

# THE POWER OF GOD AND MIRACLES

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**Abstract.** In this paper we explicate the notion of a miracle and highlight a suitable ontological framework for it. Our proposal draws on insights from Aquinas's discussion of miracles and from the modern ontology of powers. We argue that each substance possesses a characteristic set of natural powers and dispositions which are operative or become manifest in the right circumstances. In a miracle divine intervention activates the fundamental disposition inherent in each creature to be responsive to God's call. Thus, a miracle brings something about which a substance's set of natural powers and dispositions could not bring about by itself.

## INTRODUCTION

In Quentin Tarantino's cult movie *Pulp Fiction* an alleged miracle plays a central role: Vincent and Jules, two hitmen employed by crime boss Marcellus Wallace, are ordered to retrieve a stolen briefcase from a group of drug dealers. The hitmen arrive at their dealers' apartment and execute two of them but fail to notice that a third person is hiding in the kitchen. Suddenly this person jumps out and shoots at Jules and Vincent from close range. Miraculously, neither Jules nor Vincent receives a hit; both remain unhurt, even though the bullets hit the wall behind them. Here is the central dialogue about this event:

Vincent: [...] Lighten up a little. You been sittin' there all quiet.

Jules: I just been sittin' here thinkin'.

Vincent: About what?

Jules: The miracle we witnessed.

Vincent: The miracle you witnessed. I witnessed a freak occurrence.

Jules: Do you know that a miracle is?

Vincent: An act of God.

Jules: What's an act of God?

Vincent: I guess it's when God makes the impossible possible. And I'm sorry Jules, but I don't think what happened this morning qualifies.

Vincent: [...] You're judging this thing the wrong way. [...] You don't judge s\*\*\* like this based on merit. [...] What is significant is I felt God's touch, God got involved.

Vincent: But why?

Jules: That's what's f\*\*\*in' wit' me! I don't know why. But I can't go back to sleep.

In this short dialogue Vincent provides a preliminary definition of a miracle: It is when God makes the impossible possible. In this paper we aim at explicating this notion. We do so by contrasting it with Hume's famous definition of a miracle and by specifying a suitable ontological context of "making the impossible possible". Finally, we address some worries which might arise from this account.

#### THE HUMEAN CONCEPT OF A MIRACLE

In *An Enquiry Concerning Human Understanding* David Hume states:

A miracle is a violation of the laws of nature; and as a firm and unalterable experience has established these laws, the proof against a miracle, from the very nature of the fact, is as entire as any argument from experience can possibly be imagined.<sup>1</sup>

Without analyzing Hume's argument against miracles in detail, it is safe to say that it depends on the assumption that the existence of a supposed law of nature is supported by our experience and that the latter receives the highest degree of rational assurance. The idea is that the observation of events of type X being followed by events of type Y justifies the conclusion that there is a law of nature stating that all Y-like events are preceded always and everywhere by X-like events. Laws of nature are exceptionless regularities. Thus, if we notice an event of type X, we have the highest degree of rational assurance that the next event will be of type Y. As Hume puts it, we have "a firm and unalterable experience" according to which Y follows on from X.

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<sup>1</sup> Hume (1999), section x, § 12.

However, it is easy to imagine that our observations were mistaken. Maybe we took it that all X-like events are followed by Y-like events but in fact some X-like events were followed by Z-like events which are very similar to Y-like events and therefore we didn't distinguish accordingly, thus rendering our conclusion false. Or we rightly observed that so far all X-like events are followed by Y-like events but this past observation does not guarantee that the course of nature remains the same in the near or remote future. In other words, the assumption that it is rational to assign the maximal degree of assurance to the existence of a law of nature is hardly convincing. Yet to substantiate his view, Hume would have to show that it is always less rational to believe that an event *e* is an event not subsumable under a law of nature than to believe either (i) that *e* did not occur, or (ii) that the occurrence of *e* is at the end consistent with the law of nature, or (iii) that the alleged law of nature is not a law after all.

Among others, philosopher of science Nancy Cartwright argues that the Humean conception of a natural law as exceptionless and universally true should at best be considered an idealization of and abstraction from natural events which we are able to examine under highly specific and artificial laboratory conditions.<sup>2</sup>

If the best places to look for Humean natural laws are highly artificial lab conditions where potential interfering factors can be prevented, then it appears reasonable to be careful to apply Hume's formulation to real world instances. It would be less contentious if Hume had said that our observation that all X-like events are followed by Y-like events gives us a high degree of rational assurance that this particular instance of X's occurrence will be followed by an instance of Y's occurrence. It is reasonable to expect this course of nature, but a possible alternative course – however minimal its probability – shouldn't be excluded either. The difference between ascribing the maximal degree of rational assurance and a merely high one to a general statement taken for a law of nature is not as small as it might first appear: It separates a highly unconvincing claim with a not particularly controversial one.

