

Leibniz and Kant on Miracles: Rationalism, Religion, and the Laws

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Miracles are therefore not against nature, but rather against what is known of nature.

--Augustine, *City of God* xxi, 8¹

1. Introduction

Most monotheists join everyone else in regarding created nature as a stable and efficient structure: its laws don't require tweaking, and its states don't capriciously alter. Many monotheists also orient their belief, however, by texts depicting a deity that is willing to intervene and suspend nature's normal operations on certain occasions:

Then Moses stretched out his hand over the sea, and the LORD drove the sea back by a strong east wind all night and made the sea dry land, and the waters were divided. And the people of Israel went into the midst of the sea on dry ground, the waters being a wall to them on their right hand and on their left. (*Exodus* 13: 21-22)

As a result of texts like this, biblical theists find it reasonable to hope or even believe that an occasional empirical miracle—i.e., a physical event at variance with the normal causal order—has occurred or will occur.

Both Leibniz and Kant were heirs of such a tradition. But both were also explanatory rationalists about the empirical world: more committed than your average philosopher to its thoroughgoing intelligibility. (Leibniz was also an explanatory rationalist about the non-empirical, fundamental world; on that issue, given his commitments to freedom and noumenal ignorance, Kant famously demurred.) These dual sympathies—empirical rationalism and supernaturalist religion—generate a powerful tension across both systems, one that is most palpable in their accounts of empirical miracles.

Neither philosopher was unaware of the tension. Of the two, Leibniz made the more concerted effort to explain how an exception to the laws might be incorporated into his philosophy of nature. As we will see, however, it is hard to regard that effort as successful in light of his broader rationalist commitments. Kant, by contrast, didn't say all that much about how miracles could be integrated into his natural philosophy, and this has led many commentators to assume that he wasn't seriously endorsing their real possibility. At the end of the paper, however, I draw on some of his critical notes and lectures to sketch a way in which the integration might go. If the sketch is coherent, then Kant (surprisingly enough) offers a view of nature that is similar to Leibniz's in an important way, and at least as accommodating to this supernaturalist doctrine, but also does not face the same obstacles. The main goal throughout is to show that a comparative examination of the status of miracles in Leibniz and Kant provides a deeper understanding of their philosophies of nature in general.

¹ “*Portentum ergo fit non contra naturam, sed contra quam est nota natura.*”

2. Miracles, wonders, signs

In order to proceed, we need a working conception of what a *miracle* in the empirical world would be. There are treacherous debates in this area, many of which have to do with whether such events count as “violations” of the natural laws or not.² J.L. Mackie offers a formulation that sidesteps some of these issues: an empirical miracle, he says, is an event that occurs “when the world is not left to itself, when something distinct from the natural order as a whole intrudes into it.” By “natural order” Mackie means the order described by natural laws – the principles that “describe the ways in which the world – including, of course, human beings—works when left to itself, when not interfered with” (Mackie 1982: 19-20).

In addition to the humorous touches, Mackie’s formulation has significant virtues: it captures a lot of what religious people mean when they talk of miracles, and it is consistent with the broadly Humean conception of miracles as violations of nomological regularities (Mackie himself was a committed Humean).³ But it also fits with older conceptions of miracles as events in nature that are beyond the productive power of anything else in nature, while allowing us to remain neutral about what the “laws” of that nature consist in, and how, if at all, they might be violated. Best of all, the formulation is endorsed not only by Mackie, a well-known critic of theism, but also by a contemporary religious philosopher/apologist, Timothy McGrew, who cites Mackie’s formulation approvingly in a recent survey article on miracles (see McGrew 2011: 4-5). So it is an irenic conception, as well as a philosophically interesting one.

In light of these virtues, I propose to use the following Mackie/McGrew analysis as our working conception:

(EM) An empirical miracle obtains when something that is not a part of the order described by the laws of nature purposively intervenes to produce an event that counts as an exception to a particular natural law.

A few clarifications: first, “empirical” is intended to restrict the events or states in question to those that obtain in the world that natural scientists seek to describe and explain via observation. There may be moral, soteriological, or eschatological miracles that do not make any empirical difference, but they are not our focus here.⁴

Second, as the analysis itself makes clear, the “order” that is altered by an empirical miracle is the order described by what we typically call the “laws of nature.” This leaves it open whether there are other events *in nature*, broadly conceived, that do not accord with the laws of nature, even though they are consistent with some more fundamental order.

² For a sampling, see (Swinburne 1970), (Earman 2000), (Martin 2008), and (Twelftree 2011).

³ Hume goes on to say that nomological regularities must be regarded as *exceptionless* regularities, but that inference is widely contested. See (Earman 2000) and (Fogelin 2005).

⁴ I have written about Kant’s conception of a “moral miracle” elsewhere: see (Chignell 2013). See also Ameriks (2014). On Leibniz’s view of moral miracles, see Paull (1992).

Third, it is important (following Mackie/McGrew) to insist that the intervention make a “change” to the natural order – it has to produce an *exception* to the laws of nature; otherwise, ordinary divine concurrence with natural events would also count. We will see in a moment that Leibniz regards such concurrence as miraculous in some sense; but this is not part of the folk concept of an empirical miracle, and most philosophical discussions exclude it.

Fourth, it is worth noting that Latin terms like “*miraculum*” and “*portentum*” are ambiguous: they elide the distinction we find in other languages between “miracle” and “wonder.” Extraordinary events – i.e. wonders -- may cause psychological effects in normal observers: astonishment, shock, awe, reverence, etc. (in German these would be “*Bewunderungen*”). But such wonders need not count as genuine miracles (“*Wunder*”): even the Seven Wonders of the World, impressive as they are, presumably came about through quite explicable natural processes.⁵ Conversely, although many miracles count as wonders, some may be undetectable, and others may be so commonplace that we cease to wonder at them. Thus, despite the fact that many luminaries in the tradition (Aquinas, Hobbes, Clarke⁶) build psychological (“wonder”) or even informational components (“signs and portents”) into their analyses of miracles *simpliciter*, it seems best to follow Leibniz and Kant here in keeping them apart.⁷ At bottom, as our Mackie/McGrew conception indicates, the category of the miraculous is an ontological rather than a psychological one. A *bona fide* empirical miracle, as Kant puts it, has to “interrupt (*unterbricht*) the order of nature” (Ak. 2:116).⁸

With this working conception in place, we can turn more directly to Leibniz and Kant and see whether and how they can incorporate even the possibility of empirical miracle into their rationalist, deterministic pictures of the empirical world.

3. Leibniz

3.1. Five miracle concepts

Leibniz’s ontology is notoriously complex: one scholar detects five (!) different levels of reality in the system: from monadological bedrock to ephemeral illusion.⁹ Leibniz scholarship is further

⁵ “Natural processes” would presumably include even this hypothesis:

www.csicop.org/si/show/flash_fox_news_reports_that.aliens_may_have_built_the_pyramids_of_egypt/

⁶ See (Aquinas 1265-1274: I.110.a4). Hobbes speaks of miracles as “signs supernatural” (Hobbes 1651: I.xii.28) and Clarke says that they are “unusual” events produced by God “for the Proof or Evidence of some particular Doctrine, or in attestation to the Authority of some particular Person” (Clarke 1823 [1704]: 2.701).

⁷ See Leibniz, Fifth letter to Clarke §89 (2000: 57) for the distinction between “perpetual wonder” and genuine “perpetual miracle.” Leibniz explicitly rejects Clarke’s attempt to include a psychological component in the basic concept; he also rejects Clarke’s claim that miracles must be “unusual” or infrequent (cf. Leibniz’s Fifth Letter §110 (2000: 62) and Clarke’s Fifth Reply (2000: 82)). In a paper from July 1698, there is a reference to the distinction between “a rare and wonderful thing” which may still be naturally produced, and a genuine miracle “which exceeds the powers of created being” (1989: 494).

⁸ This is from a pre-critical essay of 1763, but there are similar descriptions in various critical lectures. See *L1* (Ak. 28:217ff), *Mongrovius* (Ak. 29:870ff), *Dohna* (Ak. 28:667).

⁹ Anja Jauernig, in conversation.

complicated by debates about chronology – not only about *whether* Leibniz was a full-blown metaphysical idealist, but also about *when* he became one.¹⁰ These debates in turn are riddled with orthographical disagreements about whether and when Leibniz wrote a particular text or letter.

It would be quixotic for me (especially qua Kant scholar) to try to establish a position on these issues here. Instead, I will simply assume (on the good authority of some Leibnizean friends) that it is acceptable to speak in terms of two main levels in Leibniz’s mature ontology.¹¹ The first is the fundamental level comprising unified substances in mutual relations of expression and perception. For the later Leibniz, at least, these substances are immaterial, simple, psychological unities (“monads”) whose successive states are pre-established by God to “express” the entire history of the universe, though at varying degrees of distinctness. Monads aggregate in various ways, but there are no genuine causal relations between them.

The second main level is the derivative, physical one comprising objects of our experience as well as the particles that make them up. These objects—i.e., bodies—fill up space and are related by forces in a lawful way that is somehow a function of the expression relations that hold at the monadic level.

The question before us, then, is how (if at all) an empirical miracle could fit into this scheme. Clearly such an event would obtain at the derivative level—it would have to make a difference to the way things are in the empirical world. But how could that be the case if this world’s *pre*-established harmony makes it the best one possible? The relevant texts reveal Leibniz working with a number of distinct though overlapping concepts of miracle; I’ll briefly sketch each one before going on to examine their applications in the empirical world.

3.1.1. *First rank*

In the *Discourse on Metaphysics* (1686), the *Theodicy* (1710), and the correspondence with Clarke (1715-6), Leibniz says that miracles of the “first rank” or “highest order” are the result of God’s immediate action and involve no creaturely contribution. He cites three paradigmatic examples: *creation*, *annihilation*, and *incarnation*.¹² Take *creation* and *annihilation* first. God alone bears genuine causal relations to other substances in the actual world, for Leibniz, and thus God alone is involved in creating and annihilating. Such acts do not count as interventions *into* the order of nature, however, since they effectively *ground* that order. In other words, because the natural order is just a function of the natures of the substances in the world, the choice to create and annihilate certain substances is tantamount to the choice of that order. If God had created different substances – or created but then annihilated some of them along the way -- he

¹⁰ See for example (Garber 2005) and (Garber 2009).

