PETER OF PALUDE AND THE FIERY FURNACE

Abstract. According to most medieval thinkers, whenever something causally acts on another thing, God also acts with it. Durand of St.-Pourçain, an early fourteenth-century Dominican philosopher, disagrees. Instead, he maintains what has come to be called a 'mere conservationist' view, claiming that created causes alone are sufficient to bring about their effects. This paper is about a fourteenth-century objection to mere conservationism, which I will call the *Fiery Furnace objection*, as formulated by Durand's contemporary, Peter of Palude. In short, the Fiery Furnace objection shows that if we test our theories of divine concurrence against a case that involves a specific kind of miracles, then it turns out that mere conservationism is rather problematic. Although Peter of Palude is not usually regarded as an overwhelmingly original thinker, this paper calls attention to one of his more interesting controversies with his contemporary Dominican confriar, while also clarifies how some medieval thinkers understood the broadly speaking Aristotelian conviction that causes and effects must be necessarily related.

Keywords: causation, divine concurrence, medieval

Imagine Norah kindling a fire. She strikes a match, places it on a piece of tinder. The tinder and the logs burst into flames, and a few seconds later the fire is cracking in the fireplace. As you approach it, you can feel its warmth. As you throw your newspaper on it, the fire ignites the pages. Just like always; that's what fire does.

Now also imagine, just as medieval Jewish, Christian, and Muslim philosophers believed, that there is a creator without whom the world would not exist. It's not just that the world would not have come into being, but that it would not exist *right now*. Without this creator, there would be no heat of the fire. Indeed, there would be no fire to bring about the heat, no Norah to start the fire, and also no matches and tinder to start the fire with. If the creator wants Norah, the matches, the tinder, the fire, and the heat to exist, they do exist; if the creator does not want them to exist, they do not. In this case, you might ask: who did really

bring about the fire? Was it Norah, by kindling it? Or was it this creator, by willing it to exist? Or perhaps both?

This cluster of problems is usually called 'the problem of divine concurrence,' which can be regarded as a thought experiment on the assumption that God exists and is the creator and sustainer of the universe.[1] To put the matter more formally, the question is this: if God causes the world to exist, is God also active in every causal operation in it? Is it meaningful to say in this case that the *fire* causes the heat? There are, roughly speaking, three ways to answer these questions. First, you might think that if there were such a God, then the fire indeed would not bring about anything, strictly speaking — and in this case, you would be an *occasionalist*, sharing a view with some medieval Islamic theologians (and later perhaps Malebranche). Second, on the contrary, you may opt to argue that if there were such a God who created such a world as we live in, then this God would not contribute to the causal operations of the created world — and in this case, you would be a *mere conservationist*, sharing a view with only a few medieval thinkers. And third, if you are unsatisfied with either of the previous options, and say that if there were such a God who created such a world as we live in, then both God and things in the world would be causally active in their operations — then you are a *concurrentist*, sharing the "standard" medieval view, that of Thomas Aquinas, John Duns Scotus, William Ockham, and many others.

This paper is about a fourteenth-century objection to mere conservationism, which I will call the *Fiery Furnace objection*. In short, the Fiery Furnace objection shows that if we test our theories of divine concurrence against a case that involves a specific kind of miracles (more about this later), then it turns out that mere conservationism is rather problematic. In section 1, I provide some background to mere conservationism in general, and examine some motivations to endorse the view as it was put forward by the fourteenth-century thinker, Durand of St.-Pourçain (Durand's Dilemma). In section 2, I show how the Fiery Furnace objection was originally formulated by Durand's contemporary, Peter of Palude, examine its premises, and show why they may be regarded as plausible within the medieval framework.

Finally, in section 3, I present Peter's solution to the problem of divine concurrence, and show why it is immune both to the Fiery Furnace objection and to Durand's Dilemma.[2] Although Peter of Palude is not usually regarded as an overwhelmingly original thinker, this paper calls attention to one of his more interesting controversies with his contemporary Dominican confriar, while also clarifies how some medieval thinkers understood the broadly speaking Aristotelian conviction that causes and effects must be necessarily related.

1. Durand's Dilemma

Before getting to the problem of divine concurrence in particular, some more general terminological remarks are in order. Most medieval theories of divine concurrence are formulated in an Aristotelian framework, with its Aristotelian metaphysical assumptions. By 'cause,' unless otherwise noted, I mean an efficient cause, that is, an agent that brings about an effect by a transeunt action (i.e., an action that originates from one thing and results in another). According to Aristotle and most medieval thinkers, causes act in virtue of their *causal powers*, which powers are strongly related to ("flow from") their essence. Thus, fire is the cause of heat in an originally cold object, and the fire brings about this heat in virtue of its causal power (its heat). We need not go into the metaphysical details of this picture now, but it should be kept in mind that in this framework, the causal relation is a relation between objects (and not between events). As will be seen later in more detail, Aristotelian accounts in general also maintain that there is some kind of a necessary connection between causes and effects; the fire can explain the heating of the pot placed on it only because fire always and necessarily heats in appropriate circumstances.[3]

Causes might be divided into partial and total causes; while a partial cause brings about only one part of the effect (such as when a house is built by two builders, one building the walls and the other one the roof), a total cause brings the effect about in its entirety. Causes might be also divided into immediate and mediate causes; although the meaning of 'immediate cause' slightly varies from author to author,[4] in general an immediate cause is

something that does not produce its effect by means of anything else, while a mediate cause does. Thus, fire is an immediate cause of heat in the pot placed next to it, while only a mediate cause of the humidity it brings about in the air by vaporizing the water in the pot. Finally, by 'secondary cause' our authors usually mean any created cause — that is, any cause except God.[5] I will also use the term 'secondary effect' somewhat imprecisely just for the sake of brevity to denote the effects of secondary causes (like the heat of the fire).

Given these preliminary distinctions, the problem of divine concurrence, to which mere conservationism is one possible answer, derives from three claims, which seem to be individually plausible and jointly inconsistent:

(1) Created beings, such as stones, fire, etc., are immediate and total causes of things.
(2) God is the immediate and total cause of every created being.
(3) Things cannot have more than one immediate and total cause.

As was mentioned above, there are three main positions one can take to avoid the seemingly arising inconsistency.[6] On the one end of the spectrum, occasionalism, denying (1) above.[7] On the other end of the spectrum, mere conservationism, denying (2), or at least some version of it.[8] Mere conservationism thus agrees with its alternatives that God created and conserves the world; but denies that God is causally active in the world's operations.[9] And in the middle, concurrentism, the "standard" view at least among medieval philosophers in the West, itself ranging over quite a wide spectrum, according to which both secondary causes and God are immediate causes of the secondary effects (thus denying [3], or at least some version of it).[10]

Mere conservationism, despite its seeming plausibility, was a minority view in the medieval period. Durand of St.-Pourçain (1275–1334), Dominican theologian and philosopher, was probably the most famous medieval mere conservationist,[11] and the only one mentioned by name by many medieval, early modern, and contemporary scholars alike.[12] He works out the view in considerable detail, even though the majority of this discussion is targeting specific

alternative positions (most notably those of Aquinas and Giles of Rome), which I will not consider in detail here.[13]

Durand's motivation to endorse mere conservationism is that he finds both of the alternative positions (occasionalism and concurrentism) unsatisfactory. First, agreeing with most medieval thinkers in the Latin West, he thinks that occasionalism cannot account well for sense experience.[14] According to these thinkers, and arguably Aristotle, we do experience causal actions in the world[15] — for instance, when we throw our newspaper on the fire, and it gets ignited, we do not just see two consecutive but unrelated events, but rather that the fire sets our newspaper into flames.

