claim.

<sup>74</sup> CSMK III, 272

<sup>75</sup> See *Summa Contra Gentiles*, 3.67

up; so when we see that they are employed in many great effects, we have reason to judge is unlikely that they also extend to lesser ones.”<sup>76</sup> Thus, Descartes deems God as the total or entire cause of changes in the world due to his infinite capacity for causal influx, but this was a common supposition of both the concurrentists and the occasionalists; moreover, Descartes’ un-critical talk of “finite powers” in the above seems to suggest the former metaphysic.

For sure, Descartes thinks he can overcome mind-body dualism by granting God the role of causal intermediary, but his insistence that such activity is “willed from all eternity” is troubling. Descartes justifies this appeal in terms of God’s immutability,<sup>77</sup> and indeed such a principle was routinely employed by occasionalists to explain the regularity of the natural order without the supposition of natural causes. Nonetheless, the primary shibboleth of occasionalism regarded God’s causality as *immediately and distinctively present at the moment of the production of the effect*, not merely as the result of some “general will” advanced from eternity. In offering this caveat, Descartes actually seems closer to the pre-established harmonics of Leibniz (and Aquinas) than to the occasionalists.

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<sup>76</sup> CSMK III, 273

<sup>77</sup> “From God’s immutability we can also know certain rules or laws of nature, which are the secondary and particular causes of the various motions we see in particular bodies.” (CSM I, 240) And also: ““from the mere fact that God is immutable and that, acting always in the same way, he always produces the same effect.” (CSM I, 96) Malebranche thus correctly claims: “Descartes...recognized, as do all those who follow the light of reason, that no body can move itself by its own forces, and that all the natural laws of the communication of motion are but the consequences of the immutable volitions of God, who always acts in the same way.” (*Recherche*, 466)

### 3. The History of Cartesian Occasionalism Prior to Malebranche

While fervently enthusiastic about the general thrust and themes of Cartesian philosophy, the reaction of Descartes' successors to his nascent occasionalism was decidedly multivalent. Otherwise 'orthodox Cartesians' such as Robert Desgabets (1610-1678), Jacques Rohault (1618-1672), and Pierre Sylvain Régis (1632-1707) never accepted occasionalism and, like Descartes himself, quite flatly insisted on the efficacy of both minds and bodies regardless of the metaphysical difficulties involved.<sup>78</sup> Others, such as Antoine Arnauld (1612-1694), restricted occasionalism to only the causal relationship between minds and bodies and rejected body-body occasionalism as extravagant.<sup>79</sup> Nonetheless, the majority of Descartes' followers recognized early on that the system of Cartesian metaphysics simply could not account for certain phenomena on their own terms (i.e. in terms of real causal relationships) and thus turned to the *deus ex machina* of occasionalism.

Whether this "turn" owed any significant debt to late-medieval nominalist-occasionalism is, like the debt of the latter to earlier Islamic occasionalism, very much uncertain. While, from his own remarks, it seems likely that Malebranche had a passing familiarity with some medieval figures who had denied secondary causality, the same cannot be said for his predecessors. As will be seen, while they at times offer arguments for occasionalism that share a similitude with those of earlier traditions, they begin from very different starting points (sc. scientific rather than theological concerns) and display

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<sup>78</sup> Des Chene 2002, 184; Easton 2002, 204

<sup>79</sup> See Nadler, "Occasionalism and the Question of Arnauld's Cartesianism," In *Descartes and His Contemporaries*, ed. Roger Ariew and Marjorie Green (Chicago: University of Chicago Press, 1995), 129-44.

very different reasoning behind their claims, even if the conclusion ends the same. Therefore, as again like the relation of nominalism to Islamic occasionalism, independent invention seems both possible and likely. Indeed, the early history of Cartesian occasionalism and issues of priority and influence are quite unclear to contemporary scholars. Descartes died in 1650 and, a little over a decade later, a plethora of books and essays in Cartesian philosophy sprung up seemingly independently from a multitude of authors, many expounding some form of occasionalism. This rapid development of occasionalist ideas following the death of Descartes, as well as the great difficulty in determining lines of influence among early proponents, speaks quite directly to the unique compatibility of Cartesianism and occasionalism.

In the rest of this section I shall examine the lineage and arguments of the major figures of the Cartesian occasionalist tradition prior to Malebranche.<sup>80</sup>

#### *Johannes Clauberg (1622-1665)*

Clauberg was a German philosopher and—unlike most important figures in the new philosophy—an academic, teaching at the University of Duisburg in the Duchy of Cleves. Following a Scholastic education, Clauberg came into contact with Cartesian ideas, likely through his teacher, Tobias Andrae, who had personally corresponded with Descartes. Clauberg is a chimerical figure whose work is not only a hybrid of scholasticism and Cartesianism, but also of orthodox Cartesianism and occasionalism.

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<sup>80</sup> For the sake of parsimony, I will not address followers of Malebranche, such as François Lamy, or English Malebrancheans such as John Norris and Arthur Collier. See McCracken 1983, 156-204

Like Descartes before him, Clauberg makes statements concerning the metaphysics of causation (specifically body-body causation) that seem faintly occasionalist, but are also in line with concurrentism. For example, in his *Disputatione physicae*, he claims that God's creative activity does not cease with the moment of creation but rather that his continual activity is required to conserve the world in being,<sup>81</sup> and moreover that "The universal cause and the particular cause [of motion] are distinguished in that the effect of the first is the totality of motion in the universe, while the effect of the second is a determinate motion in such and such a part of the universe."<sup>82</sup> Both of these claims are standard concurrentism: God is responsible for the continued existential conservation of the world and is also, through the laws/natures he has established in creation, the total cause of all motion and change therein. Regarding the efficacy of "the particular cause," Clauberg says that "By [this] should be understood a certain thing that causes motion, or the rule or law and reason according to which motion occurs."<sup>83</sup> While this seems to confirm Clauberg as a non-occasionalist,<sup>84</sup> the type of "cause" Clauberg has in mind here is unclear. It is possible he means real substantial natures, or it is possible that he understands a particular cause as only determining the total cause on the basis of an established "rule or law...according to which motion occurs," an idea much closer to Cartesian occasionalism than Thomistic concurrentism.

Clauberg's views on mind-body causality are similarly nebulous. In his *Corporis et animae in homine conjunctio* [*The Union of Body and Mind in Man*], Clauberg notes:

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<sup>81</sup> *Disputatione physicae*, §14

<sup>82</sup> *Disputatione physicae*, §7; trans. by Nadler

<sup>83</sup> *Disputatione physicae*, §6; trans. by Nadler

<sup>84</sup> Bardout 2002, 135

“There cannot be found in all the universe two things more dissimilar and more generically different joined together than soul and body.”<sup>85</sup> On this basis he insists: “The conjunction of body and mind is not grounded in the similitude and agreement of their actions and passions, but in their mutual relations,” such that “it is not at all necessary that the one be the cause or the effect of the other. It is enough if the one produces a change, or changes something in the other, such that the two substances refer mutually to each other in their actions and passions.”<sup>86</sup> While this explanation of mind-body “interaction” is not strikingly different from that given by Descartes, Clauberg’s titivations suggest a stronger occasionalist reading. Descartes had grounded this mutual reference on a “transmission” from the sense organs to the mind, while Clauberg appears to drop such a pretense entirely, claiming:

God has willed that these acts of such different kinds be united in a human being, such that the one refers to the other, without there being any similitude between them... This is why the motions of our body are only procatartic causes that give occasion to the mind, the principle cause, to produce on its own such and such an idea, at the particular moment.<sup>87</sup>

What Clauberg seems to be claiming here is that bodily motions/sensations are involved in no *real* transference to the mind, but rather serve as impetus for the independent generation of reciprocal ideas in the mind. The grounds of this reciprocity is unclear, but it appears that Clauberg endorses the view—sometimes mistakenly identified with Malebranche<sup>88</sup>—that God is directly responsible for such reciprocity, but not directly

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<sup>85</sup> *Corporis*, IV, §2

<sup>86</sup> *Corporis*, IV, §10-11

<sup>87</sup> *Corporis*, IV, §9-10

<sup>88</sup> For the correction of this misinterpretation, see “Occasionalism and General Will in Malebranche.” *Journal of the History of Philosophy* 31 (1993): 31-47. For Clarke’s response, see “Malebranche and Occasionalism: A Reply to Steven Nadler.” *Journal of the History of Philosophy* 33 (1995): 499-504.

causally involved with every such interaction; instead He only wills a ‘general law’ under which such independent activities are conjoined “in their exchange and reciprocity.”<sup>89</sup>

*Louis de La Forge (1632-1666)*

La Forge was an influential (if short lived) early commentator on and proponent of Cartesian philosophy. A physician by trade and hailing from Saumur in the Loire Valley, he was recruited in 1659 by Claude Clerselier (the editor behind most of the editions of Descartes’ works published in the decades after his death) who was preparing the posthumous first edition of Descartes’ *Traité de l’homme* [*Treatise on Man*]. Unimpressed by Descartes’ own crude and un-illuminating sketches, Clerselier recruited La Forge on the basis of his extensive knowledge of anatomy and skill as an illustrator. The young La Forge quickly imbibed the new philosophy and, at Clerselier’s encouragement, wrote an extensive commentary on Descartes’ *Traité*, which in turn served as the basis and inspiration of his own *Traité de l’esprit de l’homme* [*Treatise on the Human Mind*].<sup>90</sup>

La Forge corresponded with Clauberg and cites him on several occasions in the *Traité*, but rejected Clauberg’s occasionalism as a solution to the mind-body problem. Nonetheless, he was the first of Descartes’ successors to systematically expound body-body occasionalism—his *Traité* being published in 1665<sup>91</sup>—and the first to specifically

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<sup>89</sup> *Corporis*, IV, §11

<sup>90</sup> Clarke, “Introduction,” xii-xiv

<sup>91</sup> According to La Forge’s friend, Jacob Gousset, the ideas expressed therein were advanced by La Forge as early as 1658. (Nadler, “The Occasionalism of Louis de La Forge,” 58) Moreover, de Villemandy explicitly singles out La Forge as “the first of them [*sc. followers of Descartes*] that I am aware of who

use the term “occasional cause [*causes occasionnelle*].”<sup>92</sup> The precise extent of La Forge’s occasionalism is difficult to interpret given that he, like Descartes, employs the language of both occasionalism and interactionism, often when discussing the same problem. This has led to scholarly disagreement with the majority (including myself) maintaining that La Forge restricts occasionalism to body-body causality and (like Desgabets, Rohault, and Régis) adheres to Descartes in flatly attributing real causal powers to the mind capable of producing effects in the body.<sup>93</sup> I would speculate that the reason La Forge refused to commit to full occasionalism was due to his medical training and interest in neuro-anatomy. La Forge wrote the *Traité* out of his dissatisfaction with Descartes’ meager ‘pineal explanation’ of mind-body interaction and clearly seemed enamored with the notion of uncovering the secret relation between the soul and the structure of the brain.<sup>94</sup> An application of occasionalism to this relation would effectively pull the rug out from under such a project.

While I will not examine the specifics of La Forge’s account of how mind and body interact,<sup>95</sup> La Forge does offer a remarkable global argument to justify

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developed [occasionalism] and openly espoused it...” (*Traité de l’efficace*, 21; qtd. by Clarke, “Introduction,” xx)

<sup>92</sup> Bardout 2002, 142

<sup>93</sup> Richard Watson argues that “La Forge takes the hard Cartesian line that the animal spirits of the body (somehow) influence the mind and are influenced by the mind in the pineal gland.” (*The Breakdown of Cartesian Metaphysics*, 174) See also Kemp-Smith, *Studies in the Cartesian Philosophy* (New York: Russell and Russell, 1902), 87. For an account of the scholarly controversy, see Nadler, “The Occasionalism of Louis de La Forge,” In *Causation in Early Modern Philosophy*, ed. Steven Nadler (University Park, Penn State Press, 1993), 57-73.

<sup>94</sup> Indeed, La Forge was the first to carefully distinguish between ‘spirits’ [*esprits*] and ‘ideas’ [*idée*], defining the former as fundamentally physical and the latter as fundamentally mental. (*Traité*, 77) This distinction became standard in subsequent early-modern philosophy.

