

GOD'S PROBLEM OF CUT-AND-PASTE

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I argue that classical theism is in tension with a kind of modal recombination principle known as 'cut-and-paste'. I develop this tension at length, giving two arguments against theism based on cut-and-paste. I then both lay out and respond to various original proposals for reconciling theism with cut-and-paste. I conclude by measuring the cost of having to deny cut-and-paste. I argue that while there is an intuitive cost to this consequence of theism, theists also have plausible ways of addressing various motivations for cut-and-paste.

1. Modal Space and the Problem of Evil

The problem of evil has a modal counterpart.¹ The traditional problem of evil concerns whether the amount or kinds of evil that exist in the actual world is compatible with the actual existence of God. Its modal counterpart concerns whether the amount or kinds of evil in any possible world is compatible with the existence of God in that world. This paper is about the modal problem of evil. It develops the support that this problem receives from certain common principles of metaphysical possibility, and investigates the tension this creates between classical theism and these principles.

¹ This has been recognized at least since Guleserian, "Modal Problem of Evil".

I understand classical theism (hereafter just ‘theism’) as the view that there is a perfect being that necessarily exists and is necessarily perfect, where the concept of perfection is understood to entail at least omnipotence, omniscience, and moral perfection. According to theism, God exists at every possible world. It follows from this that every possible world is one that is compatible with the existence of an omnipotent, morally perfect being. For reasons familiar from the traditional problem of evil, it is easy to see why this might impose some substantive restrictions on what things come to pass within the space of all possible worlds. This arguably does not mean that no evil is possible at all, for reasons familiar from responses to the traditional problem of evil, but perhaps it does mean that no possible world goes irredeemably wrong. For example, it seems that it would be impermissible for God to sit by and allow every creature to suffer for all eternity, when it is within an omnipotent being’s power to prevent this. It is obvious that this is within God’s power since an omnipotent being could will from eternity that no other creature comes to exist at all. For this reason, it is also within God’s power to ensure that the world is not bad overall, as I assume a world that is empty besides God is not bad overall.

On account of this sort of reasoning, it is now understood that theists are committed to the claim that no possible world is so bad that God would not be justified in permitting it to be actual. It is widely, though not universally, thought that this entails that modal space is more limited than we might have thought—certain very bad worlds that we might have once thought were genuinely possible turn out not to be possible after all. Since God could not and would not allow them to be actual, they could not really come to pass after all. See, for example, what Plantinga has to say about this:

All possible worlds, then, are very good. For God is unlimited in goodness and holiness, as well as in power and knowledge; these properties, furthermore, are essential to him; and this means, I believe, that God not only has created a world that is very good, but that there aren't any conditions under which he would have created a world that is less than very good [. . .] The class of possible worlds God's love and goodness prevents him from actualizing is empty. All possible worlds, we might say, are eligible worlds: worlds that God's goodness, mercy, and love would permit him to actualize.²

I will assume that, on account of this line of reasoning, there is some limit to how bad God can permissibly allow a world to be.³ I will assume also that it makes sense to speak of and compare 'levels of value' for worlds, or in other words how good/bad they are overall. This axiological-sounding language is not meant to be unfriendly to deontically-minded theists, for the goodness or badness of a state of affairs could be determined by some deontic features or principles. Moreover, I do not assume that the only thing that matters for God is how good a world is overall. Later, in fact, I will make it clear that I believe this is false. What I am assuming though, is that the overall value of a world does matter, to the extent that the world not falling below a certain level of value is a necessary condition of it being justifiable for God to allow that world to be actual. Theists may differ over what this level is, as well as what, if any, additional kinds of normative restrictions God's existence places on modal space. Some may say, for

² Plantinga, "Supralapsarianism," 8.

³ I examine this part of the Modal Problem of Evil at much greater length elsewhere, in Gordon, "Theism and Secular Modality," Ch. 1.

example, that God could not permit evil to swamp good, resulting in a modal space of worlds that are all good overall. Later I will argue for some less purely axiological constraints on what God can permissibly allow. But, for now, these views will be convenient for generating some *prima facie* arguments for the tension that I investigate in this paper.

What has not yet been widely appreciated is that these normative restrictions on modal space put theism in tension with several prominent principles concerning what is possible. This paper aims to explore in detail one such tension, namely the tension between theism and certain recombination principles. The sort of principle I have in mind sometimes goes under the name of the “patchwork”⁴ principle or the “cut-and-paste”⁵ principle. They roughly say that one can freely patch together different parts of possible worlds, cutting and pasting entities together to form new possibilities. As evidence that this tension has not been widely appreciated, note that Koons, “New Kalam Argument” uses a version of the cut-and-paste principle in developing a theistic cosmological argument.⁶ Obviously, if theism is incompatible with cut-and-paste, then this argument cannot be successful.

My aims in investigating this tension are three-fold. First, I aim to determine whether the tension is genuine or merely apparent. While the tension has been alluded to before⁷, it has yet to be fully spelled out. As it turns out, laying out the problem more precisely allows us to see some interesting potential lines of response for the theist. Second, by investigating what theists can and cannot freely recombine and mapping out this logical space, we get a better picture of what the

⁴ Segal, “Causal Essentialism and Mereological Monism,” 231.

⁵ Russell and Hawthorne, “Possible Patterns,” 150.

⁶ Thanks to a referee for alerting me to this interesting connection.

⁷ See Hudson, “Metaphysics of Hyperspace,” 10, and Russell and Hawthorne, “Possible Patterns,” 149.

modal commitments of theism really look like. This is an important task both for theists and non-theists alike. Third, I come to some judgments about how concerning this tension should be for theists. By examining the motivations for the kinds of free recombination principles I am concerned with, we will be able to measure the costs associated with theistic restrictions on them.

I proceed as follows. First, I introduce a precise version of the cut-and-paste principle and indicate some dimensions along which it might vary [section 2]. Then, I formulate two arguments based on cut-and-paste designed to show that very bad worlds are possible [section 3]. Such arguments would show theism to be incompatible with this version of cut-and-paste, assuming, as I do, that the modal problem of evil shows that theists must have some normative restrictions on their modal space. Next, I consider objections to these arguments [section 4]. I also consider whether theism is compatible with close variants of our formulated version of cut-and-paste [section 4.3]. Finally, I assess how worrying these results are for theists [section 5].