Second, Durand also thinks that the concurrentist view is untenable; let's call his argument for this claim *Durand's Dilemma*. Durand's Dilemma considers the actions of God and the secondary agent in an instance of natural causation, for example when fire produces heat. According to the concurrentist, when fire produces heat, it is not just the fire that performs the productive action but God as well. But, asks Durand's Dilemma, are God's and the fire's action numerically identical, or are they numerically different? According to Durand's Dilemma, neither of these options is satisfactory, and hence concurrentism is false.

According to the first horn of Durand's Dilemma, God's concurring action would be identical with the fire's action, but this cannot be the case for two reasons. First, an effect of a certain natural kind is a proper effect of that kind because it does not surpass its ability: thus, heat is the proper effect of fire precisely because its production does not surpass the fire's ability. If this is the case, however, then it seems that God's concurring action is superfluous.[16] Second, God and the fire cannot act with numerically the same action also because they do not have numerically the same power. Durand offers some examples where two things cause a third one by the same action: it can either happen when one of them is only a mediate cause, or when they are causing the thing imperfectly (such as when two people are pulling a boat up on a river), or, in the exceptional case of the Father and the Son producing ("spirating") the Holy Spirit, when they have numerically the same power.

As Durand notes, however, we cannot easily imagine any scenarios where both causes are immediate and perfect causes of the effect by the same action, while having different powers — which is precisely how God and the fire are supposed to produce heat if the concurrentist has it right.[17] (This argument calls attention to a problem of concurrentism that has also received some attention today; I will return to this problem in the third section.)

According to the second horn of Durand's Dilemma, God and the fire would act with numerically different actions, but Durand shows that this is not satisfactory either. For whether these actions are simultaneous or successive, one of them would be superfluous. For instance, if the fire produces the heat *before* God produces it, it seems that God does not really contribute anything; if God produces the heat before the fire does, then the same is the case with the fire. And since temporality is only an accidental feature of the story, the same would be true of simultaneous actions.

Thus, Durand's Dilemma is meant to establish that the concurrentist position, especially as understood by some of Durand's contemporaries, is false. And since Durand had already rejected occasionalism, he concludes that God is not immediately active in every action of a creature, but merely conserves these creatures and their powers: God conserves the fire, but apart form this conservation, does nothing when the fire produces heat.

Durand's position might seem plausible: it is theoretically more simple than any version of the concurrentist view, while, unlike occasionalism, preserves genuine causation in nature. Despite this, however, the mere conservationist view remained quite controversial in Durand's time.[18] I turn now to examine why this is the case, based on an objection formulated by Durand's contemporary and confriar, Peter of Palude.

2. The Fiery Furnace

Peter of Palude (c. 1275–1342) was first noticed in the twentieth century precisely because of his connection to Durand of St.-Pourçain. We need not go into the historical details

here,[19] but it is worth noting that his work relies very heavily on Durand, citing him verbatim frequently and at great length. Consequently, Peter's reception has been somewhat controversial.[20] I do not aim to settle this issue here but merely look at one of his arguments against Durand which, I show, may both deserve some attention on its own right, and lead us to a better understanding of the medieval resistance to mere conservationism in general.

The objection, call it the *Fiery Furnace Objection*, is directed against mere conservationism as such. Although it might seem at first somewhat cryptic, it is worth citing in Peter's original formulation[21]:

> In the furnace the young men [were thrown in], the fire was conserved in its being and in its active power, but it did not act, because God did not act with it; therefore, fire with heat is not a sufficient cause of heating, because when it is posited the effect does not follow — and the same will be the case after the day of judgment. If you say that fire is a sufficient cause unless there is an impediment, I ask: in what way was the fire impeded? It was impeded either by the addition of an action or the subtraction of it. Not by addition, because there was nothing added to the fire, since it burned the soldiers and the cloths of the children... and there was also nothing shielding them, such as some coldness.[22]

Thus, the Fiery Furnace objection asks us to consider a test-case when examining theories of divine concurrence. Although the test-case is a special one, it has more general consequences regarding which theory of divine concurrence we should adopt. For according to the objection, not every theory can account well for this test-case, and thus if one wants to maintain that the test-case is at least logically possible, then one has to be careful not to adopt a theory on which it would turn out to be logically contradictory. More precisely, the Fiery Furnace objection seems to argue as follows:

(1) Miracles such as the three young men not burning in the fiery furnace are possible;

(2) If mere conservationism were true, these miracles would not be possible;

∴ Therefore, mere conservationism is false.

But why would one believe that this argument is sound? Although Peter provides relatively little direct justification for the premises, we may gather some more support by looking more closely at the case he considers.

The test-case referred to by the first premise of the Fiery Furnace objection is — not surprisingly — the story of the three young men (Shadrach, Mishach, and Abednego) not burning in Nebuchadnezzar's fiery furnace. The story is reported in the book of Daniel, and is worth quoting in its entirety since it contains a few interesting details that play some part in Peter's argument.

> [Nebuchadnezzar] ordered the furnace heated seven times more than it was usually heated. And he ordered some of the mighty men of his army to bind Shadrach, Meshach, and Abednego, and to cast them into the burning fiery furnace. Then these men were bound in their cloaks,... and they were thrown into the burning fiery furnace. Because the king's order was urgent and the furnace overheated, the flame of the fire killed those men who took up Shadrach, Meshach, and Abednego. And these three men, Shadrach, Meshach, and Abednego, fell bound into the burning fiery furnace.... Then Shadrach, Meshach, and Abednego came out from the fire. And the satraps, the prefects, the governors, and the king's counselors gathered together and saw that the fire had not had any power over the bodies of those men. The hair of their heads was not singed, their cloaks were not harmed, and no smell of fire had come upon them.[23]

There are a few points to note about this story. First, according to the report, there was a natural substance, fire, (per our Aristotelian assumption) having its characteristic causal powers. We also learn that the causal powers of the fire were active and exercised, since the soldiers were burned by it — and so were, according to Peter's reconstruction, all the garments of the three young men except their cloaks. At the same time, however, the fire did

not bring about its characteristic effect on some other patients, namely on the three young men, even though it seems that the three young men were just as well disposed to receive this effect as the other objects present.

Second, it is worth noting that this miracle belongs to a host of others of the same kind, the kind that is usually called miracles *contra naturam*, that is, miracles against nature.[24] In miracles *contra naturam*, "nature retains a disposition contrary to the effect produced by God,"[25] that is, there is an object that keeps its nature with its causal powers, nevertheless God produces something that is the opposite of the usual effect of these same powers. For instance, when Joshua stopped the Jordan river (Josh. 3.), the river did not flow even though it kept its weight as was manifest when it flooded the surrounding lands. Or, in the present example, when the three young men were thrown into Nebuchadnezzar's fire, the fire did not burn them even though it kept its heat. Peter's objection suggests that this is what Durand cannot consistently account for, while he himself can.

