



The Global/Local Distinction Vindicates Leibniz's Theodicy

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ABSTRACT

The essential idea of Leibniz's *Theodicy* has become one of the organizing themes of modern mathematics. Many phenomena are possible locally but for purely mathematical reasons impossible globally. For example, it is possible to build a spiral staircase that is rising at any given point, but not one that is rising at all points and comes back to where it started. The necessity is mathematically provable, so not subject to exception by divine power. Modern mathematics vindicates Leibniz's theory that, contrary to what we think we can imagine, there is no possible world better than this one.

KEYWORDS

Problem of evil; theodicy; sceptical theism; Leibniz; local and global

1. Introduction

There is every reason, initially, to think that if a good and omnipotent God exists, then this must be the best of all possible worlds. It is natural to argue, "If God is good, then he must be doing his best, and if he is doing his best then this must be the best he can do, and hence the best that is possible." Even if there were some moral excuses as to why God should be permitted to do less than his best,¹ there is surely something ridiculous or demeaning in the concept of him, as master-craftsman, bothering to create a second-rate world when he could produce a premium-quality article instead. And the more one emphasises God's transcendence, the less likely it seems that he would indulge in second-rate creations (Daeley 2022).

Leibniz's theory is that God cannot create a better world because there *is* no better one—that is, that (contrary to appearances) if one part of the world were improved, the changes would necessarily ramify so that the world would be worse elsewhere, and worse overall. It is a "bump in the carpet" theory: if evil is pushed down here, and it pops up over there. Leibniz put it by saying this is the "Best of All Possible Worlds". That phrase proved disastrous for the reputation of his theory, as it suggests the "Panglossian" (called after Voltaire's caricature) notion that everything is ideal as it is. He does not mean that, but only that designing worlds is much harder than it looks, and that determining the amount of evil in the best one is no easy matter (Franklin 2002).

The success of Voltaire's caricature and the apparent obviousness of the world's being far from the best possible have meant that Leibniz's theory is now rarely regarded as a live

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option. The *Stanford Encyclopedia* article on the Problem of Evil (Tooley 2002/2015) does not mention it, while the article on “Best possible world theodicy” in the *Blackwell Companion to the Problem of Evil* (Hudson 2013) does not take classical views seriously and instead discusses multiverse theory.

It will be argued here that in the light of modern developments in the mathematics of complex systems, Leibniz’s theory is again a credible solution to the Problem of Evil.

Before considering whether it is obvious that the world is not the best possible, some clarification is needed on “best”. That is not principally because of the abstract possibility that there could be a hierarchy of worlds of increasing goodness (perhaps partially ordered with respect to goodness rather than totally) with no absolute best. Although “if there is no maximum degree of perfection among possible worlds, it would be unreasonable to blame God, or think less highly of His goodness, because He created a world less excellent than He could have created” (Adams 1972, 317), a good and omnipotent God would still be expected to produce an outstandingly good one, not the grossly defective one which we appear to have. The question of what God should do in the face of a scale of excellent worlds to choose between is one of some philosophical interest, but it is not the Problem of Evil. If there is a hierarchy of increasingly good possible worlds, “best possible” can be read in the rest of the article as “in the superlatively good range”.

Nor is it because the scale on which “best” is measured might involve some difficult trade-off between moral and aesthetic goodness, such that God as artist might justifiably allow evil for the sake of aesthetic perfection in his work. It is certainly possible to attribute to God a higher commitment to aesthetic good (e.g. Forrest 2007, 82–3), but the approach taken here accepts that the Problem of Evil is premised on a close, even if not perfect, alignment between human and absolute judgements of good and evil. According to normal human judgements, the aesthetic good can weigh at most slightly against moral good: in a classic case, if Gauguin *qua* artist (that is, *qua* devotee of a genuine aesthetic good) should have gone to Tahiti but *qua* father he should not have, then *qua* human being (that is, absolutely) he should not have, since the important moral good overrides the aesthetic one (MacIntyre 1999, 56). God is in the same position of being required to favour the moral good—unless our sense of goodness is seriously mistaken, which the Problem of Evil assumes is not the case. However, there are possible complications which might be revealed by a more God’s-eye view: for example, there may be a need to favour aesthetic goods to some extent so as to make the order of nature knowable to rational beings (perhaps Ockham’s Razor is necessary to cognition but only workable in a world satisfying the aesthetic virtue of simplicity). That does not derogate from the primacy of the moral good. There may be much we do not know about the comparative goodness of possible worlds, but that is more a result of the complexity of the worlds than a basic flaw in our moral sense.

Nor is it because a quantitative approach to what is best might permit any finite defects in the world to be “swamped” by an infinite amount of later benefits to a perhaps infinite number of created people (Climenhaga 2018). Even if that were the case, the observed evils would be a serious defect, which would result in the world’s being less than the best if they were in fact removable and hence gratuitous.

The issue is more what “best” means in the situation where creation is shared between God and free beings. If a best world includes free beings other than God (as it does, on the Leibnizian hypothesis that the best world is this one), then the absolutely best world is the

one where all the free beings always choose the best. That may be possible yet beyond God's power to bring about—God's effort to create the best is genuinely hostage to free creatures' efforts to wreck some of his work. As Leibniz puts it, "God has ordered all things beforehand once for all, having foreseen prayers, good and bad actions, and all the rest." (Leibniz 1710/1951, par. 9, p. 128) That is, the world is best not absolutely but given the constraints of human creative acts (some of them bad).