<sup>95</sup> His views are essentially developments and elaborations of claims made by Descartes in the *Notae in programma quoddam*.



interactionism in the face of the seemingly insurmountable metaphysical difficulty engendered by Cartesian dualism. Descartes himself was of no help as he flatly insisted upon the reality of such interaction: *je sais pas comment*.<sup>96</sup> Instead of repeating this asseveration, La Forge made a direct appeal to ‘Bayle’s maxim,’ noting that “Holy Scripture teaches us that an angel carried a prophet from one province to another.”<sup>97</sup> This is a reference to a story in the second of the “Additions to the Book of Daniel”<sup>98</sup> in which an angel appears to Habakuk, who is in Judea, and carries him by the hair to Babylon, in Mesopotamia, and the lion’s den where Daniel is imprisoned. After Habakuk gives Daniel the food he had with him, the angel carries him back to his home.<sup>99</sup> Given that angels were canonically regarded as strictly spiritual and immaterial creatures,<sup>100</sup> the unavoidable conclusion here would seem to be that, regardless of any philosophical

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<sup>96</sup> In the *Avertissement* to the French edition of the *Meditationes*, Descartes’ notes that Gassendi’s questions concerning the causal efficacy of the mind on the body and *vice versa* “presuppose amongst other things an explanation of the union between the soul and the body, which I have not yet dealt with at all.” (CSM II, 275) Regardless, Descartes avers: “the whole problem contained in such questions arises simply from a supposition that is false and cannot in any way be proved, namely that, if the soul and the body are two substances whose nature is different, this prevents them from being able to act on each other.” (Ibid.) Descartes is so convinced of the reality of mind-body interaction that he goes so far as to retract his clarity and distinctness principle in this instance, conceding that “we are not sure that there is nothing corporeal in the soul, even though we do not recognize anything corporeal in it.” (CSM II, 276) Indeed, the whole notion of ‘eminent reality’ is designed to permit a loophole in Descartes’ causal principle by which “there is nothing in the effect which was not previously present in the cause,” (CSM II, 97) for this directly entails that “Nothing comes from nothing.” (Ibid.) Yet, God’s activity provides the exception to this and moreover he is the cause the world without being formally or materially identical with it (as in Spinozism), for “[s]omething is said to exist *eminently* in an object when, although it does not exactly correspond to our perception of it, its greatness is such that it can fill the role of that which does so correspond.” (CSM II, 114) Given his notion of eminent causation, it seems that Descartes has at least a metaphysical criterion by which to insist that mind-body interaction is possible, for it is possible the body could be related to the mind eminently, which would allow for causal interchange without any actual formal or material commensurability between the two. This, of course, leaves out any explanation of body-mind interchange.

<sup>97</sup> *Traité*, 144

<sup>98</sup> These are the additional three chapters at the end of the Book of Daniel which are included in the Septuagint, but not in the Hebrew Bible. They are considered canonical by the Roman Catholic, Greek Orthodox, and Oriental Churches, but apocryphal by most Protestant denominations.

<sup>99</sup> Daniel 14:33-39

<sup>100</sup> See Luke 24:39 and the *Catechism of the Catholic Church*, §328-330.

reasoning that deems interaction between the material and immaterial to be metaphysically impossible,<sup>101</sup> such an interaction did, in fact, occur, and must therefore be possible regardless.<sup>102</sup> For La Forge, this appeal to “Holy Scripture” serves as the justification for his interactionism and refusal to countenance mind-body occasionalism. In spite of this intriguing *ipse dixit* appeal to “Holy Scripture,” La Forge’s Cartesian psychology ultimately went nowhere and virtually all of Descartes successors—and early-modern philosophers in general—accepted the fundamental impossibility of mind-body interaction.

However, La Forge’s views on body-body causality, even though occupying less than a single chapter of the *Traité*, were highly influential to the later course of early-modern philosophy. While La Forge, following Descartes, still speaks of powers and forces in bodies, he understands such things in a manner very different from the “Schoolmen.”<sup>103</sup> This is evident in his reiteration of the nominalist-occasionalist insistence that causation cannot be empirically grounded:

I will be told, is it not clear and evident that heavy things move downwards, that light things rise upwards, and that bodies communicate their motion to one another? I agree, but *there is a big difference between the obviousness of the effect and that of the cause*. The effect is very clear

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<sup>101</sup> La Forge cites Lucretius’ materialist claim: “we smell the various odours of things and yet we never see them approaching our nostrils, not do we behold scorching heat, nor can we set eyes on cold, nor are we accustomed to see sounds; yet all these must of necessity consist of bodily structure [*corporea constare*], since they can act upon our senses. For nothing can touch or be touched, except body.” (*De rerum natura*, I. 298-304)

<sup>102</sup> This seems to be the reasoning behind Descartes distinction between “extension of substance” and “extension of power.” In a later letter to More, he says: “For my part, in God and angels and in our mind I can conceive there to be no extension of substance, but only extension of power.” (CSMK III, 372)

<sup>103</sup> La Forge, employing a particularly lovely metaphor, rhetorically asks: “is it a genuine explanation of an attack of diarrhea, for example, to say that it results either from the fact that the expulsive faculty is irritated or that the retentive faculty of the intestines is weakened? Is that not to say, in good French, that I know nothing about it?” (*L’homme* (1664), qtd. by Clarke, “Introduction,” xvi-xvii)

here, for what do our senses show us more clearly than the various movements of bodies? But do they show us the force which carries heavy things downwards, light things upwards, and how one body has the power to make another body move?<sup>104</sup>

As Ovid said: *causa latet, vis est notissima*.<sup>105</sup> La Forge's familiarity with previous philosophers who made this claim is completely unknown; yet, the above is virtually the exact same argument as first advanced by al-Baquillani and al-Ghazali; viz., all we are ever capable of perceiving is a succession of effects, but not the causal forces and principles underlying said effects. As was the case with al-Ghazali, this seemingly innocuous empirical argument is of considerable importance, because, by pointing out the empirical vacuum underlying the epistemology of causation, La Forge grants himself license to expound a radically counterintuitive and *counter-experiential* set of arguments that were to become shibboleths of Cartesian occasionalist physics.

La Forge's attack on inter-corporeal causality is based on two such shibboleths that hark back to al-Ghazali and became standards of Cartesian occasionalism down to Malebranche:

- 1) Bodies are intrinsically inert and passive in nature.
- 2) Even if bodies did possess intrinsic causal powers, they would be otiose given the existentially disjointed nature by which God preserves the world in being.

As the second argument is beyond the scope of the present dissertation, I will focus here on La Forge's first argument. He opens his chapter on "how one Body moves another" by noting:

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<sup>104</sup> *Traité*, 143; emphasis added.

<sup>105</sup> 'The cause is hidden, but the result well known.' (*Metamorphoses*, iv. 287)

I think most people would not believe me if I said that it is no more difficult to conceive how the human mind, without being extended, can move the body and how the body without being a spiritual thing can act on the mind, and to conceive how a body has the power to move itself and to communicate motion to another body. Yet there is nothing more true.<sup>106</sup>

The reason for this is that it impossible to account for an active force or power inhering in a body defined only in terms of its spatial geometry. The notion is completely exterior and allochthonous to the very idea of extension, for “if the force which transfers and which 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;” yet, as La Forge is adamant, “This is not the case.”<sup>107</sup>

From the foregoing, La Forge concludes: “If a body cannot move itself, it is obvious in my opinion that it cannot move another body.”<sup>108</sup> In spite of La Forge’s “opinion,” this conclusion is not obvious at all: simply because a body lacks the power of self-movement does not entail that it cannot, once set in motion, transfer its motion to another body by established laws of impact;<sup>109</sup> though Clatterbaugh suggests that this is in keeping with the Cartesian causation principle that “a cause cannot give what it does not have.”<sup>110</sup> Two additional arguments are offered by La Forge in support of this conclusion: the first, which will be examined in the next chapter, concerns the peculiar

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<sup>106</sup> *Traité*, 143

<sup>107</sup> *Traité*, 145

<sup>108</sup> *Traité*, 145

<sup>109</sup> Plato allows this type of motion (*Laws* 894b); but nonetheless reasons that “Self-generating motion... is the source of all motions, and the primary force in both stationay and moving objects.” (*Laws* 895b)

<sup>110</sup> Clatterbaugh, 106

nature of motion in Cartesian plenist physics, while the second appeals to Descartes' identification of motion as a mode of body, from which La Forge concludes that "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."<sup>111</sup> The point here is: If, as under the Thomistic framework, bodies were capable of such modal transmission, it would make just as much sense to speak of a body transferring its shape or divisibility as its motion, but clearly this is absurd. Therefore, given that bodies cannot move themselves nor cause motion in other bodies, if motion is possible, it would have to be an entirely extrinsic property by which a body is "pushed by something which is not itself a body and which is completely distinct from it."<sup>112</sup> Here, presumably, is where La Forge thinks he has grounds to maintain body-body occasionalism, yet deny mind-body causation.<sup>113</sup>

*Géraud de Cordemoy (1624-1684)*

Cordemoy, a lawyer by trade and the son of a professor at the University of Paris, was an active and influential figure in Cartesian circles of the mid-seventeenth century. While La Forge contributed commentary to the 1664 publication of the second part of Descartes' *Le Monde* (the *Traité de l'homme*); Cordemoy contributed an essay, entitled *Discours de*

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<sup>111</sup> *Traité*, 145

<sup>112</sup> *Ibid.*

<sup>113</sup> This does, however, seem to leave as an open question just how bodies could affect minds. Interestingly, Arnauld appealed to occasionalism to account for how causes in the body (e.g. the prick of a needle) can produce effects in the mind (e.g. the sensation of pain), but not *vice versa*, possibly under the same reasoning. (See *Ouvres*, vol. 38, 146-8)

*l'action des corps*, to the publication of the first part of *Le Monde* in the same year. This essay was developed into Cordemoy's primary philosophical work, *Le discernment de l'âme et du corps* [*The Discrimination Between Soul and Body*], two years later. While Cordemoy is best known for his work on linguistics,<sup>114</sup> he is also notable as a defender of atomism<sup>115</sup>—a veritable Cartesian heresy—and was described by Boullier as the “first occasionalist in France.”<sup>116</sup> The veracity of this claim largely depends on the definition of “occasionalist” one takes. Cordemoy's *Discernment* was first published in 1666, a year after La Forge's *Traité*, though it seems unlikely that either had met or had any influence on the other.<sup>117</sup> Like La Forge, Cordemoy equated the inconceivability of mind-body causation to body-body causation, noting that “when we will have closely examined what is found in the action of a body on a body, we will not find it to be any more conceivable than that of minds on bodies.”<sup>118</sup> However, he was unmoved by La Forge's physician's concern to conceive the inconceivable (sc. account for the union of mind and body) and freed himself of this acclivitous task by extending the occasionalist denial of secondary causality to minds as well as to bodies. He is thus sometimes counted as the first “thoroughgoing occasionalist,” at least in the Cartesian tradition.<sup>119</sup> Even this designation

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<sup>114</sup> See Chomsky, Noam. *Cartesian Linguistics: A Chapter in the History of Rationalist Thought*. New York: Harper & Row, 1966,

<sup>115</sup> Leibniz explains that “what forced Cordemoy to abandon Descartes and to embrace the Democritean doctrine of atoms” was the unity of the self which could not be accounted for in terms mechanistic. What was required was “true *substantial unities*,” but Leibniz notes, effectively setting up his own monadic metaphysic: “*atoms of matter* are contrary to reason.” (*Système nouveau*, 142)

<sup>116</sup> *Histoire de la philosophie cartésienne*, I, 516

<sup>117</sup> See Clair, Pierre. “Louis de la Forge et les origines de l'occasionalisme,” In *Reserches sur le XVII siècle* 1 (1976): 63-72.

<sup>118</sup> *Discernement*, 150, trans. by Albondi.

<sup>119</sup> See Nadler, “Cordemoy and Occasionalism.” *Journal of the History of Philosophy* 43 (2005): 37-54.

is a definitional matter; I would suggest that “thoroughgoing” occasionalism requires the additional rejection of both volitional and intra-mental causality<sup>120</sup> which would make Malebranche the first.

Heeding the traditional opening gambit of occasionalism, Cordemoy denied the empiricity of causation in an argument modified from the classic example of fire and burning (still in use by La Forge) to the modern and eminently Cartesian example of colliding bodies:

When we say, for example, that body B drives body C away from its place, if we examine well what is acknowledged for certain in this case, we will only see that body B was moved, that it encountered C, which was at rest, and that since this encounter, the first ceased to be moved [and] the second commenced to be. But if we recognize that B gave some of its motion to C, that is truly only a prejudice which comes from what we do not see when these two bodies [encounter each other]; and that we are in the habit of attributing all the effects which are known to us to the things we perceive, without being aware that often these things are incapable of producing such effects, and without considering that there could be a thousand causes which, completely imperceptible as they are, can produce sensible effects.<sup>121</sup>

Unlike La Forge, Cordemoy extended this reasoning to mind-body causality, noting that “many, seeing that as soon as they will a part of their body to be moved in a certain direction it immediately goes there, imagine themselves [the cause], because of what they do not perceive.”<sup>122</sup>

In his positive metaphysical argument for occasionalism, Cordemoy attempts a geometric demonstration of the occasionalist thesis following a series of definitions and

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<sup>120</sup> I.e. the view that our minds are possessed of causal powers sufficient for their own operation or that thoughts can be the efficient cause of other succeeding thoughts.