Finally, it should be emphasized that the Fiery Furnace objection, as Peter formulates it, does not require that such miracles have ever actually taken place but only that they are at least logically possible. For according to most classical accounts of divine omnipotence, God's power is limited by the law of non-contradiction; hence, if the story of Nebuchadnezzar's fire does involve a logical contradiction, then not even God has the power to bring it about even in principle.[26] Again, Peter intends the story as a hypothetical test-case: if we have a general theory of divine concurrence that would involve that this story is logically impossible, and at the same time we would also like to maintain that the story is *not* logically impossible, then we might need to adjust our general theory. Of course, one might also say that we could just give up the logical possibility of such kind of miracles; it seems, however, that the burden of proof is on the mere conservationist to show the logical impossibility on some independent grounds (i.e., to show that these cases involve some kind of a self-contradiction), and until she does so, Peter's first premise is at least plausible.[27]

But even if we grant that Peter is right about the logical possibility of such miracles, why does he think that Durand cannot account for that possibility? In other words, why should one believe Peter's second premise? Unfortunately, Peter (and most medieval authors who employ the same example) says nothing more. Thus, what follows is a reconstruction of what he *might have* said, had Durand or his followers pressed him more on the issue.

Perhaps what Peter might have said is connected to another important feature of broadly speaking Aristotelian accounts of causation: that causes and their effects are necessarily related.[28] Although Aristotle himself rarely if ever expounds on the necessary connection between causes and effects,[29] it is usually agreed that Aristotelians do require some form of it. For instance, when Al-Ghazali, an eleventh-century Islamic thinker usually associated with occasionalism, argues against Avicennean necessitism (which in turn originates from Aristotle), he titles the discussion as "Refutation of Their Belief in the Impossibility of a Departure from the Natural Course of Events," and shows that "the connection between what are believed to be the cause and the effect is not necessary."[30]

This commitment to necessary connection is even more explicit in some Neo-Aristotelian accounts of causation. A telling example is Edward Madden's classical formulation of it:

> If a man falls into a fiery furnace, is it necessary that he be incinerated? Of course not, since he might get out before being badly burnt, or he might have on an asbestos suit. But say he cannot get out—the door blew shut behind him—and he had on only ordinary clothes. Now is it necessary that he burn to death? It certainly seems so.... *To deny the heat while keeping the other properties plus the nature of fire that helps explain them all is to land oneself in a straightforward self-inconsistency.*[31]

Madden's claim is that *if* it were possible that the fire exercised its causal power and yet no heat was produced in a well-disposed recipient, that would mean that the fire had no nature of fire and was not really fire after all. As he summarizes again, "A liquid that had

a gasoline smell but did not explode when ignited, would not count as gasoline any more, since a host of interrelated concepts and explanations would break down."[32]

Thus, according to this view, the connection between an object and the manifestation of its powers in appropriate circumstances is necessary (this necessity being of the logical sort); without this necessity our scientific explanations and causal explanations in general would not make sense. If the fire is burning, it *must* produce heat, otherwise all scientific explanations involving fire would be uncertain. And indeed, causal powers are explanatory *precisely* because they necessitate their effects. As Madden suggests, without this necessity there would be just no explaining in the causal explanation.[33]

Most medieval Aristotelians also adhered to some form of such powers-necessitism;[34] but as is easy to see from the above, the theistic context presented a special problem. According to the Fiery Furnace objection, mere conservationism cannot avoid this problem, that is, cannot maintain, on the one hand, a necessary connection between cause and effect and also maintain, on the other hand, the logical possibility of *contra naturam* miracles. The reason for this is the mere conservationist's claim that "fire is a sufficient cause of heat," from which it follows that if there is a fire, it is sufficient to bring about the burning.

That the mere conservationist cannot reconcile the necessary connection requirement with the possibility of *contra naturam* miracles can be seen by positing one of the two requirements and arriving at a denial of the other. Thus, first, imagine that the story of Nebuchadnezzar's fiery furnace could possibly be true. Since according to the mere conservationist, fire and some properly disposed patients are the only relevant causes of heat, and since the fire and the properly disposed patients are the same in a normal fire and in the fiery furnace, the only difference between the two is that the former brings about the heat while the latter does not. Other than this, the two cases are identical; both fires are acting by their substantial heating power on properly disposed patients, which is sufficient to ensure that the effect follows except when it does not. If this is the case, however, no necessary connection can be posited.

Second, suppose that causes necessarily bring about their effects; whenever there is fire, there is also heat, just as Madden described above. But Madden's above-quoted example about the fiery furnace is provocative precisely because he claims that in a power-based account of causation, a fiery furnace without burning is *in principle* impossible, and hence not even God could make it the case that the fire in Nebuchadnezzar's fiery furnace did not burn Shadrach, Meshach, and Abednego while still remaining a fire and burning the soldiers. From which it follows that if we grant that causes produce their effects necessarily, we need to deny the logical possibility of miracles *contra naturam* — and perhaps say that the Biblical stories reporting them should be understood metaphorically and not as violating the usual course of nature. Since in this case there is not *really* (not even possibly) a fire without burning the three young men thrown in it, there is nothing the mere conservationist cannot account for.

None of these options were satisfactory for most medieval thinkers, however, who had independent reasons to endorse both Aristotle's notion of causal powers requiring some necessary connection, and the possibility of miracles against nature where this connection seems to have been violated. And as Peter concludes, these considerations should lead one to reject Durand's position.

At this point, however, Durand may object. He may propose a solution, which, in fact, is reflected in Peter's text, right after the above quoted passage: "the angel of the Lord turned the middle of the furnace into something like a wind, a blowing of moisture. . . ."[35] Call this option, a solution proposed on Durand's behalf, the *Mask solution*. According to the Mask solution, since even according to the Aristotelian, a cause fails to produce its effect if there is a mask blocking its action, to save Shadrach, Meshach, and Abednego from burning, it is enough to say that some mask blocked the fire's heat. In other words, even though it was impossible for God to merely *will* efficaciously that the fire did not produce its heat, God could have placed some kind of a shield between the fire and the three young men, behaving just like an asbestos suit in blocking the manifestation of the fire's power.[36]

Although there was no visible asbestos suit on the three young men when they were thrown into the fiery furnace, there is nothing to prevent God from creating an invisible one; thus, while the fire manifested its power and was a sufficient cause of the burning of the soldiers, the invisible asbestos suit protected Shadrach, Meshach, and Abednego from burning (see figure 1). (Obviously, the scenario needs to be a little more complicated in order to account for the burning of cloths and the not burning of cloaks, and to account for blocking the fire that was heated to seven times as usual, but the difference is merely in the complexity and strength of the suits, which should not present intractable problems for divine omnipotence.)