The task of creation has then to be thought of not as resembling the fashioning of a work of art but as a game of strategy. Since this perspective has had a low profile in the literature on theodicy, some analogies will be useful to illustrate it. Peter Forrest suggests a "Swiss cheese" picture of God and the universe, according to which all the universe is divine except us, who are holes in divinity (Forrest 2007, 28). Even if we think the rocks around us are insufficiently divine for that theory to be plausible, they may still be instruments of divinity, wholly in his control—if not actually divine, then prosthetically divine. Creating the universe would then be something like playing lightning chess against many opponents, with complete control over one's own pieces but under the necessity of reacting to the other players' choices. Or like navigation by Google maps, recalculating when the driver goes off-route. The point of these analogies is to instill a sense that even for God, co-creation is a very different task from the creation of a universe under full control. They also give an initial sense of the complexity of the task. Whether God does or does not have knowledge of the future choices of free agents, or of what non-existing free agents would have done in all circumstances if they had existed, the task of working around a series of free decisions made independently by a large number of agents is inherently extremely complex. It is the kind of complexity, as we will see, that is not tamed simply by being omniscient and so able to calculate arbitrarily well.

It is true that God must set a minimum standard as to what worlds should be creatable, and "pull the plug" if the best possible world falls below that standard. In the last section we will consider the Dostoevskian thought that it is obvious that the empty world is better than this one. Certainly, if that were true, Leibnizian theodicy would be refuted.

2. Obviously a Better World?

The Leibnizian theory's main problem, obviously, is that it is initially very implausible that the world could not be better than it is. We can all think of improvements we would like to make. One inevitably thinks along these lines:

Suppose that we isolate some minor misfortune in the actual world — the stubbing of someone's toe, say — and then we imagine a world that is identical to the actual world, except with that minor misfortune erased. Surely, we would thereby be imagining a better possible world than this one ... (Brown and Nagasawa 2005, 310).²

That argument rests on the assumption that imagination is a reliable guide to possibility. There has been considerable discussion in general of Hume's maxim that "nothing we imagine is absolutely impossible" (e.g. Yablo 1993, Tidman 1994). The literature however concentrates on simple but philosophically difficult hypotheses such as the conceivability of the mind without the body or the conceivability that water is not H₂O, and asks whether anything can be salvaged from the thought that "there is no objection to the imaginability criterion because there is no alternative to it." (Pap 1958, 218).

Whatever the outcome of those discussions, the present argument does not depend on any general scepticism about imaginability as a guide to possibility. Nor does it rely on any general argument that “for all we know, it could be that there are reasons for evils,” as in the project of “sceptical theism” (Almeida and Oppy 2003, review in Dougherty 2014, which do not mention Leibniz or global/local considerations). The present project does agree with sceptical theism in not committing to any particular explanation of why God would permit evil, as does for example the free will defence. But unlike sceptical theism it rests on some particular objections, taken from mathematics, against reliance on imagination as a guide to what is possible specifically in cases of large-scale complex design. The objections do not stem from our mere ignorance, but from our positive knowledge of the ways necessities interconnect in complex structures.

The need to consider how easily the imagination fails to take into account global constraints is reinforced by natural attempts to construct counterexamples to Leibnizian theodicy, that is, (apparently) possible worlds which are slightly different from the actual one but are obviously better. Two such scenarios are:

Scenario 1: Consider a world that differs from ours only in that in all cases of pain more severe than some moderate threshold, the pain suffered in that world is never above the threshold, but the memories are of greater pain. That is a better world than ours.

Scenario 2 (A variation on the no-toe-stubbing scenario above but more general): Given any single bad event confined to a small region of spacetime, one may enclose the region in a (spacetime) ball and replace that ball with something more desirable (perhaps smoothing the edges of the join to make the new ball fit neatly). That is a better world than ours.

The Leibnizian accepts our moral intuitions that such worlds would be better than ours, but denies there are any such possible worlds, that is, worlds which differ from ours *only* in the ways hypothesised. The problem is that the imagined worlds differ from ours not only in the ways stated, but in their laws of nature. In Scenario 1, not only is there less pain, but the causal connections between physical causes of pain and pain are different (as the same causes that produce much pain in our world cause less pain in that world). The nomic connection between pain and memories of pain is also different. In Scenario 2, the laws of nature must be different across the boundary of the excised region, since otherwise the total past that affects the ball would produce in it the effects of the actual world, not the supposed different effects of Scenario 2. Scenario 2 especially thus calls attention to the global nature of laws. Whatever the strength of nomic necessity (whether it is the absolute necessity of mathematics, as Aristotle thought, or a weaker necessity subject to miraculous exception), the point of laws is to establish regular connections between entities across space and time. Laws are part of the furniture of the world, relations over and above the properties and behaviours of the entities governed by the laws. The laws themselves require change if local changes like reduced pains are not to ramify. Therefore, worlds such as Scenarios 1 and 2 cannot differ from the actual world only in the respects stated. Imagination, however, easily misses invisible connections like laws.

It is true that if one took a Humean regularity view of laws of nature, things might be otherwise. If, as David Lewis puts it, “the world is a vast mosaic of local matters of

particular fact, just one little thing and then another,” (1986, ix) then there are no laws of nature over and above the particular states of affairs which are instances of the laws. In that case it might well be possible to realise Scenarios 1 and 2, since local changes do not require changes elsewhere. However, as has been widely argued, the *local* nature of the particular facts that replace genuine laws in this theory, which Lewis rightly calls attention to, is what makes the theory difficult. A central purpose of laws is to support counterfactuals and predictions: for example, that masses in the future would attract one another according to the usual law of gravitation. A regularity view of laws fails to explain how that can happen (Armstrong 1983, 43–55). More importantly, it is exactly the locality of the facts admitted by the regularity view that creates the problem: counterfactuals and predictions involve projecting the law into spacetime regions beyond those of the existing facts; thus, even if a regularity view could give a satisfactory account of the nature of laws, it would fail to enable counterfactual and predictive reasoning. Needless to say, such reasoning is essential to moral action, a crucial feature of this world.