Consider the case of an alleged miracle: The Humean notion of a natural law does not make miracles merely highly improbable (an assumption which easily can be accepted) – but utterly impossible as the above options (i)-(iii) show. The Humean notion of a miracle as

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<sup>2</sup> Cartwright (1999), 2-3.

a violation of a law of nature renders a miracle logically impossible, for by definition laws of nature cannot be violated. In addition, miracles appear on this view to be not only logically but also naturally impossible. The reason is simply this: If a miracle is a violation of a law of nature and laws of nature tell us which events are naturally possible, then a miracle is tantamount to a naturally impossible event.

A proponent of a Humean account might try to avoid the worrisome collapse of logical and natural possibility with the help of possible worlds. He could argue as follows: A naturally impossible event can be distinguished from a logically impossible by being impossible only in those worlds with the same natural laws as ours. In possible worlds with other natural laws, an event which is naturally impossible in our world may be naturally possible. Thus, the distinction between logical and natural possibility can be maintained by specifying the set of possible worlds we are referring to. Though this proposal is able to catch the meaning of “naturally impossible” in some worlds in contrast to others, it doesn’t capture what most people traditionally think of as a miracle, that is, a logically possible but naturally impossible event caused by God.<sup>3</sup> For a translation into possible-world jargon says that there is a type of event which cannot happen in our world (or in a set of possible worlds with similar laws of nature) but which could well happen in a world with very different natural laws. Imagining that a miracle happened, however, does not mean imagining an alternative world with alternative laws; it means distinguishing between the realm of the logically possible and the realm of the naturally impossible and to imagine that a logically possible but naturally impossible event can actually occur in *our* world. There are several reasons for preferring this notion of miracle to a Humean one:

First, our preferred notion is conceptually broader because a miracle is an event beyond the reach of any natural laws. It is divinely caused and not resulting from a comparison between the effects possible because of the natural laws in our world and those possible because of any possible natural laws in any other possible world.

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<sup>3</sup> A less demanding meaning of a miracle is that an event is caused by God – irrespective of whether it is naturally impossible or possible. In ScG 101 Thomas Aquinas distinguishes between logically possible but naturally impossible and logically and naturally possible events caused by God. The latter is a miracle in a weaker sense than the former, but it is still a miracle because it is caused by God and not by a natural cause. Such account is also proposed in Mumford (2000), 280, where a miracle is defined as “natural events or facts which have a supernatural cause”.

Second, our preferred notion captures the traditional meaning of a miracle as divinely caused and no sophisticated naturalistic re-interpretation is necessary. Avoiding such a re-interpretation suggests also that the traditional notion is neither flawed nor in need of replacement.<sup>4</sup>

Third, the occurrence of a miracle requires that an alleged Humean natural law be abandoned even though it would still be applicable to all other similar instances. If Jules and Vincent did indeed experience a miracle, then a Humean would have to abandon a law like “If someone fires live ammunition at a big animal at very close range, then this animal will be at least severely injured”, even though this law might still work perfectly well for all other instances where someone aims at an animal with a firearm at close range. Wouldn’t it be easier to acknowledge a miracle as an exception from a suitable natural law instead of jettisoning the law altogether? For how should a general law be formulated so as to encompass a singular divine intervention at a particular moment in history? Yet with no general law, a Humean is left empty-handed.

These considerations provide reasons to prefer a notion of natural law which allows for exceptions to general regularities for if there should be miracles then the Humean has no proper resources to integrate them into his or her account. In the next section we provide an account of natural laws along these lines – the normative account of natural law.<sup>5</sup>

#### LAWS OF NATURE, DISPOSITIONS, AND MIRACLES

According to E. J. Lowe natural laws have important structural parallels with moral or legal laws. Normative terms suggest that something should (or shouldn’t) be the case: If the state legislates payment of one’s taxes, then I should pay my taxes; if moral goodness requires me to help those in need, then I should help those in need; if it is forbidden to smoke in a public area, then I shouldn’t smoke there. Similarly, a natural law states how an individual  $x$  of the substantial kind  $K$  is disposed to exhibit a range of characteristic dispositions under given circumstances, that is,

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<sup>4</sup> See, for instance, Lowe’s harsh evaluation of the Humean proposal in his (1987), 272: “The [Humean] proposal is therefore an insult to the intelligence of those who believe that they *can* imagine a miracle to have occurred, implying as it does that they are simply confused.”

