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THE UNBEARABLE WEIGHT OF SIMPLICITY IN THEORY CHOICE

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Abstract. When philosophers do not have a way out for choosing between the account they defend or a competing one, they usually appeal to theoretical virtues, such as simplicity, unity, fruitfulness, explanatory power, and so on. In this paper, my aim is to question the status of simplicity as a criterion for theory choice. My main arguments are that, first, it is hard to determine an objective metrics for evaluating simplicity, and second, we have no way to decide which one we should prioritize: whether the ontological or the ideological variant of this theoretical virtue. In order to defend this stance, I will present the defenses of both ontological and ideological simplicity and then criticize each of them. I will also point out that the usual appeal metaphysicians make to scientific practice is not enough, given that the role of simplicity in science is not so clear and that philosophy in general has a very distinct nature as an endeavor. In the end, I will sketch a metaphilosophical pessimistic conclusion according to which not just metaphysics, but much of philosophy, is maybe doomed to be an endless effort of inconclusive arguments, since most of philosophical explanations appeal to theoretical virtues as a decisive factor in their disputes.

Keywords: simplicity • theoretical virtues • metametaphysics • methodology • parsimony • metaphilosophy

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1. Introduction

When we are doing philosophy and science, some of us care about the parsimony concerning concepts, their references and the number of rules used for explaining them. Most of us will agree that it is unwelcome to create concepts indefinitely, such as it is unwelcome to consider a multitude of entities as existent just because we want to. Although this last part of my statement is slippery, and some will not feel convinced by it, there is one point, I think, which is a common ground: our set of existing things must have boundaries, no matter how wide or strict they are. When someone talks about what there is and what there is not, a limit must be traced, no matter how many things that person holds as existent. Even in the most permissive

ontological theory, some things are considered as nonexistent, whether they are unicorns, the round square or, if we want to take it as wide as we can, the *unthinkable* (whatever that means). Anyway, we cannot answer the question about what there is with a simple "everything". And, when we start to list what exists, there will be an end (even if we cannot get to it easily), beyond which there is nothing.

I think the first objection to this starting point may come from a neo-Meinongian, who will probably blame me for two transgressions: (1) talking about what there is not, which would be unacceptable; (2) not using 'exist' in an appropriate way, because some things are and do not exist, while others are and exist simultaneously. Let me sketch an answer. First, when I say about what there is not, I am talking about what does not exist in the world as it is, or that to which we need not be ontologically committed to (in Quine's sense of the term)[1] in our theories. Obviously, we can talk about things that do not exist, such as Pegasus or the round square, but there is a difference between *naming* and *referring* (Quine 1948, p. 28–9). Hence, we can talk, by means of incomplete symbols (Russell, 1905), about what there is not, without referring to anything.[2] Additionally, *to be*, in the sense I am here invoking, is to be in the actual world or to be needed in order to explain how things are. If witches are not in the world and are expendable for our explanations, they do not exist in my sense. Existence here, it is worth to note, does not need to be about spatiotemporal connotation. We can assume, for instance, that there is the square root of 400, while this is not a spatiotemporally localized entity.

It would require lots of pages to address these objections more accurately; nonetheless, they are not my fundamental concern in this text. I just made reference to them to clear the way somehow for what I will really hold in this essay. The important point is: our theories about what there is have boundaries, no matter how wide they can be, beyond which nothing exists, even if we cannot name what is outside those borders. Starting from this point, we are used to assess theories for their parsimony and this is such that we are used to assess explanations for their simplicity. The more economical (or simple) a theory is, the more we feel convinced of its adequacy (or truth, for those who prefer this term). If a theory starts to consider things such as leprechauns or the round square, the most common stance toward it is suspicion, in such a way that the holder of this whimsical proposal must explain why it is the case.[3] We tend to be conservative about our domains, and just enlarge them when a good reason to do it is given by the proponent of a flamboyant account.

However, even if someone convinces us to expand our ontological domains, arguing it will make our explanations simpler, we do not proceed indefinitely in this endeavor; rather, we stop immediately when the entities necessary for the explanation are covered. We do not keep going forever. This is, I think, another common ground shared by those with parsimonious or liberal ontologies, and it is still an expression of the valuing of parsimony in our theories. That said, it seems we have

a bigger problem to deal with and which is my primary aim in this text: how can we know if a theory is economic enough? When we are comparing some competing proposals about the same kind of simplicity, there seems to be no problem.[4] For instance, the mathematical Platonist has a more expensive ontology than the constructivist. However, there is also explanatory simplicity, which, in many cases, is not associated with ontological parsimony, and which is invoked as a rationale for more liberal ontologies. The Platonist could reply to the constructivist that, while the competing theory is ontologically economical, it makes it really harder to give a satisfactory explanation of the mathematical knowledge or the necessity of mathematical truths, for instance. In Lewis's (cf. 1986, p.4) terms, the Platonist claims to be trading ontology for ideology.