<sup>121</sup> *Discernement*, 137

<sup>122</sup> *Discernement*, 140

axioms implicit to Cartesianism. It is long, but sufficiently illuminating to warrant the following abridgment:

#### Axioms

1. One does not have of oneself that which could be lost without ceasing to be that which one is.
2. All bodies are able to lose their motion, up to the point of not having any, without ceasing to be bodies.
3. We are only able to conceive of two sorts of substances, Minds (which think) and Bodies. That is why one ought to think of them as the causes of all that happens; and that which does not come from one comes from the other.
4. To move, or to cause motion, is an action.
5. An action cannot be continued except by the agent who initiated it.

#### Conclusions

1. No bodies have motion of themselves.

Proof: By the first axiom, one does not have of oneself what one is able to lose without ceasing to be what one is.

Now, by the second, all bodies are able to lose their motion without ceasing to be bodies.

Thus not body has motion of itself.

2. The first mover of bodies is not a body.

Proof: If the first mover of Bodies were a body, it would follow that one body had motion of itself...

3. It can only be a mind which is the first mover

Proof: By the third axiom...

4. It can only be the same Mind which initiates the motion of Bodies which continues their motion.<sup>123</sup>

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<sup>123</sup> *Discernement*, 135-6; trans. by Albondi, 56-7.



Cordemoy's (and La Forge's) classically Cartesian rejection of the possibility of corporeal self-movement was the primary source of later Cartesian (both occasionalist and non-occasionalist) hostility towards Newtonian attractionism—since such a notion seems to inherently posit a capacity in bodies to move themselves, a requirement that was disconcerting even to Newton himself.<sup>124</sup> Moreover, lest one wish to advance the conservationist thesis that bodies, though not producing their movements *de soy*, could nonetheless perpetuate movements (under fixed laws of collision) that had previously been produced in them by a first mover, Cordemoy appeals to the Cartesian doctrine that such motion, as a mode, is incapable of transference between bodies.<sup>125</sup>

Cordemoy's demonstration is not of itself sufficient to establish God as the sole author of the movement of bodies, for the possibility that human minds could still be capable of acting as first movers has yet to be excluded.<sup>126</sup> Even though he has shown that we cannot account for such a capability empirically, he still needs to produce a metaphysical argument against the corporeal efficacy of finite minds. Cordemoy does so not by the obvious appeal to substance dualism or to a theology of continual creation,<sup>127</sup> but in an altogether novel manner, proposing that the Cartesian principle of the conservation of motion—viz. that the aggregate quantity of motion in the universe is not subject to increase or diminution, but remains always equal—requires a rejection of the mind's efficacy over the body, for a free decision by a mind to initiate a motion would

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<sup>124</sup> See his famous letter to Bentley, 11 February 1692/3; 2004, 102.

<sup>125</sup> *Discernement*, 138

<sup>126</sup> Nadler concurs, see "Cordemoy and Occasionalism," 43

<sup>127</sup> While axiom five seems to imply continual creation, this was nowhere cashed out by Cordemoy, who, alone among the Cartesian occasionalists, made no attempt to justify his view in terms of a such an onto-theology. Albondi makes this case persuasively *pace* Gouhier. (See *Gerauld de Cordemoy*, 66-57)

represent an superinduction sufficient to produce a “disturbance in the order of nature,”<sup>128</sup> by increasing the overall quantity of movement in the universe.<sup>129</sup> Thus, Cordemoy concludes in his later *Traité de métaphysique*: “The only thing that God does to unite this body and this mind is to make the body move, not only on the occasion of other bodies...but also on the occasion of the mind’s volitions; and to give sensations and inclinations to this mind on the occasion of motions in this body.”<sup>130</sup> How this solves the conservation of motion problem is rather unclear; nonetheless, Cordemoy offers a fully developed account of mind-body occasionalism: there is no talk of any nebulous “transmission” between the two,<sup>131</sup> nor of any “general will” governing the occasional relations; instead Cordemoy appeals to God’s direct causal activity as the source of the human union.

*Antoine Le Grand (1629-1699)*

Le Grand, known as *l’abrégiateur de Descartes*, was an Anglo-French Franciscian friar from Douai in the Spanish Netherlands.<sup>132</sup> In spite of his Scholastic training at the

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<sup>128</sup> *Discernement*, 143

<sup>129</sup> Cf. Wollaston, *The Religion of Nature Delineated*, §IX, v. 346.

<sup>130</sup> *Traité de métaphysique*, CG 279; trans. by Nadler.

<sup>131</sup> On this point Cordemoy is unequivocal: “If there remains any legitimacy to the claim that the soul moves the body, it is in the same sense that it can be said that a body moves another body. For just as when we say that one body move another when, because of their collision, it happens that the mover of the first now moves the second; so likewise can we say that a soul moves a body when, because it so wishes, it happens that whatever was already moving the body comes to move it in the direction in which the soul wants it to be moved. It is admittedly a more common way to ordinarily explain things by saying that a soul move a body and that a body moves another. Because we do not always seek the origin of things, it is often more reasonable...to cite the occasion rather than the cause of some effect.” (*Discernement*, 142)

<sup>132</sup> Douai was annexed by France in 1668—along with Lille and the remaining cities of the Artois not ceded in the Treaty of the Pyrenees nine years earlier—under the terms of the Treaty of Aix-la-Chapelle.

Catholic university there, Le Grand eagerly took to Cartesian philosophy and even attempted to reformulate it along Scholastic lines in order to win converts from the Schools.<sup>133</sup> The University of Douai housed an English college that was closely associated with Oxford and this is where Le Grand ended up teaching after being dispatched to England as a missionary.<sup>134</sup> He quickly became a key figure in the English intellectual scene of the time and established a reputation as a staunch defender of Cartesianism against Scholasticism, Newtonianism, and British empiricism. Le Grand's philosophy is contained in two treatises: *Philosophia Veterum e mente Renati Descartes more scholastico breviter digesta*, and *Institutio Philosophiae, secundum principia Renati Descartes*, published in 1671 and 1672 respectively and translated into English under Le Grand's own supervision in 1694 as *An Entire Body of Philosophy, According to the Principles of the Famous Renate Des Cartes*.<sup>135</sup>

Like La Forge and Cordemoy, Le Grand interprets Descartes as himself an occasionalist in matter of physics. He was, however, the only Cartesian occasionalist to attempt to rebut—or explain away—Descartes' semi-concurrentism, insisting that what Descartes refers to as the activity of:

The *Second of Particular Cause* is the meeting of *Bodies*, by which means it happens, that this *Divine Action*, which preserves *Motion*, exerts it self sometimes in these, sometimes in other *Bodies*: Whence the difficulty which ariseth, from the Communication of *Motion* may be easily solved;

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<sup>133</sup> Nowhere is this more evident than in his section on “Daemonology” and the nature and capacities of angles in the *Institutio Philosophiae*. (III. iv.) Such topics were central to the Thomists but were not regarded as worthy of philosophic discussion by Descartes and most of his successors.

<sup>134</sup> England at the time was recovering from the Puritan dictatorship of Cromwell and was ruled by the crypto-Catholic, Charles II, who tolerated Catholics and Catholic missionaries in his realm.

<sup>135</sup> This work was responsible for the introduction of Cartesianism and occasionalism to England in the years prior to the publication of Malebranche's *Recherche*.

for tho' *Motion*, as being only the *Mode* of a *Body*, cannot remove from one *Subject* to another, which *Regius* unwarily asserts; yet the agitating force, being no *Mode* of a *Body*, may by removing shew it self sometimes in this, sometimes in the other *Body*.

Wheresoever...*DES CARTES* speaks of the Communication of *Motion*, he is to be understood of that *Power*, which preserves the *Natural Things* in the same condition where they were constituted at first, and all effects order'd accordingly to the *Laws* appointed for them, and suiting to their *Natures*.<sup>136</sup>

That is to say, when Descartes speaks in causally realist terms of bodies colliding and causing each other to move, we are to take this as metaphorical *façon de parler*, when in reality—as Le Grand is convinced that Descartes himself was undoubtedly aware—all is God as the “*First and Universal Cause*.”<sup>137</sup> Following this interpretation, Le Grand buttresses his own occasionalism on the basis of the customary identification of motion as a mode of body and insistence on the non-transitivity of modes, as was more extensively quoted earlier. Le Grand extends his unique claims in this regard with a novel epistemological argument:

[I]f *Accidents* be Real, we shall never be able to know what *Accidents* belong to a *Body*, and what to a *Spirit*. For if *Accidents* have not Affinity with their *Subjects*, and yet are really distinct from them, we shall not be able to gather from the Perception of an *Accident*, whether the *Substance* in which it is, be *Material* or *Spiritual*; that is, from the *Color*, *Figure* and *Magnitude* we shall not be able to conclude that it is a *Body* rather than a *Spirit*.<sup>138</sup>

That is to say, interpreting Le Grand in terms less mystical: if perceptual accidents are distinct and separable from their subjects, we would not be able to distinguish between

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<sup>136</sup> LG, I, IV, 15, 117

<sup>137</sup> LG, I, IV, 15, 116

<sup>138</sup> LG, I, IV, 10 105

perceptions (grounded in matter) and phantasms of the imagination (grounded in ‘spirit’).<sup>139</sup>

Le Grand also argues that bodies have not the power to move themselves for, in such a case: “this *Power* would be *Essential* to it, and consequently the *Body* would move always, and with the same force, which is contrary to experience, which teaches us that a *Body* sometimes moves more, and sometimes less, and sometimes not at all: Wherefore it receives its force to move from something without it.”<sup>140</sup> Le Grand does not waste time explicating who this mover is:

Now there is nothing without or external to *matter* but *Spirit*; it is *Spirit* therefore that moves the *Body*, that is to say, *God*, who makes the parts of *matter* apply themselves successively, as to their outsides, to other parts that *immediately* touch them. Wherefore, since *God* cannot produce *motion* without acting, nor act otherwise than by his *Will*; we must own that the moving *Power* is nothing else, but the *Will* *God* had to move the *matter*.<sup>141</sup>

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<sup>139</sup> The problem with such an argument is its glaring susceptibility to a *tu quoque*: How is one to empirically distinguish between a corporeal body and an incorporeal spirit or idea anyway, supposing their perceptual accidents are identical? This question has nothing to do with the nature of substance-accident inhesion, but the limitations of experience as such. Such limitations not only form the basis of the dreaming argument from the *Meditationes*, but were a primary postulate of nominalism, as seen in Ockham’s famous claim: “Every effect which God can produce by means of a secondary cause He can produce directly on His own account. God can produce intuitive sense cognition by means of an object; hence He can produce it directly on His own account.” This was precisely the difficulty that led Hume to conclude that sensory impressions and ideas of memory and the imagination differ and can be distinguished only in terms of “the degrees of force and liveliness with which the strike upon the mind.” (*Treatise*, 1) In spite of the rationalist/empiricist scission, Malebranche actually concurred with Hume on this point. Malebranche explains “that persons whose animal spirits are highly agitated by fasting, a high fever, or some violent passion have the internal fibers of their brain set in motion as *forcefully* as by external objects.” Given that, in such cases, “sense” and “imagination” have the same cognitive *force*: “they think they see objects before their eyes, which are only in their imaginations. This shows with regard to what occurs in the body, the senses and the imagination differ only in degree.” (*Recherche*, 2.1.1, 88)

<sup>140</sup> LG, I, IV, 16, 119. This conclusion likewise does not follow, for it is perfectly possible for a body to be possessed of its own motive force, yet not carry on with the ease of a comet traversing empty space, due simply to the presence and motions of intervening bodies. Consider a box containing several wind up toys, all of which have the power to move themselves in a fixed direction and under a fixed force, but this internally produced and propelled movement will undoubtedly be impeded by the presence or opposing movements of the other toys, thereby producing the observed diversity Le Grand describes.