<sup>5</sup> For a detailed discussion see the work of Lowe (1987), Mumford (1998a), (2000) and (2001) to which we orient ourselves.

how this individual should react given these circumstances. When we say, for instance, that a particular chemical  $x$  is explosive, we are saying that  $x$  possesses specific dispositions because  $x$  belongs to a certain kind  $K$ , so that a natural law expresses what kind of behavior is expected from  $x$  as a typical individual belonging to  $K$  under specific circumstances.<sup>6</sup> That is, a law of nature refers to the dispositions of “normal” individuals of some kind  $K$  to behave under specific circumstances. It does not state how an individual of a certain kind will *necessarily* act or react; rather, it tells us only what behavior or reaction should be expected from an individual of this kind. Accordingly, examples of natural laws like “Pure water reaches its maximum density at 4 °C” or “Polar bears have white coats” can be true even though for some reason not all instances of pure water reach their maximum density at 4 °C, or if some polar bear is born with a brown coat due to particular circumstances. Thus, a crucial advantage of a normative account of a natural law, as opposed to a regularity view, is that the former can allow for exceptions. The reason is that a law of nature, on this view, indicates a specific standard from which deviations are possible.<sup>7</sup>

It is important to note at this point that a normative account can distinguish between exceptions from the norm, on the one hand, and the deviation of normal members from their kind, on the other. Take for instance a polar bear with a brown coat. Assuming that all normal polar bears have white coats, this deviation from the standard could be due to a genetic abnormality affecting this particular polar bear. Such a case does not falsify the general law that polar bears tend to have white coats. There is only one situation in which the discovery of an exception cannot peacefully co-exist with a natural law – when the exception represents a norm of its own. Imagine that scientists discover that, in a closed-off Arctic coastal strip, an entire group of polar bears is disposed to be born brown-coated. In this case, the general law “Polar bears have white coats” would be falsified, and a new law to the effect that a certain sub-kind of polar bears have brown coats would have to be added. Indeed, if a polar bear of the brown-coated variety were to grow a white coat, then this

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<sup>6</sup> Lowe (2006), 8.4.-8.6.

<sup>7</sup> Lowe (1980), 257, writes: “As I see it, the most that a law like ‘Ravens are black’ purports to tell us concerning individuals is what we should expect any normal individual raven be like [...] Such a law is ‘normative’ or regulative in force with respect to individuals, and it is precisely in this that its ‘nomic’ character resides.”

would amount to an exception from the newly discovered brown-coated law. In short, natural laws can peacefully co-exist with exceptions as long as these exceptions do not constitute a normative value of its own.

One might worry about a normative account of natural laws on the grounds that it puts too much normativity into the natural world. The worry derives from the intuition that normativity is not simply “out there”. Analyzing the natural world reveals substances, properties, events, relations and regularities among them, and these are descriptive facts, not normative ones. One might add that it is reasonable to presume that norms are instead the result of a specific norm-giving process as the issuing a law makes apparent. Without a specific legislative process a legal law cannot come into force.<sup>8</sup>

How might we set this worry aside? One way is to argue that natural laws are a species of normative laws, because they are given by God. Within a theistic framework, such a view is neither bold nor particularly controversial. However, it is hard to swallow for someone who wants to remain neutral regarding the existence of God or who for other reasons would shrink from making natural laws depend on a supernatural lawmaker.<sup>9</sup>

Arguably the easiest way to meet this concern is to ground the normative character of natural laws in a dispositional understanding of reality.<sup>10</sup> Recall that Lowe’s normative account says that a natural law involves both a dispositional predication and a substantial-kind term; that is, it states the dispositions that are characteristic of a specific substantial kind. On this view, a given instance of predication asserts that an individual object of a particular kind has actualized its characteristic dispositions. “Polar bears are white” means that members of the substantial kind “polar bear” tend to be white. “This polar bear is white”, instead, means that an instance of the substantial kind “polar bear” has actualized the typical disposition of being white. Assuming that dispositions are real properties in the world, we can argue that the

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<sup>8</sup> A similar account might apply to moral norms..

<sup>9</sup> See, for instance, Mumford (1998a): The notion of a law of nature as a prescription has obvious connections with the possible existence of a supernatural being that is the lawmaker.

<sup>10</sup> For a long time dispositions were kept out of most ontologies, but in recent decades they have made an astonishing comeback. See, for instance, Mumford (1998b), Kistler and Gnassounou (2007), Handfield (2009), and Marmodoro (2010), among many other publications.

normative character of natural laws indicates which dispositions reside in a specific substantial kind.

