

Simplicity as a Criterion of Theory Choice in Metaphysics

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Abstract: Metaphysicians frequently appeal to the idea that theoretical simplicity is truth conducive in metaphysics, in the sense that, all other things being equal, simpler metaphysical theories are more likely to be true. In this paper I defend the notion that theoretical simplicity is truth conducive in metaphysics, against several recent objections. I do not give any direct arguments for the thesis that simplicity is truth conducive in metaphysics, since I am aware of no such arguments. I do argue, however, that there is no *special* problem with the notion that simplicity is truth conducive in metaphysics. More specifically, I argue that if you accept the idea that simplicity is truth conducive in science, then it would be objectionably arbitrary to reject the idea that simplicity is truth conducive in metaphysics.

1 Introduction

Metaphysicians routinely appeal to their favored theories' theoretical simplicity as evidence for those theories. Metaphysicians have appealed to theoretical simplicity in support of mereological nihilism (Sider 2013, Brenner 2015b), presentism (Bourne 2006: 68-69; Tallant 2013), theism (Swinburne 2004), atheism (Oppy 2013), materialism (Smart 1959, Churchland 1984: 18), external world realism (Vogel 1990), necessitism (Williamson 2013), and other theses beside. And appeals to theoretical simplicity to decide between competing metaphysical theories are not confined to Western philosophy. For example, classical Indian philosophers such as Vasubandhu appealed to a "principle of lightness," according to which, all other things being equal, we should prefer theories which posit fewer unobservable things (Siderits 2007: 44).

Contemporary metaphysicians often claim their methodological practices are inspired by scientific methodology (cf. Sider 2008: 6). This is particularly true of metaphysicians' appeals to theoretical simplicity as a criterion of theory choice. So, for example, L.A. Paul writes that

while it is true that the empirical, confirmable features of scientific theories have allowed us to confirm the value of theoretical desiderata for theorizing, if such features are truth conducive in the case of science, they should be truth conducive more generally. That is, if simplicity and other theoretical desiderata are truth conducive in scientific theorizing, they are truth conducive in metaphysical theorizing (Paul 2012: 22)

It is the second part of this quotation which most concerns me here: Paul claims that if theoretical simplicity (and other "theoretical desiderata," which I'll ignore in this paper) is truth conducive in science, then it is truth conducive in metaphysics as well. In this paper I develop Paul's line of thought and defend it against some recent objections. It's controversial, of course, whether theoretical simplicity is truth conducive in science (see, e.g., van Fraassen 1980), but the notion that theoretical simplicity might be truth conducive in *metaphysics* has come under special scrutiny. Several philosophers have recently argued that, whether or not theoretical simplicity is truth conducive in science, we should doubt that it is truth conducive in metaphysics (Huemer 2009, Kriegel 2013, French 2014, Willard 2014, Thomasson 2015).¹

¹Sober (2009; 2015: Ch.5) has a less uniform view of the role of simplicity as a criterion of theory choice within metaphysics. According to Sober, some of the appeals to simplicity as a criterion of theory choice in metaphysics (and philosophy more generally) are appropriate, while others are not.

Discussions of the role of theoretical simplicity in metaphysical theory choice are part of a wider recent trend within metaphysics toward greater reflection upon the methodology and aspirations of metaphysics. Given how frequently metaphysicians appeal to theoretical simplicity as grounds in favor of their preferred theories, metaphysicians should care very much about the recent attacks against the notion that theoretical simplicity is truth conducive in metaphysics. As we'll see below, I am of the view that, for the most part, there are no good arguments for simplicity's being truth conducive in *any* contexts.² That being said, *given* an antecedent commitment to the notion that theoretical simplicity is truth conducive *in science*, metaphysicians can provide some justification for the use to which theoretical simplicity is put *in metaphysics*. I will assume without argument that theoretical simplicity is truth conducive in science, in the sense that, all other things being equal, simpler scientific theories are more likely to be true. Perhaps we have a hard enough time defending the notion that simplicity is truth conducive in this manner in science. Even so, there is no *special* problem with the notion that theoretical simplicity is truth conducive in metaphysics.

My thesis is a fairly modest one. I do not claim that theoretical simplicity, or any of the other theoretical virtues appealed to by metaphysicians, is up to the task to which metaphysicians generally put it, as grounds which are often sufficient to produce justified belief, or even knowledge, that some particular metaphysical theories are true.³ Rather, I endorse the much more modest

²Even if there are no good arguments for simplicity's being truth conducive (in science or elsewhere), it may still be the case that we have some non-inferential justification for believing that simplicity is truth conducive. Perhaps, for example, our belief that simplicity is truth conducive in science (or truth conducive more generally) is justified because it is the result of a reliable belief forming process. Or perhaps our belief that simplicity is truth conducive (in science and elsewhere) is, as I suggest below, simply an epistemological bedrock, without which we would likely be stuck with a great deal of skepticism regarding, e.g., induction, other minds, and the external world more generally.

³Given the modesty of the thesis I defend in this paper, I sidestep many of the problems which beset appeals to inference to the best explanation in metaphysics, for example those emphasized in Saatsi (forthcoming). To give one example, Saatsi argues that our cognitive faculties will less reliably lead us toward the truth in metaphysics than in science (Saatsi §4.1). What Saatsi's arguments warrant is, at most, a certain degree of humility when we're doing metaphysics: we're just better equipped for scientific inquiry than we are for metaphysical inquiry, and so an epistemic humility is warranted in metaphysics which is stronger than the sort of epistemic humility which is warranted in science. Perhaps it is true that our cognitive faculties are less up to the task in our metaphysical inquiries than in our scientific inquiries. But this is beside the point in the present context – whether or not our intellectual capacities are particularly reliable within metaphysics, simplicity still might be truth conducive in metaphysics, in the sense that (all other things being equal) simpler metaphysical theories are more likely to be true. Ditto for the thought that our intuition that simplicity is truth conducive in science is more reliable than a

claim that, *if* theoretical simplicity is truth conducive in science, then it is truth conducive in metaphysics as well.

The remainder of this paper will be organized in the following manner. §2 lays the groundwork for my subsequent defense of the notion that simplicity is truth conducive in metaphysics. §3 explains why the thesis that simplicity is truth conducive in science provides support for the thesis that simplicity is truth conducive in metaphysics. The idea is that it would be objectionably *arbitrary* to endorse the former thesis but not the latter thesis. §§4-6 address potential distinctions between science and metaphysics which might be thought to lead us to endorse the notion that simplicity is truth conducive in science but not metaphysics. §7 concludes the paper.

