OMNIRATIONALITY

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Abstract: God is omnirational: whenever he does anything, he does it for *all and only* the unexcluded reasons that favor the action, and he always acts for reasons. This doctrine has two unexpected consequences: (a) it gives an account of why it is that unification is a genuine form of scientific explanation, and (b) it answers the question of when the occurrence of *E* after a petitionary prayer for *E* is an answer to the prayer.

1 Omnirationality

Omnirationality is an underexplored divine attribute, positing which solves interesting problems in the philosophy of science and the philosophy of religion.

Sally always enjoys the company of her friend Patrick, even when he is sick, and when he is sick, she also takes herself to have a duty to visit him. Patrick is sick, and Sally visits him. It seems that scenarios compossible with the above include: (a) Sally visits Patrick solely because she enjoys his company; (b) Sally visits Patrick solely out of duty; and (c) Sally visits Patrick both out of duty and because she enjoys his company. There are other scenarios if Sally has other relevant reasons, but suppose that one of (a), (b), and (c) is correct. What is it about that scenario that makes it be the truth about Sally's visit? Donald Davidson (1963) proposed that the answer was causal in nature: Sally visits Patrick because she enjoys his company (respectively, because of duty) if and only if her reason to enjoy his company (respectively, to do her duty) non-aberrantly *causes* her to visit Patrick.

The same question comes up in the case of God. Let us suppose that God intentionally created fig trees.¹ Did he do so because, say, they are beautiful or because they have wholesome fruit? Both options state good reasons that God in fact has. That a tree is beautiful is a reason to create it. That a tree bears wholesome fruit is also a reason to create it. But which, if any, of these reasons did God in fact act on? The Davidson answer is that

¹As opposed to, say, intentionally initiating evolutionary processes that could lead to the existence of fig trees, and not caring whether the processes in fact lead there.

we are to look for the reason or reasons that caused God to act. But the idea that something would cause God to act is theologically uncomfortable.

I propose that God acted on both reasons, as well as on any others that he (unexcludedly—this proviso will be discussed later) has. For suppose that he acted on only one reason, say that the fig tree's fruit is wholesome. Then the fig tree's beauty was not among God's reasons for his creative choice. But the fig tree's beauty counts in favor of creating a fig tree, and God being omniscient knows that it does. And, being perfectly rational, how can God ignore a relevant good reason that he is aware of?

To fail to have the fig tree's beauty among his reasons of action would have been for God to fail to act on a good reason without good reason for the failure. Now, often one does have reason to fail to act on a good reason. The most common case is when we have a competing reason for an incompatible action that I in fact perform. I have reason to eat the scrumptious chocolate cake, but I have reason to stay healthy, and we may suppose that this time I act on the latter reason. The reason of health makes it rational for me to refrain from eating the cake and thereby to refrain from acting on the scrumptiousness of the cake. Thus, had God acted on some reason *R* to refrain from creating fig trees, he would have with good reason refrained from acting on the beauty of fig trees. But given that God did not in fact act on any such reason *R*, since had he done so he would not have created fig trees, this is not a case like that.

This suggests the following principle:

(1) If God performs an action *A*, then for any *R*, God performs *A* at least in part for *R* if and only if *R* is a (good) reason for performing *A*.

The parenthetical "good" is to emphasize that here we are dealing with reasons that genuinely have rational force, rather than merely apparent reasons.

However, (1) may be too strong. For in addition to ordinary first-order reasons, an agent can have higher-order exclusionary reasons. According to Raz (1990), what is distinctive about the reasons provided by authoritative commands and valid promises is that in addition to providing a first-order reason to do the action, the command or promise provides a second-order reason not to take certain kinds of first-order reasons into account. Such higher-order reasons are called *exclusionary* reasons: they exclude classes of lower-order reasons. For instance, typically, commands and promises exclude reasons of mere personal preference, or at least those that go against the content of the command or promise.² If Sam's commanding officer

²An officer might motivate her soldiers by telling them that if they successfully fulfill the order, they will have a bit of a breather. Would it be vicious for a soldier to execute the order not only because it was ordered but also in order to have a bit of a breather? If the answer is positive, then the "that go against the content" qualifier can be removed. But I do not see that it would be vicious.

tells him to shoot the howitzer at yonder hill, the fact that he would rather keep on quietly thinking about the next move in his correspondence chess match with his girlfriend is an excluded reason. It is not merely rationally outweighed, but should not get weighed at all.

Next, suppose that Sam knows that shooting the howitzer at yonder hill would result in a total defeat in the war, but he has been unable to convince his commanding officer of that. Then, arguably, he does have an unexcluded reason not to shoot, even if this gets him court martialled. But if he does refrain from shooting and accepts the consequences, the fact that he would like to think about his next move in the chess game (and he will have lots of time for that in prison, perhaps) should *still* not be among his reasons—the rational force of the personal preference has been excluded by the command, while the rational force of a total military defeat has arguably not been excluded.

Now, God is not subject to commands, but he can make promises and enter into covenants, and it is plausible that such commitments give rise to exclusionary reasons. Thus, God could promise you that if you disobeyed him, he would not consider your material well-being when deciding whether and how to reroute tornadoes. In that case, after your disobedience, God might still miraculously reroute the tornado away from your house, but this wouldn't be because of your material well-being (it might be because of your children's material well-being, say). Thus, even though the fact that you are on the route of the tornado may be a good reason to reroute the tornado, and God does in fact reroute the tornado, it is a reason that is *excluded*. I do not know whether God in fact ever makes any promises like that, but the possibility should be taken into account. Thus, we should say:

(2) If God performs an action *A*, then for any *R*, God performs *A* at least in part for *R* if and only if *R* is an unexcluded (good) reason for performing *A*.