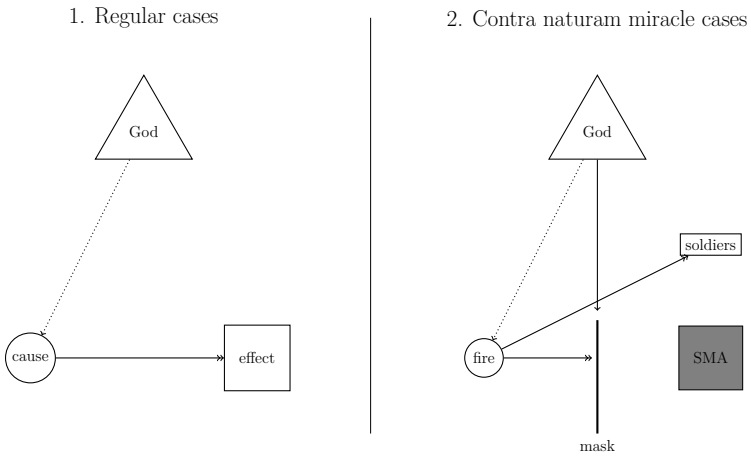

FIGURE 1. Durand and the fiery furnace

Given that Peter himself alludes to such a solution on behalf of the mere conservationist, why does he think that it ultimately fails? Unfortunately Peter does not spell out what he sees problematic, apart from noting that the Bible only refers to such a mask as a metaphor (not a strong argument against the mere conservationist, who might in turn take the whole story of the fiery furnace as a metaphor). But perhaps Peter's response can be strengthened by referring to some aspects of divine omnipotence as it had been understood since the early medieval period. There is a more general and a more specific problem arising from the Mask solution as combined with this understanding.

Concerning the general problem, according to the Mask solution, God counteracts the action of the fire in the fiery furnace, which fire and action God also keeps in existence. But according to many classical theists, including some medieval theologians, this picture is misleading or even contradictory, since blocking a power that God also keeps in existence would mean that God acts with two contrary actions at the same time on the same creature.[37] As Alfred Freddoso has once summarized, "God does not have to counteract His creatures from without in order to make them do His bidding; He does not have to vie with them in order to exercise control over them. Rather, He controls them from within as their sovereign creator and governor" (Freddoso 1991, 575). Thus, as some theists would insist, there is at least a *prima facie* tension between saying that God created the world *ex nihilo*, keeps it in existence, and yet also maintaining that the world has such autonomous powers independent from God that God needs to counteract their exercise. According to these theists, God controls creatures from within; that is, if God wants the fire not to burn, or not to burn certain properly disposed patients, then the fire will not burn them. Peter may think then that the mere conservationist, when employing the Mask solution, cannot maintain that God is such a sovereign governor.

There is also a more specific although not independent problem with the Mask solution. According to most medieval thinkers, God's omnipotence means that he can bring about anything that does not imply a logical contradiction, and consequently, "whatever God can effect by the mediation of an efficient cause, God can also effect by himself immediately."[38] Call this principle the *Principle of Omnipotence*. The Principle of Omnipotence, if true, should also be applicable in the case of the fiery furnace and the Mask solution. That is, if God can block the heat of the fiery furnace from the three young men by the mediation of an asbestos suit, then according to the Principle of Omnipotence, God must also be able to block it without such a mediation, immediately. Which is to say that if the mask solution works, then it is not needed.

This means the only way it is possible for Durand to maintain that God can annihilate the fire's action is to say that such an action has independent ontological status apart from the agent and the patient, which would guarantee that it can be annihilated while the agent and the patient is being kept intact.[39] Durand, however, does not adhere to such a robust view of actions but instead holds that actions are nothing over and above the change of quality in the agent and the patient.[40] Which means that for Durand, God *cannot* immediately bring about that the three young men did not burn in the fire, if he also wants to maintain that causes produce their effects necessarily. As Peter could point out, this means that Durand's view violates the Principle of Omnipotence.[41]

All in all, in the present reconstruction, one might summarize Peter of Palude's Fiery Furnace objection as follows:

(1) Miracles *contra naturam* are possible. [Assumption]

(2) The Principle of Omnipotence is true: if God can do something by the mediation of secondary causes, God can do the same without their mediation. [Assumption]

(3) If mere conservationism is true, then *if* miracles against nature are possible, then God can bring them about by the mediation of a mask but not without their mediation. [Premise; justified by the necessary connection requirement]

(4) If mere conservationism is true, then *if* miracles against nature are possible, then the Principle of Omnipotence is false. [from 2 and 3]

(5) If mere conservationism is true, then either miracles against nature are not possible, or the Principle of Omnipotence is false.

(6) Therefore, mere conservationism is false. [from 1, 2, 5]

Whether one finds this argument convincing will, of course, turn on two things: whether one finds the assumptions plausible, and whether one thinks that there is any alternative to mere conservationism that could avoid the difficulty raised by the Fiery Furnace objection. Peter of Palude does not argue for the possibility of miracles *contra naturam*, that is, that they do provide a test-case that we should pay attention to. Nor does he argue for the

Principle of Omnipotence or for the necessary connection requirement. Indeed, he takes these claims for granted, or as part of the "standard" theistic Aristotelian framework. Now I turn to this standard medieval account of divine concurrence that Peter endorses, and examine how it fares in light of the Fiery Furnace and Durand's Dilemma.

3. Peter of Palude and the Fiery Furnace

Let's go back for a moment to our original question raised at the beginning of this paper. If one thinks that when Norah kindles the fire, both God and Norah are direct and immediate causes of the fire — then one would agree with most medieval thinkers, who are usually called 'concurrentists.' More precisely, concurrentists hold that "God effects everything immediately, and that particular things have proper operations by which they are the proximate causes of things."[42] I will say some more about the details of this view below, that is, *how* it is supposed to be the case that when the fire produces some heat, God also acts with it.

Peter of Palude also adhered to this view, but to present Peter's concurrentist account in all its aspects would require much more than the space here allows. (Indeed, Peter himself does not do the presentation either, as he mostly relies on Aquinas's view.) Thus, what I aim to do is rather just three things. First, I provide some motivation why someone would endorse such a seemingly complicated position — independently of the motivation we already have, namely that one of the alternatives does not work. Second, I examine whether Peter's position fares any better than its alternative with respect to the Fiery Furnace objection. Finally, as I started this paper with Durand's Dilemma against the concurrentist position, I must say something about how Peter might answer it.

Since the aim of Peter's treatise in this part of his *Sentences* commentary seems to be to defend Aquinas's view of divine concurrence, we might see a motivation to endorse a form of concurrentism by looking at one of Aquinas's arguments for it.[43] Looking at this argument will also help to see what kind of concurrentism Aquinas and Peter have in mind.

Aquinas's argument relies on the distinction between principal and instrumental causes, a standard distinction in medieval accounts of causation. For Aquinas (and Aristotle as well), for every cause there is a proportionate effect of which the cause is a proper, principal cause. In cases, however, where the effect is higher (more excellent, more actual) than the cause's ability would enable it to be, the cause must operate as an instrument of a higher principal cause. For instance, a sharp knife is perfectly capable of bringing about the cutting of potatoes, but it cannot on its own bring about the potato salad I am making with it. Or if I write something on a piece of paper, my pen is perfectly capable of bringing about some blue ink marks, but in order to cause a meaningful sentence, it must operate as an instrument of a higher cause — in this case, of me.