2 Theoretical Simplicity as a Criterion of Theory Choice

Theoretical simplicity includes, but is not limited to: the number of ontological or ideological commitments of a theory (fewer commitments = greater simplicity); the number of kinds of ontological or ideological commitments of a theory (fewer commitments = greater simplicity); the number of laws cited by a theory, and the complexity of those laws; more generally, the number of propositions endorsed by a theory, and the complexity of those propositions. It may be the case that some of these forms of theoretical simplicity are truth conducive while others are not. For example, David Lewis famously thought that while qualitative simplicity (that is, simplicity with respect to the number of kinds of theoretical commitments) is a theoretical virtue, quantitative simplicity (that is, simplicity with respect to the number of theoretical commitments) is not (Lewis 1973: 87).

Some appeals to theoretical simplicity within metaphysics are not very controversial. For example, there is an obvious sense in which the conjunction of two metaphysical theses is more complex than either conjunct alone. The probability of the conjunction of any two propositions is less than or equal to the probability of either conjunct alone. This is true of propositions stating metaphysical theses just as much as it is true of any other propositions. So, if we have metaphysical theses A, B, and C, which are such that C is the conjunction of A and B, and A does not entail C, we should think that A is

similar intuition to the effect that simplicity is truth conducive in metaphysics. This may be correct, but as we'll see below I do not defend the notion that simplicity is truth conducive in metaphysics on the basis of any such intuition.

more probable than C.⁴ But metaphysicians don't just appeal to this sort of theoretical simplicity in their arguments for or against metaphysical theories. For example, Sider (2013) defends mereological nihilism on the basis of its theoretical simplicity. When Sider appeals to nihilism's theoretical simplicity as some reason to think that nihilism is true, he does not just argue that nihilism is more probable than the conjunction of nihilism and some other thesis.

For our purposes, we can think of the thesis that "theoretical simplicity is truth conducive in metaphysics" as the following thesis:

$SIMP_M$ - In metaphysics, a theory's theoretical simplicity gives us some reason to think the theory is true.

$SIMP_M$ says that metaphysical theories are such that their theoretical simplicity gives us some reason to think they're true. So, if $SIMP_M$ is correct, then if we have two metaphysical theories one of which is simpler than the other, then, all other things being equal, the simpler theory is more likely to be true than the other theory. The subject I address in this paper is whether $SIMP_M$ receives indirect support from simplicity's being truth conducive in science. More specifically, the claim I defend is that any respects in which theoretical simplicity is truth conducive in science are respects in which it is truth conducive in metaphysics.

To say that "theoretical simplicity is truth conducive in science" is to endorse the following thesis:

⁴*Objection:* Propositions of metaphysics are necessarily true or necessarily false. Accordingly, C in the example given above will be a proposition (or conjunction of propositions) of metaphysics, and so $\Pr(C)=1$ or $\Pr(C)=0$. If $\Pr(C)=1$ then C will not be less probable than either of its conjuncts. If $\Pr(C)=0$ this will be because at least one its conjuncts is impossible, not because C is in any sense more complex than either of its conjuncts. So, in metaphysics, it looks like the "a conjunction is often less probable than either of its conjuncts" defense of the truth conduciveness of simplicity does not hold water. *Response:* Arguably, many metaphysical theories/propositions are only contingently true (cf. Cameron 2007; Miller 2009, 2010). But let's leave that concern aside and assume that all metaphysical theories are necessarily true if true, and necessarily false if false. It wouldn't follow that the probability we should assign to any particular metaphysical proposition is 1 or 0, as the objection currently under consideration assumes. The argument given above for the notion that simplicity is sometimes truth conducive in metaphysics concerns epistemic probability (credence functions, degrees of belief, etc.). Even if some metaphysical theory is necessarily true (or necessarily false), it would be rash to assign an epistemic probability of 1 (or 0) to that theory (either unconditional probability, or conditional on some evidence), as our confidence (or lack of confidence) in that theory would then forever be immune to revision in light of newly acquired evidence. Consider: I have no idea what the billionth digit of pi is, but I am more confident that it is an even digit than I am that it is 3. This is true despite the fact that, whatever the billionth digit of pi is, it is necessarily true that the billionth digit of pi has that value.

SIMP_S - In science, a theory's theoretical simplicity gives us some reason to think the theory is true.

As I note above, I am aware of no good arguments in favor of SIMP_S. The view that theoretical simplicity is truth conducive, in science or otherwise, is often viewed in this manner, as having no persuasive arguments in its favor. French goes so far as to suggest that “it is more or less accepted that there is no argument that demonstrates that simplicity tracks the truth in [scientific contexts]” (French 2014: 57). Perhaps SIMP_S, and, more generally, appeals to simplicity as a criterion of theory choice, is at an epistemological bedrock – we are justified in believing it, but not on the basis of any other considerations which might be thought to count in its favor.⁵ I'm sympathetic to this view, and I suspect that so many of our beliefs are themselves justified in part or in whole on the basis of an implicit appeal to theoretical simplicity that we would be stuck with a great deal of skepticism if theoretical simplicity is not truth conducive, in the sense cited in SIMP_S and SIMP_M (cf. Swinburne 1997: 15). In any case, I will assume in what follows that SIMP_S is true.

3 Why SIMP_S Supports SIMP_M

Again, I've said that I will defend the idea that SIMP_S provides some sort of support for SIMP_M. The idea is that it would be objectionably *arbitrary* to endorse SIMP_S but not SIMP_M. There does not seem to be any principled distinction between science and metaphysics which would lead us to endorse one thesis rather than the other. There aren't determinate boundaries between science and metaphysics, and whatever boundaries there are are partially constituted by contingent historical and sociological factors (i.e., who among university faculty becomes interested in a particular question) which are irrelevant to what criteria of theory choice have epistemological significance. Even if we pretend that “science” and “metaphysics” denote precise and clearly circumscribed domains of inquiry, the subject matter of “science” will almost certainly overlap the subject matter of “metaphysics.”⁶ What's more, you might think theoretical simplicity is truth conducive in science (in the sense cited in SIMP_S) because it is truth conducive *in general*, including in metaphysics. Simpler scientific theories are, all other things being equal,

⁵An exception being, as I argue in this paper, if the notion that simplicity is truth conducive in one context (e.g., science) leads us to endorse the idea that simplicity is truth conducive in some other context (e.g., metaphysics).