Take, for instance, a probabilistic law describing an individual's behavior, say a chemical *c* with a 0.5 probability of exploding under a type of circumstances *x*. The probabilistic law describes *c*'s tendency to react under *x*-type circumstances, not the way in which *c*'s instances have actually reacted in the world history under circumstances of type *x*. The reason is that dispositions need not be manifested. It might even be that there is no single instance of *c*'s actually exploding; even so, the law describing *c*'s 0.5 probability of exploding under *x*-type circumstances will remain true as long as it is indeed *c*'s disposition to explode with 0.5 probability under circumstances of type *x*.

The advantage of a dispositionalist understanding of natural laws is also apparent when we compare two identical world histories. The regularity theory regards natural laws as supervening on those histories. Two world histories containing the same actualized events have the same laws of nature because actualized events are the only ontological resources for construing such laws. Within an ontology that accepts dispositions, by contrast, one might argue that these two world histories, although identical in their actual unfolding, are not identical *simpliciter* because the worlds might differ with regard to unrealized laws, on account of dispositions which have not yet been manifested.<sup>11</sup>

Let us take stock: We argued that there are good reasons to construe a law of nature as a description of the dispositions or powers which a thing has in virtue of being an instance of a determinate substantial kind. A law of nature tells us, so to speak, how a normal individual of a certain substantial kind typically behaves or interacts because of its the dispositions and causal powers. Talk of a thing's "normal behavior" does not presuppose any prescriptive rules, but merely a dispositionalist ontology. A law of nature is a norm which indicates the dispositional character or range of powers residing in individuals belonging to the kind in question. Exceptions to the norm are surprising but not excluded because they can simply be thought of as the manifestation of other, less common, dispositions.

How does this view relate to miracles? We propose that, in a miracle, God activates the under normal circumstances hidden dispositional setup of a substance, so as to make it the case, for instance, that bullets

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<sup>11</sup> Mumford (1998a), 93.



cause no damage to an organic body. Consider Daniel 3: 27, which says that “the fire had no power” over the bodies of the three young men in the fire. This formulation captures the essence of the miracle: The fire had no power over the bodies because in this particular situation an additional power of the body was activated by divine intervention. Consequently, the fire’s characteristic power to cause great harm in a living body remains unmanifested. Due to divine power the mutual exercise of the causal powers of the substances involved is affected, that is, the power of fire and of living bodies.

In such a situation the laws of nature remain valid; but, since they supervene on the dispositions of the substances involved, they are not manifested. God’s additional intervening power alters the original subvenient base of the laws of nature. Divine (and also non-divine) intervention is no violation of the laws of nature because these laws express the manifestation of dispositions under specific circumstances. The addition of a new power to the mix, however, unsurprisingly changes the outcome from what we would have expected.

In his discussion in the *Summa Contra Gentiles* of the possibility of God’s acting beyond (*preater*) the natural order, Aquinas elaborates this view. For him, a miracle would violate the natural order (*ordo naturalis*) only if natural causes were to produce their effects necessarily. This is not the case, however, because the intrinsic dispositions of things manifest their characteristic effects with a particular probability between 0 and 1. There is a certain inclination of a thing to “do more this than that”<sup>12</sup> which establishes regularity in nature but not necessity.<sup>13</sup> He says:

Now, if someone says that, since God did implant this order in things, the production in things of an effect independently of its proper causes, and apart from the order established by Him, could not be done without a change in this order, this objection can be refuted by the very nature

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<sup>12</sup> See ST Ia IIae q1, a2: For if an agent were not oriented toward some effect, then it would not do this more than that.

<sup>13</sup> For Aquinas, the best available explanation for the regular behavior of entities requires the positing of (active and passive) powers and inclinations. The existence of powers in a thing grounds facts about the kind of effects which that thing can cause. Reference to the thing’s inclination explains the intrinsic feature disposing it to cause some forms of effect more than others. This view has structural parallels to recent debates in the metaphysics of causal powers. For instance, Molnar (2006, chap. 3) discusses the physical intentionality of powers and Mumford & Anjum (2011, chap. 3) think of causes as tending toward an effect of a certain kind.

of things. For the order imposed on things by God is based on what usually occurs, in most cases, in things, but not on what is always so. In fact, many natural causes produce their effects in the same way, but not always.<sup>14</sup>

In the light of such a view, any talk of “breaking the natural order” or “violating the laws of nature” is misleading, since the modal force of necessity is not present in nature.