2. The Principle of Recombination

In this section, I formulate a precise version of the principle that will be employed to show that impermissibly bad worlds are possible.⁸ This principle is perhaps best introduced by David Lewis:

To express the plenitude of possible worlds, I require a principle of recombination according to which patching together parts of different possible worlds yields another

⁸ By ‘impermissibly bad world’ or ‘impermissible world’, I mean a maximal state of affairs such that it would be impermissible for God to permit that state of affairs to be actual.

possible world. [. . .] Thus, if there could be a dragon, and there could be a unicorn, but there couldn't be a dragon and a unicorn side by side, that would be an unacceptable gap in logical space, a failure of plenitude. And if there could be a talking head contiguous to the rest of a living human body, but there couldn't be a talking head separate from the rest of a human body, that too would be a failure of plenitude. [. . .] Not only two possible individuals, but any number should admit of combination by means of coexisting duplicates.⁹

As I see it, Lewis's recombination principle articulated above, which I call a 'cut-and-paste principle', introduces four key ideas about how possibilities can be recombined:

1. *Parts of possibilities can be patched together in novel spatiotemporal arrangements.* Here the parts in question are taken to be objects.¹⁰ This corresponds to a metaphorical copy-and-paste function. The dragon and the unicorn can be copied and pasted together side by side.
2. *Parts of possibilities can be removed to form complete possibilities.* This corresponds to a metaphorical cut-and-paste function. The talking head can be cut from its original context within a body and pasted by itself into another possibility.
3. *What is recombined are not the parts themselves, but duplicates of the parts.* Lewis himself motivates this restriction by way of his ban on literal trans-possibility identity, but

⁹ Lewis, "Plurality of Worlds," 87–88.

¹⁰ Taking the parts to be properties rather than objects results in "pattern" recombination principles, see Russell and Hawthorne, "Possible Patterns" for elaboration.

this weaker formulation of recombination can be motivated on independent grounds. For example, those who accept the essentiality of origins cannot accept the stronger version, which requires that I could exist without the sperm and egg (or anything just like them) from which I came.¹¹

4. *Any number of duplicates of parts can be recombined.* In fact, “the number might be infinite”, Lewis continues.¹² Lewis later qualifies this demand because he thinks there may be a limit on the size of possible spacetimes.¹³ This element of our recombination principle has also been thought to have paradoxical consequences (such as that there can be no set of all possible objects), especially when conjoined with certain mereological principles.¹⁴ Though here I stick with the bolder ‘any number’ formulation, I believe that each of the arguments of section 3 could be run quantifying over only finite numbers, a weakening which should be paradox-free.¹⁵

Should we care about this sort of recombination principle? In section 5, I will consider various theoretical grounds that have been thought to support cut-and-paste. But further, the idea behind the principle seems to me to possess a basic sort of attractiveness. The person who would accept that there could be a dragon and a unicorn, but claim that these could not coexist together, would

¹¹ See Segal, “Causal Essentialism and Mereological Monism,” 232 for this and other reasons to doubt the stronger formulation.

¹² Lewis, “Plurality of Worlds,” 89.

¹³ Lewis, “Plurality of Worlds,” 89.

¹⁴ See Uzquiano, “Modality and Paradox,” sec. 4.1.

¹⁵ See footnote 27 for elaboration.

I would think at least owe us an explanation of why this is so. In this way, accepting the possibilities generated by cut-and-paste seems to me like the default position, with failures of plenitude requiring justification.¹⁶

At any rate, with these four key ideas in hand, we are in a position to give a more precise formulation of a cut-and-paste principle:¹⁷

C&P: For any sequence of non-duplicate spatiotemporal objects $x_1, x_2 \dots x_m$ in any worlds¹⁸ and any sequence of cardinals¹⁹ ($n_i \geq 1$) $n_1, n_2, \dots n_m$ and any $\sum_{n_i}^{n_m} n_i$ -place (non-overlapping) spatiotemporal relation²⁰, there exists a possible world that contains:

¹⁶ One way of justifying this take on the dialectic might appeal to the idea that one should not multiply necessities without good reason. This sort of methodological principle has been called ‘Hume’s Razor’ by Forrest, “Counting the Cost of Modal Realism”. Since failures of cut-and-paste amount to a necessity claim, cut-and-paste has the status of the default presumption.

¹⁷ This formulation draws on elements from Efid and Stoneham, “What is the principle of recombination?” and Darby and Waston, “Lewis’s Principle of Recombination”.

¹⁸ Actualists (e.g. Plantinga, “Actualism and Possible Worlds”), who deny that there are any merely possible objects, might protest this apparent quantification over non-actual objects. A weakened formulation of **C&P** that only allows recombination over actual objects would, however, suffice for the arguments to come, as I argue in footnote 26. Though, it’s not clear whether a recombination principle that quantified over only actual objects could be adequate for providing a complete account of the extent of possibility, as some advocates of recombination principles hope (c.f. Section 5.3).

¹⁹ Note that these sequences ($n_1, n_2, \dots n_m$) need not be increasing and may include repeat cardinals.

²⁰ The restriction to non-overlapping spatiotemporal relations is to avoid requiring that there could be, e.g., a completely green thing colocated with a completely red thing. Others (e.g. Segal, “Causal Essentialism and Mereological Monism”) use a restriction to mereologically non-overlapping arrangements rather than

exactly n_1 duplicates of x_1 , exactly n_2 duplicates of x_2 ,...exactly n_m duplicates of x_m , in that spatiotemporal relation and no spatiotemporal object that isn't a part of the mereological sum of those duplicates.

C&P says roughly that we can take any sequence of possible objects, duplicate them any number of times, and then rearrange the duplicates however we'd like. This encapsulates key idea 1. This arrangement of objects can then exist as the only spatiotemporal objects at a world.²¹ This encapsulates key idea 2. For simplicity, I hereafter refer to a sequence of objects duplicated some number of times and in some spatiotemporal relation as a 'spatiotemporal arrangement', and when such an arrangement constitutes the entirety of the spatiotemporal objects at a world, I refer to it as a 'maximal spatiotemporal arrangement'.

There are at least three nice features of this formulation of cut-and-paste. First, the entities that are taken to be subject to unrestricted cut-and-paste operations do not form an exhaustive class. Everyone, even Lewis, might want to allow that there are some things that exist

spatiotemporally non-overlapping arrangements. This makes no difference to my arguments unless one has an exotic mereology, for instance claiming that necessarily, everything mereologically overlaps because there is something (The One) that is part of everything else. This view, together with the mereological restriction of cut-and-paste, renders cut-and-paste impotent (Segal uses this to reconcile cut-and-paste with causal essentialism). I reply that any reasons adduced to support the impotently restricted version of cut-and-paste also support non-impotent versions, such as a version where the restriction is to arrangements that are mereologically disjoint with the exception of The One.