⁶For example, when evolutionary biologists debate which units of selection operate within natural selection, the debate will frequently turn on the resolution of debates within the metaphysics of composition and vagueness. See, for example, Gould 2002: Ch.8.

more likely to be true because simpler *theories* are, all other things being equal, more likely to be true. If you reject this view – and more specifically, if you accept SIMP_S but reject SIMP_M – then you should feel compelled to point toward some relevant difference between science and metaphysics which makes it the case that theoretical simplicity is truth conducive in the former context, but not the latter context.

Willard contends that arguments from SIMP_S to SIMP_M are circular. Why does SIMP_S provide support for SIMP_M ? Well, the thought goes, the fact that nature is uniform is supposed to be what leads us to think that if SIMP_S is true, then SIMP_M is true as well. But the assumption that nature is uniform is in turn supported by an appeal to simplicity, insofar as it would be simpler to suppose that nature is uniform than to suppose that nature is not uniform. So, in short, the move from SIMP_S to SIMP_M is ultimately supported by an appeal to theoretical simplicity, which makes the move from SIMP_S to SIMP_M circular: “It is simpler to assume that nature is uniform than it is to assume otherwise. In other words, to believe that simple physics makes simple metaphysics more likely presupposes that simplicity is already an underlying criterion of theory choice. As such, the argument in support of simplicity is circular” (Willard 2014: 176). My response to Willard’s objection is this. My argument is circular only if the appeal to simplicity contained therein is SIMP_M (or presupposes that SIMP_M is true). That’s not the case. My argument relies not on SIMP_M , but rather on the epistemological principle that our beliefs should not be arbitrary in certain respects – roughly, if you accept some thesis A but not some thesis B, then in principle you should be able to point to some epistemically relevant distinction between A and B which accounts for your different doxastic attitudes toward the two theses. That principle says nothing about whether simplicity is truth conducive in metaphysics. Rather, the motivation for the principle is that in order for our doxastic attitude with respect to some thesis to be justified it should be responsive to the epistemically relevant features of the thesis. If we have two theses, one of which we accept and the other we reject, and the two theses do not differ in any epistemically relevant respects, then either our belief in the first thesis or our disbelief in the second thesis is not appropriately responsive to the epistemically relevant features of the theses. So, at least one of our doxastic states is unjustified.

So, *are* there any principled distinctions between science and metaphysics which should lead us to endorse SIMP_S but not SIMP_M ? Several proposed distinctions of this sort have been proposed by SIMP_M ’s critics: first, objections to the notion that simplicity is truth conducive are especially severe when directed toward the notion that simplicity is truth conducive *in metaphysics*; second, scientific theories are testable, while metaphysical theories

are not; third, while there may be good arguments for SIMP_S , there are no good arguments for SIMP_M . I'll take these concerns in order.

4 Objections to SIMP_M

Kriegel (2013) has recently given objections to SIMP_M : "... I suggest that the theoretical or super-empirical virtues – parsimony, unity, and so on – cannot help ... : while it is unclear how such virtues are supposed to be *truth-conducive* even in the context of scientific or folk theorizing, there are especially acute reasons to doubt their truth-conduciveness in the context of metaphysical theorizing" (Kriegel 2013: 3). I'll focus specifically on what Kriegel says about theoretical simplicity (rather than the other theoretical virtues he discusses). I'll argue that Kriegel's objections to SIMP_M all challenge the notion that simplicity is *ever* truth conducive, in science as well as metaphysics. So, Kriegel fails to identify any "especially acute reasons to doubt" whether simplicity is truth conducive in metaphysics, and so fails to identify any distinction between science and metaphysics which should lead us to endorse SIMP_S but not SIMP_M . Here are Kriegel's objections to SIMP_M , in order.

First, Kriegel writes, principles of ontological parsimony seem to rely on the presupposition that there are relatively few things (or relatively few types of things, or relatively few fundamental things, or relatively few types of fundamental things, etc.). But this presupposition is entirely baseless (Kriegel 2013: 18). Ditto for appeals to theoretical simplicity more generally – such appeals seem to rely on a baseless presupposition that the world is a relatively simple place (Kriegel 2013: 19). These objections seem to me to count against *any* appeal to the idea that theoretical simplicity is truth conducive, so there is no problem specifically with appeals to the idea that theoretical simplicity is truth conducive in *metaphysics*.

Second, Kriegel (2013: 19) challenges the metaphysician to provide objective criteria whereby we may measure the simplicity of metaphysical theories. But again, this is a problem for *anyone* who appeals to simplicity as a criterion of theory choice. Perhaps we may worry at this point that it is *less* clear how to measure the theoretical simplicity of metaphysical theories than of scientific theories. As French puts the worry, "...the problem of characterizing what counts as a 'simple' theory is notoriously difficult If that is the case for the mathematized theories of much of modern science, where one can at least take a crack at the problem by focusing on the number of variables, say, or the mathematical form of the theory, then how much more problematic is it going to be to determine what counts as a simple meta-

physical theory?” (French 2014: 57-58). Perhaps French is right that, in many cases, it will be easier to gauge the simplicity of a scientific theory than it will be to gauge the simplicity of a metaphysical theory. But while this is a problem for particular *appeals to* SIMP_M – that is, for particular attempts to say that some metaphysical theory is more probable in virtue of its theoretical simplicity – it is not obvious that it is a problem for SIMP_M itself. In other words, perhaps in practice it is difficult to determine to what extent some metaphysical theory is simple. Even so, it still may be true that, in principle, simpler metaphysical theories are more likely to be true, in the sense cited in SIMP_M .