Some concurrentists, including Aquinas and Peter, think that we can understand creaturely and divine action in terms of instrumental and principal causes, respectively. Since every effect surpasses the ability of created causes, all created causes require a higher, uncreated cause, of which the secondary causes are mere instruments. Effects surpass the ability of created causes because they are new beings (whether substantial or accidental), where there was no being before, and thus require a cause that can create. But creating or bringing a new being into existence requires an agent that surpasses every species (since its effect surpasses every species as well), and the only agent that meets this requirement is God.[44]

Consequently, Aquinas and Peter of Palude endorse a form of concurrentism according to which secondary causes require God as a principal cause in the same way as the knife requires me when making a potato salad. For instance, when Norah is kindling the fire, God (1) creates Norah (or, more precisely, directly creates the first human beings and then directly contributes to Norah's creation) and her active powers, together with the active powers of the match and all required instruments; (2) maintains Norah and the match in existence during the kindling; (3) applies the lighting power of the match, that is, brings about that these powers become activated; and (4) acts as a principal cause of the fire's

generation, since bringing about the fire, a new substance, exceeds the power of created causes.[45]

Again, there are many details to work out in such an account. Some might doubt whether it leaves enough space for creaturely causation (not to mention free will), and it should also be noted that not everyone spells out divine concurrence in terms of instrumental and principal causes.[46] One might also object by denying the minor premise of the argument for concurrentism, saying namely that the match *is* a sufficient cause of fire; but again, that is precisely what Durand would say, and as was seen above, Durand's account is difficult to maintain due to the Fiery Furnace objection. I show now how Peter's view might escape these difficulties.

According to Peter's view, in every instance of natural causation, God acts *both* on the secondary agent and on the secondary effect: when fire produces some heat, God contributes both to the fire's action (by activating its power), and to the coming to be of the heat (by giving it existence in general).[47] But if this is the case, it is easy to see how Peter might reconcile the necessary connection requirement with *contra naturam* miracle cases, without violating the Principle of Omnipotence.

To avoid the contradiction faced by Durand, Peter can maintain that in the case of the fiery furnace and the three young men, God exercised his concurring action on the fire and on the soldiers, and by this divine concurrence together with the fire's causal power the soldiers got incinerated. At the same time, however, God suspended his concurring action from the three young men, and consequently the three young men could not exercise their passive powers necessary to receive the fire's heat — whence the fire did not affect them, in the same way that it would not have affected a magic ring lacking the passive power to become hot (see figure 2).

What can Peter say about the necessary connection between causes and effects? It seems that Peter's account implies that it is a conditional one: *provided* God's general concurrence, the connection between cause and effect *is* metaphysically necessary. It is not absolutely so,

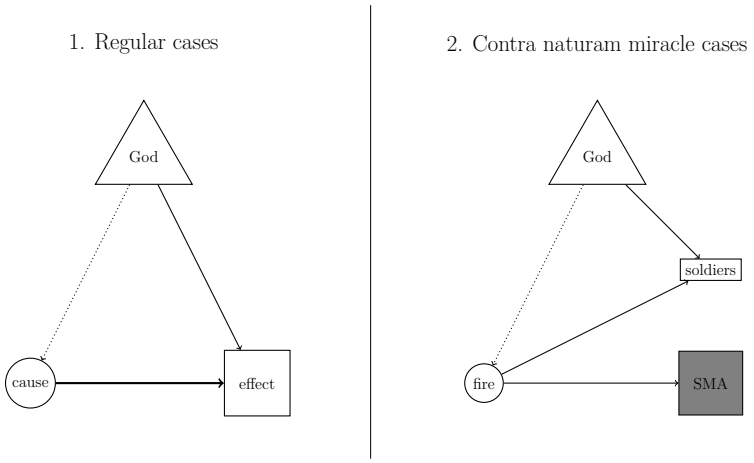

FIGURE 2. Peter and the fiery furnace

since God can bring about, by suspending divine concurrence, that the effect does not occur even though the cause had its causal power and the right circumstances for its exercise. This amounts to saying that if we restrict our investigation to the secondary cause *without* divine concurrence, then there is no necessary connection — in one case, the fire brought about an effect while in the other case it did not, which is just where Durand's view had left the problem. But if we regard the cause as consisting of both the secondary cause *and* God's concurrence, then there is nothing that would rule out a necessary connection, understood in the strict sense, between this and the effect. Whenever the fire is active, *and* God is concurring, then the burning necessarily follows; if one of these is missing, then it does not.

One might object here that this would hardly satisfy Madden's criterion for scientific explanation: since we can have no knowledge of whether God will concur in a certain situation or suspend his concurrence, Peter's view will lead us to no more certainty of scientific predictions than in a case where there is no necessary connection between causes and effects at all. To such a skeptic, however, Peter could point out that the skeptic is misunderstanding the main concern here. In normal cases, we can safely assume, and we should, that God does concur in every natural causal operation. The account is only saying that even if this is true, this concurrence is not logically necessary, and thus can be suspended in some test-case

scenarios. Our scientific explanations will still be explanatorily meaningful; if we lit up some gasoline, then by the molecular structure of the gasoline and by the active power of the fire (God concurring) it will quite certainly explode.[48]

As this shows, Peter's view is in a better position than Durand's with regard to the Fiery Furnace objection. But whether the position is tenable will also depend on whether it can answer Durand's Dilemma as presented toward the beginning of this paper.

Recall that Durand had argued that the concurrentist position is inconsistent or at least problematic with respect to how it spells out the numerical identity of the actions present at an instance of causation. More precisely, according to Durand's Dilemma, either the concurrentist maintains that God and the secondary agent act by the same action, which is impossible since they do not possess the same power; or the concurrentist maintains that their actions numerically differ, in which case one of them is superfluous.

This argument is noteworthy because it is at least controversial what position Aquinas took regarding the numerical identity or difference of the concurring actions. For instance, Alfred Freddoso claims that Aquinas and the concurrentist in general should take the first horn of Durand's Dilemma, that is, maintain that God and the secondary cause act by numerically the same action[49], while Peter claims that they act by "formally different and materially identical" actions.[50] But what can Peter possibly mean by saying this?

To understand Peter's claim and how it is supposed to help to answer Durand's Dilemma, it is worth briefly looking at Aquinas's stance on the question, which Peter is summarizing. Unfortunately, at first sight it seems that Aquinas says different things about the matter in different places. For instance, when responding to an objection in the *Summa*, he notes that "one action does not proceed from two agents of the same order, but nothing prevents that one and the same action proceed from a first and second agent."[51] Nevertheless, when he characterizes instrumental causality in the case of the master acting through a servant, he notes that "the action of the master and of the servant are different in number."[52]

How are we to understand these remarks? How many actions are there in an act of concurrence? Aquinas's response is that it depends on how we count them:

> It should be known that we can divide efficient causes in two ways. One way, based on the effect.... Another way, based on the cause — the principal and the instrumental agent. For the principal agent is the first mover, while the instrumental cause is the moved mover. But a twofold action belongs to the instrument: one that it has from its nature, and the other it has insofar as it is moved by the first agent, just as the fire, which is said to be the instrument of the nutritive power, as is said in the second book of the *De Anima*, by its nature dissolving, consuming, and such effects; but insofar as it is an instrument of the vegetative soul, it generates flesh.[53]

According to this passage, the instrumental cause in a given series has a double action: one that is proper to it by its nature, and the other that it performs merely in virtue of being moved by the principal agent — even if these two actions materially constitute the same process. For instance, when I write on a paper with a pen, the pen has a double action of bringing about colored strokes (its proper effect) and a meaningful sentence (its effect as instrument), even though there is nothing more to the latter than the collection of the former. Consequently, we can count actions in different ways, depending on whether we distinguish them based on their terminus, or based on their principles. Regarding the former, according to the rather common medieval adage, "the action is in the patient " (Cf. Hamesse 1974, 2, 101), and thus, if two actions have the same terminus, they must be the same. Regarding the latter, if we count the actions based on their principles or powers that produced them, then if two actions are produced by numerically different powers, they must be numerically different.