Aquinas goes on to mention various conditions that are responsible for the production of an effect which deviates from the *ordo naturalis*. One such condition is that the agent has greater strength than the patient. Aquinas gives the example of the tidal ebb and flow. Here, a celestial “higher” body acts upon a natural “lower” one. The natural inclination of water to move toward the center is in this way overcome by the more powerful inclination of the celestial body to attract other bodies. This interaction between the two bodies is not “violent” (*non violentus*) but according to their respective natures.<sup>15</sup> Analogously, God – who has maximal strength and is the highest power – can freely act upon any creature without thereby acting contrary to that thing’s natural powers.

#### DIVINE POWERS AND MIRACLES

The view presented so far is widely in accordance with dispositionalism or a metaphysics of powers. Along with modern dispositionalists, Aquinas holds that causation consists in the manifestation of a thing’s powers. If supernatural causes are added to this picture of powerful particulars, then miracles become real possibilities.<sup>16</sup>

Embracing a metaphysics of powerful particulars, however, does not suffice to account for miracles as traditionally understood. If causation is analyzed exclusively in terms of a combination of powers, then the causal effect would be the result of a set of powers exercised at specific levels of intensity. The effect will occur when the powers taken together reach a specific threshold required for a specific effect. However, on this picture of aggregating powers, there is no qualitatively different role for a supernatural cause. It would be just one additional power in the set of

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<sup>14</sup> ScG. III, 99, n. 9.

<sup>15</sup> ScG. III, 100, n. 4.

<sup>16</sup> It is a matter of dispute whether a supernatural cause is personal. At least *prima facie* nothing speaks against the notion of an a-personal supernatural cause.

already existing natural powerful particulars acting upon each other. The specific causal role of the supernatural power would be to bring about (or to obstruct) a manifestation of a disposition had by that particular where that disposition is only realized (or obstructed) in circumstances which the supernatural power brings about.

At this point an immediate problem lurks: If the supernatural power is all-powerful, then it is hard to see how it could interact with natural powers at all because nothing could interfere with its causal agency. The consequence would be that all possible effects of natural powers to produce other effects than those the supernatural power causes would be completely neutralized. In order to avoid this consequence, we must assume that the supernatural power is not just an a-rational powerful particular with maximal strength but an entity that is able to determine and regulate its powers by will. Such an entity is a rational and free agent and as such fundamentally different from a causal power.

Causal-dispositionalist metaphysics tends to underappreciate this crucial difference between natural and rational powers. Take, for instance, the account recently proposed by Mumford & Anjum.<sup>17</sup> They argue that substances, in virtue of their causal powers, have a tendency or propensity towards a “preferred” outcome which is neither contingent nor necessitated but is rather a *sui generis* modality falling somewhere in between. The idea is that, in the space between contingency and necessity, causation has ample opportunity to operate. This is as true of natural substances as it is of agents empowered with free will. In both cases, any alternative possibilities there may be can be attributed to the kind of substance at issue. The reason is that a “preferred” outcome is not guaranteed but merely more or less likely to happen. Whether it does happen depends on the substance’s causal set-up and on any causal interferers that may interact with it. Yet there is something that such an account doesn’t seem to grasp. This is that a being endowed with free will is fundamentally different from other beings that lack these powers. Thus, it is likely that two different senses of alternative possibilities” are invoked when we attribute such possibilities to free agents, on the one hand, and to natural substances, on the other. Natural substances tend towards one effect only, as Aristotle noted in his *Metaphysics*. A hot thing is only capable of heating other (cooler) things, and if this “preferred” outcome is not manifested, then it is not because of the hot thing itself

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<sup>17</sup> Mumford & Anjum 2015.

but because of other interfering factors, say cold water or an icy wind, which inhibited the manifestation of the hot thing's power of heating. Rational powers, on the contrary, are "capable of opposite effects"<sup>18</sup> because a rational agent can possess a number of different reasons and accordingly a plurality of different options. Alternative possibilities are inherent in rational powers but external to natural ones; alternative possibilities are a distinctive feature of the structure of rational powers, whereas they only come into play in natural powers in the form of external interfering causal factors.

Properly understood, therefore, a miracle is not merely an effect of a cause that eludes the entire system of natural laws, but one which results from a cause that is essentially agential in character. A maximally strong power that is unable to control its own power-manifestations is ultimately unable to maintain entities with weaker powers in their existence because the maximally strong power would simply supersede them. Metaphorically speaking, all created substances with their respective powers would be swallowed by God as the supreme and ultimate power, in the same way that a black hole exercises such a strong gravitational effect that nothing physical can escape from inside it. Aquinas discusses in this context the idea of intermediate powers exercising a kind of buffering effect which enables a very powerful being to bring about small-scale effects.<sup>19</sup>

This strategy might be helpful in regard of a very powerful thing – say the blast of an explosion which manifests itself as a gentle wind at a far distance – but it is of little help when it comes to God. This is so because God is not just a great but *the supreme* power. No intermediate power could resist God's power so as to buffer God's small-scale interventions against God's full power. Any substance that is not all-powerful is inefficacious against a being which is all-powerful. For this reason, a complete understanding of the sort of modality operative in miracles points strongly toward causation by a powerful, free, and rational agent. Only as a free rational agent is God able to control the way in which, and the extent to which his powers are manifested at all levels of creation,

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<sup>18</sup> Aristotle 1046b, 4-5.