¹¹ Leibniz’s own references to two “kingdoms” (of nature and of grace) reinforce this strategy. See also Jonathan Bennett’s paper “Leibniz’s Two Realms” (Bennett 2005).

¹² *DM* §32 (1989: 63-4); *Theodicy* §249 (1951: 280); Fourth Letter to Clarke §44 (2000: 27).

would have *ipso facto* selected a different world with a different order. These two miracles of the highest rank, then, are not empirical miracles in our Mackie/McGrew sense.¹³

What about God's role in keeping the world in being? There is some controversy about whether the early Leibniz was a "mere conservationist," but by the mid-1680's he was clearly committed to the doctrine that God has *ongoing* causal responsibility for producing finite substances and their states. He speaks of "concurrence" (*concours*) throughout the *Discourse* and, later, of God's "continual production" of the world and the divine "assistance" that all "natural powers" require.¹⁴

There are conceptual obstacles, however, to counting ordinary concurrence as a miracle of the first rank. For starters, it is not clear how God counts as producing the effect in question *directly*, since concurrence involves the production of a finite effect *in concurrence* with creatures. Perhaps we can say, following Robinet and Adams, that God concurs with *the creature's producing E*, and thus counts as immediately concurring with that entire state of affairs.¹⁵ But stacking the effects in this way doesn't seem to avoid a dilemma: either the creature's agency is subsumed into God's, or the production of *the creature's producing E* is a co-operative affair. (Insofar as I can think about this clearly at all, I find it hard to believe that I am not involved in the production of my production of this paper!)

Setting this aside, the concurrence doctrine is also hard to square with Leibniz's oft-repeated charge against occasionalists that their deity is a fussy micro-manager, unfittingly engaged in "perpetual miracles."¹⁶ For if God concurs with every finite exercise of every power, and if every such act counts as a miracle of the first rank, then perpetual miracles seem unavoidable on his view as well.

Two further considerations blunt the edge of the latter objection. First, Leibniz would surely have seen that concurrence involves constant activity on God's part; the fact that he happily endorses it indicates that his real problem with occasionalism is not that God perpetually acts, but rather that creatures have no role in the production of their own states. The crucial anti-occasionalist point for Leibniz is just that creatures have active powers *of their own* – the very powers with which God concurs. This is part of what underwrites the ontological distinction between creatures and God, and thus also part of what fends off Spinoza (see e.g. *De Ipsa Natura* in Leibniz 1989: 155ff).

Second, there is an important sense in which ordinary concurrence is nothing over and above creation for Leibniz. Since God actualizes the best collection of compossible substances at creation, and since every truth about every substance is derivable *a priori* from its essence—for

¹³ See (Sleigh 1990: 58-67) as well as (Adams 1997: 277ff). Elsewhere, Adams (1994: 99ff) discusses the question of whether God *could*, in some broadly logical sense, decide to annihilate a substance at some point "later" than creation, and thereby change the order of things. Whatever the correct answer, it is clear that in the best possible world this will not occur, given God's commitments to harmony and the best.

¹⁴ Fifth Letter to Clarke §88 (2000: 57) and §112 (2000: 62). See also *Specimen Dynamicum* (1989:124) and *Theodicy* §27 (1951: 90).

¹⁵ See (Adams 1994: 97-98) and (Robinet 1986: 440). Adams cites Robinet here.

¹⁶ See, for instance, *Theodicy* §207 (1951: 257).

the infinite intellect, anyway—his choice of these substances *just is* the choice to actualize the states intrinsic to them over time. Thus Leibniz refers to God’s ongoing activity in the *Theodicy* as a kind of “continued creation” (*T* §27 (1951: 139)). In a letter to Clarke from the same period he says that “natural things” are not the result of “perpetual miracle” but rather the “effect or consequence of an original miracle worked at the creation of things,” even if they are the occasion for “perpetual wonder” (Fifth Letter to Clarke §89, in Leibniz 2000: 57).

Even if we set these complications aside and count ordinary concurrence as a divine act that is distinct from creation, however, it still won’t involve a *change* to the order described by the natural laws. On the contrary: it will be both consistent with that order and a condition of its obtaining. And thus it won’t be an empirical miracle in the Mackie/McGrew sense described above.¹⁷

I suspect that something similar can be said, finally, about *incarnation*. Although this first-rank miracle involves an individual substance exemplifying two kind-natures (*divinity* and *humanity*), the joint exemplification of these kind-natures is presumably part of the individual nature of the person in question. Thus it, too, must be produced and conserved as part of the best possible world, and the joining of divinity to humanity will not involve an interruption or change to the natural order.

In sum: miracles of the first rank do *not* in themselves seem to count as miracles in the Mackie-McGrew sense. They do not (in themselves¹⁸) make an empirical difference, and thus do not threaten Leibniz’s explanatory rationalism; in the vast majority of cases, God wills something that is either a ground of the natural order described by the laws, or at the very least in keeping with it.

3.1.2. Comparative

At the other end of the spectrum are “miracles only by comparison” to what human beings can do (*T* §249; 1951: 280). These feats are performed “through the ministry of invisible substances, such as the angels,” and many of the biblical miracles are said to fall in this category (*ibid.*). There is scholastic precedent here: Aquinas claims that “although the angels can do something that is outside the order of corporeal nature, yet they cannot do anything outside the whole created order, which is essential to a miracle” (*Summa Theologica*, Aquinas 1955: I.110.a4). Leibniz, however, is not even willing to allow angelic acts to surpass the laws of corporeal nature; rather, biblical episodes such as Peter walking on water, the water-to-wine wonder at Cana, or the mysterious movement of the pool at Bethesda are said to occur in accordance with the laws of bodies – just “bodies more rarefied and more vigorous than those we have at our command” (*T* §249; 1951: 280).

¹⁷ See the discussion of “conservation as continued creation” in (Adams 1994: 95-99), as well as (Lee 2004).

¹⁸ This qualification is important, given what comes below, since God does of course create and concur with any events that count as miracles, too, and so in that sense creation can lead to an empirical miracle. The point here is simply that the event’s miraculous status is not a function of the fact that it is an effect of divine creation.

It would be nice to know how water changes to wine without a suspension of the natural laws (do the angels move so fast that they can replace the water with wine without the guests noticing?). Clearly, however, if we allow that such events are physically possible, they won't pose a problem for Leibniz's explanatory rationalism about the empirical world.¹⁹ So we can set them aside here.

3.1.3. *Beyond nature's power*

The most prominent conception of miracle in Leibniz's middle and later writings—the one that he calls his “philosophical” conception—is simply that of an event that “exceeds the powers of created beings” (1969: 494). He tells Arnauld that “strictly speaking, God performs a miracle when he does a thing that exceeds the forces that he has given to and conserves in creatures” (1967: 117). Likewise in a letter to Conti, Leibniz defines a miracle as “any event that can only occur through the power of the creator, its ground not being in the nature of creatures” (1899: 277). Obviously miracles of the first rank are a species of this kind of miracle, but it seems possible that there be an empirical species as well.

This conception, too, has scholastic roots: Aquinas says that “a miracle properly so called is when something is done outside the order of nature” (Aquinas 1955: I.110.a4).²⁰ Leibniz is careful to note, however, that by “nature” in this context he means not just *our* natures, or the natures of the substances we know about, but rather “all limited natures” -- including those of angels, demons, rarified bodies, and so on (*DM* §16; 1989: 49; cf. Third Letter to Clarke §17; 2000: 17). So these aren't merely comparative miracles.

It should already be clear that is too strong to say, with Nicholas Jolley, that “Leibniz would recognize an equivalence here: *x* is beyond the causal powers of creatures just in case *x* is an exception to a law of nature” (2005: 125). In fact Leibniz envisions continuity between the realms of nature and grace such that many miracles *surpass* the productive power of nature insofar as they result in something “outside” of nature.²¹ That said, Jolley's formulation is correct regarding *empirical* miracles: any empirical event that is beyond the causal power of creatures will involve an exception to the natural laws. I will discuss this concept further in section 3.2 below.

3.1.4. *Contrary to the subordinate maxims*

¹⁹ See also Fourth Letter to Clarke §44 (2000: 27); Fifth Letter to Clarke §117 (2000: 63). Joshua Watson provides a sophisticated account of how Leibniz seeks to accommodate miracles of this sort “semantically” even while rejecting the idea that they are miracles “in metaphysical rigor.” See (Watson ms).

²⁰ Marilyn McCord Adams points out that “outside” (*praeter*) here means something like *via a different route*. So for God to act outside of nature is “to produce effects that nature can produce, but not that way.” She also notes that Aquinas anticipates Kant's view that creation and other acts that “lie entirely outside the range of natural causal powers” are not properly-speaking miraculous (M. Adams 2013, 12-13).

²¹ This is not to say that *all* acts of grace are beyond the productive power of nature. Again, Leibniz views nature and grace as on a kind of continuum. Thus moral punishment and reward – even in the afterlife – might be accomplished through the “mechanical” effects of our physical behavior over time (*Monadology* §88, 1989: 224).

A distinct though closely-related concept of miracle is found most prominently in the *Discourse on Metaphysics* of 1686 and other writings from that period.²² Leibniz repeatedly claims that miracles are “above the subordinate maxims” of God’s will—that is, above the contingent laws of nature—even though they are still “in conformity with the universal law of the general order” (*DM* §16; 1989: 48-9). Elsewhere in this work it becomes clear that these miracles are not just above but positively “contrary” to the “subordinate maxims which we call the nature of things” (*DM* §7, 1989: 40). He repeats this formulation in a letter to Arnauld of July 14, 1686: “miracles are *contrary to* some subordinate maxims or laws of nature” (1967: 57, my emphasis).

If we take this talk of contrariety seriously, then this sort of miracle appears to be slightly different from the previous one in virtue of *necessarily* involving an exception to the laws. It is the sort that the Scholastics called “*contra naturam*”:

[A miracle] is called *contra naturam* when there remains in nature a disposition that is contrary to the effect that God works, as when he kept the young men unharmed in the furnace even though the power to incinerate them remained in the fire, and as when the waters of the Jordan stood still even though gravity remained in them” (*De Potentia* q.5, art.2, ad.3; trans. Freddoso 1991: 573).