This also applies to Aquinas's and Peter's theory of divine concurrence. Recall that, for Aquinas and Peter, God's concurrence is necessary because created causes require a principal cause to produce their effects in the same way as my pen requires me to produce a sentence.

Just as we might regard the marks on the paper either as colored strokes or as a meaningful sentence, we might similarly regard heat either as an existing accident or as an accident of a certain kind (warmth). And just as the pen brings about the former in virtue of its own nature while bringing about the latter in virtue of being my instrument, the fire similarly brings about the former in virtue of having the nature of fire while bringing about the latter in virtue of being God's instrument. This does not mean that there is some physically separate "accident-as-such" or "warmth-without-existing," just as my pen's double action does not mean that there are some "colored-strokes-as-such" existing separately from my sentence; but it does mean that how we count the actions depends on what descriptions of them we are considering.

In this way, the secondary agent's action *considered as* bringing about some existence is identical with God's action, even though its action *considered as* bringing about something existing *in some way* is not identical with God's action. This interpretation seems to do justice to the passages seen above where Aquinas claimed that the action of instrumental causes are numerically distinct, to the *Summa* passage that seems to suggest the opposite, and to Peter of Palude's interpretation according to whom "God and the creature act with distinct actions formally, even though non materially."[54]

Thus, Peter might say that his view falls between the two horns of Durand's Dilemma, since there is neither strict identity nor strict non-identity between the actions. Of course, whether this solution to Durand's Dilemma is satisfactory will depend on whether one accepts the instrumental causal model it relies on, and the claim that actions can be counted in multiple ways. But, provided the Aristotelian claim that the action is in the patient, the problem is not specific to divine concurrence: it will arise in every case where we have two partial causes acting by different powers.[55]

Conclusion

I examined in this paper an interesting objection against mere conservationism, as it was originally formulated by a fourteenth-cenutry thinker, Peter of Palude. According to the Fiery Furnace objection, we should look at the test-case of miracles against nature when evaluating theories of divine concurrence; in particular, the test-case shows that the thesis that God created the world but is not causally active in every operation of nature is problematic since it cannot maintain that causes and effects are necessarily related yet miracles against nature are possible. Peter's objection relies on several assumptions: that God created the world from nothing, that God is omnipotent in such a way that whatever God can bring about via secondary causes, God can also bring about without them, and that miracles against nature are at least in principle possible. The objection also relies on the Aristotelian claim that the connection between causal powers and their manifestation is in some way necessary. These are of course, quite many assumptions, and if any one of them is rejected, the Fiery Furnace objection fails. Nevertheless, since these assumptions are also quite widely maintained in broadly speaking theistic Aristotelian circles, this argument might provide some motivation to pursue the details of the various concurrentist views further.

Although Peter of Palude is not a particularly well known author even among medievalist scholars,[56] I showed that he gives an interesting case study of medieval reactions against Durand of St.-Pourçain's views, and of why, despite its seeming plausibility, most medieval thinkers did not think that mere conservationism was such a good option, after all. It should be noted, however, that the argument I presented here is not the only one that was put forward against mere conservationism even in the medieval period.[57]

I also argued that Peter of Palude's own account of divine concurrence can avoid the Fiery Furnace objection, and account for *contra naturam* miracles in the Arisototelian framework, even though the necessary connection between these powers and their effects must be understood in a special way to include general divine concurrence. Although most broadly speaking Aristotelian accounts take for granted some form of necessary connection between

cause and effects, and most interpreters today regard it as part of any Aristotelian power-based metaphysics of causation, it is rarely discussed what this necessary connection amounts to, or how strongly it should be taken. As was seen above, if one subscribes to Aquinas's and Peter's theory of divine concurrence, one will say that in normal cases, the passion in the recipient is the result of the agent's action, together with God's concurring action. Provided God's general concurrence, the connection between cause and effect is metaphysically necessary, even though it is not absolutely so, since God can suspend the concurring activity. In other words, if we regard the cause as consisting of both the secondary cause and God's concurrence, then the action of the cause and the passion of the effect can indeed be regarded as different manifestations of the same physical process.

I showed that this version of concurrentism is at least not *prima facie* inconsistent, and is not subject to Durand's Dilemma that was developed against Aquinas's similar position. (Just as before, however, it should be noted that Durand's argument against concurrentism is not the only one ever brought up against the view.[58])

More generally, the debate on divine concurrence provides an interesting example of the medieval understanding of causal powers, and of how this understanding differs from some Neo-Aristotelian ones today. It also shows that although there has been some tendency recently to untangle some parts of medieval philosophy from its theological context, if it can be done at all, it has to be done with great care. Even the precise meaning of such seemingly purely metaphysical concepts as causal powers is partly determined by such purely theological ones as divine omnipotence and miracles. If this context is taken into account, however, the medieval views of causation and causal powers might provide a fruitful source even for some contemporary debates on the same.

Notes

[1]For some general introduction to the problem, see, e.g., Freddoso 1994, and the Introduction in Schmaltz 2008. For the problem in specific medieval authors, see, e.g., Frost 2010; Frost 2014; and Dvořák 2013. For some systematic treatments, see, e.g., Miller 2011; Vallicella 1999; and McCann and Kvanvig 1991.

[2]Although any position regarding the problem of divine concurrence has serious implications concerning divine interaction with voluntary agents (and consequently some implications concerning the possibility of human freedom), in what follows I restrict my treatment to non-voluntary causes. I do so both because the thinkers I consider in this paper focused on natural (non-voluntary) causation, and also because any theory of divine concurrence concerning voluntary agents in particular would require a more general theory concerning created causes in general.

[3]For an overview of some of the metaphysical issues present in such a framework, see Frost 2018.

[4]More precisely, it is customary to distinguish 'immediacty of supposit' and 'immediacy of power,' the former meaning a proximate cause while the latter a cause that does not require the power of any other cause. For Giles of Rome and arguably for Aquinas and Peter of Palude, God is immediate in both of these senses. See Frost 2014 for some analysis of these notions.

[5]The terms 'secondary' and 'primary' are context sensitive (Aquinas would, for instance, say that the motion of the heavenly bodies is also a primary cause of the generation of animals on the earth). Since our issue is the interaction between divine and created agency, primary causes in other contexts will not play a role in what follows.

[6]This does not mean that all of these have been equally well represented, either today or historically, as will be seen below, or that these positions would have been uniform in any sense.

[7]*Pace* some popular beliefs, occasionalism was not originally connected to the mind-body problem but was a result of the Islamic reaction against Aristotelian natural philosophy. For a detailed overview of medieval Arabic occasionalism and its Latin reception, see Perler and Rudolph 2000. I will not consider occasionalism in detail here, for two reasons. First, on the historical side, it should be noted that in the medieval West, occasionalism about natural causation was not endorsed until as late as the fifteenth century or possibly even later (for some reasons and possible exceptions, see Courtenay 1973; and Freddoso 1988). Second, since occasionalism regards God to be the only genuine causal agent, it falls outside of what is usually considered as a power-based view of causation, which is my main concern in this paper.

[8]This is, strictly speaking, not the "end" of the spectrum, which would rather be deism. *Pace* McCann and Kvanvig (McCann and Kvanvig 1991, 587), however, deism seems to be quite rare, and virtually nonexistent before the seventeenth century.