A corollary of this is that God never acts on excluded reasons. This is another way in which we differ from God.

More generally, deontic considerations can provide exclusionary reasons. First of all, the impermissibility of *A* excludes all other reasons in favor of *A*. However, our main concern will be with the reasons that God has in favor of what he actually does, and God never does anything impermissible, so none of the reasons in favor of what God actually does are excluded in this way.

An anonymous reader notes, however, that there is another kind of deontic exclusionary reason that can apply in God's case. It is wrong to intend evil even as a means to a good. But that an evil E would result in a good G seems to be a reason in favor of any action that would result in E, and yet it is a deontically excluded reason. We can then imagine a case like this. God intends some good G_0 , say that Adam and Eve be in the Garden. God foresees (perhaps with Middle Knowledge) an evil E, say that Adam

and Eve will sin. And God also foresees that E leads to some other good, G_1 , say the great redemptive work of Christ. But that the intermediary E between G_0 and G_1 is an evil that excludes from God's consideration the fact that G_0 leads to G_1 as a reason in favor of producing G_0 , even though this fact seems to be a genuine reason favoring producing G_0 . (Though God can perhaps use the fact that E leads to G_1 as a defeater-defeater for the reason against producing G_0 provided by the fact that G_0 leads to E.) It will be important that in the applications I will be making of omnirationality later on in the paper, such deontically excluded reasons will not be relevant. And, of course, there may be other kinds of excluded reasons in the case of God.

Exclusion works differently for perfectly rational beings and for us. Conflict of interest situations are cases where one has a higher-order reason that excludes some of the first-order reasons that one in fact has, such as reasons of personal gain. In such cases, we often find it difficult to in fact remove the first-order reasons from consideration, and as a result some of these reasons end up guiding our actions despite their having been rationally excluded. Some particularly conscientious, but still imperfect, people overcompensate for the influence of the first-order reasons, favoring the decision that goes against the excluded reasons. Others find they must recuse themselves. God has no such difficulties. If he is ever faced with an excluded reason, he simply brackets it without any overcompensation.

One might, on the other hand, think that when what would otherwise be a good first-order reason is excluded by an exclusionary reason it loses its status as a good reason. In that case, there are no excluded good reasons, and (2) simplifies to (1). The question if this is how we should look at "good reasons" is difficult, and for the purposes of this paper it will not be necessary to settle it. Nonetheless, it seems better to think of the first order reasons as continuing to have reason-giving force. If "excluded reasons" (i.e., facts that would be reasons were they not excluded) are not really reasons at all, then the politician who obtains a contract for her home town in part because it will increase the value of her real estate holdings suffers either (a) from a cognitive failing in not seeing that this fact has no reason-giving force or (b) from a severe failure of practical rationality in acting on something that she sees to have no reason-giving force. These do not seem to be right ways to analyze the politician's situation typically, and hence it appears that excluded reasons are really reasons, just rationally excluded, and the politician fails morally, but need not be assumed to suffer from either of the failings in (a) and (b).

I now say that

(3) *x* is weakly omnirational if and only if *x* essentially has the property of being an agent such that for every action *x* performs, *x* performs that action for all and only those reasons that are unexcluded (good) reasons for that action.

One reason the omnirationality in (3) is *weak* is that it does not imply that x always acts on at least one reason. Weak omnirationality is compatible with acting for no reason at all, as long as there is in fact no unexcluded reason favoring the action. Full omnirationality requires that one always act on a reason. It further requires that one consider all the unexcluded reasons *against* one's action:

(4) x is omnirational if and only if (a) x is weakly omnirational and
(b) x has the essential property of being such that whenever x acts,
(i) x acts for a reason, (ii) x makes the decision on the basis of all the unexcluded (good) reasons for the action, and (iii) x takes all the unexcluded (good) reasons against the action into account.

I shall take it that the really controversial part of my claim that God is omnirational is that he is weakly omnirational. It is very plausible, after all, that it is partly constitutive of agency that one be acting for a reason, and of perfect rationality that all the unexcluded reasons for and against the action be taken into account.

In practice, in the case of God, the qualification that the reasons be unexcluded is probably rarely applicable. In the case of the fig tree example, it is unlikely that God has any higher order reason that excludes either the beauty of the tree or the wholesomeness of its fruit from rational consideration. The exclusionary nature of the reasons that promises provide implies that one needs to have a sufficiently strong reason to make a promise, since by making a promise one is limiting one's rational options. While Judaism, Christianity and Islam all hold that God enters into covenants, we have reason to think that God does not issue promises for trivial reasons, and in particular we have reason to think that God has not issued any promise relevant to the creation of fig trees.

Omnirationality, then, provides a non-causal answer to the Davidsonian question of what reasons God in fact acts on. It would make for a neater theory if a similar answer could be given in our own case. Given our rational limitations and failings, we of course do not act on all the unexcluded good reasons in favor of our action, because some of the reasons we are viciously unmoved by and some we are unaware of, while sometimes we are moved by reasons we know to be excluded or just plain bad. The most we can hope for in general is something like:

(5) If x performs an action A, then for any R, x performs the action at least in part for R if and only if R is a motivationally live reason for x for that action.

A reason is motivationally live provided that it actually enters into the deliberative process. Both excluded and simply bad reasons are often motivationally live for us, and some unexcluded good reasons will fail to be motivationally live, if only because we are not aware of them. Though note

that (5) need not depart that far from Davidson if motivational liveness is a causal property—a property of causally influencing the action.