In the empirical world, however, this concept and the previous one will have the same extension, and thus, as far as empirical miracles go, Jolley is right: they are equivalent.

The fact that empirical miracles are exceptions to the natural laws conceived as subordinate maxims does not mean that they are *unlawful*, according to Leibniz. For, again, the “true” or “most general order” of things – which he sometimes calls the “essential law of the series” — describes what actually does and must happen, and any miracles, as well as the subordinate maxims, will *a fortiori* be “derived” from it (Leibniz 1973, 99-100; cf. *DM* §7, §16). I will return to this issue, too, in section 3.2 below.

3.1.5. *Extraordinary concurrence*

Leibniz’s fifth and final concept of miracle invokes God’s “extraordinary and miraculous concurrence” with the powers of creatures.²³ On this account, God concurs with something *in creatures* to produce an event that is an exception to the laws set out by the natures *of those very creatures*. This seems, at first glance anyway, to be in direct opposition to the third concept according to which a miracle is “beyond” the powers of creatures altogether.

²² Garber draws our attention to the 1686 unpublished essay “De natura veritatis” (translated in Leibniz 1973). He also points out that Leibniz seems to vacillate even during this period on whether the principle of the equality of cause and effect (from which follows the law of conservation of force) is “genuinely inviolable” or not. See (Garber 2009, 254-5).

²³ *DM* §16 (1989: 48-9). See also the letter to Arnauld of April 30, 1687 (1967: 115), *Theodicy* §3 (1951: 74-5), and the letter to Caroline of 1715 (1969: 675).

In order to grasp this point, consider the biblical case that Aquinas invokes in the passage just quoted. Leibniz was presumably aware of the interpretation put forward by Aquinas—as well as Molina and Suarez after him—according to which, when the three Israelites enter the Babylonian furnace, the dispositions of fire, human hair, skin, and flesh do not receive God’s ordinary concurrence. It is because such concurrence is a necessary condition of the occurrence of the usual combustive effects that the three young men are not harmed.²⁴

For the scholastics, this is more or less the whole story: the active disposition of fire to burn and/or the passive dispositions of skin and hair to *be* burned are not activated without divine concurrence. Leibniz, however, views this as robbing creatures of power and portraying God, unfittingly, as in conflict with his own creation. God does not *withhold* concurrence altogether, for Leibniz; rather, God actively concurs with the powers of creatures in an *extraordinary* way.

But is there is anything non-arbitrary to say here about *what it is* for finite natures to receive extraordinary concurrence? Does the fire in the furnace (on a Leibnizean account) have an active, albeit rarely activated, disposition to cause, say, spring-breeze sensations rather than painful burning sensations in human minds? If so, then are the fires in that particular furnace the only ones that have the extraordinary powers in question? Or do all fires have them, even though God concurs with them in just a very few cases?

There is something unpalatable in each of these alternatives. If Leibniz allows that the extraordinary powers are not really *in* the finite substance at all, then in those cases, at least, he’s departing from his anti-occasionalist, anti-Spinozist principle according to which the forces responsible for creaturely states are at least partly *in the creatures themselves*, rather than wholly in God. If he says, on the other hand, that the extraordinary powers *are* in the creatures, but only in those through which miracles actually occur, then the account looks wildly ad hoc. Finally, if he says that the extraordinary powers exist in *every* creature of the relevant kind, then he is left with a bloated ontology: vast arrays of powers strewn across numerous different species and individuals, even though most of them are never activated. He also faces questions about how the active powers exercised in miracle cases count as *extraordinary* – apart from the comparatively trivial fact that God doesn’t *usually* concur with them.

It is unclear which of these alternatives Leibniz could swallow, or how it could be made more palatable. It is clear that he does not regard the mere objective infrequency of an event as sufficient to make it miraculous: Leibniz insists in a letter to Clarke that there is a “real difference between a miracle and what is natural.” He also says that this difference must be “internal” to the creature somehow, and not merely an “extrinsic denomination” in God (Fifth Letter, §110-112 (2000: 62); see also 1967:116 and 1923-: A 4:587). This seems to rule out any suggestion according to which God allows the exercise of the ordinary powers but then “blocks” their effects.²⁵

²⁴ For discussion of Molina and Suarez on this issue, see (Freddoso 1991).

²⁵ This suggestion is from Eleonore Stump, in conversation. She views this as Aquinas’ position.

A more promising suggestion is that extraordinary concurrence involves God taking one or more of the pre-existing powers of a creature and strengthening or increasing it.²⁶ Perhaps the fire stays the same as it was, but the ordinary, anti-inflammatory powers of Abednego's skin to resist fire are strengthened to the point where it can resist the Babylonian inferno. This makes the account look less *ad hoc*: extraordinary concurrence builds on the natural powers already present in creatures but also goes "beyond" them. A remaining problem, however, is that the increase to ordinary powers still lacks a positive explanation or ground in the creaturely natures themselves. Thus this suggestion again runs afoul of Leibniz's general principles that everything in creatures – every perception and every change – must be grounded in their natures, and that the difference between the ordinary case and the extraordinary case cannot be a mere "extrinsic denomination" in God. The tension here—between the concept of miracles as *beyond* the productive power of nature and the concept of miracles as *grounded* somehow in the natures of things—is a real and remaining one. We will return to it in a moment.

Having sketched Leibniz's five concepts of miracle, and having set aside the first and second for present purposes, we can now consider whether one or more of the last three concepts can coherently apply to empirical events in the best possible world.

3.2. Nature vs. Essence

Recall that the physical world for Leibniz is composed of aggregates of matter and the dynamic relations between them, relations that are governed by the laws of nature. This fact itself is no bar to miracles: we've already seen that they would be exceptions to those laws considered as the subordinate maxims or "customs" of the divine will (*DM* §7; 1989: 40).²⁷ The main obstacles to empirical miracles arise, rather, from Leibniz's longstanding opposition to Malebranche and his commitment to the principle of perfection. The former pushes him, as we have seen, to say that there is a ground *in the finite things*—most fundamentally in their substantial forms—of the presence of every state that they exemplify. The latter makes it difficult to see how the accessible, intelligible natural laws that we seek in scientific inquiry could admit of exceptions. For wouldn't the supremely rational, competent, and benevolent engineer make the laws that we (approximately) grasp also be the laws that *really* govern the series, especially given the fact that Leibniz explicitly ties the perfection and happiness of minds to their ability to understand the phenomena?²⁸

There are passages in the *Discourse* that *appear* to indicate that Leibniz recognizes these problems and endorses the position that there *can be* no miracles, if by "miracle" we mean changes to the natures of finite beings:

²⁶ Don Garrett proposed this way of interpreting extraordinary concurrence in correspondence.

²⁷ Unless the natural laws are construed as conditionals whose antecedents explicitly invoke God's ordinary concurrence. On such a view, the antecedent is satisfied in ordinary situations, and unsatisfied in miraculous cases; either way there are no exceptions to the laws. See (Watson ms) for an interpretation of Leibniz along these lines.

²⁸ See for instance "A Specimen of Discoveries" (1686?) in (Leibniz 1973: 83), as well as the further discussion below.

When we include in our nature everything that it expresses, nothing is supernatural to it, for our nature extends everywhere, since an effect always expresses its cause and God is the cause of substances (*DM* §16; 1989: 49).

Appearances are misleading here, however, since Leibniz goes on to say that it would be better to use “essence or “idea” to refer to the collection of *all* of a substance’s properties, and reserve “nature” in the strict sense for that collection of properties that a substance “expresses more perfectly” and “in which its power consists.” In other words, Leibniz proposes to think of the *nature* of a substance as a function of its active powers—powers that are themselves “limited,” of course—whereas its overall *essence* contains “many things that surpass the powers of our nature and even surpass the powers of all limited natures” (*ibid.*). Likewise in the *Theodicy* we’re told that “the distinguishing mark of miracles (taken in the strictest of senses) is that they cannot be explained by the natures of created things” – here “nature” is presumably being used in the strict sense (*T* §207; 1951: 257).

Leibniz is not consistent about this terminology, and in many places before, after, and even within the *Discourse*, he uses “nature” to refer to the broader essence. If we keep the terminology straight, however (as I’ll try to do here), the nature/essence distinction may leave room for empirical miracles that are beyond the productive power of finite substances, but still included in their essences.²⁹

In order to exploit the distinction in the manner just described, we would need an account of how the properties included in finite natures count as being “within our power” in a way that the properties of the broader essences are not. Leibniz does not mean to suggest that we *consciously* choose whether or not to exemplify our natures – many features attach to us without conscious volition or appetite, and there are some substances that have no conscious appetites at all at a given time (slumbering monads). “Within our power” also cannot mean that these properties are avoidable or changeable somehow: for Leibniz, each of a substance’s properties is essential – or at the very least intrinsic -- to it as the individual that it is.³⁰

A more promising approach is to say that the properties of our nature are “within our power” because at some level we *want* to have them. The primary force or active power of a substance is directed to the series of states in its nature – via conscious or *unconscious* appetition. We could then say that the substance is wholly passive with respect to the properties of the broader essence. (Call this proposal *Wholly Passive*.) This proposal would explain why Leibniz inserted the words “or idea” after “essence” in the second edition *Discourse*’s discussion of this issue (*DM* §16; 1989: 48); it also coheres with his general doctrine that miracles are willed directly by God alone. But, again, *Wholly Passive* also threatens to eliminate the positive ground in creatures for the contents of the broader essence: the ground now lies completely in *God’s idea* of the creature.³¹ And this is difficult to square with texts in which Leibniz indicates that *all* of

²⁹ Elsewhere he makes it clear that what he calls the “concurrence of grace,” is inscribed into the essences of finite things but not into their “nature” in the narrower sense (“Primary Truths” in Leibniz 1989: 32).

³⁰ See Sleight’s discussion of the difference between the conventional “superessentialist” reading of Leibniz and his own “superintrinsicist” reading in (1990: ch. 7). See also Adams’ critical notice of Sleight’s book (Adams 1997).