<sup>19</sup> ScG. III, 99, n. 2. Aquinas discusses what modern philosophers might call a "physical transference" theory of causation (see, for instance, Dowe 2000). He argues that a great power without free will can only produce effects in accordance to its power. The power of the effect, however, is sometimes less than that of the cause and therefore, by means of many intermediate causes, it is possible for a great power to produce a small-scale effect.

and it is because God is such an agent that he can act directly upon natural things. Aquinas writes:

Now, universal active power can be limited in two ways for the purpose of producing a particular effect. One way is by means of a particular intermediate cause: thus, the active power of a celestial body is limited to the effect of generating human beings by the particular power which is in the semen [...] Another way is by means of understanding, which apprehends a definite form and produces it in the effect. But the divine understanding is capable of knowing not only the divine essence which is like a universal active power, and also not only of knowing universal and first causes, but all particular ones, as is clear from the things said above. Therefore, it is able to produce immediately every effect that any particular agent can bring about.<sup>20</sup>

Let us take stock: We argued that an ontology of powerful particulars offers a model of causation that is well suited to accommodate miracles. There is no need to presuppose universal laws of nature that are broken by God's performing a miracle. On the contrary, a model which appeals to a modality somewhere between contingency and necessity provides the resources for a notion of causation enacted by powers that tend toward particular manifestations. This tendency allows for different causal paths given a variety of circumstances. It makes sense to think of God as one such circumstance that can change a thing's original causal setting. However, an ontology limited to powerful particulars is insufficient to cope with the classical notion of a miracle, for God – as an unlimited power – could not directly intervene in a world of particular and limited powers without destroying them. This makes it necessary to conceive of God as a (maximally) rational and free being which is thereby able to limit and adjust his otherwise limitless powers according to the specific circumstances in which the miracle is to occur.

#### MIRACLES: OBSTRUCTION OR TRANSCENDENCE OF NATURAL DISPOSITIONS?

For a realist account of dispositions and powers it makes sense to assume that a thing's existence and persistence conditions depend on its dispositions and powers. For a thing to persist in time, the existence of

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<sup>20</sup> ScG. III, 99, n. 3.

a sort of internal causal connection between the thing's earlier and later states seems necessary. This internal causal connection stems from the thing's inherent powers.<sup>21</sup>

An elm tree which for some reason is not disposed to grow the leaves characteristic of elm trees, but suddenly grows pine needles instead, can hardly be regarded as elm tree anymore: a substantial change appears to have taken place. An animal which for anatomical reasons lacks the power to bark, being able only to meow, is a cat and not a dog, because dogs – for anatomical reasons – have no inherent power to meow. A substance is what it is in virtue of its dispositions and powers, and if these dispositions and powers suddenly change<sup>22</sup>, then it makes sense to ask whether this change is not merely accidental but rather substantial. Given this understanding of a thing's existence and persistence, one might worry that God's acting upon a substance's natural dispositions might threaten its very existence. If Jules's and Vincent's body, due to divine intervention, acquires the power to be unharmed when penetrated by bullets, then one might wonder what kind of thing these miraculous bodies are. Along the same vein, one might wonder whether the bodies before and after the miraculous intervention are identical.<sup>23</sup> If getting hurt when being penetrated by a bullet is a direct consequence of the very nature of an organic body, then removing this power appears to amount to a substantial change – that is, the original body ceased to exist. Should we thus say that God, by performing a miracle, causes one thing to cease to exist and replaces it with a new one? Let us consider some possible answers to this question.

Here is a first answer: Imagine a natural inhibitor, such as a disease, attacking your nervous system and preventing you from moving your limbs. Though this change sadly affects your life considerably, it is not so fundamental a change that you cease to exist. Similarly, God's intervention prevents the manifestation of certain natural powers but does not affect others. As long as a big enough set of naturally functioning powers is retained, the existence of the substance upon which God acts remains unthreatened.

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<sup>21</sup> In the persistence debate this is sometimes called the "immanent causation requirement". For a detailed discussion on this topic see Zimmerman (1997), 433-471.

<sup>22</sup> Our intuitions might be different if a change takes place over a longer period of time, step by step, as Parfit (1984, 231-237) describes in the so-called spectrum cases.