However, there may be a counterexample to (5), largely due to Mark Murphy. Here is a version. Sam has made promises to both Marcus and Frank. Sam promises Marcus that he'll give exactly a hundred dollars to the SPCA, but not for any reason involving Frank, and Sam promises Frank that he'll give exactly a hundred dollars to the SPCA, but not for any reason involving Marcus. It could be that when Sam is deciding whether to give the hundred dollars to the SPCA, he has three motivationally live reasons: the good things that the SPCA can do with the money, the promise to Marcus, and the promise to Frank. But he cannot consistently act on both the promise to Marcus and the promise to Frank.

Now, it does not seem that this kind of a case is a challenge to God's omnirationality. First, God's righteousness would make it impossible for him to make conflicting promises. Second, the promises are not both valid, since a promise to do something morally wrong is invalid—if I say "I promise to commit a murder," I do not gain any good reason to commit the crime. But to fail to take into account a valid promise that one has already made is morally wrong, and hence the two promises cannot both be valid. (And it'll be wrong to simultaneously issue both promises.) Of course, *Sam* may be moved by an invalid promise because he does not recognize that it is invalid, but God would not have such a failing.

Furthermore, it may even be that the story is not a counterexample to (5). Either Sam manages to squelch the motivational force of one of the two incompatible reasons before he acts or he does not. If he does squelch one, then there is no counterexample to (5) because after the reason has been squelched, it is no longer live, and there is no conflict among the live reasons. If he squelches neither, then perhaps the thing to say is that Sam in fact acts on all the three live reasons, even though he only *partly* satisfies the two promises with his action. If the Murphy-inspired counterexample fails, and no better counterexample is forthcoming, then (5) might be true. Still, it is the case of God that is of main interest here.

One can directly argue for God's weak omnirationality on the grounds that it would not be rational for God to ignore an unexcluded good reason that favors the course he has in fact chosen. If (5) is correct for all agents, then a second argument is possible. Since God is an agent, by (5) he always acts on all and only the motivationally live reasons in favor of the action. But being all knowing and perfectly rational, all and only the unexcluded reasons will be motivationally live reasons.

A third argument for divine weak omnirationality is based on divine simplicity³ or at least on the consequence of divine simplicity that God has no accidental intrinsic properties, i.e., intrinsic properties that he could have lacked. For it follows from this that if God is *F* in one world and God

³For defenses, see Brower (2008) and Pruss (2008).

is not *F* in another, the two worlds must differ in respect of something other than God.

But God is essentially an agent. Now there are two ways for a being that is essentially an agent to fail to have weak omnirationality. One way is for the agent to be moved in some world by something that is not an unexcluded good reason. But only an irrational or ignorant agent can be moved by an excluded or non-good reason, and so God cannot fail in this way to be weakly omnirational. The other way is for the agent in some world to do an action A that is supported by an unexcluded good reason R, but to fail to do A even in part for R. Suppose that at w God acts like that. Then, plausibly, there is another world, w^* , such that at w^* God does A at least for R—after all if, R is an unexcluded good reason for A, then it was surely possible for God to include R among his reasons for doing A. Moreover, it is very plausible that there would then be a pair of worlds w and w^* like that where w and w^* differ only in respect of the reasons for which God acts (this requires that neither in w nor in w^* does God tell anybody why he did A). But such a pair of worlds would imply a violation of God's lacking intrinsic accidental properties, since they would be a pair of worlds that differ only in respect of the reasons God acts on and not in respect of anything other than God, and hence God would acting for reason R would end up an accidental intrinsic property of God.

Basically, the point is that weak omnirationality allows God's reasons to supervene on God's nature and what God does: God acts on all and only the unexcluded good reasons for what he does. And this is needed if God has no accidental intrinsic properties.

A fourth argument for omnirationality will be provided by the next two sections of the paper: divine omnirationality solves interesting problems in the philosophy of religion and the philosophy of science, which gives us reason to think the doctrine is correct.

One can ask just how much omnirationality presupposes about the nature of rationality. Strong omnirationality presupposes that rational actions are always undertaken on the basis of reasons, though actually the philosophy of science and philosophy of religion applications will only need weak omnirationality, which is compatible with there being reasonless choices where there are no reasons.

It does not appear to matter for our purposes whether we think of the reasons for action in a reasons-externalist way, where the reasons are objectively correct considerations about how the agent ought to act whether or not the subject is moved by them, or in a reasons-internalist way, where the reasons are considerations that the subject is aware of and impressed by, since God is aware of and impressed by all and only the objectively correct considerations. (That said, I generally will express things in an reasons-externalist way, but they can be translated to reasons-internalist formulations.) Nor will it matter whether reasons produce actions by

efficient causation (e.g., Davidson 1963) or provide final explanations for actions (e.g., Wilson 1989, Ginet 1990).

One interesting question is whether omnirationality applies also to divine refrainings in addition to actions. When God refrains from creating unicorns, does he do so for a reason, and indeed for all the reasons that favor not creating unicorns (such as leaving this wonderful creature for us to invent, or its not having a good place in an ecosystem that is valuable for some other reasons)? Very similar considerations to the ones in the case of action suggest that the answer is affirmative. Therefore, I shall stipulatively take it that refrainings are a species of action. However, the main applications below shall not depend on this.⁴

It is now time to move to our applications. The applications are based on the fact that, in the light of divine perfection, omnirationality makes it easy to attribute reasons and intentions to God when one can see a good in the world. As Leibniz says:

when we see some good effect or perfection occurring or ensuing from God's works, we can say with certainty that God had proposed it. For he does nothing by chance and is not like us, who sometimes fail to do the good. That is why, far from being able to fall into error in this, as do extreme politicians who imagine too much subtlety in the designs of princes or as do commentators who look for too much erudition in their author, we cannot attribute too much reflection to this infinite wisdom. . . . (Leibniz 1989, 52)