³¹ Adams presents this view without endorsing it at (1994: 87ff).

our states, and not just the states of a narrowly circumscribed nature, are the result of our primary, *active* force. For example:

I believe that there is no natural truth in things whose ground ought to be sought directly from divine action or will, but that God has always endowed things themselves with something from which all of their predicates are to be explained (*Specimen Dynamicum* 1989: 125).

Of course, advocates of *Wholly Passive* could emphasize that Leibniz says here that “there is no *natural* truth in things” whose ground is solely in God’s will, but then argue that this leaves room for the occasional *supernatural* truth that is so grounded. In the passages where he leaves out such qualifications,³² they could say he’s speaking generally and thus simply bracketing the case of miracles.

3.3. Degrees of Active and Passive Power

A different approach is to take seriously the thought that *all* the states of a substance are somehow grounded in its active powers, but then exploit the fact that such powers come *in degrees*. (Call this proposal *Degrees of Power*.) A few pages before this passage from *Specimen Dynamicum*, Leibniz says that substances have both active power (*virtus*) and passive power, and that in finite creatures they are “found in different degrees” (1989: 119). Likewise, much later in *Monadology* Leibniz characterizes active force as a perfection and passive force as an imperfection, and indicates that both come in degrees (*M* §48-52; 1989: 219). There are also passages in the *Discourse* that indicate that finite creatures must always have *some* active force moving them towards a given perception:

The soul must actually be affected in a certain way when it thinks of something and it *must already have in itself* not only the passive power of being able to be affected in this way (which is already wholly determined) but also *an active power*, a power by virtue of which there have always been in its nature marks of the future production of this thought and dispositions to produce it in its proper time (*DM* §29; 1989: 60, my emphases).

If we interpret “thought” here as referring to all of our psychological states – including those that are part of our essence but not our nature -- then this passage makes it difficult to see how *any* state of the substance could be wholly a result of the active powers of other substances.

Applying *Degrees of Power* to the problem at hand, we can say that miracles “surpass the power of nature” just insofar as finite substances have only a very *limited* degree of active power

³² For example: “In my system every simple substance (that is, every true substance) must be the true immediate cause of all its actions and inward passions; and, speaking strictly in a metaphysical sense, it has none other than those which it produces” (*T* §400, 1951: 362). And: “[I]n my opinion it is in the *nature* of created substance to change continually following a certain order which leads it spontaneously (if I may be allowed to use this word) through *all* the states which it encounters...” (1969: 493, my emphasis).

with respect to them.³³ Indeed, perhaps this is true of all the states in the essence: they are the result of a very limited degree of creaturely active power, a degree much lower than the degree of passivity that the same states have vis-à-vis God. The advantage here is that we can maintain that there is no state of a substance that is not *to some degree* a function of its active powers, while also making use of the nature-versus-essence distinction to account for miracles. A principled line demarcating the states of our nature (“within our power”) from the states of our essence (“outside our power”) would be hard to draw precisely, but it would have to fall comfortably beyond the point where the degree of active power directed towards the relevant states is exceeded by the degree of passive power vis-à-vis God.³⁴

A lingering problem for both *Wholly Passive* and *Degrees of Power*, however, is that for Leibniz a change in a substance that is either wholly or largely a result of its passive powers is *ipso facto* a change from the more perfect to the less perfect (see again *M* §49-50; 1989:218). But if a miracle involves such a change, then its occurrence will *decrease* a finite substance’s overall perfection by “demonstrating its weakness” and causing it “some pain” (*DM* §15 (1989:48)). It’s clear that the weakness and pain that Leibniz has in mind here is intellectual:

Thus, to speak more clearly, I say that God’s miracles and extraordinary concurrence have the peculiarity that they cannot be foreseen by the reasoning of any created mind, no matter how enlightened, because the distinct comprehension of the general order surpasses all of them. On the other hand, everything we call natural depends on the less general maxims that creatures can understand. (*DM* §16; 1989: 49)

The claim that no finite mind, “no matter how enlightened,” could “foresee [a miracle] by reasoning” indicates that no inference based on known laws could lead to the conclusion that the miracle will occur. This feature of miracles – their inaccessibility and indeed unintelligibility to finite minds—is a consequence of the ontological facts of the case: the divine ground of the miraculous event is too complex for us to understand.

An initial concern about this unintelligibility doctrine is crudely empirical. Couldn’t someone (Abednego and co., for instance, or even Nebuchadnezzar himself) reasonably *expect* that a miracle might well occur in a certain case, given their previous dealings with Yahweh? Perhaps probabilistic prediction such as this would not count as “foreseeing by reasoning” in Leibniz’s sense. But even granting that it is not a sufficient basis for a *deduction*, it is not clear why this doesn’t count as gaining *some* kind of limited foresight – a sort of “understanding,” at least in our contemporary sense, that is deeper than a mere lucky guess.

³³ Thanks to Anja Jauernig (conversation) for emphasizing the utility of an appeal to the degree of an active power in this context. For further discussion of degrees of power, see (Look 2007).

³⁴ Note that this would have to be a necessary but not a sufficient condition for a state’s counting as miraculous; otherwise, as Sam Newlands pointed out in conversation, the states of a slumbering monad (all or most of which, at least during the slumber, are the result of its passive rather than its active powers) would have to count as miraculous.

Another and more substantive concern here is that the unintelligibility doctrine is in tension with Leibniz's principle of perfection. For the happiness of finite minds is a function of how well they understand the phenomena:

It is clear that minds are the most important part of the universe, and that everything was established for their sake; that is, in choosing the order of things, the greatest account was taken of them, all things being arranged in such a way that they appear the more beautiful the more they are understood. So it must be held certain that God has taken the greatest account of justice and that just as he sought the perfection of things, so he sought the happiness of minds. ("Specimen of Discoveries" 1973: 83, qtd. in Brown 1995)

If our happiness, as intelligent beings, consists in the perception of the beautiful order of the universe, then, oddly enough, the occurrence of a miracle will leave us frustrated and discontent at some level – there will be, again in the language of *DM* §15, more "weakness" and (epistemological) "pain" in the world as a result of them, even if they on balance contribute to the good of the whole (1989: 48). This seems theologically unfortunate, and may explain why Leibniz often appears to downplay even the possibility of empirical miracles.

There is, finally, a related concern about how the miracles doctrine (on either of the proposals sketched here) coheres with Leibniz's overall claim that the world is arranged in the simplest possible way. Robert Adams raises this problem in reference to the passage in *DM* §16 according to which miracles make the general order so complex that it is incomprehensible to creaturely minds: "How that is consistent with the preeminent simplicity of the actual general order, Leibniz does not explain, so far as I am aware" (Adams 1994:86).³⁵

3.5 Nature and essence collapsed?

In light of these sorts of concerns, some commentators opt to collapse the *Discourse's* distinction between natures and essences altogether. Donald Rutherford, for instance, claims that for Leibniz "any substance is endowed with an intrinsic force or power sufficient to determine *all* of its own states or modifications" (1993: 302, my emphasis). There is no talk of degrees of active and passive power here, and no suggestion that these degrees could be used to demarcate a substance's nature (strictly-speaking) from its broader essence. In a co-written piece, Rutherford and Jan Cover likewise claim that

Leibniz's naturalism is specifically intended to *rule out the possibility that physical or psychological phenomena are in any way miraculous*, that is, that they occur in a way that could be explained only by appeal to a direct intervention by God, or to 'occult powers' that lie beyond the reach of reason. Instead, *all natural phenomena can be*

³⁵ See also Gregory Brown's discussion of the tension between miracles and human happiness (1995: 24ff).

explained in terms of the action of powers inherent in the natures of created substances (Cover/Rutherford 2005: 7, my emphases).³⁶

If by “natural phenomena” in the second sentence here the authors mean phenomena that can be subsumed under the laws of nature, then this is correct but trivial. But the first sentence indicates that they mean that *no* “physical or psychological” phenomena *whatsoever* could be produced by special intervention on God’s part, and that *all* such states are a result of the active powers of natures, with which God simply (ordinarily) concurs. That in turn indicates that by “natural phenomena” these authors mean *all* of the phenomena that do or can occur in the natural world. This is a non-trivial claim, and it seems to rule out empirical miracles as impossible.

In support of their model, Rutherford and Cover could cite the passages from *Specimen Dynamicum* or *Discourse* §29 above, for instance, or the following:

In every substance there is nothing other than the nature or primitive force from which follows the series of its internal operations. This series, i.e. all of its past and future states, can be recognized from any state of the substance, i.e. from its nature. (1923: A 6.4.1672-3)³⁷

Passages such as these suggest that *all* the phenomena in nature, and *all* the states of a substance, are completely determined by the active forces which constitute natures strictly-speaking. There’s no room, on this view, for an appeal to the broader essence.

Although there are attractions to this collapse of the nature/essence distinction, the case for it isn’t compelling. For one thing, the *Degrees of Power* proposal may be able to handle the text just cited by maintaining that the entire “series” of phenomena *does* follow from the primary force of a finite substance, provided we take into account even the smallest *degree* of force. Moreover, we have seen numerous other texts in which Leibniz links the natural powers of creatures to the laws of nature, and then allows that *other* sources of change in those creatures are possible. Such a change would be accounted for by the general law of the series but not by the subordinate maxims/laws of nature – in other words, it would be a miracle. This is true not only in the relatively early *Discourse*, but also in the Letters to Arnauld (1967:116), the *New Essays* of 1704 (1996: 66) and the very late *Theodicy*:

Thus it is made clear that God can exempt creatures from the laws he has prescribed for them, and produce in them *that which their nature does not bear by performing a miracle*. (*T* §3; 1951: 74, my emphasis)³⁸

³⁶ These passages are hard to square with Rutherford’s claim in his 1995 book that “genuine miracles” count for Leibniz as “an important class of exceptions” to his overarching “principle of intelligibility” (1995: 240-1). It’s possible that Rutherford’s view has changed here.

³⁷ Joshua Watson cites this passage on behalf of the view that empirical miracles are not actual for Leibniz. He departs from Cover/Rutherford, however, in holding that they are at least metaphysically possible. See (Watson unpublished, ch. 5).