²¹ This rough idea needs to be formulated delicately, as indicated by the last clause in **C&P**. Obviously the arrangement of objects may have a mereological sum, so we don't want to rule out the existence of this sum. Perhaps we also don't want to rule out the existence of everything else that is not a spatiotemporal object (more on this later). Much of the haggling in Darby and Watson (2010) concerns the precise formulation of this clause.

necessarily (for example, sets, properties, and numbers). If there are such entities, they cannot simply be cut out of a possible world. **C&P** accounts for this by restricting its scope to spatiotemporal objects only. Second, in light of the above, it can be seen that **C&P** is not immediately incompatible with theism. It is no surprise that theism is incompatible with recombination principles that rule out all necessary beings. But **C&P** is compatible with the necessary existence of a non-spatiotemporal agent. Admittedly, theists who think of God as spatiotemporal will still not be happy with **C&P**, but there are ways of slightly amending **C&P** to accommodate these views (see footnote 22). Along these lines, the third nice feature of this formulation is that it allows us to see some ways in which cut-and-paste principles might vary.

There are two important kinds of variations I have in mind here. First, how strong should the notion of *duplication* involved be? Lewis roughly understands duplicate objects as sharing all fundamental or perfectly natural properties, but there are other notions available. For example, intrinsic duplicates share all intrinsic properties, and physical duplicates share all physical properties. These notions are interrelated, but we should not immediately assume that all cut-and-paste principles invoking different kinds of duplication have all the same consequences. Secondly, which entities should be subject to free cut-and-paste and which should be exempted? In **C&P** the restriction is to spatiotemporal objects, but again there are nearby alternatives available (e.g. material objects, concrete objects, contingent objects).²² I initially focus on the spatiotemporal restriction primarily because it fits most naturally with the fundamental idea of cut-and-paste as it exists in the literature, which is about possible spatiotemporal arrangements of

²² Some of these alternative formulations even accommodate the theist who believes in a spatiotemporal God (who is, e.g., immaterial).

objects. We would need to introduce additional machinery to specify how any non-spatiotemporal entities might recombine with the spatiotemporal ones.

In the following section, therefore, I will develop arguments assuming the principle as formulated above (with duplication understood as involving sharing all fundamental properties). But I will return to the question of how these variations of **C&P** may affect the arguments in section 4.3.

3. Two Arguments from C&P to Impermissible Worlds

In this section, I outline two arguments for the claim that there are genuinely possible worlds which God could not justifiably allow to be actual. As these arguments rely essentially on our recombination principle **C&P**, they purport to show that theism is incompatible with **C&P**.

The first argument, which I call ‘The Overall Bad Argument’, relies on the idea that it would be impermissible for God to allow a world where things go badly overall. More specifically, the idea is that God cannot allow a world where the spatiotemporal realm (universe) is bad overall.²³ Everyone, however, agrees that some parts of possible worlds are bad overall. For example, an innocent person suffering is bad, all things considered. The event of an innocent person suffering is constituted by some spatiotemporal arrangement of objects with certain properties. According to **C&P**, we may take this bad spatiotemporal arrangement, cut it from its original world and paste it into a new world where it exists as the entire universe. But then we

²³ This is stronger than the claim that God cannot allow *everything* at a world to go badly overall, and one could reasonably deny the stronger claim while accepting the weaker one. I will consider this kind of objection in depth in section 4.1.

have a world with a universe that is bad overall, and this, we have agreed, God could not have allowed.

But, suppose that we think that God could justifiably allow things to get worse than bad overall. How much worse? We can allow the theist to set the bar as low as they like, so long as they agree that there is some finite level of disvalue E such that God could not have allowed a universe worse than E . This second argument, which I call ‘The Bad As You Want Argument’, shows that **C&P** entails the possibility of universes that are worse than any finite threshold level of disvalue.

We start where we left off in a world where the universe is bad overall. Perhaps, for example, it consists of just one innocent person suffering. **C&P** allows us to take some other bad spatiotemporal arrangement and combine it with the existing world to deliver a new world. Surely the resulting world is now worse than the original, as it contains just another bad thing.²⁴ By **C&P** we can iterate this operation arbitrarily many times. We are guaranteed to reach a world with a universe exceeding the threshold level of disvalue E so long as the resulting universes do not get worse while approaching some finite limit on the level of disvalue above E . For this reason I do not assume that we must keep adding the same bad thing over and over. It could be that one can only recombine a certain number of hangnails before we begin to approach a limit of disvalue below that achieved by a single death.²⁵ However, I do assume that there must be

²⁴ We have to be somewhat careful here. Some ways of combining multiple bad things may result in something good, or at least something no worse. But there should be some spatiotemporal arrangement such that combining bad things in that arrangement makes the world overall worse.

²⁵ These kinds of views are known in the literature on aggregating harms as ‘Limited Aggregation’ views. See, e.g., Tomlin, “Limited Aggregation”.

something in the space of possible worlds that we could add to a bad universe to make it worse by at least some positive, non-zero constant C .²⁶ This constant may be arbitrarily small, but we must mention it to ensure that we do not approach a limit above E as we add bad upon bad things.²⁷ In sum, then, no matter how bad we think God could allow universes to get, **C&P** guarantees that there are universes worse than that since we can keep recombining bad things until we surpass that limit.

It is worth pausing to note how many theodocical resources fail to even touch the kinds of worlds that can be generated by **C&P**. Free will theodicies²⁸ will not work, as **C&P** guarantees universes where no agent ever makes a morally significant choice. If the agents at these universes have free will at all, they are never able to exercise it in a valuable manner. Perhaps,

²⁶ I mentioned in footnote 18 that the arguments from **C&P** could be run with a principle that recombines only actual entities. This is clearly true for The Overall Bad Argument, since there are actually existing things that are bad overall. This is also true for The Bad As You Want Argument, as long as recombining only actual entities can exceed the threshold E . This is extremely plausible, since a world consisting of only arbitrarily many genocides, chronic illnesses, etc. seems clearly impermissibly bad.

²⁷ Given that we start with a world with some positive, non-zero level of disvalue A , and there is an operation to increase A by the positive, non-zero constant C (namely adding some other bad thing to our original world), it is easy to show that E will be exceeded iterating this operation a finite number of times. In particular, one need only perform this operation E/C times (rounding up to the nearest integer). Since the total amount of disvalue added to A is equal to $C \times (E/C)$, which is equal to E . Thus the total amount of evil at the end of the process will be $A+E$, which is greater than E . Since this operation need only be performed finitely many times using (I assume) finitely many objects at each iteration, it is supported by the weakened and paradox-free version of **C&P** which quantifies only over finite numbers of duplicates.

²⁸ E.g. Swinburne, "Existence of God," Ch. 11.

for example, they are completely paralyzed.²⁹ Similarly, theodicies appealing to a notion of the Fall³⁰ have no purchase, since there is no Fall in universes with no morally significant choices. Soul-making theodicies³¹ also founder here, since the evils in many of these universes elicit no virtuous responses and contribute to no one's moral development.³² Natural law theodicies³³ fail to get off the ground as well, for several reasons. The goods that they appeal to—tidy natural laws that ensure regularity—fail to exist in universes which are completely irregular cacophonies of misery and suffering with no predictable natural order at all. And even in those universes with tidy laws for agents to rely on in deliberation, the value of those laws may go unrealized if agents are unable to make any significant choices. Even Hudson's ingenious appeal to goods of unknown hyperspatial dimensions³⁴ will not do the trick, since **C&P** generates universes where no hidden goods are lurking unnoticed in hyperspace. In general, any justification of evils in terms of overriding spatiotemporal goods are structurally inadequate to the task, since **C&P** allows us to simply cut these goods away. These universes are true monstrosities.