⁴In holding to *strong* omnirationality for refrainings (weak omnirationality is not a problem), I would need to reject a potential application to the case of God of Joshua Gert's (2003) idea that there are reasons that have a justifying strength without a requiring strength, and that one does not need any reason to rationally refrain from an action supported by merely justifying reasons. This application would hold that God can refrain from certain possible actions for no reason at all. But there is good reason to reject this: for God is also omnibenevolent. Now a very plausible necessary condition for an agent x to be omnibenevolent is that for every good G that x knows he can produce, x produces G unless perhaps x takes himself to have an unexcluded good reason not to produce G. Moreover, God's essential perfect goodness implies that necessarily every divine action is good (even if it were morally neutral—and I doubt that any divine actions can be morally neutral—it would be a good thing qua divine action). Hence whenever A is an action that God can do, A is good, and so an omnibenevolent and omniscient God can only refrain from A for a reason. So even if it were compatible with rationality that God refrain from A without a reason, it is not possible when we consider other divine attributes. If Gert is right, then divine strong omnirationality may be stronger than divine rationality in the case of refrainings, but the strong omnirationality is still plausible. And, in any case, our main applications below only use weak omnirationality.

2 Unificationist Explanation

One form of scientific explanation is covering law models. The simplest version of this due to Hempel and Oppenheim is the Deductive Nomological (DN) model of explanation. To explain a true proposition p, we give a set of true propositions p_1, \ldots, p_n containing among them at least one law, say p_i , such that p can be logically derived from p_1, \ldots, p_n , but cannot be logically derived if we remove p_i . The DN model is obviously unsatisfactory in the context of non-deterministic laws. There, instead of logical derivation, we want an appropriate probabilistic relation, and the task of specifying that is difficult (see, e.g., Salmon 2006, sections 3.1–3.2 and 4.7–4.8). Further refinements are needed to get around symmetry problems: sometimes we can derive p from L and q and can derive q from L and p.6 Moreover, some kind of relevance criterion is needed to rule out explanations that involve intuitively irrelevant features, such as that a dissolved because it is a sample of hexed salt and it was immersed in water, whereas by law all hexed salt dissolves when immersed in water. Of course, so does unhexed salt—the point of this standard example is that the salt's being hexed should not be a part of the explanation, since it's irrelevant.

Even if these difficulties could be overcome, it is not plausible that *all* scientific explanations are covering law explanations. A standard case is evolutionary explanations (see, e.g., Kitcher 1981). We can give a good evolutionary explanation of how, say, the mammalian eye evolved by citing the kinds of mutations that occurred in its development and the effects that the mutations had on fitness under various pressures. But while laws of nature—say, the laws of the transmission of light—are *involved* in the explanation, it would be awkward to shoehorn such stories into the covering law model. Biologists do not give a set of initial conditions and a set of laws and show that these initial conditions and laws are likely, or at least not unlikely, to give rise to the mammalian eye. Rather, they give a plausible story including a series of causes.

But there are plenty of causes in the evolutionary history of the mammalian eye that the biologists not only do not give, but do not *care* to give. For instance, some mutation in a reptilian ancestor may have been caused by cosmic ray hitting a DNA molecule. At this point in the causal history, we have a choice. We can continue to track backwards biologically, figuring out the origins of the genes coding for eyes in that reptilian's ancestors. Or we could try to explore the astronomical history of the cosmic ray, speculating, for instance, on which star generated it and how deep in the star it originated. Suppose, though in practice this is unlikely to be feasible,

⁵For an excellent account of the history of analysis of scientific explanation, see Salmon (2006).

⁶Worlds that have two-way determinism, where any complete past state conjoined with the laws entails every complete future state and any complete future state conjoined with the laws entails every complete past state, will provide an example.

we were able to accomplish the cosmic ray tracking task. This success would probably not significantly further our understanding of where the mammalian eye comes from, unless maybe God or some alien aimed the cosmic ray at earth precisely with this end in mind. Apart from such an assumption, with respect to explaining the mammalian eye, we are better served trying to find the origins of the genes than of the cosmic ray.

So the kind of explanation scientists seek is not a *mere* series of causes—one thing after another. Any event has a vast quantity of contributing causes scattered throughout its backwards light code. Rather, scientists seek an *enlightening* series of causes. But what makes a series of causes be enlightening?

Philip Kitcher (1981) has famously offered unification as an alternative to covering law accounts of explanation, and unification helps with the problem of identifying which series of causes scientists seek for. Kitcher's basic idea, in the context of evolutionary explanations, is that evolutionary theory provides *patterns* for particular causal stories. The patterns can be filled out differently in the case of particular explananda like the mammalian eye or the gecko's pads or HIV's virulence, but the basic structure of the story—a structure that involves mutation and selection—remains the same and unifies the particular stories. If, on the other hand, we went down the rabbit hole of looking for the non-biological origins of particular mutations, we would be unlikely to find a unified schema for them. Instead, we would be borrowing a disunified set of schemata for explaining other families of phenomena, such as perhaps a schema for explaining instances of prehuman terrestrial radioactivity and a schema for explaining the origins of cosmic rays.

Even if Kitcher is wrong to think that all scientific explanation should be understood in terms of unification—perhaps covering law models work well in fundamental physics—unification makes possible a genuine and valuable type of explanation. When a collection of first order causal stories can be unified as having a common structure, we are explanatorily ahead.