³⁸ Indeed, in the *Theodicy* Leibniz still expresses some openness to the view that the infusion of reason in a merely “sentient soul” is miraculously performed through “some special operation, or (if you will) through a kind of *transcreation*” (*T* §91; Huggard 1951: 173). See (Brown 1995: 28ff) for a discussion of this issue.

In each of these contexts, Leibniz insists that there is a “nature” (strictly-speaking) in creatures with respect to which certain divinely-instituted changes would be wholly external. The collapse of the nature/essence distinction thus faces serious textual challenges, at the very least.

3.6. Summary

The puzzles we’ve been considering can be summarized in the form of a dilemma:

(A) If empirical miracles are included in creatures’ essences but not in their natures, then we are left with no positive ground of the relevant states in the substances themselves: any miracles become “extrinsic denominations,” which seems contrary to the doctrine that all changes in substances have a ground in the active powers of those substances.

(B) If essences are collapsed into natures by construing both as fully grounded in the active powers, then Leibniz’s system is unable to accommodate the possibility of empirical miracles, and the many texts in which he continues to speak of them must be regarded as confused or disingenuous.

The *Wholly Passive* proposal sketched above, according to which miracles are solely the result of God’s active activity, amounts to an embrace of the first horn of the dilemma. *Degrees of Power*, however, seems to offer a way between the horns. Again, natures and essences can be distinguished by considering the *degree* of active power involved in a given change of state, and if a substance’s degree of active power with respect to some change is far less than its degree of passive power vis-à-vis God, then the change counts as an empirical miracle. In other words, the state is outside the creature’s nature strictly-speaking and thus not “within” its power, even though it is grounded in a very limited *degree* of creaturely active power.

The *Degrees of Power* proposal also explains how Leibniz can regard empirical miracles as surpassing the power of nature (in the strict sense), and as exceptions to the laws qua subordinate maxims, and yet as the result of extraordinary concurrence *with* some degree of active power in the creature. Finally, it allows the three remaining concepts of empirical miracle to be extensionally equivalent. The proposal does not, however, resolve the epistemological puzzle regarding how the decrease in intelligibility of the world and happiness of rational creatures is consistent with its overall perfection. Perhaps the best thing to say on that issue, as usual, is that it is at least conceivable that all the other worlds God might have created would have been even less perfect overall. But it would surely be preferable from a religious point of view if Leibniz could accommodate the thought that the inclusion of a genuine miracle adds to a world’s perfection. The tension between Leibniz’s rationalism and his religion remains.

It is high time to turn to a discussion of whether Kant can follow Leibniz in fitting empirical miracles into his overall philosophy of nature. We will find that although his view of the connections between empirical events and creaturely natures differs from Leibniz’s in important respects, there is also a striking similarity between their respective models of empirical miracles.

Furthermore, Kant's two main departures from Leibniz – the doctrines of transcendental freedom and noumenal ignorance – may allow his model to avoid the problems we've encountered in that of his predecessor.

4. Kant

4.1 First rank and comparative miracles

In order to do full justice to a comparison between Leibniz and Kant on this issue, we would also need to look at Wolff, Baumgarten, and the other proximate Leibnizians (as well as non-Leibnizians like Lessing, Reimarus, Herder) with whom Kant was interacting. For the purposes of systematic comparison, however, it will save time and introduce no significant distortions, I think, simply to consider how Leibniz's own conceptual scheme (as laid out above) relates to the model Kant developed some eight decades later.³⁹

³⁹ Quotations from Kant's works are cited according to the Ausgabe der königlich preussischen Akademie der Wissenschaften (Kant 1902–), with the two editions of the *Critique of Pure Reason* cited by the standard [A/B] pagination, and all other works cited as [Abbreviation, volume:page]. Here I have typically though not always used the translations in the *Cambridge Edition of the Writings of Immanuel Kant*, the general editors of which are Paul Guyer and Allen Wood.

Abbreviations are as follows:

Anon-K₂ Transcriptions of metaphysics lectures from early 1790's.

Beweisgrund *Der einzig mögliche Beweisgrund zu einer Demonstration des Daseyns Gottes* (1763). *The Only Possible Basis for a Demonstration of the Existence of God.*

Dohna *Transcriptions of metaphysics lectures from 1792-3.*

G *Grundlegung zur Metaphysik der Sitten* (1785), *Groundwork of the metaphysics of morals.*

Kies *Über Wunder* (late 1780's), *On Miracles.*

KpV *Kritik der praktischen Vernunft* (1788), *Critique of practical reason.*

KU *Kritik der Urteilskraft* (1790), *Critique of the power of judgment.*

L₁ *Transcriptions of metaphysics lectures from the 1770's.*

Mrongovius *Transcriptions of metaphysics lectures from 1782-3.*

MFNS *Metaphysische Anfangsgrunde der Naturwissenschaft* (1786), *Metaphysical Foundations of Natural Science.*

Pölitiz *Religionsphilosophie Pölitiz. Lectures on religious philosophy from 1780's.*

R *Religion innerhalb der Grenzen der bloßen Vernunft* (1794), *Religion within the Boundaries of Mere Reason.*

Like Leibniz, Kant envisions God as not only the metaphysical ground of all possibility, but also as the causal origin of all finite being. In other words, Kant views God as the creator of finite things-in-themselves, and thus of the features of those things on which the empirical world somehow depends. Unlike Leibniz, however, Kant does not regard creation itself as a miracle: “what happens outside the world ... is not a miracle, e.g. creation is no miracle.” A miracle, rather, is “that which happens contrary to the order of nature in the world” (*Mrongovius* 29:870); it has to “interrupt (*unterbricht*) the order of nature” (*Beweisgrund* 2:116).⁴⁰ Because creation is a condition of the existence of the order of nature, it “cannot be admitted as an occurrence among the appearances” (A206/B251-2), and is thus not an interruption of that order. This coheres nicely with our Mackie/McGrew conception of empirical miracles above.

What about God’s role in keeping the world in being over time? There are obvious difficulties for this doctrine given that Kant thinks we must consider not only God but all the other supersensible things-in-themselves as non-temporal.⁴¹ All the same, Kant is willing to talk of “conservation” (*Erhaltung*) in this context, remarking in a lecture from the Critical period that “the same power required for the creation of substances is also needed for their conservation” (*Pölitz* 28:1104). Whether and how this conservation doctrine ultimately differs from Leibnizean concurrence is a matter of some dispute.⁴² Either way, however, Kant clearly doesn’t regard such activity as miraculous: “Just as little [as creation] is conservation a miracle.—It is no event in the world” (*Dohna* 28:667). As for the other miracle of first rank—incarnation—Kant spends Part II of his *Religion* book developing an account on which it is not miraculous at all.

Kant says more about Leibniz’s second conception—comparative miracles performed by finite spirits—than one might think. In various lecture discussions, as well as in the lengthy “Kiesewetter” fragment from the late 1780s, he distinguishes a “*miraculum rigorosum*, which has its ground in a thing outside the world (thus not in nature)” from a “*miraculum comparativum*, which to be sure has its ground in nature, but in one whose laws we do not know; of the latter sort are the things we ascribe to spirits” (Ak. 18:321; see *Metaphysik L_I* Ak. 28:219, *Dohna* Ak. 28:667-8). In the *Religion*, too, Kant talks sincerely about “angelic” and “diabolical” miracles and seems to think that they are possible, though not easy to identify. But for Kant—as

Refl *Reflexionen* from Kant’s *Nachlass* (variable dates).

Volckmann *Religionsphilosophie Volckmann. Lectures on religious philosophy from 1783-4.*

⁴⁰ This second phrase is from a pre-critical essay of 1763, but there are similar descriptions in various critical lectures. See *L_I* (28:217ff), *Dohna* (28:667), *Pölitz* (28:1109).

⁴¹ “For in God only one infinite act can be thought, a single, enduring force which created an entire world in an instant and preserves it in eternity. Through this act, many natural forces were poured out, as it were, in this world-whole, which they gradually formed in accordance with general laws” (*Pölitz* 28:1096; cf. 28:1104).

⁴² A few pages after the passage just quoted, Kant is recorded as saying that “[i]n the same way there takes place no *concursus* of God with natural occurrences. For insofar as they are supposed to be natural occurrences, it is presupposed that their first proximate cause is in nature itself, and it must be sufficient to effect the occurrence, even if the cause itself (like every natural cause) is grounded in God as the supreme cause” (28:1106). See (Hogan 2014) as well as (Brewer/Watkins 2012) and Insole (2013) for discussions of Kant on concurrence, freedom, and theological determinism. Lehner argues that God does not concur with events in nature but does concur with our free actions (Lehner 2007, 316n). For more on moral concurrence, see Chignell (2013).

for Aquinas, Leibniz, and Newtonians like Samuel Clarke--comparative miracles (*Wunder*) are really just objects of wonder (*Bewunderung*): dazzling but fully naturalistic events caused by natural, finite beings according to particular empirical laws with which we are not presently familiar.

4.2. Empirical miracles: textual issues

Let's turn now to Leibniz's third, fourth, and fifth concepts of miracle: they are, again, the concept of a miracle as *beyond nature's power*, as *contrary to the subordinate maxims*, and as *the product of extraordinary concurrence*. It is familiar Kantian lore that the Causal Principles of the Second and Third Analogies guarantee that every alteration in nature occurs in accordance with a rule, and that every spatio-temporal substance existing at *t* is in reciprocal causal relations with every other spatio-temporal substance existing at *t*. These principles are known *a priori*, and are the transcendental basis of the lawfulness of nature. They can also be further specified in relation to what Kant calls the "empirical concept of matter": the result is the set of dynamical and mechanical laws that he outlines in the *Metaphysical Foundations*. Taken together, these principles constitute the "metaphysics of corporeal nature" (4:472).