[9]Hence the 'mere' qualifier in its name, although the view has also been called simply 'conservationism' or, more recently, 'weak concurrentism' (Miller 2011).

[10]For some further details of the typology of these views, see Freddoso 1988 and Freddoso 1991. Although some authors have recently argued that mere conservationism and occasionalism are the only options one

might have in solving the problem of divine concurrence (see, e.g., McCann and Kvanvig 1991; and Vallicella 1996), medieval thinkers would strongly disagree.

[11]Although he was not the only one. For instance, Albert the Great mentions the view and notes that by his time it "has largely disappeared from Paris, many moderns regarding it as heretical" (*In Sent.* II, d. 35, sec. 1, a. 1; cited by Freddoso 1991, 555). See also Petrus Johannes Olivi for another example of mere conservationist; his view is examined in detail by Frost 2014. Peter Auriol seems to be another example (see his *In Sent.* I, d. 38), although his views have received very little attention so far.

[12]See, e.g., Suarez 2002, d. 22, q. 1, n. 6; Malebranche 1997, 680; Freddoso 1991; and Freddoso 1994.

[13]His systematic treatment can be found in his *In Sent.* II, q. 1, a. 4; edited in Durand of St.-Pourçain 2012. A rather brief discussion of Durand's view can be found in Stufler 1935. Although the extent of Durand's influence is not entirely clear at the moment (according to Brinzei, Friedman, and Schabel 2014, "Durand's impact on other theologians was immediate, widespread, and long-lived" (295)), he was certainly well known for his critical views of Aquinas's teachings (this was the time when the Dominican order, led by Hervaeus Natalis, was slowly establishing the authority of the Common Doctor). Some, although rather limited aspects of Durand's thought as contrasted with Aquinas's and debated by Hervaeus have been examined in Fumagalli 1969; Iribarren 2005; and most recently in Speer et al. 2014. Further biographical details can be found in Koch 1927.

[14]*In Sent.* II, d. 1, q. 4: "quia hoc tollit a rebus proprias operationes, tollit etiam iudicium sensus, quo experimur res creatas in inuiciem agere, ideo nunc ab omnibus tamquam improbabile refutatur" (Retucci ed., 48). It should be noted that this question can only be found in the first redaction of Durand's *Sentences* commentary; having come under attack, he withdrew it from the later version. Unless otherwise noted, all translations from the Latin are mine.

[15]Notable exceptions are Nicholas of Autrecourt and Gabriel Biel. Ockham's view had been misunderstood for a long time, but as has been well established, he maintains that although we do not have intuitive knowledge (infallible knowledge from experience) about the causal relation, we do have certain and abstractive knowledge of it (see Adams 1979).

[16]*In Sent.* II, d. 1, q. 4: "illam potest habere creatura sine speciali influxu Dei supposita conseruatione sue nature et sue uirtutis actiue, quia actio que non excedit uirtutem speciei agentis sufficienter elicitur a sola uirtute speciei, frustra ergo poneretur aliud immeditum eliciens talem operationem" (Retucci ed., 53). This was, of course, a standard objection against any concurrentist position, with a standard answer. As Peter of Palude will point out, it simply begs the question, since the concurrentist maintains that having a relevant active power is *not* a sufficient condition for being capable of bringing about the effect — among

others, the active power has to be maintained in existence by the first cause, has to be exercised, and (as Aquinas would point out) has to be applied by the first cause to its effect. (For Aquinas, see especially *De potentia*, q. 7, a. 3. For Peter, see *In Sent.* II, d. 1, q. 4.

[17]*In Sent.* II, d. 1, q. 4: "Impossibile est eandem actionem numero esse a duobus uel pluribus agentibus, ita quod a quolibet sit immediate et perfecte, nisi in illis sit eadem uirtus numero; set in Deo et creatura non potest esse eadem uirtus numero" (Retucci ed., 54).

[18]So controversial in fact that Durand simply left out the relevant question from his later version of the *Sentences* commentary; see also Durand of St.-Pourçain 1973, 53–72. In fact, the Parisian condemnation of 1277 already labeled such a position as erroneous (prop. 190 [16]): "Quod prima causa est causa entium remotissima. — Error, si intelligatur cum precisione, scilicet ita: quod non propinquissima" (Tempier 1999, 136).

[19]Many of them can be found in Dunbabin 1991; Peter of Palude 1960; and Peter of Palude 2001, the last one also providing the current *status questionis* of Peter of Palude's commentary on the first book of the *Sentences*.

[20]While according to Dunbabin, "modern readers... often find themselves baffled by the inconclusiveness of the conclusions.... In sum, Pierre's [*Peter of Palude – ZVT*] attempt to expose Durand's weaknesses was like a man trying to trap a rat by throwing a duvet at it" (Dunbabin 1991, 33–34), Cyrill Vollert claims that Peter's work "approaches the best writing of modern authors in clarity and solidity" (Vollert 1947, 259–260).

[21]Similar and similarly cryptic formulations can be found in Peter's contemporary, Hervaeus Natalis, later in Ockham, and much later in Suárez. Indeed, we could call it the "standard medieval objection" against mere conservationism.

[22]Peter of Palude, *In Sent.*, II, d. 1, q. 4: "In camino puerorum conseruabatur ignis in suo esse et in sua uirtute actiua, non tamen agebat, quia Deus non coagebat; ergo ignis cum calore non est sufficiens causa calefaciendi, quia posita non sequitur effectus — et idem erit post diem iudicii. Si dicatur quod ignis est sufficiens causa nisi impediatur, quero: quomodo impediebatur? Aut agendo aut actionem subtrahendo. Non agendo, quia nec igni fuit aliud impressum calorem reprimens, quia combussit caldeos et combussit uincula puerorum, non uestes aut capillos; nec eis fuit aliud impressum, puta frigiditas" (Toth 2016, 83).

[23]Daniel 3:19–27; translation is from the NRSV.

[24]Aquinas distinguishes these from miracles *preter naturam* (beside nature), and from miracles *supra naturam* (above nature). In the former, God produces a form in a matter that nature could also produce, but not in the same way. (For instance, water could be turned into wine by natural causes, but it would involve some other elements and a long process including planting and caring for the vineyard, harvesting

the grapes, fermenting, and so on, none of which took place at the wedding at Cana, where Jesus is reported to have turned water into wine *per saltum* and immediately.) In the latter, God produces a form in a matter that is not naturally apt to receive such a form even though both the form and the matter occur in nature in some different combination. (For instance, in the resurrection of the dead, God produces the form of life in the matter of a corpse; although both the quality of being alive and corpses exist in nature, the latter cannot naturally acquire the former.)

[25]Aquinas, *Quaestiones de potentia*, q. 6, a. 2, ad 3: "Contra naturam esse dicitur, quando in natura remanet contraria dispositio ad effectum quem Deus facit" (Pession ed., 163).

[26]For a classical formulation of such notion of omnipotence, see for instance Aquinas, *Summa theologiae* I, q. 25, a. 3, or Ockham, *Quodlibeta Septem* VI.1.

[27]It is also worth noting that according to Peter, the same is going to happen after the Day of Judgment. I am not going to elaborate on this claim here; for some background, see, e.g., Bynum 1995 and Jeschke 2012.