<sup>141</sup> LG, I, IV, 16, 119

Three points need be made here. First, Le Grand concludes this train of thought by insisting, like La Forge and Cordemoy, that “no *Body* can move another. For how shall it move another *Body*, seeing it cannot move itself.”<sup>142</sup> Second, the above quotation provides a fine lens through which to distinguish occasionalism from the neo-Platonic emanationist tradition, for occasionalism upholds a Creation ontologically distinct from Creator who acts on the basis of *will*, while neo-Platonism concatenates Creation and Creator and holds that all the emanations of the sublunary sphere extend from the divine *intellect*.<sup>143</sup> Third, unique among the Cartesian occasionalists, but rather like the neo-Platonists,<sup>144</sup> Le Grand makes no attempt to reconcile his occasionalism with the freedom of the will, admitting:

[W]e must say that the Will also is conserved by the *Divine Concourse*, so that it is not in the *Power of Man to Will or Act* any thing, which is not preordained by *God*. But how these two things may be reconciled, that *God hath decreed* all the *Acts* or our Will from Eternity, and yet our Will remains undetermin’d, is I confess more than I do clearly perceive.<sup>145</sup>

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<sup>142</sup> LG, I, IV, 16, 119

<sup>143</sup> It must be admitted that by Malebranche this distinction had somewhat collapsed. See Cook, Monte. “Malebranche’s Criticism of Descartes’s Proof that there are Bodies.” *British Journal for the History of Philosophy* 15 (2007): 641-657.

<sup>144</sup> Plotinus maintained that God “alone is free in truth.” (*Enneads*, vi. 8.21.30)

<sup>145</sup> LG, I, II, 14, 72. Le Grand does offer something of a response, asking: “Yet cannot this consideration make us doubtful of the *Freedom* of our Will, since in all our *actions* we experience our selves to be free, and that it is in our Power to give or withhold our Assent.” This response to the problem was to be taken up by Malebranche most famously; (See *Recherche*, 5) though it had also been advanced by Cordemoy in his *Traité de métaphysique*. (See CG 284)

*Arnold Geulincx (1624-1669)*

Geulincx was a Flemish philosopher and student of the early Cartesian Guillaume Philippe at the University of Louvain. Geulincx himself held a professorship there until 1658 when—ostensibly as a result of his taking a bride (professors at the Catholic university were expected to remain celibate), but also under persecution for his Cartesianism—he, like so many of his contemporaries, fled north to the Dutch Republic, taking up a position at the University of Leiden and converting to Calvinism. While this conversion may have been partly political in nature (academic immigrants from the Spanish Netherlands were eagerly received and granted teaching positions on the condition that they join the Reformed Church), Louvain was a prominent Jansenist institution during Geulincx’s tenure.<sup>146</sup> Moreover, Geulincx’s philosophical ruminations on the powerlessness of the human condition are strongly Calvinist in spirit and tenor. Geulincx’s writing is jarringly dissonant in style: he alternates from precise and logic chopping analyses of complex problems in epistemology, physics, and metaphysics (which are indicative of his scholastic training), to profound and aching melancholic musings on the barren and depersonalized state of human existence and subjectivity. Among Calvinist philosophers of the period, Geulincx was the poet to Bayle the doxographer.

Geulincx’s two primary works, the *Metaphysica vera* and the *Ethica*, went mostly unpublished in his own lifetime, presumably due to his tenuous relationship with the

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<sup>146</sup> Cornelius Jansen was himself a professor at Louvain. The theological school he founded was widely regarded as a crypto-Calvinist (particularly by the Jesuits) and ultimately condemned by Innocent X in 1653.

predominantly Aristotelian faculty at Leiden.<sup>147</sup> The exact dates of their composition is unclear, but the first half of the *Ethica* appeared in 1665 and Geulincx died of a plague that swept Leiden in 1669, so they were likely contemporaneous with the work of La Forge and Cordemoy. In these works Geulincx elaborated familiar as well as new and radical arguments for occasionalism; arguments that came to fruition not with Malebranche—though he did make extensive use of them—but far beyond.<sup>148</sup> While some of Geulincx’s arguments for occasionalism are similar (or identical) to those made by La Forge and Cordemoy, it is unlikely they had any influence on him.<sup>149</sup>

In place of the now totemic argument against the empiricity of causation, Geulincx argues for occasionalism in an altogether novel method along the lines of Descartes’ *Meditationes*. The “Christian Ethics” Geulincx advances is quintessentially Stoic and elevates acceptance as its highest virtue.<sup>150</sup> Geulincx arrives at this ethic through what he terms “autology” or the introspective analysis of consciousness by the thinking subject itself. One of the primary realizations uncovered by this half-Cartesian and half-Kierkegaardian self-inspection is the powerlessness of the mind to control

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<sup>147</sup> Both at Louvain and at Leiden, Geulincx proved to be a lightning rod of controversy and ill will. The title of the work itself, *Metaphysica vera*, is in contrast to another of his works, *Metaphysica ad mentem Peripateticam*—the implication of which is evident.

<sup>148</sup> Here I refer not only to Hume, but more importantly to the existentialist tradition, of whom Geulincx can tenably be regarded as the earliest representative. This aspect of Geulincx’s thought was deeply influential on Samuel Beckett, who refers to Geulincx in his novels *Murphy* and *Molloy*, and wrote extensive notes on Geulincx’s *Ethica*. For example, consider this passage, which surely must have impressed Beckett: “I merely experience the World. I am a spectator of the scene, not an actor... I have diagnosed my condition; it only remains to enquire how I came to it. But I cannot get beyond *I do not know*, there is nothing I can add to this *I do not know*. I do not know how I came to this condition... I did not come into it of my own accord, nor did He who so miraculously brought me to this condition ever ask me whether I wished to be in it. God brought me to it without my even knowing about it, let alone willing it.” (*Opera philosophica*, III, 33-35; 2006, 34-36)

<sup>149</sup> Clatterbaugh 1999, 99

<sup>150</sup> “I have come to acknowledge that my actions do not affect things in the world, and that neither do the action of the world affect me. (*Opera philosophica*, III, 35; 2006, 35.)



anything external to it—hence the Stoic conclusion. Thus, in the *Ethica*, Geulincx’s primary arguments in favor of occasionalism concern the mind-body union and the impotence of the will to serve as an efficient cause of its desired effects. Towards this end, Geulincx provides several vivid and influential metaphors to illustrate the prejudice of the human mind concerning judgments of causation. He compares belief in the efficacy of the will to the infantile belief that crying, or even desiring the rocking of its cradle, causes the cradle to be rocked:

I cannot cause motion in my body (honest Inspection of Myself makes that transparently clear). I can only will it, and when I will it, God usually imparts the motion that I will; not because I will it, but because He wills that the motion that I will should be imparted. For example, if a baby wants the cradle in which he has been laid to be rocked, it is usually rocked; though not because *he* wants it, but because his mother or nursemaid, who is sitting by the cradle and who can actually rock it, also wants what he wants.<sup>151</sup>

Geulincx concludes in an annotation to this passage: “our baby who has his cradle rocked when he wants it to be rocked might conclude (because he desperately wants it to happen) that it is he who has rocked his cradle.”<sup>152</sup> Thus we fallaciously and subreptively reason from the constant conjunction of our will with its desired end to the conclusion that our will has the power to affect such an end. To explain why we are so easily deceived by such reasonings, Geulincx provides another metaphorical example that illustrates the remarkable means by which God creates the illusion of real causality:

He who imparts motion to matter and has given laws to it is the same one who has formed my will, and yoked together these diverse things (the motion of matter and the decision of my will) in such a way that when he wishes, such motion as it wishes appears; and on the other hand when

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<sup>151</sup> *Opera philosophica*, III, 39; 2006, 39.

<sup>152</sup> *Opera philosophica*, III, 227; 2006, 249.

motion appears my will wishes it,<sup>153</sup> without either causing or influencing the other. It is the same as if two clocks agree precisely with each other and with the daily course of the Sun: when one chimes and tells the hours, the other also chimes and likewise indicates the hour; and all that without any causality in the sense of one having a causal effect on the other, but rather on account of mere dependence, inasmuch as both of them have been constructed with the same art and similar industry.<sup>154</sup>

This particular argument is much more famously identified with Leibniz as the signature analogy in favor of his *harmonie pré-établie*.<sup>155</sup> For Geulincx, though, the point is that, in particular instances when the constant conjunction underlying these syncopated machines breaks down, we learn the error of our suppositions:

Suppose, for example, someone has retired to bed in the evening in the best of health. During the night, as he sleeps, a catarrh affects a nerve of his arms, which is thereby rendered paralysed. When he wakes up in the morning...to his astonishment and stupefaction, his hand...lies simply on the bed, and cannot be moved from one position to another except by his other hand. This paralytic quite clearly feels, and is conscious that, when he wanted to pick up his shirt he was doing the same as at other times when he would indeed pick up his shirt; and in consequence realises that the picking up of the shirt itself, that is, the motion of his hand, has never proceeded from him, but from someone else, who has executed that motion in response to his will.<sup>156</sup>

This example of a paralytic's arm would later be repeated by Hume to more memorable effect.<sup>157</sup>

In addition, Geulincx picks up on a claim made by Descartes in letter to Regis, viz. "understanding is the passivity of the mind and willing is its activity; [therefore] we

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<sup>153</sup> Here Geulincx—unwilling to commit to either side in a chicken and egg problem—seems to flirt with determinism. This, perhaps, gave credence to his later critics lumping him in with Spinoza.

<sup>154</sup> *Opera philosophica*, III, 212; 2006, 232.

<sup>155</sup> See "Postscript of a Letter to Basnage de Beauval (1696)," *Philosophical Essays*, 147.

<sup>156</sup> *Opera philosophica*, III, 209; 2006, 229; emphasis added.

<sup>157</sup> *Enquiry*, VII.1, 66

cannot will anything without understanding what we will.”<sup>158</sup> Geulincx develops this principle, viz. *Quod nescis quomodo fiat, id non facis* [“What you do not know how to do, is not your action”],<sup>159</sup> into a creative—and typically introspective—epistemic argument against volitional efficacy:

Now it is indeed the case that my body moves in accordance with my will. When I want to speak, my tongue flaps about in my mouth; when I want to swim, my arms splash about; when I want to walk, my feet are flung forward. But I do not make that motion. I do not know how such a thing is brought about, and *it would be impudent of me to say that I do what I do not know how to do*. I do not know how, and through which nerves and other channels, motion is directed from my brain into my limbs; nor do I know how motion reaches the brain, or even whether it reaches the brain at all. With the aid of Physics and Anatomy I may be able to trace this motion for some distance, but I still feel sure that in moving my organs I am not directed by that knowledge.<sup>160</sup>

This new ‘epistemic argument’ proved quite popular among later Cartesian occasionalists, such as Malebranche<sup>161</sup> and François Lamy,<sup>162</sup> and was even appealed to by Hume.<sup>163</sup> Geulincx concludes this line of reasoning in a deep skepticism over the nature of the self: “I am a mere spectator of this machine, whose workings I can neither

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<sup>158</sup> CSMK III, 182

<sup>159</sup> *Opera philosophica*, II, 150; 1999, 35.

<sup>160</sup> See *Opera philosophica*, III, 32; 2006, 33.

<sup>161</sup> See *Recherche*, 669; *Meditations Ch*

<sup>162</sup> In his *De la connaissance de soi-même*, Lamy argues: “It is true (and this is what creates the illusion) that as soon as the soul wills that the arm should move, the arm is moved. But a sure sign that the soul cannot produce this movement as a true cause is that it does not know exactly what is necessary for its execution. To do this, it is necessary to control the antagonistic muscles to which the arm is attached; for the action of these muscles, it is necessary to release a certain quantity of spirits from the brain. From among a great number of tubes that end at the brain like a common reservoir, it is necessary to choose those that lead to the muscles of the arm that one wants to move, to then make the spirits flow through the tubes, and to give [the muscles] different pulls in the direction of the different agitations that one wants to produce in the arm. Of all those who move their arms with the utmost ease, who among them knows the soul and knows all these things?” (215-16; Ablondi 2008, 626)

<sup>163</sup> *Enquiry*, VII.1 66-67

adjust nor readjust; wherein I neither devise nor destroy anything: the whole thing is someone else's affair."<sup>164</sup> This skeptical and depersonalized view of the self was taken up by Malebranche before likewise reaching its famous dénouement with Hume.<sup>165</sup>

In matters of occasionalist physics Geulincx is considerably less profound, offering much the same arguments as the other Cartesian occasionalists of his generation. He argues that: "A body cannot derive motion from itself" by appealing to the essence of extension; however, his claims are somewhat different:

A particular body derives from its nature divisibility and mobility, but not actual division and motion. For Body consists in nothing more than Extension, which in turn is nothing more than the juxtaposition of parts. But Motion involves something more, namely, the separation of parts...But such separation is not in the nature of Body, which begins and ends in the juxtaposition of parts.<sup>166</sup>

Geulincx's reasoning could stand to be more pellucid, but the point seems to be that bodies are nothing more than hypostatizations of Euclidian geometry, the essence of which is a succession of points extended in three dimensions. Movement is nowhere a part of such a succession (i.e. a magnitude), but rather involves the separation and transposition of such points across a magnitude of other points (i.e. from one vicinity to another), something which is necessarily transcendent to said points themselves.