Kant thus makes it clear in "On Miracles" (also known as "the Kieseewetter fragment") that "no alteration in the world (thus no beginning of that motion) can arise without being determined by causes in the world according to *general laws of nature* (*Naturgesetzen überhaupt*), *thus not through freedom or a miracle proper*" (Kies 18:320, my emphasis). For reasons that will become obvious below, I think we need to interpret "general laws of nature" here as referring to metaphysical principles, rather than to more specific or "particular" empirical laws. This is supported by Kant's equation, later in the very same sentence, of "law of nature" with "causality" *simpliciter*: "appearances according to the law of nature (of causality) [*die Erscheinungen nach dem Gesetze der Natur (der Causalität)*] are what determine time" (*ibid.*). If this is right, then Kant's negative claim in this passage is simply that there can be no events (free, miraculous, or otherwise) in the material world that fail to adhere to the *a priori* causal, dynamical, and mechanical laws established by the metaphysics of corporeal nature.⁴³

The other main place to look for Kant's view on miracles is in *Religion*--in particular in the second of the four "parerga to religion within the boundaries of pure reason." The parerga doctrines do not belong to a religion of pure reason, but "yet border on it" and are thus worthy of discussion (R 6:52).⁴⁴ In the main body of Part Two, Kant had already asserted that we don't have either a theoretical basis or a practico-religious need to postulate the virgin birth or the bodily resurrection. In the parergon attached to that Part, Kant starts off in the same vein by claiming that a moral religion ("the heart's disposition to observe all human duties as divine

⁴³ Eric Watkins points out (in conversation) that Kant does not consider the question of whether there could be a different kind of *matter* -- a kind of matter that is not captured in what Kant admits is our merely "empirical concept" (4:470) and thus need not adhere to the metaphysical principles that govern matter as we conceive it. My suspicion is that Kant would not regard such matter as something we could possibly experience, and thus would not think of it as part of nature in the relevant sense. But the point deserves further consideration.

⁴⁴ See (Chignell 2010) for an expanded discussion of these issues in Part II.2 of *Religion*.

commands”) is such that any miracles connected with its inception are completely dispensable. Belief in historical empirical miracles, in other words, is a ladder that can be kicked away once we come to accept the authenticity of a moral/religious teaching on other grounds. Indeed, it would manifest an immoral form of “*unbelief*” (*Unglaube*), Kant says, to insist that we can only accept morality’s dictates if they are authenticated by miracles.

So far, then, the texts seem to favor a firm and unqualified “No” in answer to our titular question. However, in spite of his commitment to the inviolability of the Causal Principles and the dispensability of miracle stories, Kant also manifests—in the *Religion*, the Kieseewetter fragment, and various lectures and notes from the critical period—a surprising openness to the real possibility and even historical actuality of empirical miracles. In *Religion*, for instance, he says that “reason does not dispute the possibility or actuality” of miracles (*R* 6:52) and that it is “entirely conformable to the ordinary human way of thinking” for a new religion—even one based on “the spirit and the truth (on moral disposition)” —to announce or “adorn” its introduction with dazzling feats (*R* 6:84). He goes on to suggest that it is plausible that the work of a “prophet” or “founder” of a new religion would be *full* of miracles (thus helping to win adherents from the old religion), and that the historical testimony to these miracles itself would be miraculously arranged and preserved: “It may well be (*es mag also sein*),” Kant writes, that the founder’s “appearance on earth, as well as his transition (*Entrückung*) from it, his eventful life and his passion, are all miracles—indeed that the history that should testify to the account of these miracles is itself a miracle” (*R* 6:84-5).⁴⁵

Similar claims are found throughout the critical lectures on religion and metaphysics. Kant obviously had Leibniz and Wolff in mind, for instance, when he taught that providence

sometimes determines in accord with his aims that individual occurrences should not correspond to the order of nature. For it is not at all impossible, even in the best world, that the powers of nature may sometimes require the *immediate cooperation of God* in order to bring about certain excellent ends. It is not impossible that the Lord of Nature might at times communicate to it a *complementum ad sufficientiam* in order to carry out his plan. Or who would be so presumptuous as to want to cognize how God can achieve everything He has planned for the world in accordance with universal laws and without his extraordinary direction?...Such exceptions to the rules of nature (*Ausnahmen von den Regeln der Natur*) may be necessary because without them God might not be able to put many great aims to work via the normal order of nature (*nach dem gewöhnlichen Laufe derselben*). (*Pölitz* 28:1112, my emphasis)

Similarly:

No world can be thought without deficiencies, without certain negations and limitations, and thus to make up the defect of nature, miracles are possible in the best world also, and even *probable* according to the concept of God’s goodness and truth. (*Mrongovius* 29:871; see also *Dohna* 28:667ff, *Anon-K₂* 28:732ff, and *Beweisgrund* 2:210-11).

⁴⁵ For the suggestion that there is some Humean “sarcasm” in Kant’s comment here, however, see (Ameriks 2014).

Kant typically describes miracles this way in his lectures--as highly unusual events involving a “complement” from outside of nature that, together with the ordinary powers of finite things, is sufficient for effects that accomplish divine purposes. “God’s miracles in the physical world” thus result from his “cooperation with occurrences in the sensible realm (*Mitwirkung zu den Begebenheiten in der Sinnenwelt Wunder Gottes in der physischen Welt sind*)” (Pölitz 28:1106). Without such divine complementation, the normal, natural powers of finite creatures would be insufficient to produce the intended effects.⁴⁶

4.3. Empirical miracles: philosophical issues

Now that we have Kant’s concept of empirical miracle before us, as well as a sense of the textual situation, we can return to our original question: how can *any* of this fit with the broader Kantian picture of nature as a deterministic system governed by the Causal Principles and the mechanical laws? The “On Miracles” fragment represents Kant’s most detailed attempts to answer this question. We have seen that he starts by saying that the “general laws of nature” are indeed unexceptionable. He goes on to distinguish, however, between two species of *miraculum* *rigorosum*: the “material” and the “formal.” A material miracle would be an “immediate effect of the divinity,” whereas a formal miracle has a cause in the world, but one whose “determination takes place outside the world.” Kant’s meaning here is hardly transparent, but he does offer this illustration:

If one holds the drying of the Red Sea for the passage of the children of Israel to be a miracle, it is a *miraculum materiale* if one takes it to be an immediate effect of the divinity, but a *miraculum formale* if one lets it be dried out by a wind, but a wind sent by the divinity. (*Kies* 18:321-2)

Material miracles are immediately dismissed on the grounds that they would involve the direct introduction of new motion (force), and that this would be opposed to the third law of mechanics, i.e. the application of the Third Analogy principle to our empirical concept of matter (4:544):

Now if a motion were effected by a miracle, then, since it would not stand under the law of effect and counter-effect, the *centrum gravitatis* of the world would be altered by it, i.e., in other words, the world would move in empty space; however, a motion in empty space is a contradiction, it would be a relation of a thing to a nothing (*eines Dinges zu einem Nichts*), for empty space is a mere idea. (*Kies* 18:321; cf. *Refl* 18:419 (R5997))

⁴⁶ “A concursus of God with events in the world is not impossible, however; for it is always conceivable that a natural cause be insufficient in itself to accomplish the bringing forth of a certain effect. In this case God would give it a *complementum ad sufficientiam*, but insofar as he does that, he *eo ipso* does a miracle (*Wunder*); thus we call it a miracle when the cause of an event is supernatural, which it would be if God as *concausa* cooperated in the bringing forth of the effect.” (*Volckmann* 28:1209).

Given this rejection of immediate or “material” miracles, it seems reasonably clear that Kant’s account of miracles will be no more satisfying than Leibniz’s to enthusiasts, literalists, and others⁴⁷ who suggest that God may insert new spatio-temporal events into the world *ex nihilo*, without regard to the Causal Principles or the mechanical-dynamical specifications of them.

That said, Kant also explicitly remains open to “formal” miracles in the Kieseewetter fragment. The idea, it seems, is that God sets up the world in advance (this is what he calls a “preestablished” formal miracle), or even intervenes on a particular occasion (an “occasional” formal miracle), such that “the power is in the world, but its determination takes place outside the world” (*ibid.*).⁴⁸ Kant emphasizes here and elsewhere that such occurrences must be rare: it would be a serious imperfection in the world if providence had to add his “complement” to lots of finite secondary causes in order to get the world that it wants. Still, the world might be set up such that, on rare occasions, the exercise of certain finite powers is accompanied by an extraordinary complement from “outside of nature”—i.e. a “determination” that exceeds anything in the powers of the relevant substances, but one that is both necessary and sufficient to accomplish the divine purpose. Thus, for instance, a wind that would normally cause a few whitecaps can be “complemented” in such a way that the entire sea parts; likewise, the anti-inflammatory powers of skin and hair that would normally resist fire only briefly can be “complemented” in such a way they survive even the Babylonian furnace.

Note that Kant’s way of telling the story explicitly retains the “form” of lawfulness: all alterations do have empirical causes, and all spatio-temporal objects are indeed in reciprocal interaction.⁴⁹ But in these extraordinary cases, the natural powers of finite things are only *part* of the total cause; the other part is the complementary determination – the extra boost – that comes from outside the empirical nexus. Only the *total* cause – the natural powers together with the supernatural complement – is “sufficient” for the effect (see *Volckmann* 28:1209).

What should we make of this model? For starters, it seems to entail that the Causal Principles do not guarantee that all alterations have empirical causes that are *sufficient by themselves* to produce them. For, again, on these extraordinary occasions a complement from outside nature is required to achieve the effect. This is still consistent with the letter of the Second Analogy principle, which says simply that empirical alterations follow from their causes in accordance with a rule (see A 188). Perhaps Kant’s idea is that in such extraordinary cases natural

⁴⁷ In conversation about these ideas, Lucy Allais advocated a more radical model according to which God violates even *transcendental* principles by producing empirically-uncaused phenomenal events. Her reasoning was that *if* one is going to allow miracles at all, they may as well be *real* miracles. I understand the sentiment, but setting philosophical issues aside it seems clear from some of these passages, especially in *Über Wunder*, that Kant (surrounded as he was by spirit-seeing and miracle-reports) would not have found this move attractive. Cf. *Refl* 5997: “Movements cannot begin from themselves, and also not from something, that was not itself previously moved” (18:420).