But it is puzzling *why* we are explanatorily ahead. To see that it is puzzling, recall another classic problem from the philosophy of science: the problem of distinguishing genuinely explanatory from merely accidental generalizations. All electrons have electric charge, and this is no accident. But it may happen by chance on a particular occasion that all the coins in my wallet are nickels. "This particle is charged because it is an electron" is then a good explanation, while "This coin is a nickel because it is in my wallet" is not. It is tempting to think that the difference is merely due to the fact that there are many electrons throughout the universe and only a few coins in my wallet. But we could, instead, be dealing with a rarer particle—say, one that arises only from some abstruse physics experiment that has only been performed several times.

Note that while the problem is often put in terms of distinguishing laws from accidental generalizations, it is more general than that. For plausibly there are non-accidental, genuinely explanatory generalizations that are *not* laws. For instance, it appears to be a genuinely explanatory generalization that all life on earth now has RNA (and also DNA, if viruses are not alive) and that it has a single common ancestor (if life gets synthesized from scratch in the lab, this will need to be qualified). Yet these explanatorily powerful facts are not laws of nature.

Now, a unification is a special kind of generalization, one that says that each member of a set of phenomena falls under the same explanatory schema. Unifications likewise give rise to a special case of the problem of accidental generalization. It is no accident that all life on earth fits into an evolutionary schema. But it could be an accident that every coin in my wallet comes from the same branch facility of the mint and hence can be fitted into the same explanatory schema of originating from that branch. Notice, however, that *neither* unification is a matter of law. It is no more a law that all life on earth fits into an evolutionary schema—if it were a law, there would be no hope of scientists producing synthetic life—than that all the coins in my wallet come from the San Francisco facility.

This point applies whether we take laws to be just the fundamental laws of physics or laws at some higher level, such as the laws of biology. For surely we are not capable of bringing about a violation of the laws of biology. Granted, a non-biological entity could perhaps bring about a violation of the laws of biology—maybe the laws of biology only govern the interactions of biological entities—but *we* are biological entities and yet it seems quite likely that we could produce synthetic life.

The examples do suggest that how accidental a generalization is may come in degrees. Suppose I live near San Francisco. Then it may be no accident that all the coins in my wallet come from the San Francisco facility. But the further I am from San Francisco, however, the more accidental this is. Likewise, we could imagine a world where abiogenesis is more probable than here, and in that world it may well be more accidental than in our world that all life fits into an evolutionary schema.

Thus, there are generalizations, and most importantly explanatory unifications, whose non-accidentality cannot be explained by the generalizations' being laws. The problem of explaining the non-accidentality of these generalizations is difficult. A good solution to this problem should account for the fact that we can compare generalizations in respect of accidentality. It would also be a good thing if the account allowed for explanation in terms of more localized generalizations, such as allowing one to explain planetary motion in terms of the approximate truth of Newton's laws in the context of the solar system without requiring General Relativity to be always involved.

⁷Mitchell (2000) gives a number of examples, but believes that the different levels of generalization can all be considered laws, albeit ones with different degrees of applicability, and opts for a pragmatic view.

A final desideratum is that a solution to the problems should prefer non-gruesome to gruesome generalizations. If an item is grue provided it is green if it is before 2100 and blue if it is 2100 or later, then all emeralds are now grue. Likewise, however, all emeralds are now green, and this seems to be a more explanatory and less accidental generalization.

Besides the nomicity solution, another solution to the problem of distinguishing generalizations that yield unificationist explanations is to insist that non-accidental generalizations support counterfactuals. While it is true that if another electron came into existence, it would have charge, it is false that if another coin appeared in my pocket, it would be a nickel—it might or might not be.

A counterfactual solution, however, is not satisfactory, since an accidental generalization might accidentally support counterfactuals. For instance, suppose that you and I are in a lifeboat, and we have among us ten coins. By coincidence, my pocket contains five nickels and no other coins. You, on the other hand, have two nickels and three dimes. You accidentally drop the three dimes in the ocean—it is accidental that you drop them and it is accidental that it is the dimes you drop. Several hours later, the generalization that all the coins in my pocket are nickels supports counterfactuals. For if a new coin were to appear in my pocket, it would surely be one of your two remaining coins, and your coins are nickels. This counterfactual judgment is intuitively correct, and it is clearly true on a Lewis-Stalnaker view of counterfactuals, since the world in which you put one of your nickels in my pocket is much closer to the actual world than worlds where coin that isn't a nickel comes into existence in my pocket, say because it materializes ex nihilo or is magically transported there from the ocean or from the pocket of someone on the mainland or because the last several hours were different as you never dropped the dimes in the water and now you just gave one to me. And the accidental generalization does not cease to be accidental just because it accidentally supports counterfactuals.

Perhaps, though, one might note that the accidentally true counterfactual in the above story does not support manipulation, while non-accidental generalizations do, inspired by Woodward's (2003) account of causal explanation. Thus, I could manipulate the world to produce a particle that is electrically charged by producing an electron (say by colliding two photons to produce an electron-positron pair). But I cannot manipulate the world to produce a nickel by putting a coin in my pocket. However, asking for unifications to support manipulations is asking for too much. Imagine, for instance, a world where there are shmelectrons, whose electric charge is like that of electrons, but which are such that no natural process can produce or destroy them. Then in that world the universal generalization that all

shmelectrons are charged may very well be non-accidental, even though there is no way for beings like us to employ the fact manipulatively.⁸

So nomic, counterfactual and manipulationist solutions to the problem of ruling out accidental unifications fail. Maybe some other conventional solution can be made to work, or maybe these solutions can be tweaked, but I will now consider a very different solution.