²⁹ Someone can be completely paralyzed and yet have some freedom. For example, they might be free to think of one thing rather than another. But the mere existence of that kind of freedom, I take it, cannot do much to justify great evils. Rather, at least a good deal of the value of freedom depends on being able to freely do things that have significant consequences.

³⁰ E.g. Stump, "Problem of Evil".

³¹ E.g. Hick, "Irenaeus Theodicy".

³² At least within anyone's earthly life. One could have a soul-making theodicy on which all the relevant moral development occurs within the afterlife. I explore strategies along these lines in section 4.1.

³³ E.g. Reichenbach, "Natural Evils and Natural Laws".

³⁴ Hudson, "Beautiful Evils".

4. Objections Considered

4.1. Counterbalancing Objections

I presented The Overall Bad Argument beginning with the claim that God could not allow a world that is bad overall. But then I quickly moved to the stronger claim that God could not allow a universe that is bad overall. The first family of objections I will consider accepts that there are some limits to how bad God can allow worlds to be, but denies the stronger claim that there are some limits how bad God can allow universes to be. This type of objection claims that the very bad universes delivered by **C&P** may always be outweighed by great goods outside of the spatiotemporal realm. Since non-spatiotemporal goods cannot be jettisoned away by a cut-and-paste principle explicitly restricted so as not to apply to such objects, it follows that **C&P** cannot deliver worlds that are arbitrarily bad overall. Rather, all it can do is deliver very bad universes, and it falls silent on whether worlds containing these universes have counterbalancing non-spatiotemporal goods. I call these kinds of objections *counterbalancing objections*.

I will discuss at least two different counterbalancing objections³⁵, differing over what the relevant non-spatiotemporal goods are identified as. The first I do not suspect that anyone would actually endorse, but diagnosing where it goes wrong will be helpful in our discussion of the second variant.

The first counterbalancing objection identifies the relevant non-spatiotemporal counterbalancing good with God. Many theists take the existence of a perfect being to be an infinite good, so it may be argued that the existence of a non-spatiotemporal perfect being would

³⁵ I discuss another objection arising from dualism which might be classified as a counterbalancing objection in section 4.2, but since it raises different issues from the other two counterbalancing objections, I defer discussion of it.

swamp any merely finite level of badness in the spatiotemporal realm. Thus, things may go arbitrarily badly in the spatiotemporal realm since worlds are guaranteed to be very good overall by the necessary existence of God.

I do not suspect that anyone will find this line of objection convincing. There is something clearly fishy, if not perverse, about using the goodness of God's own existence to justify God allowing things to go very badly for us earthly creatures. But where exactly does the objection go wrong?

The objection seems to show that mere axiological counterbalancing of an evil need not by itself suffice to justify allowing that evil. If one needs further convincing on this score, there is a very simple case to consider. Suppose that there is a world that is good overall, but that in some remote corner of spacetime an innocent person is horribly tortured for all eternity for no reason. It is evident in this case that the mere fact that this evil is outweighed by goods elsewhere in the world is not sufficient to justify God's allowing the eternal torture, when God could easily prevent it. One is reminded here of Marilyn Adams' (1989) gripe with global solutions to the problem of evil. Adams objected that one could not justify God's allowing horrendous evils by appeal to global features of worlds (such as their containing the best overall balance of moral and natural evils available to God), since such global features do not guarantee that people live lives worth living or that the horrendous evils within their lives are defeated within their lives.³⁶

³⁶ Note that Adams "Horrendous Evils," 299 explicitly contrasts the mere "balancing-off" of evils and the "defeat" of evils. I am not, however, assuming that Adams is right that God must ensure everyone lives a life worth living. I am merely pointing out that we agree that mere axiological counterbalancing is not sufficient to justify God's allowing an evil.

It would be nice to have a general story of the conditions necessary and sufficient for a certain good to justify allowing a certain evil. I do not have such a story. Adams appeals to Chisholm's (1968) concept of the good and evil being integrated into some whole with "organic unity". This notion is a bit mysterious. Some appeal to the idea that there must be some appropriate modal connection between the evil and its justifying good.³⁷ I think it is correct that there must be some kind of modal or causal connection between a good and an evil for the former to justify the latter, but I also think that this is probably not a sufficient condition for justification, and that spelling out the precise nature of this modal/causal connection will be very difficult. Moving forward, I assume that a necessary condition on the justification of an evil E in terms of a good G is that there is some appropriate connection between E and G, and that this connection is at least partly modal/causal in nature. Although admittedly vague, this is enough for us to make some progress.

The main hurdle that counterbalancing objections must overcome is that the counterbalancing goods for the evils of bad universes generated by **C&P** must be appropriately connected in the above manner. It seems clear that this is where the counterbalancing objection in terms of God's own existence goes wrong. There is just no appropriate causal or modal connection between God's existence and someone being tortured for all eternity in a remote corner of spacetime.

The second, more plausible counterbalancing objection identifies the relevant counterbalancing goods with goods of the afterlife. The idea is that the spatiotemporal realm may be arbitrarily bad so long as there is also a non-spatiotemporal afterlife which is good enough to

³⁷ E.g. Hudson, "Beautiful Evils," 387.

counterbalance it.³⁸ Again, the hope is that since the goods identified are non-spatiotemporal, they cannot be touched by our recombination principle.

The problem is that the appeal to the afterlife faces a serious dilemma. Universalism, as I will understand it, is the thesis that necessarily, everyone will eventually be saved in the afterlife.³⁹ I will argue that if Universalism is false, then **C&P** guarantees worlds with bad universes where no one is saved, and therefore there are no goods of the afterlife to justify these spatiotemporal evils. On the other hand, if Universalism is true, then the counterbalancing goods of the afterlife may not have the appropriate kind of connection to the spatiotemporal evils to legitimately justify them.

Suppose first that Universalism is false. This means that, possibly, some people are not saved. I assume that if some are not saved, this is not an arbitrary decision that singles out some people. Rather, at these worlds, God has some consistent conditions that people must satisfy in their earthly lives to be saved. The alternative, that God arbitrarily saves, appears morally unjust. I make no substantive assumptions about what these possible criteria for salvation are. For instance, perhaps there are worlds where we must come to know and accept God, or we must not commit certain sins, etc. Whatever these conditions are, their satisfaction or non-satisfaction is

³⁸ This objection is not available to theists, including many Christian theists, who believe that the afterlife will be an embodied, spatiotemporal one. My thanks to a referee for pointing this out.