Ideology, in the sense I am using the term in this paper, means the ideas that can be represented in a theory (Quine 1951, p.14). More accurately, ideology refers to the primitive concepts of a given theory. In a perfect world, the aim of someone who is proposing a theory is to explain the most with lesser principles, like mathematicians usually do by getting a number of theorems from a modest number of axioms. In the actual world, however, it lacks some referential of how much is necessary to give a full account with the smallest number of postulates. It is hard to strive for it in science, and even harder to do this in philosophy; for some, it is a wild-goose chase in both or at least in the latter. To take an ordinary example of how we usually value ideological simplicity, imagine the scenario in which I perceive that the chocolate bar secretly hidden in my desk drawer has disappeared. You and I would try to explain this phenomenon in the simplest way, first, by assuming that someone who also knew of my hiding place got hungry and ate my chocolate bar while I was out. Obviously, this would be the first thing we would postulate, in an absurdity crescent continuum, way before thinking that maybe the chocolate bar went to a parallel reality or it was stolen by hungry leprechauns. This explains how we are used to reason according to ontological and ideological simplicity in our most mundane matters, and this is claimed by philosophers as a feature of good theories as well.[5]

When someone is proposing a theory, therefore, she has two major worries (apart from the more specific ones): it has to be as ontologically simple as possible and it has to explain the maximum with the minimum of initial assumptions (and avoid conflicts between these assumptions). By itself, this already seems to be a sufficiently demanding task, but there is much more. We have commonly cases in which there is (at least allegedly) a conflict between ontological and ideological simplicity, as I anticipated in the case of the Platonist and the constructivist. To take another example, the realist about properties has to wander a quite shorter road to explain our reference to the "redness" than the nominalist, who should recur to some devices such as paraphrases. So, the nominalist way shows to be far more complicated than simply accepting redness as an entity to which all red things are subscribed. On the

other hand, ontological simplicity is on the nominalist's side, no doubt about this.[6] When we have cases like this, what should we do? Do we have to prefer one kind of simplicity to another? If the answer is yes, which one and why?

In this paper I will discuss whether or not we can answer these questions. In §2, I will consider arguments in favor of ontological simplicity and objections to them. In §3, the same will be made concerning ideological simplicity. In §4, I will examine the outcome of these sections. My conclusion is that we cannot have a satisfactory way of explaining the world philosophically by appealing to considerations of simplicity, because there is an impasse about which kind of simplicity (if any!) should be most valued. In §5 I will try to sketch a way of extrapolating the conclusion of §4 to other areas of philosophy, not just metaphysics, and even beyond, such as in science.

2. Ontologically so simple!

The point of ontological simplicity can be traced back to Ockham's razor, and it is not exclusive to Western philosophy; rather, we have Indian philosophers who defended a similar desideratum called the "principle of lightness" (Brenner 2017, p.2688). Speaking simply, the Western and the Eastern versions consist of the claim that we should postulate only entities which are needed for our theories to work, nothing more than that. If we have two theories with equal explanatory power and one of them postulates fewer things, then this is the one we should choose. Some could argue that this seems pretty unjustified, almost an aesthetical preference for desert landscapes. However, we just need to turn to our daily life to see we use Ockham's razor quite naturally. In the earlier case of my missing chocolate bar, for instance, if I think someone betrayed me and stolen it instead of thinking leprechauns took it, I am appealing to ontological parsimony. In the second possibility, I need to postulate the existence of leprechauns, whereas in the first one I just have to consider everything I already know as existing, viz., people from my socializing.

The appeal to the intuitive use of Ockham's razor is usually evoked as a master argument for its defense. It will be seen later that the same line of thought is used for holding ideological simplicity. Yet, there are other arguments for ontological parsimony, some of them more technical and complicated. One is called by Michael Huemer (2009, p.218) *the empiricist account* of parsimony, which is primarily based on the fact that, if science has been successful in finding truths and scientific methodology — including simplicity as a central part of it — has shown to be truth-conducive, then simplicity can take us to the truth. Huemer (2009, p.227–9) stressed that, although this argument could prove something restricted to the scientific method, it cannot be extrapolated to our metaphysical theories, for instance, since we have different sources and methods of justification for either area. Beyond that, I still find

another problem with the empiricist account: it is very similar to some kind of induction, and, when we talk about metaphysics, being probably truth (that is what an induction can guarantee, at most) is quite frustrating. An ontologist usually wants to know what there is, not what there probably is.