Geulincx also applies his epistemic argument: "Body, as an irrational thing [*utpote res bruta*], does not know how to cause motion: therefore, the cause of its motion cannot be

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<sup>164</sup> *Opera philosophica*, III, 33; 2006, 34.

<sup>165</sup> See Kail, "On Hume's Appropriation of Malebranche: Causation and Self," *European Journal of Philosophy* 15 (2007): 1-26.

<sup>166</sup> *Opera philosophica*, II, 176; 1999, 76.

within itself.”<sup>167</sup> The upshot of both of these arguments is the same as with the arguments of La Forge and Cordemoy: “since a body cannot derive motion from itself, it must, if it is to have motion, derive it from something else...it must have it from a mind.”<sup>168</sup>

Yet, on the basis of introspection and the epistemic argument, Geulincx has established that finite human minds and wills are incapable of providing such motion. While this deficit would seem by elimination to implicate God as responsible for their movements, Geulincx goes further and offers a positive (but enthymematic) argument to prove that only an infinite Mind and Will are capable of producing motion. He first establishes that, in a Cartesian plenum:

Division and Motion are not really distinct: they differ only in consideration...For a whole is said to be divided when its parts separate without any other part of the same whole interposing itself between the parts as they separate...So *to be divided* and *to be moved*, though in themselves the same, are not said to be the same: we say instead that the whole is divided, while its parts move.<sup>169</sup>

Again, the exact physics of this identification is beyond the scope of this dissertation, but at this juncture it need only be noted that Geulincx declares: “Bodies have infinite power to resist division [*infinitam vim...qua resistunt divisioni*]; therefore, power superior to

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<sup>167</sup> *Opera philosophica*, II, 280; 1999, 77.

<sup>168</sup> *Opera philosophica*, II, 176; 1999, 76-77.

<sup>169</sup> *Opera philosophica*, II, 279; 1999, 75.. Geulincx fudges the matter by distinguishing between “solid” and “porous bodies,” but recovers by insisting that such a distinction is irrelevant because poration “implies the movement of corpuscles within the pores; so that if at some time everything within a pore were at rest, it would be filled up, closed, and hardly a pore at all, but a continuous and intact body.” (*Opera philosophica*, II, 290; 1999, 104) Here Geulincx clearly accepts the Cartesian criterion for corporeal individuation.

infinite power is required to endow bodies with motion.”<sup>170</sup> The nature of bodies is opposed sectility because:

[I]n the first place, each part of a body, however small, contains infinitely many parts, which must be separated by division, and disjoined (bearing in mind that division of even the smallest body entails and infinite regression)...and in the second place, each of these parts has a tendency to cohere with others, and to persist in that state...accordingly, He who divides bodies, He who moves them...must overcome this power with superior power.<sup>171</sup>

That is to say, the infinite divisibility of extension entails an infinite “tendency to cohere” within in that resists such division, thereby requiring a *vis major* capable of breaking up the plenum. This argument is very intriguing, but is undercut by a rather apparent *saltus in demonstrando*, viz. Geulincx does not explain why bodies resist division in the first place. Indeed, given that Cartesian bodies are geometric hypostatizations, the mechanics by which they could display such recalcitrant antitypy is mysterious. Surely there is nothing in our clear and distinct idea of the plane geometry in any shear bisecting a body that would indicate that the purely *quantitative* points therein possess an adsorbent *quality* to them. Indeed, such bodies should be *perfectly* scissile as any section of a Cartesian plane is separable from any other section by simple feat of the imagination, which stands contrary to Geulincx’s claim that “nothing can be thought or imagined harder or more persistent in itself than a body that is to be divided and broken up.”<sup>172</sup> In making such an asseveration, Geulincx betrays that he is including more in his notion of body than the mere “juxtaposition of parts;” for any supposition of a body’s recalcitrance

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<sup>170</sup> *Opera philosophica*, II, 191; 1999, 102-103.

<sup>171</sup> *Opera philosophica*, II, 191; 1999, 103.

<sup>172</sup> *Opera philosophica*, II, 191; 1999, 103.

in resisting division must inherently be a supposition of a *force* or *power* (i.e. a “tendency to cohere”) within it, something that flies in the face of Geulincx’s earlier reasoning concerning their essential passivity.<sup>173</sup> Regardless, what Geulincx himself takes to follow this antilogous reasoning is the occasionalist conclusion that “it is not we who move anything, or break up bodies, but the motion that the Begetter of the World furnishes, and continues to furnish, in accordance with our will.”<sup>174</sup>

#### 4. Malebranche and the *Summa Occasionis*

Nicholas Malebranche (1638-1715) was a philosopher, ordained priest, member of the French Oratory, and the figure most commonly associated with occasionalism in histories of philosophy.<sup>175</sup> In line with his customary perspicuity as a reader, Leibniz noted in 1698 that: “Although Cordemoy, de la Forge, and other Cartesians had proposed this doctrine, Malebranche, above all, adorned it with a certain rhetorical luster, commensurate with his acumen.”<sup>176</sup> While it was Malebranche who brought occasionalist metaphysics to its apogee, he proved to be largely commoriant with it. Yet, while he has sunk into obscurity

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<sup>173</sup> The more obvious argument for Geulincx’s position is external rather than internal, i.e. motion in a plenum is infinitely complex insofar as the movement of any one piece of the extensional grid entails a rearrangement of the entire whole. Yet, this old Democritean argument had been effectively occluded by Descartes’ theory of the vortices.

<sup>174</sup> *Opera philosophica*, II, 191; 1999, 103.

<sup>175</sup> Malebranche was famous in his day for his Catholic piety. This is somewhat amusing given that “The Malebranche” most non-philosophers are familiar with are the troop of nefarious demons from Dante’s *Divine Comedy* who are tasked with guarding the pool of boiling pitch in which grafters are submerged.

<sup>176</sup> *De ipsa natura*, §10, 160.

today, Malebranche was *intra vitam* perhaps the most famous philosopher in the world,<sup>177</sup> with admirers travelling to Paris from across Europe to make his acquaintance,<sup>178</sup> including a young Berkeley who was erroneously credited as being the occasional cause of Malebranche's death.<sup>179</sup>

Born with a severely deformed spine that affected his ability to breathe, Malebranche turned his attentions to intellectual matters, attending the Collège de la Marche in Paris before enrolling as a theology student at the Sorbonne. Like many Cartesian philosophers of his time, Malebranche did not excel at his studies and developed the deep disdain for Scholasticism that was to become so manifest in his later writings. He left the Sorbonne in 1660, entered the *Société de l'Oratoire de Jésus*, and was ordained as a priest in 1664. That same year Malebranche—apparently by chance—came across the newly published edition (by Clerslier and La Forge) of Descartes' *Traité de l'homme*; and while reading it, he was overcome by “such violent palpitations of the heart that he was obliged to leave his book at frequent intervals, and to interrupt his reading of it in order to breath more easily.”<sup>180</sup> He had found his calling and spent the

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<sup>177</sup> Malebranche was notably hailed by Bayle as “the premier philosopher of our age.” (*Nouvelles de la république des lettres*, August 1683, 23)

<sup>178</sup> See McCracken 1983, 1-10

<sup>179</sup> This story was related by Joseph Stock in his 1777 *The Life of Bishop Berkeley*. He reports: “At Paris, having now more leisure than when he first passed through that city, Mr. Berkeley took care to pay his respects to his great rival in metaphysical sagacity, the illustrious Père Malebranche. He found this ingenious father in his cell, cooking in a small pipkin a medicine for a disorder with which he was then troubled, an inflammation on the lungs. The conversation naturally turned on our author's system of which the other had received some knowledge from a translation just published. But the issue of this debate proved tragical to poor Malebranche. In the heat of disputation he raised his voice so high, and gave way so freely to the natural impetuosity of a man of parts and a Frenchman, that he brought on himself a violent increase of his disorder, which carried him off a few days after.” The tale is almost certainly false as Berkeley's visit to Paris was almost two years prior to the death of Malebranche. (Luce 1967, 208-209)

<sup>180</sup> This is according to his biographer, Father Yves André. (Schmaltz 2002, 152)



next decade studying Cartesian philosophy and formulating his own ideas before publishing the first edition (of five in his lifetime) of his magnum opus: *De la recherché de la vérité* [*The Search After Truth*].<sup>181</sup>

In this section, I shall examine Malebranche's arguments against secondary causality, his positive arguments in favor of occasionalism, and the advances he made beyond his predecessors that were to prove of long-lasting influence.<sup>182</sup>

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<sup>181</sup> The full title was: *De la recherché de la verite. Où l'on traite de la nature de l'esprit de l'homme, et de l'usage qu'il en doit faire pour eviter l'erreur dans les sciences* [*The Search After Truth. In which is treated the nature of the human mind and the use that must be made of it to avoid error in the sciences*].

<sup>182</sup> Malebranche was not significantly younger than any of the figures previously discussed—being only six year junior to La Forge. However, something of a generational gap was created between him and the Cartesian vanguard insofar as they died relatively young (mostly in the 1660's) while Malebranche took to philosophy relatively late (he discovered Descartes in 1664 at age 26), did not publish until 1674 (the same year Cordemoy—one of the last of the vanguard—died), and, in spite of his poor health, was remarkably long lived for the time, developing and promulgating Cartesian occasionalism well into the eighteenth century. In terms of influence, the matter is typically unclear. Prost is convinced that Malebranche read La Forge's *Traité* intensively and Nadler also offers that, "it is highly likely that Malebranche, in his own arguments for occasionalism, was influenced by La Forge." (Prost 1907, 187-188; Nadler 1998, 218) This seems all the more obvious if one considers that the edition of Descartes' *Traité de l'homme* was Clerselier's 1664 edition that included La Forge's illustrations and commentary. It is certain that Malebranche was familiar with Cordemoy's work for, in a section of the *Recherche* devoted to "The distinction between soul and body," he advises the reader to consult the *Discernment* should Malebranche's own ruminations prove inadequate. (*Recherche*, 49) Due to the remarkable similarities in their 'epistemic argument' against volition efficacy, I am convinced he read Geulincx. (See *Recherche*, 669) However, Ablondi suggests he got this argument from Cordemoy. (Ablondi 2008, 626) However, in the passage he cites from the *Discernement* in support of this claim, Cordemoy says only that "our souls know the changes in matter only when they occur, and they [our souls] can receive new thoughts by bodily movements according to the relation and the dependence God has established between them [nos ames ne connoissent les changemens de la matiere, que quand ils arrivent; & elles peuvent recevoir de nouvelles pensées par les mouvemens du corps, suivant le rapport & la dépendence que Dieu a mis entr'eux]." (*Discernement*, 148; trans. is my own) While one can see a germ of Malebranche's argument herein, Geulincx's argument, with its reference to animal spirits flowing down nerve channels to actuate bodily movements, is clearly a much better match. Indeed the similarity is striking enough as to strongly suggest that Malebranche read Geulincx's *Ethica*.

*Experience and the Essence of Body*

The first set of arguments Malebranche advances against the efficacy of secondary causes and in favor of occasionalism are very much along the same lines as his fellow Cartesian occasionalists; yet infused with notable historical context. Malebranche remarks that “the great Averroes” denounced “certain theologians who have written against secondary causes” as “out of their minds.”<sup>183</sup> He objurgates the Peripatetic “demonstration” that the senses convince us of their efficacy deictically<sup>184</sup> as “pitiful” and retorts:

When I see one ball strike another, my eyes tell me, or seem to tell me, that the one is truly cause of the motion it impresses on the other, for the true cause that moves bodies does not appear to my eyes. But when I consult my reason I clearly see that since bodies cannot move themselves, and since their motor force is but the will of God that conserves them successively in different places, they cannot communicate a power they do not have and could not communicate even if it were in their possession. For the mind will never conceive that one body, a purely passive substance, can in any way whatsoever transmit to another body the power transporting it.<sup>185</sup>

Regardless of the circularity underlying Malebranche’s argument here,<sup>186</sup> the above quote is useful as it shows Malebranche reiterating the two classic arguments for occasionalism:

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<sup>183</sup> *Recherche*, 680

<sup>184</sup> Suárez is the best example here: “For what is better known to the senses than that the sun gives light, fire produces heat, water cools? And if they reply that we do, to be sure, experience that these effects are brought about when the things in question are present but that we do not experience that the effect are brought about *by* those things, then they are clearly destroying the whole force of philosophical argumentation. For there is no other way in which we can experience the emanation of effects from causes or in which we can infer causes from effects.” (*DM*, 18.1.6) Of course, for the critics of secondary causation, this is precisely the point.