³⁹ See Talbott, “Universalism” for discussion. Talbott does not define ‘Universalism’ as a modalized thesis in the way that I do, but does argue that it is necessary that everyone will be saved (Talbott, “Universalism,” 455–457).

realizable in terms of the very spatiotemporal arrangements that **C&P** allows us to manipulate.⁴⁰ We can therefore, by **C&P**, arbitrarily aggregate evils while also ensuring that no one in their earthly lives satisfies these conditions, and so no one is saved. I conclude that if Universalism is false, then **C&P** delivers objectionably bad worlds where the counterbalancing goods of the afterlife simply do not obtain, and so the proposed objection cannot cover all the relevant cases.

On the other hand, if Universalism is true, it becomes implausible that the goods of the afterlife bear the appropriate connection to evils in the spatiotemporal realm to justify them. If Universalism is true, then there is no possible way our lives could have gone that would have resulted in our not being saved. The necessity of the afterlife makes it hard to see how there could be a tight connection of the right kind between the goods of the afterlife and the evils we suffer.

To illustrate, suppose the goods of the afterlife are the same for all people in all possible worlds. For instance, perhaps they involve knowing God or contemplating the eternal truths. In that case, it seems quite clear that these goods do not have the appropriate modal or causal connection to the evils of the universe to justify them. We would have enjoyed these very goods

⁴⁰ Substance dualists about the mental might deny that these conditions are realizable in terms of spatiotemporal arrangements, since the example conditions described involve mental events. I respond to a more general version of this objection in section 4.2. If my responses work there, they should work equally well here.

The responses fall into two general types. The first type of response is that either **C&P** itself, or close variants of **C&P** that should be accepted by someone who accepts **C&P**, actually do commit substance dualists to accepting recombination over mental entities. If this response works, then **C&P** (or its close variants) do allow us to manipulate the conditions for salvation, even if we are substance dualists. The second type of response focuses on aesthetically disvaluable worlds, in which the relevant evils are solely non-mental. This response avoids the counterbalancing objection from the afterlife entirely, since no (created) people exist at these worlds.

in any possible world in which we exist. Rather, the universalist has to maintain something like the following: even though we will all be saved of necessity, the particular goods that we will experience in the afterlife are shaped in some intimate way by the earthly evils we experience, and that this intimate connection is the right kind to justify God's allowing those particular evils. In my view, this is a difficult position to maintain. I am not arguing here that there is no universalist view that could validate the right kind of connection between earthly evils and heavenly goods. For example, Adams (1989: 308-309) speculatively suggests that our experience of horrendous evils may give us a window into God's inner life that we come to recognize once we know God in the afterlife, and that this is a great good that justifies God's allowing particular horrendous evils. I am not sure that this proposal generates the appropriate kind of connection, since it is not clear that we could not get the same window, or an equally valuable window, into God's inner life by other, less painful means. But it does seem that this kind of proposal is on the right track in terms of generating a universalist-friendly explanation of particular heavenly goods that bear an appropriate modal/causal connection to earthly evils.⁴¹

To summarize, the appeal to the afterlife faces a serious dilemma. If it is possible that some are not saved, then we can arbitrarily aggregate evils while ensuring that no one is saved, so the goods of the afterlife cannot justify all the bad universes **C&P** entails. If it is necessary that everyone is saved, then it becomes difficult to see how the goods of the afterlife have the appropriate connection to earthly evils to justify God's allowing them. That's not to say that no account is possible, but it is to say that any such account would require rich normative theorizing about how goods justify evils, and rich theological theorizing about how the goods of the

⁴¹ Thanks to Jeff Russell for repeatedly impressing on me the importance of this kind of view in this context.

afterlife satisfy this normative account. This theorizing is left as an open challenge to those wishing to reconcile theism with **C&P** by universalist means.

4.2. Substance Dualism

Suppose that you thought only mental states and events are intrinsically good or bad. Further, you think that the mind is an immaterial substance distinct from all physical objects, and mental states and events involve only these immaterial substances. You might then object to my arguments on the basis that no mere arrangement of spatiotemporal objects having certain properties could be intrinsically good or bad. By locating value exclusively in the mental realm, and locating the mental realm outside of the spatiotemporal realm, one may avoid the thrust of any argument predicated on value being located within the spatiotemporal realm. Substance dualists are among those that may find these assumptions congenial.

This substance dualism-inspired objection is a serious one. I have three responses to this objection, none of which I consider individually decisive but collectively they do present a formidable challenge to this way of objecting to our arguments from recombination.

First, I note that positing immaterial mental substances does not necessarily put the mental outside of the spatiotemporal realm. If immaterial minds or souls are nonetheless spatiotemporally located, then our recombination principle **C&P** does quantify over them and allows us to subject them to free recombination. Allowing that the mind is immaterial but spatiotemporally located has been suggested as a promising move for substance dualists before,

obviating several objections to the view.⁴² For theists who are substance dualists of this kind, the tension with **C&P** is not resolved.

This response may seem cheap because of a point I acknowledged back in section 2 – the restriction of **C&P** to spatiotemporal objects is a place where there are several potentially viable alternatives. If we instead restricted our recombination principle to material objects, then substance dualists who locate the mind in spacetime still escape our arguments, since they still posit an immaterial mind, which escapes the scope of this newly restricted principle. So where does this leave the dialectic? In fact there are several places where I believe the arguments of this paper turn on subtle points about the exact formulation of cut-and-paste. Some may view this as a favorable result for the theist, but I will argue for a more pessimistic view in section 4.3. Until then, I postpone further discussion of this issue.

The second response I have to this substance dualism-inspired objection is to question the assumption that value is exclusively had within the mental realm. There is at least one kind of value that is uncontroversially had by mere material objects and not mental events or states, namely aesthetic value. If we believe that certain spatiotemporal arrangements can have an intrinsic aesthetic value, then **C&P** can be called in to deliver a bad universe simply by taking something that is intrinsically aesthetically disvaluable and cut-and-pasting it into its own world as the entire universe. The Overall Bad Argument can then still be run without assuming that

⁴² Lycan, “Is Property Dualism Better Off than Substance Dualism?” 537–538 argues this point, and suggests that substance dualists should say that the mind is co-located with the central nervous system. Other dualists, such as Hart, “Engines of the Soul,” Ch. 10 and Hasker, “Emergent Self,” 192, have suggested that the mind is co-located with the brain. Zimmerman, “From Property Dualism to Substance Dualism,” 134–136 also implies that substance dualism may be more plausible with spatiotemporally located minds.

mental events involve material objects. However, this response does not clearly save The Bad as You Want Argument. Even if we recognize aesthetic values, it seems somewhat plausible to be Limited Aggregationists about these values. For example, it seems that no amount of aggregated ugly things could ever be worse than a single person's being tortured.⁴³ So it may be that we cannot reach some levels of disvalue merely by aggregating aesthetically disvaluable things.