The theist who accepts divine omnirationality can solve the problem and satisfy the desiderata. Order is valuable and disorder is disvaluable. If *G* is a true generalization stateable in terms of natural, ungruesome predicates, then a world at which *G* holds is, to that extent, orderly and hence valuable. But this fact provides God with a reason to produce a world where *G* holds, and it is unlikely that that reason would be excluded.

Since God did in fact produce a world where G holds, by weak omnirationality he did so in part because of the value of the order that G describes. The generalization *G* is thus non-accidental since it is intended by God (it is no accident that all the coins in my wallet are nickels after I deliberately removed all other coins). And it is thus at least partly explanatory, as part of a larger intentional explanation. Fig trees fit into an evolutionary schema because all life on earth fits into an evolutionary schema, and all life in earth fits into an evolutionary schema (in part) because all life on earth fitting into evolutionary schema would be an instance of the good of order and hence was intended by God as such. The reason for the "in part" qualifier is that the good of order is surely not God's only reason for making all life on earth fit into an evolutionary schema. For instance, another reason is to help promote humility among intelligent beings by making them realize that they come from simpler creatures, since such humility is a good thing, and hence among God's reasons by weak omnirationality. We do not need to hedge our bets here and say that promotion of humility *might* be one of God's reasons—it's a good reason, and it is unlikely that it was excluded, so we can simply say it is a divine reason, alongside order, and probably many others.

This gives us a simple sufficient condition for a generalization to be explanatory: every generalization is explanatory when the generalization is an instance of order. Now, in general we might say that a probabilistic explanation is *pro tanto* better the higher the probability that it confers on the explanandum. In the case of a rational agent, the probability of an action depends on the strength of the motivations in favor and against the action: the stronger the motivations in favor of the action, the more likely the action. Moreover, it is plausible that the stronger of the motivations in favor of the action are, the greater relative explanatory power they have. In the case of God, the strength of motivation is directly proportional to the strength of the unexcluded reason giving rise to the motivation. Therefore,

⁸I am grateful to an anonymous reader for suggesting I consider higher-level law, counterfactual and manipulationist solutions.

the greater the good of order embodied in the generalization, the better the intentional explanation of the generalization, and the less accidental the generalization.

The more "messy" the generalization, the less its being true is an instance of the good of order. Note that the predicate "is an instance of the good of order to degree d" appears to be hyperintensional. Let G_1 be the proposition that massive objects are attracted to each other with a force inversely proportional to the square of the distance between them, and let G_2 be the proposition that massive objects are attracted to each other with a force whose reciprocal is inversely proportional to the reciprocal of the square of the distance between them. Then, necessarily, G_1 holds if and only if G_2 holds. But that G_1 holds is an instance of the good of order to a greater degree than that G_2 holds. The proportionality $F \sim 1/r^2$ falls under the good of order more than the mathematically equivalent proportionality $1/F \sim 1/(1/r^2)$. The hyperintensionality in instancing the good of order parallels the hyperintensionality in intention. The good of order embodied in G_1 gives God a better reason for creating a world obeying Newton's law of gravitation than does the good of order embodied in G_2 . Consequently, G_2 is more accidental than G_1 , and hence it is better to make use of G_1 rather than G_2 in explanations.

Similarly, that all emeralds are grue in 2011 is less an instance of order than that all emeralds are green in 2011, and hence God was more moved to create a world relevantly like ours by the orderliness of all emeralds being green in 2011 than by the orderliness of all emeralds being grue in 2011. Nonetheless, to the degree that "is grue" is only a *somewhat* gerrymandered predicate (imagine instead an infinite predicate like "is x_1 and green or is x_2 and round or . . . "), the generalization that all emeralds are grue in 2011 does have *some* explanatory power. The accidental/non-accidental distinction is indeed a degreed one.

This lets us satisfy the desideratum of seeing how it is that localized generalizations, such as that the massive bodies in the Solar System approximately obey Newton's Laws, can be used in genuine explanations. For while this localized generalization involves the value of order to a lesser degree than full-blown General Relativity does, it nonetheless involves the value of order. Furthermore, in this case the localized generalization involves an order that goes in some respects beyond what can be derived from the global generalization. General Relativity is compatible with the presence of a large black-hole in the Solar System, in which case the massive bodies in the Solar System would not be approximately obeying Newton's laws. Thus the non-nomic localized generalization has some explanatory force, derived from God's valuing the order embodied in the generalization, that does not merely reduce to the explanatory force of the global generalization by itself. There is a Newtonian order, N, found in the approximate movements of the massive bodies in the Solar System that goes over and beyond the order, R, that General Relativity by itself posits. Of course, we can explain N in

terms of *R* together with auxiliary hypotheses such as the lack of massive black holes. But that reductive explanation does not capture the whole truth. For the value of *N* partly explains the lack of massive black holes. It is valuable to have a world where Newtonian order is approximately exhibited, over and beyond Einsteinian order, and hence God has reason to ensure that there are not too many massive black holes (of course, he may have other reasons to ensure the presence of many massive black holes, reasons that he did not act on).

At the same time, we can still capture the intuition that there is an important sense in which the global Einsteinian generalization is *more explanatory* in general than the local Newtonian one, and that is that the global generalization, by being global, posits much more order than the local one does, and hence the global one contributes rationally more to divine deliberation.

As a corollary, we obtain an account of how it is that the generalizations of the special sciences can be explanatory even if it turns out that these generalizations can in principle be derived from the laws of fundamental physics together with auxiliary hypotheses such as initial conditions. For the generalizations of the special sciences are genuine instances of order, and have a value independent of the value of the order posited by fundamental physics, and thus it is valuable that they obtain and so God intends them (at least in part) as such. Moreover, even if the generalizations of the special sciences are derivable from fundamental physical laws and auxiliary hypotheses, the value of the order in the generalizations of the special sciences contributes explanatorily to the explanation of the auxiliary hypotheses themselves.