<sup>23</sup> Adams (1992), 221-223, raises these concerns.

But this analogy is unconvincing, one might object, because it is reasonable to assume that there is a kind of natural fit between an inhibitor such as a disease that affects your nervous system, and your nervous system itself. Whereas your nervous system has a natural disposition to be affected by this disease, and the disease has a natural disposition to affect a human nervous system, in the case of a miracle there seems to be no corresponding natural disposition on the part of the creature. In addition, miracles appear to involve a more fundamental change than the one suggested in the example. Water turning into wine, people who rise from the dead, fire that doesn't burn, bodies that aren't injured when penetrated by bullets ... in all such cases, the set of naturally functioning powers of the substances involved shrinks to a minimum. What is retained from water once it has become wine, from a corpse once it becomes a living person again, and so forth?

Here is a second answer: E. J. Lowe distinguishes between an individual substance's sortal persistence-conditions and its identity-conditions.<sup>24</sup> The former are the conditions under which an individual substance persists as an instance of a substantial kind. The latter are the conditions under which an individual substance is reidentifiable over time. Distinguishing these two types of condition enables us to account for the metaphysical possibility of radical change. It might be metaphysically possible for an individual living being, say Actaeon, to start life as a human and yet to survive a process of metamorphosis into a deer. However, since the sortal persistence-conditions of human beings do not allow for this type of change, the post-metamorphosis Actaeon is not a human being in the gestalt of a deer, but rather a real deer. He does not undergo a mere phase change, but rather a substantial change. If Proteus were to undergo this kind of transformation instead of Actaeon, by contrast, it would be a mere phase change, because it is part of the very nature of Proteus (and of other deities of his kind) to be able to undergo varied and repeated gestalt-changes.

Sortal persistence-conditions and identity-conditions can be brought into service to account for miracles. One might argue that the natural substantial kinds we are familiar with are sub-species of the higher-order supernatural substantial kind "creature" for all natural substantial kinds

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<sup>24</sup> Lowe (1998), 183-184. For Lowe the sortal-persistence-conditions are a matter of natural law, that is, the laws of nature determine what kind of development and change an instance of a specific substantial kind can undergo.

were created by God. Focusing on natural kinds alone, thus, provides a limited perspective on a thing's ultimate persistence conditions because those of "creature" allow that all instances falling under it can undergo a miraculous change while still remaining the same. Or one could argue that a miracle is a case of transubstantiation,<sup>25</sup> since one and the same individual is able to change its substantial kind.

Which interpretation is to be preferred, shall not be discussed at this point; the crucial insight is that Lowe's distinction provides conceptual resources for addressing the worry that ultimately a miracle amounts to a destruction of the thing in question.

Here is a third answer: The views discussed thus far have aimed to account for a substance's existence- and persistence-conditions from within, that is, by drawing on the substance's own metaphysical resources. Yet these accounts miss the crucial point that each creature depends fundamentally on the divine will. The claim that, necessarily, there is a core of natural powers which must be operative in order to maintain a substance in existence (or at least to retain the disposition of the substance's characteristic *modus operandi*) is reasonable within the framework of the natural order. A theistic framework, however, must also take into consideration the claim that God is the primary cause of all creation and that every moment of a thing's existence depends ultimately on the divine will. Hence any search for a form of natural self-maintenance grounded in a creature itself is idle. What the few occurrences of a miracle show, is precisely this ultimate dependence on the divine will. For this reason we shouldn't say that God is obstructing or deleting the causal powers of a creature when he performs a miracle. Rather, God acts on the creature in a way that is impossible relative to the creature's set of natural powers, but not relative to its *total* set of powers. Adams proposes this line of thought and reconciles it with the view that created beings are constituted by their natural powers and dispositions. He surmises

that the most fundamental natural faculty of any created substance is its liability to be affected by God.<sup>26</sup>

In order to avoid any confusion, we propose to drop the term "natural" in this case. If God creates the world with regard to an eschatological purpose,

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<sup>25</sup> Lowe (1998), 184 and 186 uses this apt term.

<sup>26</sup> Adams (1992), 224.



then it isn't bold to claim that each creature possesses the fundamental disposition to be open to God's salvific action. This disposition is not deducible from the natural but the supernatural order. If this is the case, then a miracle does not contravene a substance's nature; rather it is in deep harmony with that nature, because it is a manifestation of the most fundamental disposition of any creature.<sup>27</sup> Accordingly, the causal profile familiar from scientific observation and personal experience is just one part of a substance's total creaturely dispositional set-up, where this set-up is ultimately directed toward our eschatological transformation. By virtue of this fundamental disposition, a creature continues to exist and to operate even if all of its natural powers are inoperative. Creatures are more protean than the natural order we are familiar with lets on. Only if God created a substance without the disposition to be affected by God would God's actions upon it "break up" its original causal profile and thus destroy it. In this case one might ask, however, why God would create such a substance in the first place because it doesn't seem to have a proper place within God's eschatological purpose. This is the answer we find most convincing and in good harmony with our ontological considerations on the one hand and the ultimate theological framework of the discussion on miracles on the other hand.