It may be countered that since immaterial souls may still exist at these ugly worlds, mental goods can compensate for any aesthetic badness in the spatiotemporal realm. This turns the objection from substance dualism into a form of the counterbalancing objection, where the non-spatiotemporal goods are identified with events involving dualistic souls. As with other counterbalancing objections, my reply relies on the idea that goods must bear some appropriate connection to evils in order to justify them. In order for the particular mental goods in question to justify any particular aesthetic evils, there must be some appropriate modal/causal connection between the mental events and those aesthetic evils. The souls cannot simply float free of the ugliness on the ground. But on substance dualism, it seems that the souls should be able to float free—any connection between mental and physical is thoroughly contingent on dualism. And to claim that souls cannot float free is even more ill-fitting for theistic dualists, many of whom believe that our souls can and will exist in the absence of any physical bodies whatsoever. It seems that mental goods just do not have the appropriate kind of connection to aesthetic evils to justify them, given substance dualism. Therefore, they cannot justify God's allowing a universe consisting solely of aesthetic evils.

⁴³ Although see Hudson, "Beautiful Evils," 394–395 for a theist's defense of the view that an aggregate of aesthetic evils may be worse than even significant suffering.

The last response I have to the substance-dualism inspired objection also concerns the connection between the mental and the physical. While on dualism there is no metaphysically necessary connection between mental properties and physical properties, there are obviously certain natural correlations between mental properties and physical ones. Dualists typically posit “psychophysical laws” connecting the physical to the mental on a par with other laws of nature.⁴⁴ A problem arises for the objection from substance dualism here since **C&P** does allow us to freely manipulate physical objects and events to deliver a world which would be associated with various mental evils if the psychophysical laws of our world still held in that world. To take a toy example, suppose that, actually, it is a psychophysical law that C-fiber firings are correlated with pain events. **C&P** allows us to cut-and-paste to a world with arbitrarily many C-fiber firings. If the same psychophysical laws hold in that world, then we have reached a world with an arbitrary amount of suffering. Therefore, a slightly altered version of **C&P** avoids the substance dualist’s objection that merely manipulating spatiotemporal arrangements cannot deliver bad worlds since these operations say nothing about what mental events occur:

C&P*: For any sequence of non-duplicate spatiotemporal objects $x_1, x_2 \dots x_m$ and any sequence of cardinals ($n_i \geq 0$) $n_1, n_2, \dots n_m$ and any $\sum_{n_1}^{n_m} n_i$ -place spatiotemporal relation, there exists a psychophysically possible world that contains: exactly n_1 duplicates of x_1 , exactly n_2 duplicates of x_2, \dots exactly n_m duplicates of x_m , in that

⁴⁴ E.g. Chalmers, “Conscious Mind,” Ch. 4 and Lycan, “Is property dualism better off than substance dualism?”

spatiotemporal relation and no spatiotemporal object that isn't a part of the mereological sum of those duplicates.⁴⁵

C&P* allows us to cut-and-paste the physical correlates of mental events whilst holding the psychophysical correlations fixed. In this way, even theistic substance dualists cannot escape conflict with **C&P***. What this demonstrates is that the substance dualist who wants to allow free spatiotemporal recombination without free mental recombination must posit substantive constraints on the possible combinations of spatiotemporal arrangements with psychophysical laws. This is, at the very least, a surprising result.

It also seems plausible that the general kinds of intuitions and theoretical considerations in favor of **C&P** equally support **C&P***. I consider motivations for **C&P** in section 5. I do not explicitly consider this issue. I leave that as an exercise for the reader with further interests in escaping conflict between theism and cut-and-paste by way of substance dualism.

4.3. Variants of C&P

As has emerged in previous discussion, the tension between theism and cut-and-paste may in some cases turn on subtle issues in the formulation of those principles. There are two natural places for modifying **C&P** that we identified back in section 2. The first is how exactly to restrict the scope of what is subject to recombination. As we have seen, by restricting the scope to spatiotemporal objects, we subject dualistic minds which are still spatiotemporally located to free

⁴⁵ A world W is psychophysically possible relative to a world U just in case W and U share all the same psychophysical laws. In **C&P*** the resultant world is psychophysically possible relative to each of the worlds in which the objects x_1, x_2, \dots, x_m exist. Strictly speaking then, **C&P*** should be restricted to only sequences drawn from worlds sharing all the same psychophysical laws.

recombination. However, if we instead use a restriction to material objects, even those kinds of minds fall outside of the scope of recombination, alleviating at least some of the tension between theism and cut-and-paste. In other cases, altering the scope of **C&P** leads to a more immediate conflict with theism. Recall that one of the main reasons for restricting the scope of cut-and-paste is to allow for the necessary existence of some kinds of objects, like numbers, universals, or sets. Since these examples are all abstract, some may want to restrict **C&P** to concrete objects. That version of **C&P** would be in immediate conflict with theism, since it has the consequence that no concrete object exists necessarily, contra theism.

The other kind of variation I identified was on the concept of duplication employed in **C&P**. Previously I took duplication to involve the sharing of all fundamental properties, but suppose we weakened the notion of duplication to involve merely the sharing of all physical properties. If our cut-and-paste principle only allowed us to recombine physical duplicates of objects, then those who deny the supervenience of mental properties on physical properties could make the same moves discussed in section 4.2 *mutatis mutandis*—namely locating value exclusively in the mental realm and insisting that the cut-and-paste principle in question simply falls silent about mental properties and events. In this way, property dualists are in much the same position with respect to the a cut-and-paste principle involving physical duplication as substance dualists are with respect to **C&P**.⁴⁶

It is far from obvious that there is even a single version of cut-and-paste considered here that theism totally escapes conflict with. Not all theists are dualists. And even if some theists hold views about the mind that places minds outside of the scope of a given recombination principle, there are still worries about aesthetic values.

⁴⁶ Or at least this is true with respect to substance dualists who deny the spatiotemporality of the mind.

But let's suppose that we were in a dialectical position where we agreed that some versions of cut-and-paste are compatible with theism and some are not. Obviously, one does not in general alleviate the costs associated with denying a certain principle by pointing out that one can accept a slightly altered version of that principle. When can that sort of dialectical move succeed? In my view, it can succeed only if the following two conditions are satisfied:

- A. If the original principle does certain important theoretical work, then the substitute principle must be able to do that work as well.
- B. If the original principle is motivated on certain grounds, then it must be shown that those grounds support the substitute principle rather than the original principle.⁴⁷

There are some *prima facie* reasons to think that these conditions will not be satisfied, however.