One might worry, however, that the degree of order expressed by the generalizations of the special sciences is so much less than the degree of order found in the laws of fundamental physics that the special-scientific order would contribute only minutely to divine deliberation.

But this conclusion can be avoided in two ways. First of all, although the laws of fundamental physics have much more wide-ranging application than the laws or generalizations of biology—for all we know, earth might be the only planet with life on it—the order in biology concerns more complex (and, one might add, valuable) entities, namely living things, than the fundamental particles that physics is concerned with. It is a particularly valuable aspect of the order of our world that we meet with order at multiple levels of description and complexity. We could have a world that shows no orderly structure at the macroscopic level, but has the same rich order in the motions of the fundamental particles. Such a world might just consist of a cloud of particles and would, in respect of the good of order, be significantly less valuable than ours.

Second, the special sciences exhibit a certain anthropocentrism. They examine entities of particular importance to the kinds of beings that we are. Biology studies living organisms, and we are precisely such. Chemistry

studies a level of structure that is explanatorily important to the functioning of living organisms. Astronomy and geology study levels of structure that are important to the arising and persistence of living organisms. There is a special value to the kind of order that surrounds finite agents. This value is both instrumental and non-instrumental. It is instrumental as finite agents can use the order to help navigate the world and ensure the efficacy of their actions. And there is non-instrumental value in that it is good that order not only exists but is observed. Thus, the very anthropocentrism that can make some suspicious of the special sciences gives the theist reason to think the special sciences have explanatory value.

The generalizations of science are genuinely explanatory. But the question of what explains their being genuinely explanatory goes beyond science, and here receives a theistic answer in terms of God's intention to produce valuably orderly generalizations. This is all, of course, a very Leibnizian line of thought. It is behind Leibniz's reconciliation of efficient and final explanation in science (e.g., Leibniz 1989, 54).

One might worry that the account leads to occasionalism: all scientific explanation comes down to invocation of divine activity. But the story as given is neutral on the details of *how* God interacts with the world. It is compatible with occasionalism, but it is also even compatible with deism on which God's activity is involved simply in setting up fundamental laws and initial conditions in such a way as can lead to the valuable generalizations being true, as well as with the variety of views such as concurrentism that span the spectrum between occasionalism and deism.

3 Petitionary Prayer and Theodicy

Sam prays that Jennifer be cured of cancer. Jennifer's cancer disappears. Did Jennifer's cancer disappear *as a result of* Sam's prayers? The problem has metaphysical and epistemological dimensions (and pastoral implications). What makes a good event be a result of a prayer for that event, and how can we know that the requisite condition obtains?

Given omnirationality, we can provide elegant answers to both questions. A request for a good always provides the requestee with a reason to provide the good, at least barring some exclusionary reason. Therefore, if a good is requested from God, and God provides the good, then unless the request-based reason was excluded, the good was provided *at least* in part because it was requested. Moreover, every good that any creature obtains is provided by God, whether directly or through secondary causes that God could have refrained from sustaining in existence and functioning. It is unlikely that God has exclusionary reasons to ignore requests for good things from anyone in this life. Therefore, if *x* prayed for a good and *x* obtained the good, then God provided the good at least in part because *x* prayed for it. So all we need to know is that *x* prayed for a good and *x* obtained the good

to know that the good came at least in part due to prayer. If we do want to allow for exclusionary reasons, we have to state more explicitly:

(6) If *x* prayed for a good and *x* obtained the good, then the good came at least in part due to prayer if and only if God has no exclusionary reason to bracket the reason given to him by the request.

But perhaps we find the above answers unsatisfactory due to the "at least in part" qualifier. Maybe we want to know if the good came about *solely* due to prayer. There a simple answer is possible, too. The good one prays for either is good independently of one's praying for it or is not. If it is in some way good independently of one's praying for it, then, unless some exclusionary reason applies, God has independent reason to grant the good and, by weak omnirationality, God grants the good at least in part for that independent reason. So, barring exclusionary reasons, in the case of something that is a good independent of our prayers, the good does not come solely due to prayer.

Now suppose the good is in no way good independently of one's praying for it. This will be a rare case, and perhaps it is not even possible. For it might be that there is no such thing as entirely neutral events, and that God would not grant a prayer for a bad event, so that the only prayers he would grant would be for events that are in some way good. But let us suppose for the sake of argument that we have a case of something prayed-for that is not independently good. Then, and only then, we should say that God granted the good solely in virtue of the prayer.

So, typically (i.e., where no exclusionary reasons apply and the event prayed for has some independent value), a prayed-for good event that occurs does indeed occur at least in part due to the prayer but does not occur solely due to the prayer.

Maybe, though, we grant this, but still want to know which consideration tipped the scales for God. Was it the prayer or the independent value of the event? Here, I think we can also give an answer. God either did or did not have conclusive reason independently of the prayer to give the good. If he did, say because he promised it, then the prayer did not tip the scales. Suppose that God did not have conclusive reason independently of the prayer. Then either God had conclusive reason given the prayer or not. If God had conclusive reason given the prayer he promised to literally fulfill prayers of some type that this prayer in fact fell under—then the prayer did tip the scales.