<sup>185</sup> *Recherche*, 660

<sup>186</sup> That is, Malebranche cannot legitimately claim that “bodies could not communicate [a power] even if it were in their possession,” based on the insight that body is a “purely passive substance.” If a body were indeed possessed of a power, it would not be purely passive, and thus the argument begs the question. The better justification for this claim, as Malebranche intimates, lies in his theory of continual creation, which will be addressed in the next chapter.

- 1) The lack of empiricity in causal judgments.
- 2) The Cartesian appeal to our clear and distinct idea of body as purely passive.

As we have seen, Malebranche's argument for (1) was *de rigueur* among occasionalists, but he notably follows Cordemoy's new mechanistic example of colliding bodies.

Regarding the latter claim, Malebranche declares: "By a true cause I understand a cause which acts by its own force;"<sup>187</sup> and beseeches the reader to:

Consult the idea of extension and judge by that idea, which represents bodies if anything does, whether they can have some property other than the passive faculty of receiving various shapes and various motions. Is it not evident to the last degree that properties of extension can consist only in relations of distance?"<sup>188</sup>

Relations of distance, as the "essence of matter," include the ideas of "figure, divisibility, [and] impenetrability,"<sup>189</sup> as well of the very three-dimensional matrix in which these properties inhere. This list exhausts the set of ideas that can be clearly and distinctly derived from our idea of extension, and thus of body itself.

Following this reductive analysis of the essential qualities of body, Malebranche's mouthpiece in the *Entretiens sur la métaphysique et sur la religion* [*Dialogues on Metaphysics and on Religion*] instructs:

Contemplate the archetype of bodies, intelligible extension. This represents them since it is in accordance with it that they all have been made. This idea is entirely luminous...Do you not see clearly that bodies can be moved but they cannot move themselves? You hesitate. Well then, let us suppose that this chair can move itself: Which way will it go? With what velocity? *At what time will it take it into its head to move?* You

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<sup>187</sup> *Traité de la nature et de la grace*, OCM V. 66

<sup>188</sup> *Dialogues*, VII.2 147

<sup>189</sup> *Recherche*, 243

would have to give the chair an intellect and a will capable of determining itself... Otherwise, a power of moving itself would be of no use at all to it.<sup>190</sup>

Three points need to be made regarding this passage. First, the above argument is, in fact, an extension of Geulincx's 'epistemic argument' to the domain of body-body causality, which had been opened by Geulincx himself.<sup>191</sup> Second, Malebranche's claim is essentially: To ascribe active powers to something that is defined only in terms of geometric relations of distance is like ascribing 'jealousy' to a cardboard box. This claim is in line with the standard Cartesian accusation against Aristotelianism, viz. that, even when stripped of any supposition of final causality, Aristotelian causal explanation employs a kind of prosopopoeia that projects what are effectively intentional states onto otherwise inanimate objects.<sup>192</sup> Third, the particular innovation to Geulincx's argument advanced by Malebranche—while novel amongst the Cartesians—is very old, even older than its eponym: Buridan's ass.

Recall al-Ghazali's response to Parmenides' famous argument against the possibility of creation, in which he insists that only inanimate creatures not possessed of a

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<sup>190</sup> *Dialogues*, VII, 151

<sup>191</sup> Geulincx says: "for a long time I was persuaded that beings which I knew to be irrational and mindless may nevertheless work and act on other beings. I believed that (for example) fire, because its presence produces in me a sensation of heat, make me hot... But after my understanding was informed by the principle *What you do not know how to do, is not your action*, I could not fail to see that I had been deluded... I never supposed that I myself could cause heat, light, or vertical motion, because I do not know how to do such things. Why, then, should I have supposed the same of fire... when it is equally clear that [it does] not know either." (*Opera philosophica*, II, 150; 1999, 35) This claim is repeated almost verbatim by Malebranche in his *Conversations Chrétiennes*: "Can fire act upon you? Can it cause in you pleasure that it does not possess, that it does not feel, pleasure of which it has no knowledge?" (OC 4:15-16; trans. by Nadler 1999, 268)

<sup>192</sup> See Nadler 1999, 270. Malebranche also follows Descartes and La Forge in maintaining that "if moving force belonged to bodies, it would be a mode of their substance, and it is a contradiction that modes go from substance to substance." (*Réponse à une dissertation de Mr Arnauld contre un Éclaircissement du Traité de la Nature et de la Grace*, VII.6, OC 7:515-6; qtd. by Nadler, "Malebranche on Causation," 120)

will are strictly subject to the principle of sufficient reason, such “that fire is so created that when it finds two pieces of cotton which are similar, it will burn both of them, as it cannot discriminate between two similar things.”<sup>193</sup> Given their enslavement to the principle of sufficient reason, creatures lacking a will are incapable of self-initiated movement for it would be impossible for them to *decide* to move in one direction rather than another, or do so at one moment rather than another, given that all points in space and time are qualitatively identical, and thus—in terms of the order of possible reasons—indifferent. Following this sequence of reasoning, Malebranche’s argument is: Not only can bodies not produce movement *proprio vigore*, but, even supposing they could, they would still be incapable of producing it *proprio motu*. From this consideration al-Ghazali concluded:

[T]he will...is an attribute of which the function...is to distinguish something from its like...[and] it follows that whoever discusses the nature of volitional action—whether with reference to empirical facts, or on theoretical grounds—will have to affirm an attribute of which the function should be to distinguish something from its like.<sup>194</sup>

That is to say, al-Ghazali asserts that the only creatures capable of such *choice* are those possessed of a *will*, insofar as the notion of will defines precisely that metaphysical capacity to choose and act *arbitrarily*, thereby distinguishing and picking between identicals differing only by number. This voluntarist conception of the will Malebranche weaves into the Cartesian rubric, concluding:

It is clear that no body, large or small, has the power to move itself... We have only two sorts of ideas, ideas of minds and ideas of bodies; and as we should speak only of what we conceive, we should only reason according

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<sup>193</sup> *Tahafut*, 190

<sup>194</sup> *Tahafut*, 1.1 24-7

to these two kinds of ideas. Thus, since the idea we have of all bodies makes us aware that they cannot move themselves, it must be concluded that it is minds which move them.<sup>195</sup>

Recall, though, that La Forge also made such a claim and from it concluded that mind-body occasionalism was unnecessary as real causal interaction between mind and body was thus conceptually possible—even necessary. This conclusion Malebranche flatly denies, insisting that we “have no clear idea of this power soul has over the body.”<sup>196</sup> Like our lack of any clear idea of how bodies could act on other bodies, he justifies this claim first on empirical grounds, arguing that, were one to claim:

I know through the inner sensation of my action that I truly have this power...I [would] reply that when they move their arm they have an inner sensation of the actual volition by which they move it; and they are not mistaken in believing that they have this volition...I grant that they have an inner sensation that the arm is moved during the effort; and on this assumption I also agree...that the movement of the arm occurs at the instant we feel this effort...But I deny that this effort, *which is only a modification or sensation of the soul*...is by itself able to impart motion to the animal spirits, or to determine them.<sup>197</sup>

The reason behind this leads to Malebranche’s chief innovation among the Cartesian occasionalists and what Leibniz deemed his “strongest argument for why God alone acts.”<sup>198</sup>

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<sup>195</sup> *Recherche*, 448

<sup>196</sup> *Recherche*, 670

<sup>197</sup> *Recherche*, 670

<sup>198</sup> *Malebranche et Leibniz*, 412; trans. by Sleigh, 171

### *Necessary Connection*

As noted above, in the *Traité de la nature et de la grace*, Malebranche defines a “true cause” as one “which acts by its own force.”<sup>199</sup> In the *Recherche*, however, Malebranche offers a different definition of true causality by returning to the logical standard of al-Ghazali and Autrecourt: “A true cause as I understand it is one such that the mind perceives a necessary connection [*liaison nécessaire*] between it and its effect.”<sup>200</sup> This ‘return’ is incomplete for, in the case of body-body causation, Malebranche fails to drive the no necessary connection argument home, instead conflating it with the critique of ‘force’ and ‘power.’ It’s only when he examines the efficacy of minds that he makes a direct appeal to the lack of necessary connection:

It is clear that no body, large or small, has the power to move itself... Thus, since the idea we have of all bodies makes us aware that they cannot move themselves, it must be concluded that it is minds which move them. But when we examine our idea of all finite minds, we do not see any *necessary connection* between their will and the motion of any body whatsoever. On the contrary, we see that there is none and that there can be none.”<sup>201</sup>

I would venture that the reason Malebranche failed to apply the argument from necessary connection to intra-corporeal causality is because, as a good Cartesian, he deemed the incapacity for bodies to produce or transfer motion as so well established and manifestly obvious as to make additional arguments pointless. Pursuing the issue in terms of will and mind-body causation, however, is quite useful. Agreeing with La Forge that, if bodies move they must be moved by a mind, he applies the no necessary connection

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<sup>199</sup> *Traité de la nature et de la grace*, OCM V. 66

<sup>200</sup> *Recherche*, 450

<sup>201</sup> *Recherche*, 670; emphasis added.

principle to prove what La Forge had denied (and Cordemoy failed to establish), viz. that this mind that moves bodies cannot possibly be a finite human mind. Rather, there is only one mind that has the power to forge a necessary connection between that which it wills and the effect thereby produced:

[W]hen one thinks about the idea of God, i.e., of an infinitely perfect and consequently all-powerful being, one knows there is such a connection between His will and the motion of all bodies, that it is impossible to conceive that He wills a body to be moved and that this body not be moved. We must therefore say that only His will can move bodies if we wish to state things as we conceive them and not as we sense them.<sup>202</sup>

This argument, while basing itself on the inverse of the ‘establish’d maxim,’ was entirely novel to Malebranche in the long history of occasionalism.<sup>203</sup>

This, then, raises the question of how Malebranche arrived at such a novel argument. It should be noted that Augustine—whom Malebranche was profoundly indebted to—had himself had declared: “what He wills is of necessity going to be”<sup>204</sup> and that God’s will “constitutes the necessity of things.”<sup>205</sup> Yet, Augustine did not intend such a declaration to exclude the necessity of secondary causes,<sup>206</sup> much less deny their

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<sup>202</sup> *Recherche*, 448

<sup>203</sup> Perhaps ‘entirely novel’ is an exaggeration. Malebranche’s argument had been anticipated to a certain degree by al-Razi who, in spite of his avowals of deeply heretical doctrines such as the pre-existence of matter, seems to have flirted with occasionalism. Although there is some dispute as to the actual author, McGinnis quotes al-Razi as asking the Aristotelians: “Why do you deny that God, great and mighty, in Himself is what necessitates [and so makes exist] the powers of all other actions and the natures of things.” (Arabic Impression of *Tabi’a*,” 7) Similarly, al-Ghazali insisted that, if two distinct events are to be necessarily conjoined, they can only be so “as the result of the Decree of God, which preceded their existence. If one follows the other, it is because He has created them in that fashion, not because the connection *in itself* is necessary and indissoluble.” (*Tahafut*, 185; emphasis added) Neither of these, however, drove home the argument in the strict logical sense offered by Malebranche.

<sup>204</sup> *De genesi ad litteram*, vi. 28

<sup>205</sup> *Ibid.*, vi. 26

<sup>206</sup> See *De genesi ad litteram*, vi. 29



existence as such. Was Malebranche's argument an absolutely independent invention then, or might he have had some exposure to the arguments of Autrecourt or al-Ghazali? While Malebranche cites "Biel and Cardinal d'Ailly" instead of Autrecourt and al-Ghazali as progenitors of his own position, the passage he cites from d'Ailly's commentary on the *Libri quattuor sententiarum* of Peter Lombard is the precise point<sup>207</sup> at which d'Ailly presents an almost exact—but uncredited—version of Autrecourt's argument for the logical distinctness of cause and effect and our resultant inability to logically infer from the one to the other.<sup>208</sup> While this reference by Malebranche clearly demonstrates an intellectual inheritance, however polyphyletic, from late-medieval nominalism to Cartesian occasionalism, it also demonstrates that Malebranche had encountered the logico-existential formulation of the 'no necessary connection' argument stemming from Autrecourt and ultimately al-Ghazali. Now, unlike Hume, Malebranche does push this argument to metaphysical conclusions, as is evident in his occasionalist denial of secondary causation, but does so only through his more general critique of 'efficacy' and 'power,' which are rejected on the basis of the *epistemological* 'clarity and distinctness' principle. Yet, like Hume, nowhere does Malebranche advance Autrecourt's *strictly logical* argument against necessary connection, even though he had clearly been exposed to it. As will be recalled from the conclusion of the forgoing chapter, he may have had good reasons for this reticence.