With respect to A, one important theoretical application of recombination principles like **C&P** is to be a part of the project of giving a complete statement of what possibilities there are.⁴⁸ The substitute versions of **C&P** that may be compatible with theism differ from **C&P** mostly by exempting minds from the scope of recombination. In that respect, they simply fall silent on what possibilities there are for minds and mental properties and events. This indicates that these weakened substitutes for **C&P** are less suited to doing important work that cut-and-paste is called on to do.

⁴⁷ This condition is obvious since if the grounds support both versions equally, then the original principle is still motivated and so the relevant costs associated with denying the principle are still present. Only if the grounds are shown to not support the principle in its original formulation can the costs associated with denying it be alleviated.

⁴⁸ See e.g. Lewis, "Plurality of Worlds," 88–92 for this application of cut-and-paste to this project.

With respect to B, cut-and-paste principles are typically motivated on very general grounds having to do with explanation or conceivability. I consider these motivations in section 5. While I do not take up this issue explicitly, it seems to me that these motivations are generally not sensitive to the subtle differences between the versions of **C&P** I have considered. If these motivations work at all, I suspect that they work well for many of the versions considered here. So I suspect that condition B is not satisfied, but I cannot conclusively prove that here.

5. Measuring the Cost

I have argued that there is a real tension between theism and cut-and-paste. It remains to be seen, however, just how costly that tension is for theists. There is of course a basic cost associated with having to deny recombination principles for anyone who simply finds those principles intuitively appealing. I myself find these principles very intuitive and think that they are as good a place as any to begin theorizing about modality. But for those who don't share this assessment, it remains to be seen whether there are any extra costs associated with denying cut-and-paste. If there are plausible independent motivations for cut-and-paste and theists cannot undercut these motivations, then the price will be high. But if theists can undercut these motivations then the price will not much exceed the original intuitive cost of denying cut-and-paste.⁴⁹ In this section, I argue that the latter is mostly the case. In order to do so, I assess three motivations for cut-and-paste. I formulate these motivations very loosely and picturesquely, because I do not think much would be gained in this context by a more rigorous development.

5.1. Explicability

⁴⁹ And this price might well be more than counterbalanced by any evidence that the theist has in favor of theism.

Perhaps the most common contemporary justification given for recombination principles like cut-and-paste is that violations of such principles would be metaphysically inexplicable or “unintelligible”.⁵⁰ Consider, for example, one kind of violation of **C&P**. Suppose that there is a certain kind *K* of particle such that there could be two *K* particles at some distance *D* from each other, but there just could not be a pair of *K* particles any closer together than *D*. This necessary fact about the arrangement of *K* particles looks repugnant to many, perhaps on the grounds that it is simply inexplicable why this sort of fact could be necessary. To invoke a bewildered Lewis, what metaphysical force could stop such particles from getting closer together?

Theists may have an answer—God. It seems to me that whatever one thinks about other alleged violations of cut-and-paste (arising from, e.g., alleged essential causal profiles of properties), the theistic explanation of the necessities that they posit is as good as any. Think about a world that is just barely good enough. If one more little thing had gone wrong, things would have been too bad to allow. If your zucchini had gone bad in the fridge before you got to it, the whole world wouldn't have been worth it. Actually, your zucchini couldn't have gone bad. It's absolutely impossible that your zucchini goes bad before you get to it (while everything else stays fixed). What could possibly explain this necessity? What metaphysical force could stop your zucchini from rotting away in the fridge while you order delivery again? God. Maybe God doesn't care that much about your zucchini, but God would never have allowed the world where that zucchini goes bad (while everything else stays fixed). So it's just impossible for things to go exactly that way.

⁵⁰ See e.g. Lewis, “Plurality of Worlds,” 179–181 and Segal, “Causal Essentialism and Mereological Monism,” 239–242 for this sort of motivation for cut-and-paste principles.

Perhaps you think this is a bad explanation because God does not exist. While I sympathize with this response, it still seems to me that if a benevolent, all-powerful God did exist necessarily, then there would be a perfectly good explanation of why certain things which otherwise seem perfectly possible, are nevertheless impossible since God would never allow them to occur. So the objection that theistic violations of cut-and-paste are inexplicable seems question-begging.

5.2. Conceivability

A more traditional route to motivating principles like cut-and-paste is anchored in rationalist approaches to modal epistemology.⁵¹ These approaches claim that modal space is accessible to *a priori* methods. Some philosophers believe in a conceivability-possibility link, such that if a state of affairs S is conceivable (in some sense), then it is possible that S obtains.⁵² While there has been considerable work done within these camps to hone in on a specific notion of conceivability for which it is plausible that there is a conceivability-possibility link, here I leave this notion opaque to avoid needless complexity.⁵³ The justification for cut-and-paste depends on the claim that all the possibilities demanded by cut-and-paste are conceivable in whatever sense for which there is a conceivability-possibility link.

⁵¹ This was Hume's original justification for the denial of "necessary connections". See also Gibbs, "Defense of Hume's Dictum," Ch. 5 for a contemporary discussion of a conceivability-based justification for these kinds of principles.

⁵² E.g. Chalmers, "Does Conceivability Entail Possibility?"; Ichikawa and Jarvis, "Rules of Thought," and Kung, "Imagining as a Guide to Possibility".

⁵³ Chalmers, "Does conceivability entail possibility?" sec. 1–3) for some distinctions in this area.

If there is in fact a viable conceivability-possibility link, then there is a much more direct argument for the possibility of impermissible worlds than the arguments from cut-and-paste. All one needs to show is that impermissible worlds are conceivable in the relevant sense. This direct conceivability argument would be much more plausible than a cut-and-paste argument grounded by a conceivability-possibility link, since the latter requires the much more speculative premise that *all* possibilities required by cut-and-paste are conceivable, whereas the former requires the strictly weaker and highly plausible premise that at least one of the impermissible possibilities is conceivable.⁵⁴

⁵⁴ Some might suggest that there is another more direct route to showing an incompatibility between theism and the conceivability-possibility link, since it is conceivable that God does not exist. However, such an argument seems much weaker to me than the argument from the conceivability of impermissible worlds. The nonexistence of God seems conceivable only in a weaker sense than the sense in which an impermissible world is conceivable. Perhaps, for example, the nonexistence of God is conceivable in the sense of Chalmers's "prima facie negative conceivability" – one cannot detect a contradiction in the claim that God does not exist. But it is not plausible that this kind of conceivability is a good guide to possibility. For example, as a referee suggests, it is plausible that certain open conjectures in mathematics and their negations are conceivable in this sense, though it cannot be that both are possible. By contrast, a world in which every earthly person suffers endlessly seems conceivable in Chalmers's "positive" sense – one can positively depict, perhaps imagistically, such a world. This kind of conceivability seems more likely to be a good guide to possibility (see, e.g., Dohrn, "Humean Modal Epistemology" for some considerations that press in favor of this idea).