But I’m not sure matters are even that bad. While it may prove impossible to measure the objective complexity of many (perhaps all) metaphysical theories, it still might be possible to judge the *relative* simplicity of some competing metaphysical theories, to see for example that one theory is simpler than another. Some cases are admittedly not so clear cut. For example, Lewis defended modal realism on the basis of its ideological simplicity (that is, on the basis of the purported fact that modal realism allows us to “reduce the diversity of notions we must accept as primitive” (Lewis 1986: 4)), while acknowledging the fact that modal realism adds greatly to our ontological commitments. According to Lewis, “the price is right.... The benefits [of modal realism] are worth their ontological cost” (Lewis 1986: 4). Is Lewis correct? How could we tell? Presumably what matters here is whether, in light of its ideological simplicity, modal realism is simpler than the competition, despite its ontological complexity. In order to determine whether that’s right we need to know how to compare the contributions ideology and ontology make toward a theory’s overall theoretical complexity. It is not clear at all how we could go about making that sort of comparison. By contrast, there are cases where we arguably can see that one metaphysical theory is simpler than another. So, for example, Sider (2013) defends mereological nihilism (the view that composition never occurs) by arguing that removing composite objects and mereological primitives from our theories improves the theoretical simplicity of those theories, and does not incur any new theoretical commitments. If Sider’s right about that, then, all other things being equal, if we have two metaphysical theories which are such that one of them posits composite objects and/or primitive mereological relations, while the other does not, we can see that the latter theory is simpler than the former theory. Perhaps you will not agree that, in this case, “all other things” are equal – perhaps when we remove composite objects and mereological relations from our theories we smuggle in other theoretical commitments.⁷ My

⁷See, e.g., Bennett (2009) and Tallant (2014), who argue that mereological nihilists

point is just that, *given that* removing composite objects and primitive mereological relations from our theories helps make those theories simpler, and does not require that we take on new theoretical commitments, we can see that theories which do not posit composite objects or primitive mereological relations are simpler than competing theories, despite the fact that we may lack an objective way to measure the intrinsic complexity of any metaphysical theory.

Kriegel’s third objection is directed specifically toward the idea that metaphysicians might try appealing to *modesty* as a foundation for SIMP_M , where by “modesty” Kriegel means a hesitance to endorse more claims (Kriegel 2013: 20).⁸ At this point it will be useful to introduce some terminology. Sober distinguishes between the “razor of silence” and the “razor of denial” (Sober 2015: 12). The razor of silence tells us, roughly, to refrain from believing needlessly complex theories. By contrast, the razor of denial tells us to reject needlessly complex theories. Using Sober’s terminology (which Kriegel does not himself employ), Kriegel argues that modesty will, at best, support the razor of *silence*, not the razor of *denial*. In other words, modesty tells us to refrain from believing needlessly complex theories (and in particular to refrain from believing theories which make more claims), but it does not tell us to *reject as false* those needlessly complex theories.

Kriegel argues that modesty cannot provide support for simplicity as a criterion of theory choice, as that criterion is generally employed by metaphysicians, because metaphysicians frequently appeal to the razor of denial, rather than the razor of silence. Metaphysicians don’t just say that we should refrain from believing more complex metaphysical theories – they say that we should reject more complex metaphysical theories in favor of their simpler competitors. Kriegel claims, however, that modesty does provide a foundation for SIMP_S , since scientists employ the razor of *silence*, but not the razor of *denial*: “When a *scientific* theory posits five rather than thirty-one entities, it commits to the existence of five putative entities, but does not in addition commit to the *non-existence* of the remaining twenty-six” (Kriegel 2013: 20). This seems to me to be clearly false. Scientists do not merely *refrain* from endorsing needlessly complex theories, but will often reject those theories precisely because they are needlessly complex. Here’s an example: When biologists affirm the theory of universal common descent, they do so largely (although sometimes only implicitly) on the basis of considerations

incur new ideological commitments in the form of “arranged F-wise” predicates. For a response see Brenner 2015a.

⁸We encountered this sort of justification for SIMP_M above, when I discussed whether the fact that conjunctions are frequently less probable than either conjunct might help furnish a justification for SIMP_M .

of theoretical simplicity. For example, given various similarities between all known extant life on Earth, it is simplest to assume that such shared traits are the result of a common ancestor (Crick 1968, Dobzhansky 1973). Why postulate *multiple* common ancestors which just *happen* to have had progeny which all evolved some of the same traits, when we can postulate just one such common ancestor? Biologists who endorse the thesis of universal common ancestry do not simply refrain from endorsing the thesis that all extant life derives from two or more common ancestors – rather, largely on the basis of considerations of theoretical simplicity, they *reject* that ontologically gratuitous thesis in favor of the simpler theory of universal common descent. In other words, contra Kriegel, these biologists do not merely refrain from endorsing the more complex theory, but rather *reject* that theory in favor of the simpler alternative. The upshot of all this is that, if modesty cannot provide a foundation for simplicity’s being truth conducive in metaphysics, it cannot provide such a foundation for simplicity’s being truth conducive in science either.

Finally, metaphysicians might appeal to theoretical unification as grounds in favor of particular metaphysical theories. Theoretical unification is sometimes thought to reduce to, or at any rate be closely associated with, theoretical simplicity (cf. Friedman 1974), so perhaps when metaphysicians appeal to theoretical unification as support for their metaphysical theories they are really appealing to *theoretical simplicity* as support for their theories.⁹ Unfortunately, Kriegel argues, we have no reason to think that theoretical unification is truth conducive, in the sense that theories which exhibit theoretical unification are thereby more likely to be true (Kriegel 2013: 21-22). The problem here is that Kriegel does not identify a *special* problem for unification’s being truth conducive *in metaphysics*. Kriegel’s arguments against theoretical unification’s being truth conducive tell just as much against unification’s being truth conducive in science as they do against unification’s being truth conducive in metaphysics. So, once more, Kriegel’s arguments count just as strongly against $SIMP_S$ as they do against $SIMP_M$.

5 Testability and Simplicity

The second proposed distinction between science and metaphysics which should lead us to endorse $SIMP_S$ but not $SIMP_M$ is this: scientific theories are testable, while metaphysical theories are not. The worry is aptly expressed by Thomasson when she writes that while “in the sciences empirical adequacy plays a prominent role in narrowing down our theory choices ...

⁹See, for example, Brenner 2015b.

there is seldom an empirical difference between competing metaphysical theories that would enable [the criteria for theory choice employed in the sciences] to play a selective role” (Thomasson 2015: 15; see also French 2014: 58).¹⁰ Thomasson’s point is that we bring in the relative simplicity of competing scientific theories (as well as the relative satisfaction of other non-empirical criteria of theory choice, but we can ignore those in the present context) only after those theories have been winnowed down by tests of empirical adequacy. It is more plausible to suppose that simplicity considerations can help us choose between the relatively small number of scientific theories which are empirically adequate. By contrast, in metaphysics there is usually no filter whereby we rule out metaphysical theories which are not empirically adequate. So, it is less plausible to suppose that simplicity considerations can help us decide between competing metaphysical theories.