Whatever the correct view of laws of nature, their enabling of counterfactual and predictive reasoning is essential to them. It is the global interconnections involved in such reasoning that obstruct naïve attempts to imagine a world that is similar to ours except for improvements here and there at our pleasure.

3. The Global/Local Distinction and Constraints on Large-scale Complex Design

The distinction between local and global—between what is possible on a small scale but impossible when everything is fitted together on a large scale³—is one of the great themes of mathematics (Franklin 2014b). Here it is sufficient to approach it through some easily understood examples, chosen for variety so as to exhibit the ubiquity of the phenomenon. Diagrams are essential to the explanations, since the appeal of diagrams to the sense of vision conveys global information in a way that is lost in linear text.

The flavour of these mathematical results is well displayed by Euler’s classic eighteenth-century paper on the bridges of Königsberg. The citizens of Königsberg noticed that it seemed to be impossible to walk across all seven bridges over the River Pregel, without walking across at least one of them twice (Figure 1):

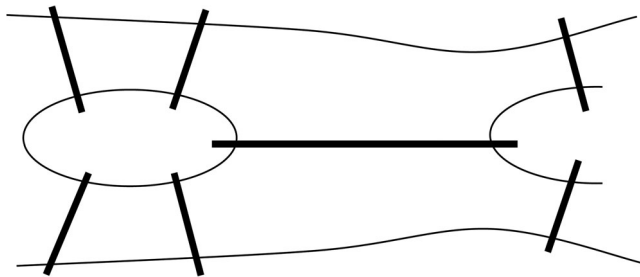


Figure 1. The Königsberg bridges.

Euler proved mathematically that they were right: although it is easy at any point to choose a bridge to walk over, and also to choose small portions of the figure and walk over all the bridges in them once only, it is absolutely impossible to perform the task as a whole (Euler 1735). Although God could make bridges, islands or citizens differently, he could not make them as they are while at the same time making it possible for the citizens to walk over all the bridges once and once only. What is easy locally is impossible globally—and with an impossibility as strong as impossibilities come, a mathematical impossibility.

Euler's result is typical of what are now called the “formal sciences” or “sciences of complexity”, the disciplines like operations research, control theory, statistics and theoretical computer science that have emerged in the last eighty years at the interface between mathematics and engineering. These typically study the structure of complex systems, showing the possibilities and limitations of what can be realised (Franklin 1994).

Another classic example is the impossibility of building a circular staircase that goes up all the way round and ends at its starting point. The famous Escher drawings which seem to show this kind of thing happening are thus impossible to realise in actual three-dimensional space (Figure 2):

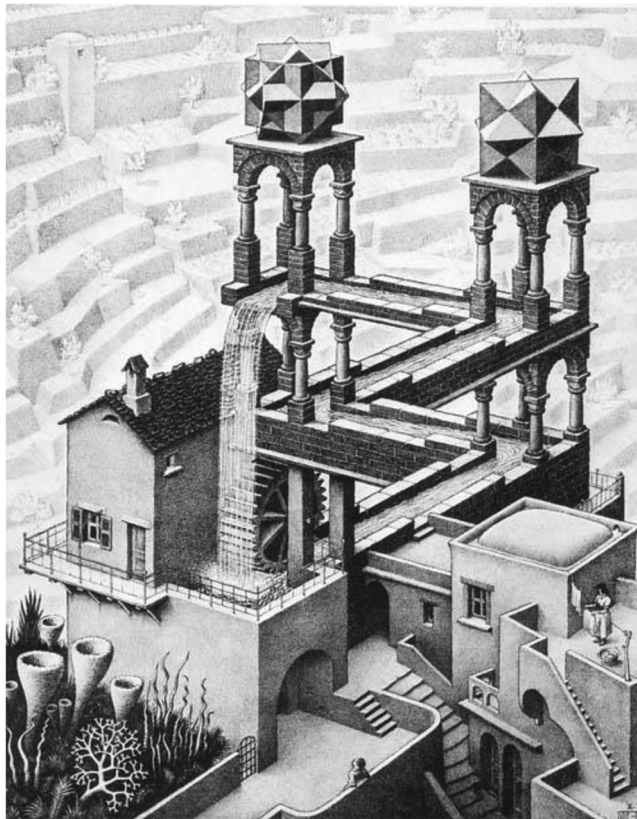


Figure 2. Escher's Waterfall (http://en.wikipedia.org/wiki/File:Escher_Waterfall.jpg).

The essential structure of the example is more clearly illustrated in this diagram (Figure 3):

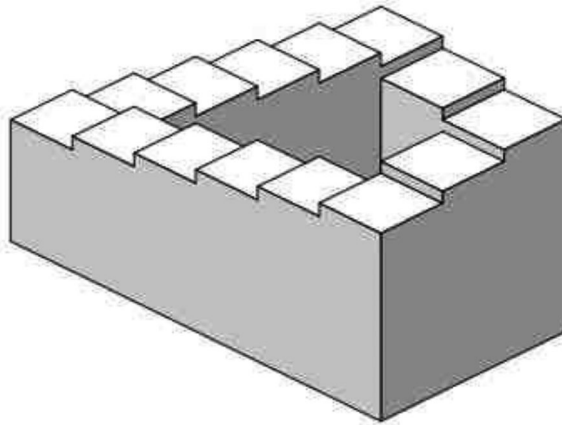


Figure 3. Endless stairs (<http://www.optical-illusion-pictures.com/paradox.html>).