At any rate, the main point here is that a direct conceivability argument for an impermissible world relies on strictly weaker premises than a cut-and-paste argument backed by the conceivability-possibility link, since the conceivability of an impermissible world is entailed by the conceivability of all worlds required by cut-and-paste, but not vice-versa. On the other hand, the same is not true for the conceivability of a world where God does not

It seems to me then that while theists have no special way of undercutting a conceivability-based motivation for cut-and-paste, they can argue that a conceivability-based motivation would render the arguments from cut-and-paste an unnecessary and inefficient detour on the route to impermissible worlds, sort of like traveling from Louisiana to New Jersey through California. The arguments from cut-and-paste may be dialectically irrelevant and impotent if backed by a conceivability-possibility link. This will be especially true if theists have already noticed the fairly obvious route from the conceivability-possibility link to impermissible worlds and thereby already rejected this link.⁵⁵

5.3. Primitive Modality

I wrote in section 4.3 that cut-and-paste principles have been employed in the project of giving an account of what possibilities there are. For some authors it is important that this project be carried out without recourse to any ineliminable modal notions.⁵⁶ It is not entirely clear whether this restriction is motivated simply by aversion to primitive modality in general or if there is something particularly worrying about primitive modality in this specific application.⁵⁷ The important point here is that cut-and-paste principles are substantive principles about what is possible that perhaps need not invoke any primitive modal notions. **C&P** as formulated does employ the concept of a possible world, but there is some hope for a reductive analysis of

exist, since cut-and-paste is explicitly formulated to be neutral on the existence of non-spatiotemporal entities like God.

⁵⁵ E.g. Plantinga, "Supralapsarianism," 8.

⁵⁶ E.g. Lewis, "Plurality of Worlds".

⁵⁷ See Sider, "Reductive Theories of Modality" on general motivations for eliminating primitive modality.

possible worlds (e.g. in terms of maximal spatiotemporally related sums of objects⁵⁸ or maximal structured states of affairs⁵⁹). If this reductive project is important and cut-and-paste is a vital part of this project, then there is some cost associated with having to deny cut-and-paste.

I argued in section 4.3 that it seems like theists cannot do this work by introducing substitute cut-and-paste principles that restrict the scope of what is subject to recombination. But this does not mean that theists are out of this game completely. Even those who violate recombination principles can still use restricted recombination principles to generate a modal space.⁶⁰ They can even do so without primitive modality if their restrictions on recombination principles can be stated without invoking any ineliminable modal notions. So the theistic violations of cut-and-paste threaten the reductive project only if the restrictions they place on cut-and-paste require invoking primitive modal notions. For example, if theists could only say that they accept all the possibilities generated by **C&P** except when such possibilities are ones that God *could not* or *would not* permit, then they would require primitive modal notions in stating their recombination principles, and would be unable to carry out the reductive project. However, if theists can delimit the possibilities God can and cannot permit without modal notions, then they are still in the reductive game. There is a good chance that this can be done,

⁵⁸ Lewis, "Plurality of Worlds". For foundational criticisms, see Plantinga, "Two Concepts of Modality" and van Inwagen, "Two Concepts of Possible Worlds". For recent versions of Lewis's reductionist program, see Maguire, "Lewis's Modal Reduction" and Bricker, "Modal Matters".

⁵⁹ Armstrong, "Combinatorial Theory of Possibility". For foundational criticisms, see Lewis, "Armstrong on Combinatorial Possibility" and Sider, "Armstrong's Combinatorialism". For a recent version of Armstrong's program, see Forrest, "Fictional Possibilities".

⁶⁰ For instance Wang, "From Combinatorialism to Primitivism" combines acceptance of primitive incompatibilities between properties with accepting all combinations of property instantiations that respect those incompatibilities.

since the theist's restrictions are fundamentally normative, and normative notions seem to be conceptually independent of modal notions. For instance, theists who maintain that God must ensure that the world is not bad overall can accept all possibilities generated by **C&P** except the ones that are bad overall. Since this restriction invokes no modal notions, it conforms with the reductive project.

Whereas the restrictions examined in section 3.3 render cut-and-paste silent on the possibilities for minds and mental properties, the style of restriction proposed here accepts all the possibilities originally generated by cut-and-paste except exactly those that the theist is committed to denying are genuine possibilities. If, additionally, the theistic restrictions on cut-and-paste can be expressed in non-modal, normative terms, then theists needn't surrender this important tool in the reductive project.

However, a residual problem remains. One might think that our fundamental theory of metaphysical modality should not invoke normative concepts either, as these concepts refer to properties that are not metaphysically fundamental enough to be invoked in this context. So the worry is that trading primitive modal concepts for normative ones is not really an advance.

As I see it, the force of this charge depends on one's metaethical inclinations. For the metaethical anti-reductivist, normative properties reach down to the rock-bottom of reality. So, for the anti-reductivist, the residual problem is not so worrying.

Metaethical reductivism, on the other hand, comes in two different flavors. Naturalistic reductivists ground normative properties in natural properties. The natural properties in question tend to be properties like *the flourishing / suffering of sentient creatures* or *the satisfaction / dissatisfaction of desires*. It is plausible that these properties are too high-level to be used in account of what metaphysical possibilities there are.

The other flavor of reductivism is supernaturalistic reductivism, which grounds normative properties in supernatural properties, such as *the satisfaction / dissatisfaction of divine commands* or *being similar / dissimilar to the divine nature in a respect*. These are properties involving the divine nature or divine commands, which are plausibly, on a theistic worldview, metaphysically fundamental parts of reality. There seems to be no bar, then, in invoking them in our fundamental theory of modality.

My conclusion on the residual worry, therefore, is that it is a problem only for theistic metaethical naturalists, but not for theistic metaethical supernaturalists or anti-reductivists. And while theistic metaethical naturalism is a live theoretical option, it is one that is rarely occupied. So the majority of theists will not be troubled by the residual worry.

6. Conclusion

I have argued that there is a real tension between theism and a popular modal recombination principle known as ‘cut-and-paste’. Though there are some surprising ways of trying to reconcile theism with cut-and-paste, I have argued that these ways, for the most part, are not promising, or at least require some difficult theoretical work that has yet to be done. And although the nature of the conflict depends to some extent on subtle issues regarding the precise formulation of cut-and-paste, I have argued that this is not grounds for optimism about reconciliation. The denial of cut-and-paste is a drawback of theism for those, like myself, who find such principles intuitively attractive. In a more concessive spirit, however, I argued in the previous section that theists have plausible ways of undercutting some ways of motivating cut-and-paste. While this does not

undermine the basic cost of denying an intuitive modal principle, it does perhaps show that this cost is not prohibitive.⁶¹

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