Thomasson writes that there are “seldom” empirical differences between competing metaphysical theories, but this is arguably an understatement. Empirical evidence is frequently thought to confirm or disconfirm metaphysical theories. The experimental evidence which favors special relativity is often thought to have implications for temporal ontology (Putnam 1967; Sider 2001: Ch.2.4). Quantum mechanics is sometimes thought to have implications for Humean supervenience (Maudlin 2007: 50-77), priority monism (Schaffer 2010: §2.2), the identity of indiscernibles (French and Redhead 1988), and the extensionality of mereology (Calosi, Fano, Tarozzi 2011). Brain research is sometimes thought to have implications for what we should think about free will (Libet 1985). Our evidence which favors evolutionary theory is sometimes also thought to have implications for personal ontology (Churchland 1984: 20-21; Blatti 2012). Examples could be multiplied.¹¹

But let’s leave that concern aside, and assume, with Thomasson, that there are rarely empirical differences between competing metaphysical theories. Even so, whether or not some theory is testable has nothing to do with whether simplicity is a truth conducive feature of that theory. Thomasson’s

¹⁰Bennett (2009) and Willard (2013) both argue that metaphysical disputes (or, in Bennett’s case, *some* important metaphysical disputes) cannot be decided by empirical evidence, and this gives us some reason to believe that such disputes are irresolvable. Unlike Thomasson and French, however, Bennett and Willard do not argue from the fact that metaphysical disputes cannot be decided by empirical evidence to the claim that $SIMP_M$ is false.

¹¹Of course, just because there are philosophers who think some particular empirical evidence has such-and-such metaphysical implications, it does not follow that they are *right* about that, and in fact every one of the purported cases of empirical evidence confirming or disconfirming metaphysical theories which I cite above has been challenged. My point is just that it is far from obvious that Thomasson is correct when she says that empirical testing rarely decides between competing metaphysical theories.

idea is that simplicity might function as a criterion of theory choice when we use it to decide between theories which have been winnowed by empirical testing. But even among scientific theories, empirical testing will only take us so far. It is widely recognized that for any finite set of empirical data, there remain an infinite number of scientific hypotheses which are empirically adequate with respect to those data (that is, which predict those data). So while considerations of empirical adequacy narrow down our choices among scientific theories which have actually been proposed, they do not narrow down the number of possible theories which we might choose among. But even assuming empirical testing *does* narrow down the number of scientific theories we have to choose among, how would that vindicate SIMP_S ? It is unclear why simplicity considerations might help us decide between competing theories which have been tested for empirical adequacy, if they can not help us decide between competing theories which have not been tested for empirical adequacy, even assuming (contrary to fact) that there will be fewer competing theories in the former situation.

We have not yet identified a distinction between science and metaphysics which would make SIMP_S any more plausible than SIMP_M . The third proposed distinction between science and metaphysics – that while there may be good arguments for SIMP_S , there are no good arguments for SIMP_M – will occupy us for the remainder of this paper.

6 Arguments For SIMP_S

Huemer (2009) and Willard (2014) both consider several arguments for the view that simpler theories in science are more likely to be true, and argue that none of these arguments generalizes to provide support for the view that simpler *philosophical* (Huemer) or *metaphysical* (Willard) theories are more likely to be true. But the arguments Huemer and Willard consider fail to provide support for the contention that, in *any* domain of inquiry, simpler theories are thereby more likely to be true – the arguments they consider just aren't good arguments. So, it's irrelevant if those arguments also fail to support the notion that simpler theories in philosophy (or metaphysics specifically) are more likely to be true. What's more, Huemer only considers whether those arguments used to support simplicity's being truth conducive in science would support simplicity's being truth conducive in the context of two particular philosophical disputes, the dispute between physicalists and dualists, and the dispute between nominalists and platonists. It's not obvious how his arguments would generalize to debates elsewhere in philosophy, and in metaphysics in particular.

In short: Huemer’s and Willard’s arguments against SIMP_M would seem to count equally well against SIMP_S . Again, in this paper I assume without argument that SIMP_S is true, and in any case Huemer and Willard don’t take themselves to be challenging SIMP_S . Given our shared assumption that simplicity is truth conducive in science, if I can show that extant arguments against the notion that simplicity is truth conducive in metaphysics count equally well against the notion that simplicity is truth conducive in science, I will have undermined those arguments. Since Willard attacks SIMP_M directly, while Huemer focuses more on some particular debates in which philosophers appeal to SIMP_M , I’ll confine a more detailed critique to what Willard has written on this subject.¹²

Again, Willard’s strategy is to examine several arguments for SIMP_S , and to contend that these arguments (or close analogues of these arguments) do not provide support for SIMP_M . But the arguments for SIMP_S which Willard considers are not good arguments, so *no wonder* they do not provide support for SIMP_M either. While the points I make below are (except where otherwise noted) my own, I do not pretend that much of what I say is particularly original. I am, after all, making a point which has been made before: there do not seem to be any good arguments for the view that simplicity is truth conducive in science, in the sense described in SIMP_S .¹³ Willard insists that she does not take any stance with respect to the success of arguments for SIMP_S (Willard 2014: 166-167), and so she thinks she can ignore that issue. But Willard *shouldn’t* ignore that issue – whether we have good arguments for the notion that simplicity is truth conducive in science – since, I contend, the failure of arguments for SIMP_M is a symptom of a wider problem: the idea that simplicity is truth conducive can’t be argued for in metaphysics because it can’t be argued for *anywhere*, science included.

The first argument for SIMP_S which Willard considers is the following (Willard 2014: 170):

¹²Willard is particularly concerned with metaphysics conceived along broadly Quinean lines, according to which “The method of metaphysics proceeds as follows: first, identify the best theory of the world, viz., physics, and translate it, using some paraphrases as desired, into first-order logic. Figure out what you need to quantify over in order to make the theory true, and then read the existential commitments off of the domain of the theory” (Willard 2014: 167). In what follows I ignore the fact that Willard’s target is Quinean metaphysics in particular. My response to Willard is that the arguments for SIMP_S which she mentions are bad arguments. This point remains the same whether or not you endorse a Quinean conception of metaphysical inquiry.

¹³Except, as we’ve seen above, in very special circumstances, namely where one theory is more probable than another only because the former theory only endorses claims which are a proper subset of claims endorsed by the latter theory.

- (1) Simpler theories are more likely to be confirmed than complex theories.
- (2) All theories that are confirmed are true.
- (3) Therefore, simpler theories are more likely to be true than complex theories.