⁴⁸ It is unclear what we should make of the difference between “preestablished” and “occasional” in a transcendental idealist context. My best guess is that a preestablished miracle is one that is willed prior to consideration of the choices of finite agents, while an “occasional” one is performed subsequent to or in response to those choices. But note that in R5997, Kant seems to deny the possibility of “occasional” miracles altogether in favor of preestablished ones (*Refl* 18:420).

⁴⁹ For the distinction between the form of causal lawfulness and the empirical “matter” of particular moving forces, see *Critique of Pure Reason* A207/B252.

phenomena are *part* of the total cause, and there is a rule involved, but the rule also makes reference to the complementary boost (“determination”) that the empirical cause receives from “outside the world.” The fact that it makes such reference is presumably why Kant also says we *cannot* even in principle grasp the “laws” by which miracles occur.⁵⁰ In this way, they differ from merely comparative miracles, which are naturalistic events whose laws we do not in fact but in principle *could* understand.

But even if the Second Analogy principle is untouched, we might still worry that there is a tension between the present model and the principle of the Third Analogy, especially as extended to the concept of matter in the third mechanical law: “in all communication of motion, action and reaction are always equal to one another” (4:544). For it is unclear how such a miracle could occur without introducing action that has no reaction into the system. In other words, even if its occasion is the exercise of finite natural powers, God’s addition of a complementary “determination” (strengthening the power of that Egyptian wind, for instance) seems to threaten the mechanical law just as much as God’s directly parting the sea by fiat would. The complement is not, presumably, a mere change in the direction of the winds (à la Descartes’ immaterial mind changing the “direction” of the pineal gland’s vibrations without adding new motion); rather, it is a substantive *Mitwirkung* that adds something new.

Apart from what was quoted earlier about the *centrum gravitatis*, the Kieseewetter fragment and other texts pass over these issues in silence, as far as I can see. In keeping with the rather speculative character of this model, however, we might suggest that God sets things up such that, on the occasion of a formal miracle of this sort, a reaction equivalent to the quantity of motion or force contributed by the complement is also simultaneously added such that the overall principle is preserved (and the *centrum gravitatis* of the world remains unmoved!). In effect, the divine addition to the action finite powers would be accompanied by a complementary reaction (“the Lord giveth, and the Lord taketh away”). Kant at least hints at this in a note from the 1780’s: “Neither through a miracle nor through a mental being can a motion be brought about in the world, without producing just as much motion in the opposite direction, in accordance with the *laws of action and reaction in matter*” (*Refl.* 18:419 (*R5997*), my emphasis). This kind of *deus ex machina* move (not unheard of in the early modern period, of course) would at least allow the model to adhere to the letter of the *a priori* principles governing matter. And so neither the transcendental laws of the *Critique* nor their application to matter in the “metaphysics of nature” would be broken.

So what are we to make of the apparent conflict between Kant’s explanatory rationalism about the empirical world, and his insistence in *Religion* and elsewhere that “occasional formal” miracles, at least, are possible and even probable? He says little by way of helping us resolve the puzzle, and many commentators have taken his positive remarks as little more than hat-tipping to the theological authorities. I want to suggest now that, whatever his rhetorical intentions, there may still be a coherent way for Kant to incorporate empirical miracles, and that the resulting picture looks a lot like Leibniz’s two-level model described above.

⁵⁰ “In general, an event in the world whose laws human reason cannot at all cognize is a miracle” (*Dohna* 28:667)

Recall that Kant grounds the fundamental lawfulness of the empirical world in transcendental arguments for the necessary and universal truth of the Causal Principles, as well as the application of those principles to the empirical concept of matter in general. Significantly, though, Kant does not insist that these arguments show that *all* of the much more specific or particular “laws” that we seek in scientific inquiry would be able to account for all of the events in the empirical world. Nor does he claim that these particular laws—even the ones that would be described in an ideal science—have the same universal, necessary, and exceptionless status as the *a priori* ones.

My suggestion, then, is that there may be room in Kant’s system for a variation on Leibniz’s distinction between the general or fundamental order (the “law of the series”) that describes how nature *genuinely* operates, and the more specific or particular generalizations (what Leibniz calls the “subordinate maxims”) that *typically* hold, but to which there can be the occasional exception. The latter generalizations are still called “natural laws” by both Leibniz and Kant: they comprise the best system of graspably simple and strong (if not comprehensive) generalizations, and they are adequate to what happens in the vast majority of cases.⁵¹ The fundamental law of the series, however, is not simple or graspable in detail for Leibniz: we know only *that* it holds without exception. “Rigorous formal miracles” in this context would be events that follow from the general “form” or law of the series, but still count as exceptions to the more specific, subordinate “laws.”⁵²

In support of the extension of this picture to Kant, consider the following passage, this one from the *Dohna* lectures of 1792-3:

A miracle strictly defined is called *rigorous*. [How] is such a thing possible? Because there is an *extramundane* cause that has produced this order of things, and thus can produce another. A miracle is therefore possible in itself internally...In general, an event in the world whose laws human reason cannot at all cognize is a miracle” (*Dohna* 28:667) (*Dohna* 28:667).

The claim here is that empirical events typically appear in an order that we can and do cognize, but that “this order of things” may at times be suspended in favor of “another” order whose “laws” are not humanly cognizable. A more Leibnizean way to put this is to say that there is one *true* empirical order or law of the series from which all events follow, but that this true order is not epistemologically accessible to us in all its details. This is still consistent with saying that we know *that* it obtains and has the basic structure underwritten by various metaphysical principles (for Leibniz) or the categories (for Kant). It also leaves room for the idea that the true empirical order may differ (in terms of the events that it entails) from the specific empirical “laws” that we seek in everyday life and natural science. In *Religion* Kant says likewise that miracles are

⁵¹ For a discussion of the effort to balance both simplicity and strength, see (Luck 2011, 138-140 and Lewis 1973, 74ff).

⁵² Leibniz: “Thus, to speak more clearly, I say that God’s miracles and extraordinary concurrence have the peculiarity that they cannot be foreseen by the reasoning of any created mind, no matter how enlightened, because the distinct comprehension of the general order surpasses all of them. On the other hand, everything we call natural depends on the less general maxims that creatures can understand.” (*Discourse on Metaphysics* §16; 1989, 49)

“events in the world, whose causes (*Ursache*) are such that their *laws of action* (*Wirkungsgesetze*) are absolutely unknown to us and must remain so” (*R* 6:86).

It is important to emphasize that the hierarchy here is epistemological: metaphysically-speaking, there is only one true, inviolable order. And while empirical events are *typically* arranged according to relatively simple, general patterns that we can cognize, that “order of things” is only an approximation. On occasion, it gives way to events that are part of a deeper order – one whose “laws of action” are *necessarily* unknown to us. Again, this is consistent with saying that we know *that* the latter inviolable order obtains and, for Kant, that it has the basic structure described by the metaphysics of nature. But it also leaves room for that order to differ (in terms of the events that it entails) from the order described by the usually-reliable particular “laws” that we often seek in empirical investigation. So there may be cases in which God “determines in accord with his aims that individual occurrences” that do “not correspond to the [subordinate] order of nature” are “worked into the course of the world (*in dem Laufe der Welt gewirkt*) in order to bring about some necessary aim of his” (*Pölitz* 28:1110-1112). Provocatively enough, Kant even suggests in *Religion* that we may all be witness to some of these miracles, though not under that description:

Nobody can have so exaggerated a conceit of his insight as to make bold to assert definitely that, for instance, the most admirable conservation of the species in the plant and animal kingdom, where every spring a new generation once more displays [the species] original and undiminished, with all the inner perfections of mechanism, and even (as in the vegetable kingdom) with all the always-delicate beauty of color, without the forces of inorganic nature, otherwise so destructive in the bad weather of autumn and winter, being able to harm the seed at that point—no one can assert that this, I say, is a mere consequence of natural laws, and pretend to **grasp** that the creator’s direct influence is not rather needed for it each time (*R* 6:89n, original emphasis).

Note, again, that the model does not assimilate empirical miracles to “comparative miracles.” For the latter adhere to the *ordinary* particular “laws,” our ignorance of which is a contingent matter. Genuine empirical miracles, by contrast, do not adhere to the ordinary “laws”: they are exceptions involving the “creator’s direct influence” and thus their “laws of action” are *necessarily* beyond our ken.

With this sketch of Kant’s model before us, we can now complete the comparison with Leibniz. Recall that there were two main problems for Leibniz about accommodating empirical miracles. First, he seemed to have no clear story of how the extraordinariness of the miracle might be grounded, at least in part, in the natures of creatures themselves – i.e. no story about *what* in creatures is being “extraordinarily” concurred with. This was in tension with his anti-occasionalist doctrine that all the states of a finite substance must be grounded in its active powers somehow. We looked at two proposals in response to the problem, and noted some of their benefits and costs. Second, there was a question about why the general order is unintelligible to finite rational minds, and how this coheres with the best possible world doctrine.

Kant faces neither of these problems. Regarding the first, Kant simply declines to talk of God's extraordinary concurrence with creaturely powers, and actually seems to resist any commitment to concurrence in all but its weakest, conservationist form. That said, every event in the empirical world, including a miraculous one, *is* a product of the active powers of finite substances on the Kantian model, at least in part. That's because the fundamental empirical order is itself, at least in part, the result of the spontaneous activity of finite apperceiving subjects. An empirical miracle would therefore also be the result of the activity of such subjects, at least in part, and so in a transcendental idealist context, no event or state in the empirical world – nothing that is among the perceptible phenomena – could be a completely “extrinsic denomination” grounded *solely* in divine powers.