It is possible to realise in three-dimensional space any small portion of the staircase, but not the whole staircase. Our imagination easily appreciates the local possibility of constructing a small piece of rising staircase, but has more trouble with the global impossibility (although in this case the global impossibility is still simple enough to grasp more or less completely). The impossibility is not just empirical, since no change in the laws of nature would make such a staircase possible. A purely mathematical fact underlies the impossibility, namely, that there exists no continuous function from the circle to the real numbers which is increasing all the way round. The proposition has therefore nothing to do with the Euclideanness or otherwise of space or its global topology; in any substantial portion of a space where there is a coherent notion of “up”, the statement is true (as “up” is a continuous function from the space to the real numbers, to which the theorem applies).

A last example from mathematics is the four-colour theorem. One of the most famous, and difficult, theorems in mathematics states that any map (on a plane, such as Figure 4) can be coloured so that adjoining regions have different colours, using only four colours (Fritsch and Fritsch 1998).

This is an example of local-global interaction in that it is easy to imagine how to complicate the map in one place so that one more colour is needed (in that region), but it is well beyond the ability of the imagination to understand why it is then always possible to rearrange the colours so that only four are in the end needed. Thus, in the example below (Figure 5), the map on the left uses five colours, and it is moderately difficult to find the recolouring on the right that needs only four.

A fortiori, it is much more difficult to show that this sort of global rearrangement of colours can always be done, for any map of any degree of complexity. The available proofs all need a combination of mathematical genius and serious computing power.⁴

These mathematical results, and the four-colour theorem in particular, bear out Thomas Reid’s claim,

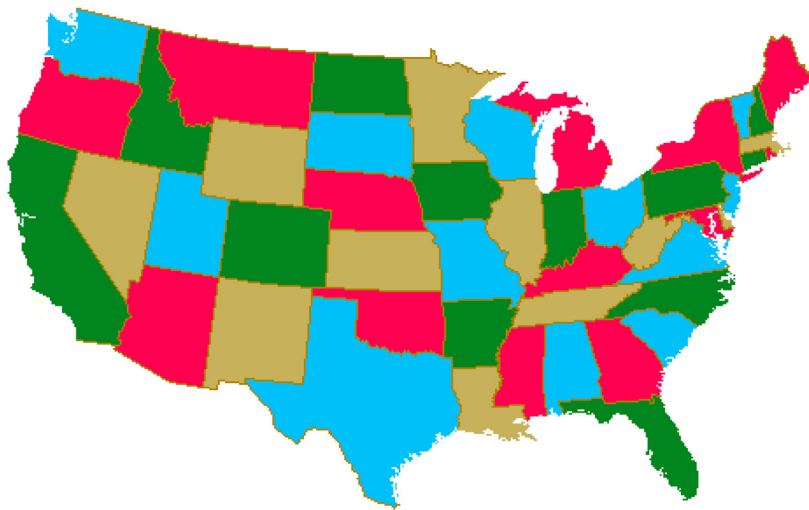


Figure 4. States of the USA coloured with four colours (<http://people.math.gatech.edu/~thomas/FC/fourcolor.html>).

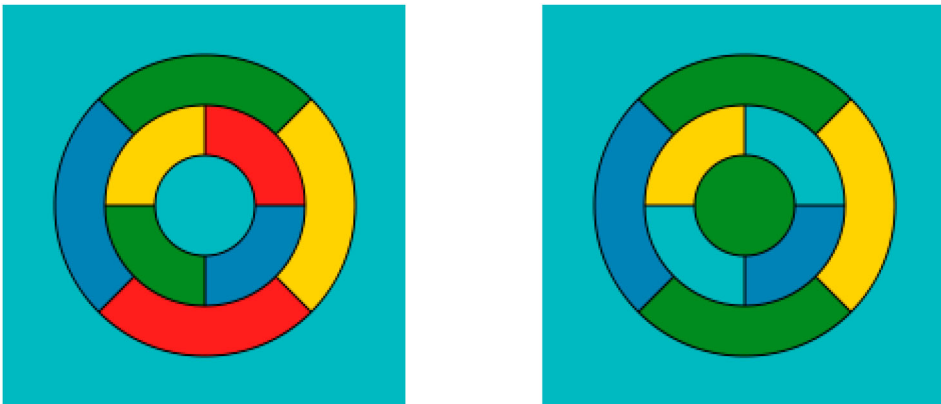


Figure 5. A map using five colours, recoloured to use only four (http://en.wikipedia.org/wiki/Four_color_theorem).

Mathematics afford many instances of impossibilities in the nature of things, which no man would have believed if they had not been strictly demonstrated. Perhaps, if we were able to reason demonstratively in other subjects, to as great an extent as in mathematics, we might find many things to be impossible, which we conclude without hesitation, to be possible. (Reid 1872, vol I, 379)

It is true that some popular philosophies of mathematics, such as Platonism, imply a divorce between pure mathematics and the physical world which would mean that the provable necessities of pure mathematics cannot apply directly to the physical world. Those philosophies have difficulty making sense of examples such as those above. The matter cannot be addressed here but has been treated elsewhere (Franklin 2014a, ch. 5).