Given the inherent separability of causes and effects of the secondary order, it is impossible that there could be any necessary connection between them; yet, while the

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<sup>207</sup> *Quaestio 1, liber iv*

<sup>208</sup> See William Courtenay, "Covenant and Causality in Pierre d'Ailly," *Speculum* 46 (1971): 113

*liaison necessaire* required for our understanding of causation cannot be justified either experientially or rationally between such finite things, we nonetheless *feel* that such a connection exists, and this “natural judgment” of causation is host to other principles. As Malebranche explains:

The cause of their error is that men never fail to judge that a thing is the cause of a given effect when the two are conjoined... This is why everyone concludes that a moving ball which strikes another is the true and principal cause of the motion it communicates to the other... because it always happens that a ball moves when struck by another... and we do not sensibly perceive what else could be the cause of the movements.<sup>209</sup>

That is to say, Malebranche deems the source of our judgments of causation to be nothing more than the constant conjunction of phenomena.<sup>210</sup> For Malebranche, such a mistaken inference—the judgment of necessary connection and thus causal efficacy in conjoined events—is the source of all of our errors concerning secondary causes; he warns: “you should never judge with regards to things in nature that one is the effect of another just because experience teaches you that one never fails to follow the other; for of all false principles, it is this one that is the most dangerous and the most fecund source of error.”<sup>211</sup>

### *The Epistemic Argument*

Malebranche also advances an elaboration of Geulincx’s epistemic argument against secondary causation (sc. in order for any thing to cause an effect, it must know how to

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<sup>209</sup> *Recherche*, 3.2.3, 224

<sup>210</sup> McCracken, 264

<sup>211</sup> *Méditations chrétiennes*, VI.5, qtd. in McCracken, 264

bring the effect about). While this argument is specifically directed against mind-body causation, it relates directly back to Malebranche's argument against body-body causation, namely that volition and intelligence is required for self-motivated causality—something which bodies manifestly lack. He asks:

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...And we see that men who do not know that they have spirits, nerves, and muscles move their arms, and even move them with more skill and ease than those who know anatomy best.<sup>212</sup>

Malebranche expands on this point in *Eclaircissement XV*, declaring:

I even see clearly that there can be no relation between the volition I have to move my arm and the agitation of the animal spirits, i.e., of certain tiny bodies whose motion and figure I do not know and which choose certain nerve canals from a million others I do not know in order to cause in me the motion I desire through and infinity of movements I do not desire...my will, which is unable to act or will without knowledge, presupposes my ideas and does not produce them.<sup>213</sup>

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<sup>212</sup> *Recherche*, 6.2, 449; cf. *Méditations Chrésiennes*, VI. 11, OC 10:61.

<sup>213</sup> *Recherche*, 669; cf. *Méditations Chrésiennes*, VI. 11, OC 10:62. While Malebranche's argument here clearly depends on the Cartesian commitment to the transparency of the self, it also curiously similar to Leibniz's thesis of the little perceptions, but from the active (and thus transparent) epistemic demands of the will rather than the passive (and thus unconscious) logical entailment of monadic perception. This similarity becomes even more stark in his final argument where he offers a metaphysical objection concerning the virtual infinitude contained in any effect: "Now, in order for the motion that the soul impresses on the spirits in the brain to be communicable to those in the nerves...the soul's volitions must multiply or change proportionately to the almost infinite collisions or impacts that would occur in the particles composing the spirits...But this is inconceivable, unless we allow in the soul an infinite number of volitions for the least movement of the body, because in order to move it, an infinite number of communications of motion must take place." (671) This objection is a perfect analogue to Leibniz's thesis of the little perceptions—just as any passive perception must contain an infinite number of components, so too must any active volition. Yet Leibniz developed two key notions that allowed him to resolve such a paradox: 1) The infinitesimal calculus and particularly the notion of differential summation, by which infinitesimal qualia are capable of being aggregated into a consciously perceived quale. 2) A notion of the unconscious, wherein this aggregation takes pace. Malebranche, though an exact contemporary with Leibniz, never considered the metaphysical ramifications of the calculus, nor did he deviate from the Cartesian principle of the transparency of the self. In this light follows his claim that "since the soul...cannot know [i.e. *consciously*] exactly the size and agitation of an infinite number of particles that collide with each other when the spirits are in the muscles, it [cannot] establish a general law of the communication of motion, nor follow it exactly had it established it." (Ibid.)

While Malebranche's argument here has been harshly criticized by modern commentators,<sup>214</sup> it was common among his fellow Cartesian occasionalists<sup>215</sup> and even quite favorably regarded by David Hume; and the Hume of the *Enquiry* no less, who, by that point, professed nothing but contempt for occasionalism—yet apparently had still not finished mining it for ideas. Hume explains:

We learn from anatomy, that the immediate object of power in voluntary motion, is not the member itself which is moved, but certain muscles, and nerves, and animal spirits...through which the motions is successively propagated, ere it reach the member itself whose motion is the immediate object of volition. Can there be a more certain proof, that the power, by which this whole operation is performed, so far from being directly and fully known by an inward sentiment of consciousness, is, to the last degree mysterious and unintelligible?...But if the original power were felt, it must be known...And *vice versa*, if the effect be not known, the power cannot be known nor felt. How indeed can we be conscious of a power to move our limbs, when we have no such power; but only that to move certain

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<sup>214</sup> See Jolley 1997: "the key principle [behind the argument] seems to have little intuitive plausibility. It appears to rest on a wild generalization from a few cases of causal agency." (xxiv-xxv) Lee attempts to defend Malebranche against criticisms by reformulating his argument, but it seems to me that Lee's reformulation is rather different from what Malebranche intended. (See Lee 2007) I find Malebranche's argument to be at least internally convincing. For example, were one training a novice in how to complete some complex task, say write a computer program, I think it would be readily accepted that he would only be able to do (i.e. *cause*) what he specifically knows how to do. Malebranche's argument lies in the question: Even supposing he is a master programmer, does he know how his will to press the 'C' key causes the muscles in his finger to contract and do so? He clearly does not. Indeed, all he knows is that when he does will as much, the effect (typically) follows. Clearly then, there is something markedly different in this type of efficacy as compared to his efficacy as a programmer. Thus, and given previously discussed epistemological tenants of Cartesianism and Cartesian occasionalism, I find Malebranche's argument to be coherent if not conclusive.

<sup>215</sup> François Lamy repeats the thrust of Malebranche's argument (in 1694), claiming: "It is true (and this is what creates the illusion [sc. of mind-body interaction]) that as soon as the soul wills that the arm should move, the arm is moved. But a sure sign that the soul cannot produce this movement as a true cause is that it does not know exactly what is necessary for its execution. To do this, it is necessary to control the antagonistic muscles to which the arm is attached; for the action of these muscles, it is necessary to release a certain quantity of spirit from the brain. From among a great number of tubes that end at the brain like a common reservoir, it is necessary to chose those that lead to the muscles of the arm that one wants to move, to then make the spirits flow through the tubes, and to give [the muscles] different pulls in the direction of the different agitations that one wants to produce in the arm. Of all those who move their arms with the utmost ease, who among them knows the soul and knows all these things." (*De la connoissance de soi-même*, (Paris: Nicholas Le Clerc, 1701), II. 215-6; trans. by Albondi, "François Lamay, Occasionalism, and the Mind-Body Problem," 626)

animal spirits, which, though they produce at last the motion of our limbs, yet operate in such a manner as is wholly beyond our comprehension?<sup>216</sup>

While these two arguments might look substantially different, Hume is merely appropriating Malebranche's occasionalist reasoning in the way he always does: *by converting it from a positive metaphysical argument against the possibility of causal powers, to a skeptical epistemological argument against the possibility of understanding causal powers.*

### *Malebranche's Critique of Thomistic Concurrentism*

In spite of his status as the premier and most rigorous of the Cartesian occasionalists, Malebranche nonetheless falls into the familiar pitfall of failing to adequately argue against Thomistic concurrentism. Unlike the rest of his cohort, he does explicitly distinguish his views from those of the "theologians," but seems frankly lost as to how to argue *metaphysically* against their causal model.

In *Eclaircissement XV* Malebranche does his best to present a critique of concurrentism, but it is obviously weak and of an essentially social and propaedeutic concern. Malebranche summarizes what he takes to be impetus of concurrentism and conservationism:

The most enlightened, and even the greatest number, of theologians, seeing on the one hand that Sacred Scripture opposed the efficacy of secondary causes and on the other that the impression of the senses, public opinion, and especially the philosophy of Aristotle...in order to accord faith with the philosophy of the pagans and reason with the senses, have been inclined to the view that secondary causes would do nothing unless

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<sup>216</sup> *Enquiry*, VII.1 66-67

God lent them his *cooperation*. But because this immediate cooperation by which God acts with secondary causes involves great difficulties, some philosophers have rejected it, claiming that in order for them to act it is enough that God should conserve them with the *virtue* He gave them in creating them.<sup>217</sup>

Malebranche never explains exactly what the “great difficulties” concurrentism involves are, but instead turns to flogging the defenseless whipping-boy of conservationism.<sup>218</sup>

“As this opinion agrees entirely with prejudice, since God’s operation in secondary causes involves nothing sensible, it is ordinarily received by the common man...[who] imagine that God first created all things, that He gave them all the faculties or qualities necessary for their preservation.”<sup>219</sup> While this view holds sway among the laity and those “who follow their senses and the authority of Aristotle rather than their reason and the authority of the holy books,”<sup>220</sup> Malebranche concedes that “the opinion of the *immediate cooperation* of God with each action of secondary causes seems to agree with passages from Scripture, which often attribute the same effect to God and to creatures.”

In response, Malebranche cites Isaiah 44:22: “This is what the Lord, your protector, says, the one who formed you in the womb: ‘I am the Lord, who made everything, who alone stretched out the sky, who fashioned the earth all by myself.’” The important part of this quote is not the claim of God (even the conservationists accepted that God acted alone in

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<sup>217</sup> *Recherche*, 676-677

<sup>218</sup> Indeed, conservationism was implicitly but directly condemned in 1277, at least insofar as it maintains “That, among the efficient causes, the secondary cause has an action that it did not receive from the first cause.” (*Chartularium universitatis Parisiensis*, I, 544) This condemnation was more than likely directed against the Aristotelian/Averroist thesis that nature operates autonomously with God as only its final cause; however, extending its to conservationism is facile.

<sup>219</sup> *Recherche*, 677

<sup>220</sup> *Recherche*, 677

the moment of creation), but rather Isaiah's claim that, as Malebranche puts it: "only God acts and forms children in their mother's womb."<sup>221</sup>

Acknowledging the weakness of his rebuttal, Malebranche argues that, "even if God's immediate *cooperation* with secondary causes could reconcile the different passages of Sacred Scripture, I do not know if withal it should be received."<sup>222</sup> He then reiterates his two main arguments in favor of occasionalism (sc. those from continual creation and necessary connection) and concludes: "when a body collides with and moves another, I can say that it acts through the cooperation of God, and that this cooperation is not different from its own action."<sup>223</sup> Here Malebranche is, quite uncharacteristically,<sup>224</sup> arguing *ad captandum benevolentiam* in order, as he himself professes, to do "all I can do to reconcile what I think with the view of the theologians."<sup>225</sup> He avers that "almost all theologians" agree with his above description, and do so on the basis of the same concern, viz. that "action qua efficacious action would be... independent [of God]."<sup>226</sup> Malebranche seems here to be trying to beguile his concurrentist opponents—or at least

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<sup>221</sup> *Recherche*, 677. This point had been made previously by Geulincx in an annotation to his *Ethica*: "we should reprehend that crude expression, according to which someone who has begotten offspring is said to have 'made' a child...as the phrase considered in itself sounds like impiety, and ultimately ascribes to some ruffian or other what is proper to God." (2006, 223) Similarly, Augustine held that, in contrast to the generation of Adam from "the slime of the earth," God "makes human beings today in mothers' wombs." (*De genesi ad litteram*, VI.13) Unlike Malebranche, however, he does not unequivocally claim that God is the direct cause of this. Malebranche might have cited further Scriptural support for his position though, such as the mother of the Maccabean martyrs, who tells her children: "I know not how you were formed in my womb: for I neither gave you breath, nor soul, nor life, neither did I frame the limbs of every one of you." (2 Macc. 7:22) On God's causal activity in the womb see also Job 31:15, Psalms 139:13.