Regarding the second problem, Kant might be able to offer a kind of explanation of why the true general empirical order is beyond our ken. If the fundamental order of empirical nature is a result of the spontaneous synthesizing activity of the apperceiving subject, and if we grant Kant's general claim about our ignorance of the details of how this activity works (i.e. details that would go beyond the mere application of the categories), then perhaps we cannot expect to have epistemic access to all of the detailed nomological *results* of these activities either. Again, the famous arguments of the *Critique* and *Metaphysical Foundations* prove that there is a true, general order of empirical objects structured in accordance with the categories and that this order is indeed “universal and necessary,” but they provide no guarantee that even an idealized scientific account of the particular laws will reliably map that fundamental order. Kant can thus retain an analogue of Leibniz's gap between the “subordinate” empirical laws and the true “general order” of nature: for Kant the gap is between what we can know about particular laws on the basis of empirical inquiry, and what we do not or perhaps cannot know about the general order underlying them – the order that results from noumenal affection and the deep structuring activities of mind.⁵³

4.4. Maxims of judgment

Rhetorically, Kant almost always moves from acknowledging the possibility of empirical miracles to emphasizing the utter uselessness of appeals to them. Even if such events are possible, he says, our necessary ignorance of their laws entails that we have no good “positive criterion” for them--a criterion that would reliably tell us when a miracle has occurred. This leaves reason “paralyzed”: “Nowhere in experience can we recognize a supersensible object, even less exert influence upon it to bring it down to us” (*R* 6:174).⁵⁴ In order to avoid such

⁵³ Although it is beyond the scope of this essay to go further into details, the model does seem to require the rejection of interpretations of Kant's philosophy of science according to which all of the particular empirical laws are *entailed* by the metaphysical laws deduced in the *Critique* and the *Metaphysical Foundations*. The fact that there seems to be a gap between the fundamental order of nature (deduced in the *Critique* and the *Metaphysical Foundations*) and the particular empirical laws sought by natural scientists has been noted by other commentators as well. Regarding the *Opus Postumum*, for instance, Eric Watkins remarks that “As Kant struggles with the problems that result from trying to account for much more specific features of matter, it is unclear that (or how) the categories are supposed to be of help in structuring Kant's argument” (Watkins 2009, 21).

⁵⁴ See (Watkins 2010); (Byrne 2007, 158ff). In *Religion* we are given the “negative criterion” that something “cannot be a divine miracle despite every appearance of being one” if it is “directly in conflict with morality” (*R* 6:87). The *L_I* lectures (mid-1770s) are interesting in that Kant is reported to have floated a corresponding positive

paralysis, Kant says, those who would proceed scientifically must ignore the possibility of miracles and presuppose that any particular event is not the result of a special intervention into the causal nexus. In other words, for scientific and practical purposes we should presume that every empirical event has its total cause in the empirical world (*R* 6:88).⁵⁵ Kant continues the earlier passage about the wonders of spring in this way:

But these are experiences; **for us** therefore they are nothing other than effects of nature, and **ought** never to be judged otherwise. For this is what modesty requires of reason's claims, and to transcend these bounds is presumptuousness and immodesty, even though in asserting miracles people often purport to demonstrate a humble and self-deprecating way of thinking. (*R* 6:89n, original emphasis)

A few pages earlier, Kant likewise says that "sensible human beings" who "do indeed theoretical believe in miracles" should not count on them in "practical affairs," and judges mustn't take them into account in courtroom situations (*R* 6:85-87). And while governments and churches may find it useful to teach that revelations and miracles *have* occurred in ancient times, they must advise that it is unwise to expect them now. The motive behind these injunctions is baldly pragmatic: old stories about miracles won't cause much uproar, but rumors of new miracle workers could lead to serious civil unrest: "to want to *perceive* heavenly influences is a kind of madness (*Wahnsinn*)..." (*R* 6:174).

The discussion in Part Two of *Religion* concludes with the claim that there are only two principled maxims regarding miracles: we should either accept they occur all the time "though hidden under the appearance of natural occurrences," or we should accept they do not occur at all. The first maxim is "in no way compatible with reason" and so we must adopt the second. But, again, note that this is just a "maxim of judgment," not a "theoretical assertion": Kant insists that it is really possible that empirical miracles occur.⁵⁶ The only claim about miracles that we must "dispute with all our might" is that they *authenticate* true religion, and that belief in them is somehow meritorious or pleasing to God (*R* 6:85).

This combined openness to the possibility of empirical miracles and skepticism about our ability to identify them is Kant's consistent position throughout the lectures, notes, and written materials in the critical period. It is not much changed since the pre-critical period: in 1763, he argued that, for scientific and practical reasons, exceptions to the "laws of nature" must be viewed as possible but "rare" and that, in general, philosophy and common sense indicate that "nothing is to be regarded as a miracle or as a supernatural event, unless there are weighty

criterion: "The condition under which it is allowed to assume miracles is this: the course of nature does not coincide with moral laws. Thus imperfection is in the course of nature; it does not agree with the conditions which should concur as motives for the moral laws. Miracles are possible in order to complement this imperfection" (*L*_I 28:219).

⁵⁵ Cf. with the "first Rule concerning Miracles" laid down by the 17th century Newtonian Thomas Burnet: "That we must not flie to miracles, where Man and Nature are sufficient" (Burnet 1691, section III, ch. viii; qtd. in (Harrison 1995, 538)).

⁵⁶ The claim that our commitment to the exceptionless character of the natural laws is a mere maxim of judgment will seem scandalously weak to readers who extrapolate from Kant's claims about the universal and necessary status of the Causal Principles to a claim about the particular laws. Applied only to the latter, and in the context of the models sketched above, however, the scandal dissipates.

reasons for doing so” (*Beweisgrund* 2:108; see also *L_I* (from the very early critical period 1770’s) 8:217ff).⁵⁷

5. Conclusion

There is clearly more to be said, but this sketch of the Kantian model suggests that he fares at least as well as Leibniz in terms of explaining the commitments they share to the possibility of empirical miracles and to our ignorance of the general order that entails them. On the negative side, Kant lacks the metaphysical commitments that make it hard for Leibniz to keep the gap between natures and essences from collapsing, and he lacks the arch-rationalist commitments that force Leibniz to say that miracles decrease the perfection of the world by reducing the happiness that finite minds take in the intelligibility of things. On the positive side, Kant can utilize his version of the gap between the specific empirical laws and the true, general order to account for the possibility of empirical miracles. And he can appeal to our ignorance of the details of the spontaneous structuring activities of the mind--as well as noumenal affection to which they respond—to explain why parts of this fundamental order might not be accessible (in particular, the “laws of action” (*Wirkungsgesetze*) of the causes involved in any miracles).

A final point: Kantian readers may have noticed something significant way back at the beginning of the paper related to our Mackie/McGrew account of an empirical miracle:

(EM) An empirical miracle obtains when something that is not a part of the order described by the laws of nature purposively intervenes to produce an event that counts as an exception to a particular natural law.

What Kantian readers may have noticed is that this concept seems applicable, in principle, to some of the results of *finite* transcendental freedom too. This will strike all but the most extreme enthusiast as bizarre and outlandish – and perhaps it is: how could *we* produce events that are exceptions to the laws of nature? But from an interpretive point of view, I think, we cannot immediately recoil. For whereas Leibniz merely flirted with the (Cartesian) thought that the exercise of free will produces an exception to the laws,⁵⁸ Kant, even after the critical turn, suggests that we must believe (for practical reasons) that our finite, transcendently free choices contribute to making nature what it is. The traditional interpretation of Kant’s compatibilism takes this to mean that our noumenal choices somehow play a role in determining *which* particular laws and initial conditions characterize the phenomena (*G* 4:450ff).⁵⁹ But on the model

⁵⁷ A.T. Nuyen takes comments like these as grounds for interpreting Kant as a wholesale “empirical skeptic” about particular miracles, and goes on to focus on what he regards as the “miracles” of teleology in nature as a whole, and of the highest good. See (Nuyen 2002).

⁵⁸ “Free or intelligent Substances ... are not bound to any certain subordinate Laws of the universe, but act spontaneously from their own power alone, *as if by a sort of private miracle*, and by looking to some final cause they interrupt the connection and course of efficient causes operating on their will” (Leibniz 1973,100, my emphasis).

⁵⁹ “It must be noted, however, that according to the traditional interpretation of Kant’s theory of free will, it is not absurd to suppose that we have the power to causally affect the laws of nature. Choices of maxims by agents *qua* noumena are the ontological substrates of both (1) the empirical-psychological events that constitute the choices of

sketched above, what actually happens in the empirical world is not *always* governed by the particular empirical laws. No doubt Kant would not want to ascribe *material* miracles to a finite will any more than to the infinite one. But a *formal* miracle – an empirical expression of the quality of our will that makes the fundamental empirical order different than it otherwise would have been – is, at the very least, something that the account seems to leave open. Is there some other reason to restrict the phenomenal effects of our transcendental freedom to what is prescribed by the ordinary, subordinate, particular “laws”?

The question hangs, it seems to me, on how we interpret the purposiveness condition in (EM). According to Kant, our transcendently free choice is simply for or against the dictates of the moral law; our purpose in that context is not to produce any particular empirical event, much less a miraculous one. But could the empirical expression of such a purposive free choice still turn out to be an event that is an exception to the particular laws? And would that count as a purposeful production *of that event*? It is impossible to imagine Kant endorsing this idea, although it is also surprisingly hard to build a textual case against it. His only clear recommendation is to remain agnostic: “[F]or theoretical purposes, as regards the causality of freedom (and equally its nature) we cannot even formulate without contradiction the wish to understand it” (Ak. 6:144). All the same, it is part of Kant’s compatibilism that we can regard ourselves, from a practical point of view at least, as responsible for effects in the empirical world, even while the “laws” by which we are so responsible remain an “impenetrable mystery” (6:143). And so perhaps finite freedom, too, is capable of the occasional miracle.⁶⁰

agents *qua* phenomena and (2) the particular causal laws that necessitate those empirical-psychological events. If choices of maxims by agents *qua* noumena had been different, then they would have had different appearances — that is, the empirical-psychological events that constitute the choices of agents *qua* *phenomena* would have been different, and the particular causal laws necessitating them would have been different too” (Vilhauer 2004, 727).

⁶⁰ Thanks to participants in the New York-New Jersey Early Modern Colloquium, a workshop at the University of Miami, and the *Leibniz: Reception and Relevance* conference in Lisbon for feedback on drafts of portions of this paper. I am also grateful to Jan Cover, Dan Garber, Don Garrett, Brandon Look, Colin McLear, Eleonore Stump, Joshua Watson, and Eric Watkins for additional conversations and correspondence. It would be an empirical miracle if there were no remaining errors; those I claim as my own.