Actually there are several disciplines outside mathematics where necessities of the same kind are known.

Another example of the difficulties of achieving a global best result, in truth strictly mathematical but in an application well known to the humanities, is tuning and temperament in music. As soon as harmony — the playing of two notes at once — is introduced into music, the problem arises of what choice should be made for the pitches on instruments such as pianos of the notes between one octave and the next. As is well-known, notes sound harmonious or consonant if there is a simple integer relation between the frequencies of their sound waves. Thus two notes an octave apart have a ratio of 2:1; the next simplest ratio is 3:2, which is called the fifth and is the next most consonant in sound. To the ear, a very slight mistuning is acceptable, but ratios as close to 1 as 81:80 sound severely dissonant. If one tries to fill in the octave with a small number of notes (such as twelve, the standard number of notes between octaves on a piano), with allowance made for the fifth, the major third (5:4), and the major sixth (5:3), it turns out to be mathematically impossible to have them all exactly tuned. Some compromise has to be made. The normal modern choice has been the system of “equal temperament”, which makes each pair of consecutive notes on the piano differ by an equal amount, one twelfth of an octave (that is, the ratio of their frequencies is always $\sqrt[12]{2:1}$). This means that none of the main ratios between notes is exactly correct, except for the octave itself. The major sixth in particular is substantially too sharp, a problem particularly evident on instruments of purer tone like the organ. Some compromises are better than others, but there is no way to avoid making some compromise (Bibby 2003).

Because of its optimisation aspect, the example of tuning and temperament is arguably a closer model for Leibniz’s theodicy than the Königsberg and four-colour examples. While the latter do illustrate the interaction between local and global possibilities, there is no sense in which some paths across bridges or some map colourings are better than others. But equal temperament includes a definite notion of a best outcome, even though the definition of the best is imprecise (it involves compromises between what is ideal for different instruments and also probably some weighting for simplicity of the outcome). The same is true with the well-known Arrow Impossibility Theorem in social choice theory: it states that the preferences of individuals in a society cannot in general be converted into a global or “social” ordering which respects certain minimal requirements for fairness (Morreau 2014/2019). The fairness requirements give a clear meaning to the optimality of the social ordering, and the theorem states that it is unachievable.

The example of a bump in the carpet is even simpler. If the carpet’s area is slightly bigger than the room’s area, you can push it down to make it flat anywhere, but no matter what you do, you cannot push it flat everywhere at once. You (or God) could of course make carpet with different properties, but if carpet has the usual area-constant property, God cannot push it flat any more than a human can, because the necessity is mathematical.

Such examples are also known in economics under the name “positional goods”. A good such as fame or status consists in a relative position so that the quest for it forms a zero-sum game (Hirsch 1977; Schneider 2007). For example, it is possible for anyone to become prime minister but it is not possible for everyone to become prime minister. “The best” necessarily involves compromises.

Those are only a few examples. There are many such, well appreciated by mathematicians, engineers, planners and architects. Philosophers are unused to them, as most philosophers have never built, let alone designed, so much as a model aeroplane. They therefore find it easy to assert confidently that “an all-powerful God, by definition, would be able to achieve the end (the greater good) without using the means (the evil)” (Piper 2003: 70). That is too swift. Goods and evils can be more intimately and necessarily connected than that. That, indeed, is the real lesson of the “free will defence”. As David Lewis remarks,

A hypothesis that God allows evil for the sake of some good might work if there was a logical, not merely a causal, connection between allowing the evil and gaining the good. Therefore Christians have often gone in for free-will theodicy. (Lewis 1993)

True, it is not remotely plausible that all instances of evil can be explained away as effects of free will misused (Phillips 2004, ch. 4), but the point is the necessary interconnections of *some* goods and evils. Despite efforts to imagine freely willed choices always turning out well, it is not easy to see how the good of moral responsibility can be disconnected from the evil of immoral choices. “[God] could have forestalled the occurrence of moral evil only by removing the possibility of moral good” (Plantinga 1977, 30).

The examples show that what one thinks one can do with complex systems in one’s imagination does not translate into what can happen in the world. The essential problem is that imagination itself is local as the mind can focus on only a small part of a system at once—it can seem to change any part without changing other parts—while design, including the design of worlds and their whole history, is global. David Lewis explained the problem in another context. He analyses the counterfactual, “If kangaroos had no tails, they would topple over”, to mean, “In all possible worlds close to the present one, in which the antecedent holds, the consequent also holds.” What he says is in principle equally applicable to any consideration of possible worlds close to the actual one, which might be better than it, such as imagined worlds with a few evils removed. As Lewis says, there is more in this analysis than meets the eye:

‘If kangaroos had no tails, they would topple over’ is true (or false, as the case may be) at our world, quite without regard to those possible worlds where kangaroos walk around on crutches, and stay upright that way. Those worlds are too far away from ours. What is meant by the counterfactual is that, things being pretty much as they are — the scarcity of crutches for kangaroos being pretty much as it actually is, the kangaroos’ inability to use crutches being pretty much as it actually is, and so on — if kangaroos had no tails they would topple over.