Here is a fourth answer which refers again to the creation's dependence upon the divine will but draws a more radical voluntarist conclusion from it: The worry that a thing's existence- and persistence-conditions are in tension with a miracle is a wrong starting point, for there is no need for God to respect any of these conditions. A creature's nature is something which God creates deliberately and which is therefore subject to change in accordance with his will. Aquinas flirts with this thought at least when he says that

all creatures are related to God as art products are to an artist [...] Consequently, the whole of nature is like an artifact of the divine artistic mind. But it is not contrary to the essential character of an artist if he should work in a different way on his product, even after he has given it its first form.<sup>28</sup>

It makes sense to suppose that the existence- and persistence conditions of artefacts depend on the conscious being which uses them. If x used to

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<sup>27</sup> One might think of Rom 8, 18-22. The entire creation suffers and longs that its deepest inclination, being close to God, be realized.

<sup>28</sup> ScG III, 99, n. 6.

be a washing machine but, due to collective amnesia, is no longer used by anyone to wash clothes but rather as a storage space for dry clothes, then washing machines have gone out of existence and new artefacts have come into being. If this reasoning about the conventionality of artefact's existence- and persistence conditions is correct, and all creatures are artefacts with respect to the divine mind, then all creatures' existence- and persistence-conditions are from God's perspective conventional. The only fixed point is the divine power itself, as Aquinas observes:

Hence, by nature's operation, what was corrupted cannot be restored with numerical identity. But the divine power which brought things into existence operates through nature in such a way that it can produce an effect of nature without it, as was previously shown. Hence since the divine power remains the same even when things are corrupted, it can restore the corrupted to integrity.<sup>29</sup>

#### CONCLUSION

In the dialogue between Vincent and Jules, Vincent defines a miracle as an event in which God makes the impossible possible. In this article we aimed to explicate this suggestion and to provide a suitable ontological framework. Our proposal draws on insights from Aquinas's discussion of miracles and argues that each substance possesses by nature a characteristic set of powers and dispositions which are operative or become manifest in the right circumstances. In a miracle, the impossible happens in the sense that divine intervention brings something about which a substance's characteristic set of natural powers and dispositions could not bring about by itself. Finally, we presented a variety of solutions to the worry that divine intervention threatens a creature's existence and persistence conditions. Our favorite solution is that each creature disposes of the fundamental capacity to be responsive to God's salvific action, and that a miracle is something like a triggering cause for the actualizing of this capacity. We take this account to be the most in line with a metaphysics of powers in a theistic framework.

This takes us back to the beginning. In the final scene of *Pulp Fiction* Jules and Vincent sit in a café having breakfast, when Pumpkin and Honey Bunny, two petty criminals, stage a robbery. It ends in a failure when Jules sticks his .45 under Pumpkin's chin. Here are excerpts from

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<sup>29</sup> ScG IV, 81, n. 5.

Jules's final monologue, in which he explains to Pumpkin why he is not going to kill him as he still would have a few hours ago:

Jules: [...] You read the bible?

Pumpkin: Not regularly.

Jules: There's a passage I got memorized. Ezekiel 25:17. "The path of the righteous man is beset on all sides by the inequities of the selfish and the tyranny of evil men. Blessed is he who, in the name of charity and good will, shepherds the weak through the valley of the darkness." [...]

I never really questioned what it meant. [...] But I saw some s\*\*\* this mornin' made me think twice. [...] The truth is you're the weak. And I'm the tyranny of evil men. But I'm tryin'. I'm tryin' real hard to be a shepherd.

[*Jules lowers his gun, lying it on the table*]

Jules experienced what he believes to be a miracle. He felt what he took to be God's touch in his life. He cannot continue his present life as a killer but wants to discover where God wants him to be. His inherent disposition to be affected by God has been activated – and this, and nothing less, is the ultimate aim of a miracle. What this scene of *Pulp Fiction* correctly adds is that miracles are neither based on merit, as Jules notes, nor is the disposition towards man's ultimate end activated automatically as Vincent's reaction to the same event indicates. If a human being does not allow himself or herself to be touched by God, then even divine intervention is futile.<sup>30</sup>

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