That leaves one last case, where God did not have conclusive reason even given the prayer. In that case, I think there is no such thing as tipping the scales, unless there are non-trivially true counterfactuals of free will. What we have here is a case of a free decision, with some non-conclusive considerations in favor of giving the good and some non-conclusive considerations against it. When asking whether the prayer tipped the scales, we seem to be asking whether the decision would have been

made the same way were there fewer non-conclusive considerations in favor of giving the good. But unless there are non-trivial counterfactuals of free will, there does not seem to be an answer to the question. So in this case, we can say the following. If there are non-trivially true counterfactuals of free will, they answer the question: the prayer tipped the scales provided that God wouldn't have given the good if the prayer had not been made. And if, as appears to me more likely, there are no non-trivially true counterfactuals of free will, then there was no scale-tipping—the relevant counterfactual is either false or non-sense.

Now, one might think that the above argument cannot be right in the case where the prayed-for event can be explained in terms of the ordinary operation of the laws of nature without mentioning the prayer, say when I pray that my friend have a safe trip, and she does. But that is mistaken, at least as long as deism is false. If deism is false, the continued causal functioning of the universe requires at the least God's constant sustenance of the entities in nature, and quite likely God's concurrence in their functioning. The prayer then partly explains God's sustenance of the entities with the relevant causal powers as well as any concurrence needed for their causal activity, and thereby does partly explain the event.

Howard-Snyder and Howard-Snyder (2010) think a significant degree of intellectual humility is needed in claiming that God has granted a prayer. But while intellectual humility is always a good thing, it is much easier than they think to come to reasonably believe that God has granted a prayer, at least if one reasonably believes that God exists and is convinced by the arguments in favor of omnirationality.

The same point applies in the case of theodicy. Many contemporary theodicists offer considerations that they say *could* be God's reasons for permitting evils, and refuse to say that these are God's reasons. But if the considerations involve genuine goods that require God to permit evils, and as long as some relevant deontic consideration does not exclude the reason (a difficult question, beyond the scope of this paper), one does not need to be diffident here. For instance, plausibly, by preventing all evil, God would have made completed exercises of sacrificial love impossible. If this indeed gives God *a* deontically unexcluded good reason not to prevent all evil, then we can say outright that God did not prevent all evil at least in part because doing so would make completed exercises of sacrificial love impossible.

Objection 1: Bad motives behind a request may provide God with an exclusionary reason against counting the request as favoring the requested good.¹⁰

Response: One kind of case is plausible here. Suppose that I viciously request something that is in fact a good, but I request it either solely as

⁹I am grateful to Trent Dougherty for drawing my attention to this.

¹⁰Both objections are due to an anonymous reader.

a means to an evil or under the mistaken impression that it is not good. Then it is plausible that my motives provide an exclusionary reason for God not to count my request as favoring the good. Such cases suggest that we may need a qualification that in order for the prayer to provide God with an unexcluded reason, the prayed-for good needs to be prayed for as a good. There are two ways of praying for a good as a good. One way is because the description under which the good is requested is such as to involve the good's positive value, either the thin value of being good or a thick good like health. The other way is that the motive on account of which one requests the good is that it is a good. I shall take this simply as explaining what is meant by praying for a good. We may also need to add that the value in respect of which the good is requested needs to be one of the values actually possessed by that good. In any case, in a typical case of a request that one made oneself, it is typically not very difficult to check that these conditions are met.

Are there cases where one prays for a good genuinely *as* a good, but one's motives give God an exclusionary reason not to consider the request? A referee suggested the case of snotty requests from one's children. It is not clear, however, whether snotty requests are really *requests* and hence whether they are analogous to prayers. They seem to be more like *demands* or even *taunts*. Moreover, other snotty requests may be requests, but not for goods as goods.

Another worrisome case would be when one makes a request for two reasons: one requests a good as a good but *also* as a means to an evil. However, such impurity of motives does not seem to generate an exclusionary reason. Of course, the requestee needs to consider whether a good that is a means to an evil should be bestowed. But this is just a matter of weighing two first-order reasons against granting the request, one first-order reason coming from the resulting evil (which one might end up tolerating, applying the Principle of Double Effect) and another coming from the value of denying an ill-motivated request.

Indeed, our motives in making a request are often flawed. The more flawed the motives, the more likely it is that the flaw will generate a reason, of strength dependent on the kind and degree of the flaw, not to fulfill the request, say in order to teach us a lesson. But as long as this is a request of a good as the good it is, the reason generated is simply a first-order reason rather than an exclusionary one. Requestees have reasons of generosity to honor requests that do not deserve to be honored.

Moreover, in the enigmatic series of sayings starting with his telling us in Matthew 5:39 to turn the other cheek, Jesus goes on to say that we are to give our cloak to those who would sue us for our coat, that if forced to walk one mile, we should walk two, and that we are to give to those who beg (Matthew 5:40–42). How literally we are meant to take these injunctions is a difficult question, but they do make plausible at least to

Christian theists that badly motivated requests for good things generate unexcluded reasons.

Objection 2: God could adopt policies that provide him with reasons to ignore certain kinds of requests for goods, say ones made with the wrong motives or by vicious people.

Response: Since it is no trouble for an omnipotent being to consider such requests, one of the most plausible reasons for such a policy would be in order to educate us in the sorts of requests we should make. But then we would expect that God would reveal to us that he has such a policy. Given this, the absence of good evidence for such a policy is then evidence of the absence of the policy.

4 Conclusions

There is good reason to think that a perfect being would be omnirational: such a being always acts for a reason, takes into account all the unexcluded reasons for and against the action, and acts on all the unexcluded reasons that in fact support the action. Positing an omnirational God explains how it is that even non-nomic generalizations in science, and especially in the special sciences, are explanatory and gives a simple account of when a reception of a good is partly explained by a prayer for that good.

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