[28]I am not going to defend the necessary connection requirement but merely aim to show that it is a plausible assumption in an Aristotelian account of causation.

[29]Some short remarks can be found e.g., in *Metaphysics* 1048a 6–8; see also *Physics* 201a9–20.

[30]Al-Ghazali 1963, 185. For a brief history of the "no necessary connection" argument against Aristotle and Aristotelians from Al-Ghazali through Autrecourt and Malebranche to Hume, see Nadler 1996.

[31]Madden 1971, 68, emphasis added. Others (e.g., Mumford and Anjum 2011) maintain that this necessity has to be qualified to hold only when there is no mask present; however, given no mask, the connection is still of metaphysical necessity. Williams 2010 and Ott 2020 also take this necessity – fleshed out in terms of fit – as a defining feature of powers accounts of causation.

[32]Madden 1971, 66. Of course, the emphasis is not on the smell alone here, but on the fact that if we had some gasoline, knowing quite certainly from many experiments that gasoline tends to explode, and our gasoline did not, we would doubt whether it was gasoline in the first place or whether we had a sufficiently adequate notion of the nature of gasoline.

[33]Imagine that you try to explain why a coin ended on tail by referring to the coin flip as its cause. As even a small child could point it out, you did not explain what you ought to have explained — indeed, you would have given the very same explanation if the coin had ended on head instead.

[34]See, for instance, Aquinas, *In Physics*, III.5; *De veritate*, q. 28, a. 8; Ockham, *Reportatio* IV, d. 1, q. 1. Later medieval authors such as Pierre d'Ailly and Gabriel Biel may be exceptions.

[35]Peter of Palude, *In Sent.* II, d. 1, q. 4: "Angelus domini fecit medium fornacis quasi ventum roris flantem" (Toth ed., 83). Cf. also Vulgate, Dan. 3:49–50.

[36]Finks, mimics, and masks have received quite some attention in various recent treatments of dispositions. More examples can be found in Lewis 1997; see also Everett 2009.

[37]For a modern presentation of such an argument, see McCabe 2007.

[38]Ockham, *Ordinatio*, prol., q. 1: "Quidquid potest Deus per causam efficientem mediam, potest per se immediate" (William Ockham 1967, 1:35). Ockham was not unique in endorsing this principle; the 1277 Parisian articles already condemned a proposition according to which "God cannot produce the effect of a secondary cause without the secondary cause itself" (Art. 69: "Quod deus non potest in effectum cause secundarie sine ipsa causa secundaria," Tempier 1999, 100), and almost all medieval authors endorsed some similar formulation.

[39]I owe this point to Susan Brower-Toland.

[40]See, e.g., *In Sent.* I, q. 30, a. 2 (first redaction); a. 3 (second redaction), where Durand argues that action is an extrinsic demonination. I am grateful to Peter Hartman for bringing this reference to my attention.

[41]Someone could say that God might produce a nature that does not act uniformly. I see two reasons for why medieval authors to my knowledge did not consider this option. First, that natures act uniformly (at least for the most part) was a basic principle of Aristotelian metaphysics and natural philosophy; and second, this still would not have solved the case as it will arise after the Day of Judgment.

[42]Aquinas, *In Sent.* II, d. 1, q. 4: "Deus immediate omnia operatur, et quod res singulae proprias operationes habent, per quas causae proximae rerum sunt" (Mandonnet ed., 25).

[43]Although the following is based on Aquinas's *De potentia*, it should be noted that he offers different arguments in different places which lead to slightly different accounts of divine concurrence. I am not going to elaborate on these differences here, but cf. also his *Sentences* commentary, II, d.1, q. 4 and the parallel places in both *Summae*.

[44]Cf. Aquinas, *De potentia*, q. 7, a. 3. Aquinas of course also thinks that sublunar agents presuppose the concurrence of the heavenly spheres. I do think this aspect can be left out from his account without seriously altering it, since he also thinks that the heavenly spheres cannot concur — and cannot exist — without further divine concurrence either.

[45]Although most of Aquinas's examples consider substantial changes, the same account applies in cases of accidental change as well.

[46]In fact, even in Aquinas studies, the instrumental/principal cause model of divine concurrence has remained relatively unnoticed — with the exception of Dvořák 2013, who considers it in relation to human

freedom. For other interpretations of Aquinas, see, e.g., Freddoso 1994; and Freddoso 1991. Scotus explicitly argues against such a view, and it is not endorsed by Ockham either.

[47]In the later, fifteenth-century debates, typically Jesuits argued that divine concurrence only affects the secondary effect and not the agent. But this is clearly not Aquinas's nor Peter's position. For a presentation of some concerns about the view, see Suárez, *Disputationes Metaphysicae*, disp. 22.

[48]It seems that the *demonstrability* of the causal relation and the general course of nature only started to play a role after Ockham. Based on these consideration (and citing the example of the fiery furnace), for instance Pierre d'Ailly gives up the necessary connection requirement. See especially his *Sentences* commentary I, q. 3, a. 3.

[49]Freddoso 1994, 151–156; his interpretation is probably based on Suarez (*Disputationes Metaphysicae*, disp. 22.

[50]*In Sent.* II, d. 1, q. 4. For some history of the later medieval and early modern debates on this question, with some reference to later Thomists, see Des Chene 1996, 319–324.

[51]*ST* I, q. 105, a. 5: "Una actio non procedit a duobus agentibus unius ordinis, sed nihil prohibet quin una et eadem actio procedat a primo et secundo agente" (Leonine ed., 5:476). Suarez's interpretation is based primarily on this passage, and apparently so is Freddoso's.

[52]*In Sent.* II, d. 40, q. 4, a. 1, ad 4: "Unde alia numero est actio domini et servi" (Mandonnet ed., 1021).

[53]*In Sent.* IV, d. 1, q. 1, a. 4: "Ad cujus evidentiam sciendum est, quod causa efficiens dupliciter potest dividi. Uno modo ex parte effectus; scilicet in disponentem, quae causat dispositionem ad formam ultimam; et perficientem, quae inducit ultimam perfectionem. Alio modo ex parte ipsius causae in agens principale, et instrumentale. Agens enim principale est est primum movens, agens autem instrumentale est movens motum. Instrumento autem competit duplex actio: una quam habet ex propria natura, alia quam habet prout est motum a primo agente; sicut calor ignis, qui est instrumentum virtutis nutritivae, ut dicitur in 2 de anima, ex natura propria habet dissolvere, et consumere, et hujusmodi effectus: sed inquantum est instrumentum animae vegetabilis, generat carnem" (Moos ed., 4:32).

[54]*In Sent.* II, d. 1, q. 4: "[Deus agit] per actionem distinctam formaliter, licet non materialiter" (Toth ed., 90).

[55]For an analysis of a similar notion of identity without sameness, see Frost 2018; and also Löwe 2018.

[56]He is somewhat better known for his work on canon law; see Dunbabin 1991.

[57]Another important example can be found in Scotus's argument against his Franciscan predecessor Johannes Petrus Olivi. Scotus takes an entirely different route, by arguing that if mere conservationism is true,

divine foreknowledge of contingent events cannot be saved. For his arguments, see his *Lectura*, d. 37, q. 4 and *Ordinatio* II, dd. 34–37, qq. 1–5.

[58]Petrus Johannes Olivi's argument starts from the notion of sinful action; cf. footnote 11 above.