We might initially assume that the relevant sense of “confirmation” at work in (1)-(3) is the standard one: A theory T is confirmed by evidence E iff $\Pr(T/E) > \Pr(T)$. In other words, a theory is confirmed by some evidence if and only if that evidence raises the theory’s probability. But this standard is too lax, since (2) would then end up being obviously false. Perhaps what proponents of this argument have in mind is that a theory is “confirmed,” in their sense, by some evidence iff the evidence raises the probability of the theory by some non-negligible amount. Unfortunately, it is controversial how we should measure the extent to which evidence provides confirmation for a theory (for discussion, see Schlesinger 1995; Christensen 1999; Climenhaga 2013), and it is unclear which method of measurement, if any, Willard has in mind when she presents this argument.

Leaving that problem aside, we can see that, regardless of how one measures the degree to which some evidence provides confirmation for a theory, (2) has numerous counterexamples – that is, theories which at one time received a great deal of confirmation from our experimental evidence, but which we now have reason to believe are false (cf. Laudan 1981). Willard ties (2) to a pragmatic account of truth: “If the pragmatic justification of simplicity is to be successful, then, it should be married to a pragmatic justification of truth. On such a view, a true theory just is one that has been confirmed by its experimental results” (Willard 2014: 170). I think most philosophers and scientists would agree that this view of truth is implausible, and, again, has a number of counterexamples. It is either true that there are an even number of planets, or it is true that there are an odd number of planets, despite the fact that neither hypothesis has been confirmed.¹⁴

¹⁴I also have my doubts about (1). For any finite set of data there are an infinite number of theories, most of them very complex, which precisely predict those data. In other words, for any finite set of data $D_1 \dots D_n$, there are an infinite number of theories $T_1 \dots T_n$ which are such that $\Pr(D_1 \dots D_n / T_n) = 1$, and $\Pr(\neg(D_1 \dots D_n) / T_n) = 0$. It seems that, for any simple theory which is confirmed by some data, there are an infinite number of more complex theories which are also confirmed by those data. Simpler theories, then, are no more likely to be confirmed than many of their more complex counterparts. Earlier, however, I suggested that perhaps the sense of confirmation in mind in (1)-(3) is one according to which some data “confirms” a theory only if it raises the probability of that theory by some non-negligible amount. According to this sense of confirmation, where a theory is “confirmed” only if some threshold is met, is it still true that for any simple theory confirmed by some data there are an infinite number of more complex theories which are also confirmed by those data? This is a more difficult question, and perhaps the answer

While Willard doesn't discuss this possibility, we might wonder whether SIMP_S might be given a pragmatic justification which isn't wedded to a pragmatic theory of truth. Here's what I have in mind: Simpler scientific theories are easier to manipulate, in the sense that they are easier to formulate, it is easier to grasp the implications of such theories, etc. Plausibly, theories which are easier to manipulate in this sense are more likely to be confirmed – at the very least, we are more likely to confirm a theory if we are more likely to understand what its observable implications are. So, simpler scientific theories are easier to manipulate, and theories which are easier to manipulate are more likely to be confirmed, theories which are more likely to be confirmed are more likely to be true, and this gives us some reason to think that simpler scientific theories are more likely to be true.¹⁵ Simpler scientific theories, then, are more likely to be true because they are easier to work with, so to speak. This justification for SIMP_S is “pragmatic” insofar as it shows us how a preference for formulating, thinking about, and testing simpler scientific theories might be pragmatically useful in leading us toward discovering which scientific theories are true.

There are several concerns one might have with this potential justification for SIMP_S . One concern is that, on at least one natural way of construing the argument, the argument is invalid:

- (I) If a theory is simple, then it is relatively easy to manipulate.
- (II) Theories which are easier to manipulate are more likely to be confirmed.
- (III) Theories which are confirmed are more likely to be true.
- (IV) Therefore, simple theories are more likely to be true.

This argument is an instance of the following invalid argument schema:

- (I*) If A then B.
- (II*) If B then C is more probable.
- (III*) If C then D is more probable.
- (IV*) Therefore, if A, then D is more probable.

Here's a parody. Let's say you have a standard deck of playing cards. You draw a card, and without looking at it you are told that it is a jack. The argument schema under discussion would warrant the following obviously fallacious line of thought: if it's a jack, then it's a face card; if it's a face card, then it's more likely to be a queen; if it's a queen then (trivially) it is

turns on which measure of confirmation one adopts. I'll drop the issue here, since I've given other objections to (1)-(3).

¹⁵Thanks to an anonymous referee for suggesting I discuss something like this potential justification for SIMP_S .

more likely to be a queen; therefore, if it's a jack, then it's more likely to be a queen.

Perhaps we can come up with a version of the argument which is valid. The following reconstruction of the argument comes to mind:¹⁶

- (V) All theories that are simple are easier to manipulate.
- (VI) All theories that are easier to manipulate are easier to confirm.
- (VII) All theories that are easier to confirm are more likely to be true.
- (VIII) Therefore, all theories that are simple are more likely to be true.

Again, there are several concerns one might have with this argument. One concern is that (VII) seems false. There doesn't seem to be any reason to think theories which are easier to confirm are always more likely to be true. The "theory" (in a broad sense) that there is an elephant in this (relatively small) room seems as if it should be easy to confirm, however exactly we understand some theory's being relatively "easy" to confirm, but the theory doesn't thereby seem any more likely to be true. What's more, whether a theory is "easy" to confirm will be relative to one's circumstances and capabilities – an astronomical theory which is easy for humans to confirm, may not be so easy for some hypothetical subterranean species to confirm. But while whether a theory is easy to confirm will be relative to our circumstances and capabilities, whether a theory is *true* doesn't seem as if it would be relative in this manner.

An alternative justification for $SIMP_S$ rests upon the purported fact that simpler theories have a good track record. Here's the argument (Willard 2014: 171):

- (4) Simple theories have proven to be more successful than complex theories in the past.
- (5) It is reasonable to believe that this pattern will continue.
- (6) Therefore, it is reasonable to believe of any simple theory that it will be more successful than its complex rivals.

There are several problems with this sort of argument. For starters, (4) is very questionable.¹⁷ First, there is likely a selection effect at work here. Simpler theories are easier to formulate, and there are a great number of complex theories which we haven't considered yet simply because we haven't

¹⁶Thanks again to an anonymous referee for suggesting I discuss this potential argument for $SIMP_S$.