We might think it best to confine our attention to worlds where kangaroos have no tails and *everything* else is as it actually is; but there are no such worlds. Are we to suppose that kangaroos have no tails but that their tracks in the sand are still as they actually are? Then we shall have to suppose that these tracks are produced in a way quite different to the actual way. Are we to suppose that kangaroos have no tails but that their genetic makeup is as it actually is? Then we shall have to suppose that genes control growth in a way quite different from the actual way (or else that there is something, unlike anything there actually is, that removes the tails). And so it goes; respects of similarity and difference trade off. If we try too hard for exact similarity to the actual world in one respect, we will get excessive differences in some other respect. (Lewis 1973, 8–9)

That explains what is wrong with the thought that it is easy to improve the world by removing toe-stubbings while leaving everything else unchanged. As soon as we start making local changes, they ramify and we lose track of what is possible. Design is global, not about tinkering here and there. God's omniscience implies that he has to take into account physics and history⁵ all at once to calculate the best overall world and total story of that world, satisfying his design criteria.

The scenario of divine choice has become better appreciated through the extensive work in recent decades on the "fine tuning" of the constants of nature. According to physics, several constants such as the gravitational constant need to be correct to something like one part in 10^{40} in order for a physical universe capable of supporting life to be possible. Many other physical facts need to be "just so" after that to actually achieve life, such as the initial conditions in the Big Bang and the abundance and chemistry of carbon (Lewis and Barnes 2016; Rees 1999). While there may, or may not, be some distant part of parameter space that also permits life, we know that very little local movement in the actual parameters is possible without destroying the conditions of life. To the extent that these considerations support the existence of God via an inference to the best explanation, they point to a Leibnizian kind of God, able to calculate to very many decimal places and model the time development of multiple scenarios—God must know the effects of the various tunings of constants in order to be able to choose one in the range that permits life. Setting the laws and initial conditions so as to achieve not only human life but the best possible history of it, seen as an upfront design problem, resembles adjusting the flow over Niagara to achieve a given distribution of water droplets at the bottom.

What God's design criteria are, we of course do not know well, and we risk making fools of ourselves if we begin speculating.⁶ Surely, we can nevertheless make some better suggestions than the sort implicit in claims that he can easily make a better world by removing just our stubbed toe. Perhaps it is like designing a theme park. Or perhaps closer, it is like writing a crime novel: the narrative moves in a realistic context and the author must salt it with apparently trivial incidents which interact with fully-drawn characters to eventually come together so as to reveal the criminal and effect the restoration of order. Or ... but let us not speculate further. If we add in some other design criteria that we might reasonably speculate would be in the mind of God, say, that no-one should be tested beyond their limit, we begin to understand what a computational burden it would be to design a world under conditions of omniscience and how complex we might expect the outcome to be. That is sufficient to indicate why moving to a global view of design takes the focus off the supposed simple advantages of local tinkering. (But to take just one last example, making local patches to computer code without a sense of the overall design is well known to be not a good idea—large-scale software engineering is perhaps the closest we humans come to designing in purely logical material.)

4. Plausibility in the Light of What? The Context of the Best-world Theory

The Leibnizian solution is certainly not plausible, in isolation. If we just looked around the world, free of preconceptions, and guessed the sort of God that would have designed it (if it were designed at all), we might not take a positive view of divinity. We would be

more likely to agree with Hume's suggestion that it is "the first rude essay of some infant deity" (Hume 1779, part 5).

But the best-world theory is not intended to be free-standing. The probability of a theory must always be evaluated in the light of one's total evidence (e.g. Hempel 1965, 64). In the case of a philosophical theory such as a theodicy, the total evidence includes such matters as pre-existing reasons for the conclusion (in this case, the conclusion that there is a good God); inherent advantages of the theory; the ability to reply to objections; and the credibility of alternative theories (of evil). As with any matter of context, a full treatment would expand indefinitely, but we give a brief sketch of each to indicate the overall nature of the logical context into which best-world theodicy fits. That will make it possible to understand why it is worthwhile starting to look for excuses for evil in the way a Leibnizian theory does.

4.1. Context: Prior Reasons for Theism

Firstly, the best-of-all-possible-worlds theory only makes sense in the context of prior substantial reasons that one may have for believing in a good God. Perhaps one has found the traditional arguments for the existence of God to some degree satisfying. Or some particular religion has seemed a sound candidate for an argument to the best explanation, being a coherent explanation of all facts (including moral ones) superior to alternatives. Given that context, it makes perfect sense to ask if there might be excuses for the evil that God has left in his creation, with a certain bias towards expecting a positive answer. Examining the strength of those arguments is beyond the scope of a theodicy, but their existence must be kept in mind because without that background the project of theodicy is pointless.

4.2. Context: Advantages of Best-World Theodicy

Best-world theodicy has a number of inherent advantages.

First, best-world theodicy really would *solve* the problem of evil. If God is doing absolutely the best that can be done, he needs no further excuses. Although a few philosophers and theologians have entertained the notion that divine omnipotence includes the power to do the logically and mathematically impossible, it is by and large agreed that locutions such as " $2 + 2 = 5$ " do not name possibilities on which God might choose to confer being (Detailed discussion in Trakakis 1997). The inability to do the mathematically impossible is not a genuine constraint on omnipotence.

Second, the theory—or actually, even the barest possibility that it is right—is enough to dispose of the "logical problem of evil" (Beebe 2003/2005), the once well-received idea that there is a strict logical inconsistency in the three propositions:

- God is all-good
- God is all-powerful
- Evil exists

To show that propositions are logically compatible, all that is needed is to exhibit a *merely possible* scenario in which they are all true. In Leibniz's Best of All Possible

Worlds scenario, they *are* all true. Therefore, that deductive form of the problem of evil is refuted.