<sup>222</sup> *Recherche*, 678

<sup>223</sup> *Recherche*, 678

<sup>224</sup> As a philopolemist, Malebranche was second in his day only to Arnauld.

<sup>225</sup> *Recherche*, 680

<sup>226</sup> *Recherche*, 679

his reader—into occasionalism by claiming that what they understand as the cooperation between agent cause and divine cause, he understands as the occasional connection between occasional cause and divine cause. The Thomistic theologians mistake lies in assuming that these secondary causes that God cooperates with actually do something of their own *metaphysically*: “there is nothing God does not do by the same action as His creature’s—not because creatures have any efficacious action by themselves but because God’s power is, as it were, communicated to them by the natural laws God has established in their favor.”<sup>227</sup> In this remarkable quote, the transformation from an ancient and medieval science based on ‘bottom-up’ powers and dispositions to a modern science based on ‘top-down’ natural laws is apparent.

Regardless, Malebranche is not unaware of the interpretive liberties he is taking by claiming that he and the concurrentist theologians are really on the same page and concedes that they “do not understand it exactly as I have explained it, and that with the possible exceptions of Biel and Cardinal d’Ailly, all those I have read think the efficacy that produces effects comes from the secondary cause as well as the primary.”<sup>228</sup> Thus Malebranche is compelled to offer a final *ethical*—even *political*—argument against concurrentism:

I believe I shall not be found amiss in relinquishing [their] view...and in establishing another that perfectly agrees not only with reason but also with the sanctity of religion and Christian morality...[for] the philosophy that teaches us that the efficacy of secondary causes is a fiction of the mind, that Aristotle’s...*nature* is a chimera, that only God is strong and powerful enough...to give the least motion to matter, this philosophy, I

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<sup>227</sup> *Recherche*, 680

<sup>228</sup> *Recherche*, 680



say, agrees perfectly with religion, the end of which is to join us to God in the closest way.<sup>229</sup>

Earlier in the *Recherche*, Malebranche described acceptance of secondary causes as “The most dangerous error in the philosophy of the ancients,” insofar as it distracts us from our Christian imperative: “*Soli Deo honor et gloria*”.<sup>230</sup>

We should fear only what can do us some evil; this [sc. occasionalist] philosophy therefore sanctions only the fear of God and condemns all others...[Moreover,] we should love only God, for it teaches us that only He is the cause of our happiness. According to [my] philosophy...[i]t is not the sun that illuminates us and gives us movement and life. It does not cover the earth with fruits and flowers and does not provide us with our food. This philosophy teaches us, as does Scripture,<sup>231</sup> that it is *God who provides the rain and regulates the seasons, who gives to our bodies their food and fills our hearts with joy.*<sup>232</sup>

Thus Malebranche concludes: “Following the language of this philosophy, we must not say that *nature* provides us with goods; *we must not say that it is God and nature*. We

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<sup>229</sup> *Recherche*, 680-1

<sup>230</sup> *Recherche*, 446-447; 1 Tim 1:17

<sup>231</sup> Malebranche cites Acts 14:15: “We are proclaiming the good news to you, so that you should turn from these worthless things to the living God, who made the heaven, the earth, the sea, and everything that is in them.”

<sup>232</sup> *Recherche*, 681. Clearly this aspect of occasionalism profoundly exacerbates the problem of evil, as was pointed out by Gassendi. (2.817a; LoLordo 2007, 41) Unsurprisingly, Malebranche was never able to successfully respond to this charge. Nonetheless, the claim that God alone has the power to effect experiences in us leads to an unintentionally humorous aside from him: “Perhaps the drunkards would not love wine so much if they were well aware of what it is, and that the pleasure they find in drinking comes from the Almighty, who commands them to be temperate and whom they unjustly cause to serve their intemperance.” (447-448) Not only is the notion of God as an enabler hysterical, so is Malebranche’s contorted denial of this rather blatant fact—which amounts to the accusation that it is the drunkard who degrades God by forcing him to effect (and thus serve) the opposite of what he commands. That God demands temperance and yet effects such pleasure upon imbibing, or that it is somehow possible for a finite drunken wretch to degrade an infinite omniperfect being are problems Malebranche wisely ignores. As Bayle imagines Zoroaster responding to the optimism of Melissus: “God foresaw the sin of his creature; and I conclude from this that he would have prevented it; for the ideas of order will not allow that an infinitely good and holy cause that can prevent the introduction of moral evil does not stop it, especially when by permitting it he will find himself obliged to pour down pains and torments upon his own work.” (*Dictionnaire*, art. Manichees, rem. D)

must say that it is God alone and speak in this way without equivocation *in order not to deceive the simple.*”<sup>233</sup>

By still speaking of natural agents and effects, concurrentism risks driving the laity, who Malebranche notes are already inclined to conservationism,<sup>234</sup> to materialism or even (as Berkeley likewise warned) idolatry and physiolatry.<sup>235</sup> The reasoning behind this claim hinges on his notorious<sup>236</sup> “leeks and onions” argument: If we did not share this utter dependency upon God, we would be capable of deriving happiness from things other than Him, such as leeks and onions. Malebranche sternly warns: “one should not render sovereign honor to leeks and onions,”<sup>237</sup> and quotes Maimonides’ treatise on idolatry to make his point:

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<sup>233</sup> *Recherche*, 681-2

<sup>234</sup> *Recherche*, 677

<sup>235</sup> For Berkeley, see *Principles*, §94. Also compare Berkeley to Malebranche’s aforementioned attack on the “chimera” of Nature: “Hath Nature no share in the production of natural things, and must they be all ascribed to the immediate and sole operation of God? I answer, if by *Nature* is meant only the visible series of effects or sensations imprinted on our minds, according to certain fixed and general laws, then it is plain that Nature, taken in this sense, cannot produce anything at all. But, if by *Nature* is meant some being distinct from God, as well as from the Laws of Nature, and things perceived by sense, I must confess that word is to me an empty sound without any intelligible meaning annexed to it. Nature, in this acceptation, is a vain *chimera*, introduced by those heathens who had not just notions of the omnipresence and infinite perfection of God. But, it is more unaccountable that it should be received among Christians, professing belief in the Holy Scriptures, which constantly ascribe those effects to the immediate hand of God that heathen philosophers are wont to impute to *Nature*. Fain would we suppose Him at a great distance off, and substitute some blind unthinking deputy in His stead, though (if we may believe Saint Paul) *He be not far from every one of us.*” (*Principles*, §150) See also McCracken 1983, 211-217 and Jolley 1990, 234-238.

<sup>236</sup> Hume pointedly ridicules Malebranche (under the eponym of his *alma mater*) on this point in his *Natural History of Religion* by imaging him in conversation with an ancient Egyptian priest: “How can you worship leeks and onions? we shall suppose a Sorbonnist to say to a priest of Sais. If we worship them, replies the latter; at least, we do not, at the same time, eat them. But what strange objects of adoration are cats and monkeys? says the learned doctor. They are at least as good as the relics or rotten bones of martyrs, answers his no less learned antagonist. Are you not mad, insists the Catholic, to cut one another’s throat about the preference of a cabbage or a cucumber? Yes, says the pagan; I allow it, if you will confess that those are still madder, who fight about the preference among volumes of sophistry, ten thousand of which are not equal in value to one cabbage of cucumber.” (xii. 56-57)

<sup>237</sup> *Recherche*, 447

“In the time of Enos, men fell into strange errors...Because, they said, God created the stars and their heavens to govern the world, placed them in a high place...and uses them to carry out his orders, it is right for us to honor them and pay them our homage and respect. It is the will of our God that we honor these things He has raised up and covered with glory, just as a prince wishes his ministers to be honored in his presence because the honor paid to them reflects on him...After this thought came into their heads, they began to build temples to the stars, make sacrifices to them, speak their encomiums, and even prostrate themselves before them, imagining that they were thereby making themselves pleasing to Him who created them.”<sup>238</sup>

Such sideristic idolatry is a dangerous tendency indeed, particularly given the response to such slights typical of the God of the Old Testament; but surely this cannot be described as a *philosophical* critique of concurrentism.

Perhaps Malebranche should not be overly castigated for this shortcoming as none of the other figures associated with occasionalism ever advanced such a critique. But, the question remains: What would a philosophical critique of concurrentism look like? I offered something of such an argument in Chapter 3 against Aquinas, which can be reiterated here to greater effect against Lee, who, in response to Malebranche, offers a defense of concurrentism by asking “why could not [an effect’s] obtaining be overdetermined? Why could not [the effect] have been caused by both [the agent] and God?”<sup>239</sup> In the case of a *positive overdetermination*, such as in this example, there are really no grounds for objection, for God does indeed *concur* with the activity of the cause.<sup>240</sup> The objection comes—as is customary of miracles—when God resolves not to

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<sup>238</sup> *Recherche*, 683

<sup>239</sup> Lee, 545

<sup>240</sup> It should be noted that, *pace* Lee, most Thomists categorically rejected the possibility of overdetermination. (See Suárez, *DM* 18.1.9)

concur with the activity of the cause, and either withholds his assent or wills for the opposite of the cause's determinate effect to obtain. Lee asserts that:

[T]he basic idea behind overdetermination is fertile enough to suggest that, even in [such a] case, it is not that the creature's efficacy is nonexistent but rather that the creature's power is overpowered by God. So when *A* wills *p* and God brings about not-*p*, it is not the case that *A* was causally inert. Rather the creature's causal powers were overridden by divine causal power.<sup>241</sup>

But overridden *how*? The systems of ancient metaphysics, including the Aristotelian causal ontology underlying Thomistic concurrentism, regard causes as necessitating their effects;<sup>242</sup> and thus simply cannot tolerate such an overriding of established causal interactions. As I have argued throughout, this *negative* consideration was the primary and irreducible impetus of Abrahamic skepticism towards ancient accounts of the metaphysics of causation. The concurrentist response, which sought to synchronize the Aristotelian metaphysic of causality with God's status as a supramundane efficient cause, hinged on Aquinas' and Augustine's innovative distinction between the "natural" and "obediential" potentiality in finite causal agents. Now, as will be recalled, the problem with the notion of "obediential potentiality" is that it effectively renders any notion of "natural potentiality" otiose. This can be seen when Lee argues:

It is fundamental to the concurrentist position that God's causal contribution in bringing about an effect is a necessary component, and thus, unlike overdetermination, the creature's causality is not in itself sufficient to produce the effect. *Both* powers are needed."<sup>243</sup>

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<sup>241</sup> Lee, 546

<sup>242</sup> *DM*, 19.1.14

<sup>243</sup> Lee, 547

The problem with this defense of concurrentism is that the conclusion is simply false. *Both* powers are not needed because Aquinas and his concurrentist followers all conceded—as they were theologically compelled to—that “God has the power to move matter towards form without an intermediary,”<sup>244</sup> and thus may produce immediately any effect that could otherwise be brought about by secondary causes. This concession entails that God’s “causal contribution” is *both necessary and sufficient for the existence of the effect, while the “creature’s causality” is neither*—a point that reveals just how metaphysically supererogative secondary causes are,<sup>245</sup> as well as the extent to which the concurrentist commitment to them is ultimately made *sauver les apparences*.<sup>246</sup>

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<sup>244</sup> *Summa Theologiae*, 1a. 105, 1

<sup>245</sup> This objection to concurrentism was raised by Aquinas himself: “when a thing can be done adequately by one agent, it is superfluous for it to be done by many; in fact, we see that nature does not do with two instruments what it can do with one. So, since the divine power is sufficient to produce natural effects, it is superfluous to use natural powers, too, for the production of the same effects. Or, if the natural power adequately produces the proper effect, it is superfluous for the divine power to act for the same effect.” (*Summa contra gentiles*, 3.70)

<sup>246</sup> Lee argues, on the basis of her foregoing interpretation, that Malebranche effectively abandoned his “no necessary connection” argument for occasionalism due to its inability “to cut any ice against his concurrentist opponents,” and emphasized the argument from continual creation in its stead. (Lee, 548) It is true that the “no necessary connection” is not particularly effective against the concurrentism of Aquinas and his followers, unless one somehow forced them to explain what, exactly, constituted a non-necessary connection. As I argued previously, the various attempts of Averroes and Aquinas in this regard were failures. Regardless, the concurrentists also upheld a continual creation metaphysic that was only slightly distinct from the occasionalist conception, and thus I doubt that Malebranche would have really found that argument any more decisive, but rather would have merely swapped one quibble for another.

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