¹⁷And indeed Willard writes that (4) is "almost assuredly false" (Willard 2014: 172). This is fine, she thinks, because she is not concerned with whether we have any justification for $SIMP_S$, and so she is unconcerned that (4)-(6) might not give us a good argument for that thesis.

yet had the opportunity to formulate them (Norton 2000: 167). But a more pressing worry for (4) is whether or not simple theories *have* proven more successful in the past than their (formulated) complex counterparts. In what respects are the simpler theories alleged to surpass their more complex rivals? Predictive accuracy? That can't be right since, again, for any finite set of data there are an infinite number of complex theories which perfectly predict those data. More generally, any theory can be saved from falsification by making *ad hoc* emendations to the theory: we can save any theory p from falsification by endorsing the thesis “ p , and sneaky gremlins make it seem as if not- p .”¹⁸ So, simpler theories haven't proven to be more empirically adequate than their more complex counterparts. They will have proven more successful than their more complex rivals, then, in terms of non-empirical criteria of theory choice. But *what* non-empirical criteria? Such criteria can't include simplicity in this case without circularity – after all, (4)-(6) constitutes an argument for the view that simplicity *is* a criterion of theory choice. Other non-empirical criteria of theory choice generally amount to simplicity on closer inspection. For example, as I mention above, theoretical unification is arguably a theoretical virtue because such unification gives us a simpler picture of the world. So, at the very least, it is unclear whether we are justified in thinking that simple theories have proven to be more successful than complex theories in the past, without appealing to simplicity as a theoretical virtue, which, in the present context, would give us a circular or question begging argument for the notion that simplicity is truth conducive.

(5) is also questionable. Even if simple theories have been relatively successful in the past, what reason do we have to think that pattern will continue? Why not think, for example, that some pattern of the form “simpler theories prove successful before 2050 A.D., and unsuccessful thereafter” is the correct one (compare Swinburne 1997: 47)? I can think of no such reason which does not ultimately appeal to considerations of simplicity, that it would be simpler, for example, if features of theories which proved advantageous for those theories in the past should continue to prove advantageous in the future. But, again, such appeals to simplicity in the premises of an *argument* for the idea that simplicity is truth conducive render the latter argument circular or question begging.¹⁹

¹⁸*Objection:* The gremlin hypothesis should be rejected because it conflicts with our background knowledge, not because it is needlessly complex. Given what we know about how the world works, it is unlikely that there are any sneaky gremlins. *Response:* That's exactly what the gremlins *want* us to think. Everything we think we know about “how the world works” is derived from empirical observations spoon fed to us by the gremlins.

¹⁹Perhaps the principle “the future will resemble the past” might be thought to provide some support for (5), and perhaps the former principle will be thought not to contain a

The next argument which Willard discusses is the following (Willard 2014: 173):

- (7) Simpler metaphysical theories are those with more background assumptions incorporated into the body of the metaphysical theory.
- (8) Theories with more background assumptions incorporated into the body of the theory are more likely to be correct.
- (9) Therefore, simpler metaphysical theories are more likely to be correct.

Willard's aim, of course, is to show that the argument for SIMP_M is unsound. By contrast, I aim to show that a parallel argument for SIMP_S is unsound:

- (7*) Simpler scientific theories are those with more background assumptions incorporated into the body of the scientific theory.
- (8) Theories with more background assumptions incorporated into the body of the theory are more likely to be correct.
- (9*) Therefore, simpler scientific theories are more likely to be correct.

The idea here is that simpler scientific theories are those theories which are embedded in, or cohere with, our background beliefs in some relevant sense. For example, citing Sober (1988), Willard writes that

the belief that the observation of a white crow disconfirms the hypothesis that all ravens are black depends on the empirically discovered belief that crows and ravens are biologically related. Thus, it is simpler to suppose that the observation of the white crow disconfirms the hypothesis that all ravens are black, because the alternative would be to overrule other presumably well-supported beliefs about the evolutionary history of birds. Likewise, the belief that the observation of a black raven partially

tacit appeal to simplicity as a criterion of theory choice. But, as Swinburne (1997: 17-18) points out, the principle "the future will resemble the past" is empty, insofar as it is trivially true that the future will resemble the past in *some* respects. When people appeal to the principle "the future will resemble the past" they are tacitly suggesting that the future will resemble the past in some *particular* respects. I (following Swinburne) would suggest that the principle "the future will resemble the past" – or, more accurately, the injunction "choose the theory which postulates that the future resembles the past" – really amounts to "choose the theory which postulates that the future resembles the past in the simplest respect" (Swinburne 1997: 17). For example, we should think the future will resemble the past insofar as the future state of the world can be inferred on the basis of some relatively simple laws or patterns, given our knowledge of some past state of the world. Or: we should think the future will resemble the past insofar as the future and the past will share certain relatively simple properties – i.e., in both the future and the past the world operates in accordance with the same laws, and/or with relatively simple laws.

confirms that all ravens are black depends on other beliefs about sample size and experimental methodology. When these background beliefs are not made explicit, they are referred to collectively as simplicity (Willard 2014: 172)

This sort of argument is problematic where the background beliefs in question are themselves supposed to receive their justification from considerations of theoretical simplicity. So, for example, Willard refers to certain “well-supported beliefs about the evolutionary history of birds.” Phylogenetic inferences routinely appeal to theoretical simplicity to decide between competing hypotheses. For example, the presence of numerous traits shared between two species has any number of potential explanations: for example, the shared traits might indicate a common ancestor, convergent evolution, constraints imposed by physical laws, or intervention by extraterrestrials. Theoretical simplicity, taken as a mark of truth, tells against the last of these hypotheses.