Third, best-world theodicy makes sense of moral action, including prayer. It might seem at first that Leibniz's theory implies a static world in which neither action nor prayer can improve the world because it is already as perfect as it could be. That is not correct, because world design works in 4D, not 3D: introducing action or prayer into the world changes what is in it, a change which God can take advantage of for his benevolent purposes (either at the time or in the design phase, when he foresees it). God's design works around foreseen decisions, and thus incorporates their effects.⁷ (Or if God cannot foresee free choices, his creation works by recalculating, like Google maps when the driver veers off-route.)

Fourth—if one is concerned about such things—best world theodicy is consolatory. If you or those you care about are suffering grave evil, it is some consolation that, bad as it is, it is somehow necessary to the design of the universe—a necessary price to pay for the totality of what is good in the universe—and hence not gratuitous.⁸ There is no gratuitous evil in Leibnizian theodicy. It is similar to the situation of a soldier treated as an “expendable” in battle. If that is due to his general's incompetent or self-aggrandising strategy, his life is wasted, but if the general planned as well as possible and the soldier was without malice assigned to a dangerous sector of the front just because someone had to be, the soldier can take some comfort that his death is necessary and not wasted. Conversely, if any evil is gratuitous, no such consolation is available.

4.3. Context: Least Morally Offensive Theodicy

According to “antitheodicy”, the whole project of theodicy is unfeeling and morally offensive, in that it involves trying to excuse God's allowing the unthinkable such as the Holocaust (e.g. Trakakis 2013). Some forms of theodicy do have such a problem, such as “obstacle-course” theodicies that regard evils as opportunities for the exercise of virtues. But Leibniz's theory does not. It is morally blameless because it excuses God by the absolute impossibility of his choosing any world better than the present one. Necessity is an excuse for actions in general, and absolute necessity is a perfect excuse. No-one can be criticised for failing to exceed the best possible.

Although Leibniz's theory has had a bad reputation on this score, following the success of Voltaire's propaganda, that reputation rests on a caricature of what Leibniz said (Franklin 2002). According to best-world theodicy, everything is not claimed to be rosy in the best of possible worlds, as Voltaire insinuates. Quite the opposite. God's choice among possible worlds (all possible worlds, including the empty one) is a kind now familiar in discussion of the Trolley Problem.

In the Trolley case (Thomson 1976), a driver of a runaway trolley can allow the trolley to kill five people on one track, or divert it onto another track where one person will be killed. Here only one fairly uncontroversial aspect of the Trolley problem is relevant: the forced choice between scenarios that the trolley driver faces plays some exculpatory role.

It is possible to criticise one action of the driver or the other. But we do not say to him—and it would be offensive to say it—“Whatever you do, you are wrong because you kill someone in order to save others.” Nor do we say that the “driverdicy” project of excusing the driver is unfeeling and morally offensive because it tries to excuse the inexcusable,

namely deliberately allowing one person to die for the sake of a greater good. In a case of forced choice, one of two scenarios must be chosen up-front.

It would not be fair to describe the trolley driver as “doing evil that good may come of it”—since overall, he prevented evil rather than perpetrated it. Strictly speaking, evil was “allowed for the sake of a greater good”, but it is still an unsympathetic view of the moral dilemma. It is not that evil was allowed, and out of that a good arose. “Preventing a greater evil by settling for a lesser one” would be a more just description (Franklin 2020).

Since God is in the same moral situation (according to the Leibnizian theory), that theory avoids complaints of moral offensiveness due to being utilitarian, in sacrificing some people for the “greater good” of others. While that is an understandable reaction by those who draw the short straw, it betrays a lack of understanding of what choice between difficult scenarios is like, from the perspective of the moral agent forced to make them. If a general faced with a choice of strategies all involving casualties chooses the one with the least number of casualties, the natural grudges of those soldiers who lose out can coexist with an acceptance that the general could not have done morally better, since any other decision would have had the same problem (but worse). To describe the best choice of a spectrum of choices, all involving evils, as “doing evil that good may come of it” would fail to appreciate the nature of choice at the design phase.

4.4. Context: Do Alternatives to Personal Theism Trivialise Evil?

A last matter of context is whether alternative cosmological theories to personal theism have an adequate sense of evil themselves. Some have thought that materialist atheism, the leading alternative to the personal theism which Leibniz’s theory defends, trivialises evil by regarding persons as mere collocations of matter (Discussion in Wielenberg 2005). If it did, that would undermine the robust sense of the seriousness of terrible evil which gives point to the problem of evil. That would be especially so if the atheist were so determinedly naturalist as to accept Mackie’s “error theory” of ethics, according to which any ethical concept is too “queer” to fit into a scientific picture of the universe (Sturgeon 1995). Atheists advancing the problem of evil are naturally keen to emphasise how terrible evils are, but if there is any suspicion that their final position might undermine the objective badness of evil, questions could be asked. And what about alternatives to materialism and personal theism such as pantheisms and emergentisms? Are they in a different position when it comes to the seriousness of evil suffered by humans? Those questions are difficult and wide-ranging and we do not attempt to address them here. But it needs to be kept in mind that if evil is a problem for personal theism, it may also be one for alternatives. That is a context to be taken into account when evaluating Leibnizian theodicy.

These matters of context create a framework into which best-world theodicy fits naturally, if only it can be made to work by explaining why evils and goods can be expected to be inextricably linked. As argued in Section 3 above, that can be done.