These sorts of appeals to theoretical simplicity are routine components in the “background assumptions” cited in (7*) and (8). Accordingly, (8) contains a tacit appeal to the notion that theoretical simplicity is truth conducive, rendering the argument (7*)-(9*) circular or question begging. So, for example, consider the other main illustration in support of (7*)-(9*) which Willard discusses. Some widely cited case studies regarding appeals to quantitative parsimony in scientific theory choice are certain experiments regarding Beta decay which took place in the 1930s. Baker describes these experiments in the following manner:

In these experiments, the total mass-energy of the system of particles before Beta decay is greater than the total mass-energy of the observed particles that are emitted following the decay, and the total spin of the particles in the system before decay exceeds by $1/2$ the total spin of the observed particles emitted following the decay. Being unwilling to give up the laws of conservation of mass-energy or conservation of spin, scientists concluded that there were particles being emitted following Beta decay which had not been detected by their instruments. Their response was to posit a ‘new’ fundamental particle, the neutrino, with variable mass-energy and with spin $\frac{1}{2}$, and to hypothesize that exactly one neutrino is emitted by each electron during Beta decay (Baker 2003: 246; cited in Willard 2014: 172-173)

Why did scientists posit, for each electron involved in Beta decay, just *one* neutrino with spin $\frac{1}{2}$? Their observations would have been served equally

well by postulating, for each electron involved in Beta decay, n particles with total spin $\frac{1}{2n}$. For example, each electron involved in Beta decay might emit two particles, each with spin $\frac{1}{4}$, and this more complex hypothesis would account for our observations just as well as positing one neutrino with spin $\frac{1}{2}$. What Baker suggests is that we should posit one particle rather than two because if we posit two we will be left with the following explanatory burden: why in these instances of Beta decay do we never have cases where the total spin of the system of particles involved is reduced by $1/4$? More generally, why in these cases do we never observe one particle with spin $\frac{1}{4}$, by itself? As Willard puts it: “positing the neutrino [one particle with spin $\frac{1}{2}$] not only explains what is observed, but explains the absence of what has not been observed” (Willard 2014: 173).

But, again, this justification of quantitative parsimony’s being truth conducive (and, more generally, of theoretical simplicity’s being truth conducive) relies on a tacit appeal to the notion that theoretical simplicity is truth conducive. Perhaps in the relevant cases of Beta decay we never observe single particles with spin $\frac{1}{4}$ because, in accordance with a fundamental law of nature, such particles always accompany one another in pairs. Simply given the observations available to the scientists who postulated the neutrino to explain what we observe in cases of Beta decay, I do not see how to rule out this hypothesis other than by appealing to theoretical simplicity – it is less simple to postulate a new law of nature to account for our observations than it is to posit the alternative neutrino hypothesis, and so the latter hypothesis should be preferred on those grounds. Here’s another way of putting my concern. Baker wants to tie theoretical simplicity to explanatory power, so that we should prefer simpler theories because (as the neutrino case illustrates) they tend to have greater explanatory power. But, on the contrary, as a general rule it does not seem to be true that simpler theories have greater explanatory power. There are any number of extremely complex hypotheses which explain every observation we’ve ever made. Consider, in the neutrino case, the hypothesis “every electron involved in Beta decay emits two particles with spin $\frac{1}{4}$, and invisible gremlins ensure that such particles are only ever detected in pairs.” This hypothesis explains why in the relevant instances of Beta decay we don’t observe lone particles with spin $\frac{1}{4}$. The gremlin hypothesis should be rejected because of its lack of theoretical simplicity, despite its significant explanatory power.

The final justification for SIMP_M which Willard discusses is one which she attributes to Swinburne (1997). It is a fundamental *a priori* synthetic truth that simpler theories are more likely to receive empirical confirmation than their more complex counterparts: “Greater simplicity, in other words,

entails greater prior probability of empirical confirmation” (Willard 2014: 174).²⁰ Unfortunately, Willard says, metaphysical disputes cannot be decided by empirical investigation. So, relative theoretical simplicity gives us no grounds for deciding between competing metaphysical theories: simplicity is evidence of truth only when it gives us reason to think some theory will receive greater empirical confirmation, but we cannot expect empirical observations to decide between competing metaphysical theories.

As we’ve seen, there are reasons to doubt whether simpler scientific theories are more likely to receive empirical confirmation than their complex counterparts. It is doubtful, then, that it is a fundamental *a priori* synthetic truth that simpler scientific theories are more likely to receive empirical confirmation than their more complex counterparts. So, even if Willard is correct that this sort of justification for SIMP_M will not work, SIMP_S is in the same boat.

7 Conclusion

Metaphysicians often appeal to the idea that theoretical simplicity can help us decide between competing metaphysical theories. Recently this popular methodology has come under attack. The concern is not that theoretical simplicity is never truth conducive, but rather that it is particularly unlikely that it is truth conducive in metaphysics. In this paper I’ve defended the notion that theoretical simplicity is truth conducive in metaphysics. Given an antecedent commitment to the notion that simplicity is truth conducive in science, I have argued that there is no *special* problem with the notion that simplicity is truth conducive in metaphysics, and indeed that it would be objectionably arbitrary to think simplicity is truth conducive in science, but not in metaphysics, without some principled explanation for why this is the case. I’ve addressed three purported differences between science and metaphysics which might be thought to account for the fact that simplicity is truth conducive in science, but not in metaphysics. The first such difference was

²⁰Incidentally, Swinburne does not seem to endorse the thesis attributed to him by Willard. Swinburne writes that what we know about the history of science makes it very doubtful that simpler theories have been better predictors of empirical evidence (Swinburne 1997: 46), and he goes on to deny that we have any logical or mathematical grounds for thinking simpler theories will probably make better predictions (Swinburne 1997: 47-48). Swinburne also contends that the simplicity of a theory is reflected in the prior probability of that theory (Swinburne 1997: 56), not the likelihood of the theory (that is, not the probability of our evidence conditional on the theory) as we would expect if simplicity was truth conducive only because simpler theories are generally better able to predict our evidence.

that objections to the notion that simplicity is truth conducive are especially severe when directed toward the notion that simplicity is truth conducive in metaphysics. I've argued that the objections in question seem to threaten the notion that simplicity is truth conducive in science just as much as they threaten the notion that simplicity is truth conducive in metaphysics. The second purported difference between science and metaphysics was that while scientific theories are testable, metaphysical theories generally are not. I've argued that this distinction is neither accurate nor relevant: many metaphysical theories are arguably testable, and even if they weren't this doesn't seem as if it would have anything to do with whether theoretical simplicity might help us decide between competing metaphysical theories. The third alleged relevant distinction between science and metaphysics, that while there may be good arguments for the idea that simplicity is truth conducive in science, there are no good arguments for the idea that simplicity is truth conducive in metaphysics, is also inaccurate. There do not seem to be any good arguments for the idea that simplicity is truth conducive in science (except under special circumstances which might also obtain in metaphysics). The moral of the story is that there are no good arguments for the idea that simplicity is truth conducive in metaphysics because there are no good arguments for the idea that simplicity is truth conducive, period. Again, there is no *special* problem with the notion that simplicity is truth conducive in metaphysics.²¹

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