5. Dostoevskian Choice and the Empty World

Finally, the Leibnizian theory faces the objection that there is a world that is obviously possible and obviously better than this one, namely the empty one (that is, empty of

everything except God and any other necessary beings that there may be) (further in Franklin 2020). A strength of Dostoevsky's presentation of that objection is that he does see it in terms of upfront choice between scenarios:

Imagine that you are creating a fabric of human destiny with the object of making men happy in the end ... but that it was essential and inevitable to torture to death only one tiny creature ... would you consent to be the architect on those conditions?' ... 'No, I wouldn't consent.' (Dostoevsky 1880, Bk 5 ch. 4)

That is a powerful argument. But there are two considerations against it. The first is that it is far from obvious that the empty world is possible. With issues like the possibility of whole universes, we are so far from our cognitive home ground that we may well doubt if our modal intuitions founded on ordinary experience have any purchase, and whether our apparent ability to imagine an empty world is here a reliable guide to possibility. The Neoplatonists denied that was possible, holding that God necessarily "overflowed" into creation (Pseudo-Dionysius c 500/1920, 4.10, pp. 101–2 and 13.1, pp. 184–5) and it is hard to see how we could know that is false.

Secondly, on reflection we may not be so sure that we would make the choice Dostoevsky suggests, if we were put to the test and were fully informed. Suppose that we were given the choice of pushing a button so that, not only were we never born, but the whole world were never born. How sure would we be about pressing it? It would be very tempting, as we considered the evil we would prevent. But turning over in our minds what would be lost might be enough to cause hesitation. We would find ourselves comparing scenarios, as Leibniz says God does in designing the world.

We should remember too that with respect to part of the future we are ourselves granted Dostoevsky's choice—namely, that part consisting of our own descendants. If we assume, as is inductively reasonable, that future people will have much the same balance of goods and evils as present ones, it is a real question whether we should have children. Benatar argues in *Better Never to Have Been* (2006) that we should make the Dostoevskian choice and confer on our potential descendants the benefit of non-existence. The reaction to his proposal has been muted rather than enthusiastic (Harman 2009). Even in philosophical circles, it is not likely that the birth of a healthy baby will come to be considered as normally a cause for mourning. So while it is almost philosophical orthodoxy to congratulate oneself on one's sympathy for human suffering in agreeing with Dostoevsky, when philosophers are presented with the opportunity to partially put into effect the Dostoevskian choice, almost all stay their hands.

It is not the final judgement that is significant. Benatar's position is not obviously wrong and is arguable. What is significant is the hesitation over it. To hesitate in the face of that decision is to start weighing scenarios morally, just as Leibniz suggests God does. Once we begin doing that, we must consider the known ways in which goods and evils are necessarily interconnected, as discussed in section 3 above.

6. Conclusion

It is possible to defend the natural thought that God ought to be doing his best and so this world is the best he can do. As Leibniz explains, that is not done via any general

scepticism about our knowledge of God and creation, but requires an appreciation of the mathematical necessities involved in any instance of complex design. They are especially difficult in the largest-scale design project possible, a whole world that needs to be created as a platform for a large population of interacting free decision-makers. Given the context of the problem, Leibniz's view that this is the least worst of all possible worlds remains a live option.

Notes

1. Reasoning of Adams to the effect that God might create less than the best criticised in Hasker (2008, 82–84).
2. There is similar reasoning in the much-discussed case of “Rowe’s fawn” (Rowe 1979, 338). Rowe says that although it is *possible* that severe evil to an animal such as a fawn burned in a forest fire is connected to other goods and evils, “It seems quite unlikely that *all* the instances of intense suffering occurring daily in our world are intimately related to the occurrence of greater goods or the prevention of evils at least as bad; and even more unlikely, should they somehow all be so related, that an omnipotent, omniscient being could not have achieved at least some of those goods (or prevented some of those evils) without permitting the instances of intense suffering that are supposedly related to us.” The only reasons Rowe gives are its seeming so to us. Subsequent discussions of this point have concentrated on “conditions of reasonable epistemic access” (e.g. Wykstra 1984), that is, doubts on the knowability of any such connections, rather than positive reasons for such connections as advanced here.
3. These issues of design are not the same as the question of the compossibility of the existence of *substances*, Leibniz’s views on which have been discussed at some length (e.g. Messina and Rutherford 2009, Brown and Chiek 2016).
4. The comment of mathematician Herb Wilf, “God would not allow such a beautiful theorem to have such an ugly proof” (Quoted in Appel 1996) is satisfactory as a joke or metaphor, but cannot be read literally, since the logical space in which proofs exist is not subject to the divine will.
5. Best-world theodicy fits most naturally with the traditional view of omniscience, according to which God knows timelessly both actual history, including the results of all free choices, and also all the counterfactuals as to free choices that would have been made in unrealised universes. But if that is impossible and there are no facts of the matter as to the truth of future choices or of such counterfactuals, as maintained by “open theism” (Hasker 2008, 24–29), then omniscience is more limited, design of a best world harder, and a Leibnizian solution of the problem of evil correspondingly easier.
6. About, for example, such questions as “whether there is a *prima facie* case for the thesis that the actual sufferings of beasts constitute a graver defect in a world than does massive irregularity.” (Van Inwagen 2006, 121).
7. Some discussion in Howard-Snyder and Howard-Snyder (2010); other ideas on how petitions themselves make a difference to the world are referenced in Davison 2012/2017, Section 5.
8. In the Christian tradition, that applies equally to an evil like the crucifixion. When Jesus says in the Garden of Gethsemane, “Father, if it be possible, let this cup pass from me” (Matthew 26:39), it may be inferred that, according to Christian theology, as it did not pass, it was not possible.

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