Another possible argument for ontological simplicity is based on the fact that, if less entities are postulated, less complicated is the theory. In other words, this defense packs ontological and ideological simplicity together, by assuming that one implies the other. When we take some examples, it seems even promising. Let's consider the case of theories about mind. In dualist theories, we are ontologically committed to (or quantifying over) two different substances, the material and the mental, each with its distinct properties and ways of being. Consequently, we have to explain how the physical world works, but we have to explain also how the mental world posited by the dualist works, and, further, we must give a satisfactory account of how both worlds interact between themselves. In contrast, if we consider a physicalist theory of mind, the only thing in need of explanation is the physical world (in the case of mind, all we have to explain is the brain and all neural apparatus), and everything else can be reduced to it. Also, if there are less things to explain, lesser are the chances of the theory being wrong, or missing the point. Therefore, the physicalist believes, our theories must be ontologically simple.

This argument suffers from two problems at least. First, it does not give any account we are looking for. The fact that a theory has to explain less things because it posits a modest ontological realm does not lead us to the conclusion that it is the true one. This argument is almost good (if there was not a second problem) for pragmatic justification: we must consider a minor realm of existing entities because it facilitates our job; however, for holding the truth of a theory, we need more than that. Truth, at least as most metaphysicians themselves would argue, is a stronger idea than practicality.[7] We could have a more complicated theory which, in fact, could be the correct one. We postulate fewer entities when believing in a creationist account of the origin of species than when considering the evolutionist theory, just the elimination of intermediary species is a considerable decrease in the realm of what there is. Nonetheless, we know which is considered by most of us as the correct one.

The second problem with the above-mentioned argument for ontological simplicity is that, if we take actual examples of metaphysical discussions, it is hard (or even impossible, one might claim) to see cases in which ontological simplicity implies ideological simplicity. Considering the dualism-physicalism debate again, if the physicalist has fewer entities than the dualist on her table, she has to explain how those reductions of supposed mental events to the physical world must proceed. If she is adept of illusionist accounts, she must likewise explain how we get to this illusion called mind. Rather, it seems that the physicalist has to explain as many parts of her theory as the dualist (or even more, it is hard to quantify precisely). The same goes for

the realism-nominalism quarrel, if we take it as another instance. The nominalist has to explain how the paraphrases of our ordinary parlance concerning properties must proceed, a step the realist simply does not have to go through. Other examples of metaphysical disputes in which ontological simplicity increases with the decreasing of ideological simplicity (and vice versa) are presented by Bennett (2009).

There is also what Huemer (2009, p.221–5) calls the *likelihood account* for ontological parsimony. This account is based on the idea that complex models have more parameters capable of being settled to accommodate the data, whereas the simpler ones, when confirmed, have much more weight. An example is useful in this case. When Leverrier hypothesized the existence of the planet Neptune to account for anomalies observed along the orbit of Uranus, he could have posited the existence of 83 planets instead. In the first case, confirmation would be much more relevant (and feasible), since we only have to look for one planet, and consider its mass and orbit. If 83 planets were postulated instead, Leverrier could adjust (ad hoc) his theory in many ways, according to his needs, by changing the mass and the orbit of 83 different celestial bodies (Huemer 2009, p.222–3). I cannot get into further details here, but Huemer (2009, p.221–5) shows more closely how simpler models allegedly take a greater risk and are more probable when it comes to the data.

This account, however, as Huemer remarks, faces a problem at least in the case of metaphysics: what counts as evidence for science is different from what counts as evidence for philosophical investigations. We can have two competing metaphysical theories accounting for the same scientific or epistemic results. Of course, there are metaphysicians who disagree with this claim, like Brenner (2017, p.2691), who affirms that "There aren't boundaries between science and metaphysics".[8] But Brenner's claim seems implausible. As far as I can see, for example, dualist theories, although not all of them, can accommodate scientific results;[9] also, the objections against them have a metaphysical nature, using scientific discoveries as their premises or assumptions. We have an epistemological trouble involving the metaphysician's effort in this scenario, since we have two problems pointed out by Darren Bradley (2018, p.2253): (1) a theory is not the negation of the other with which it is contrasted, but an alternative to it; (2) both alternatives work for the same evidence, in other words, they are empirically equivalent. We have no epistemic way out for this impasse. The only solution available is not as strong as the metaphysician would want, it is just the pragmatic account.

Therefore, it seems that, though we usually consider ontological simplicity in our explanations about what is happening around us, the common arguments for it do not have the rational basis usually claimed. This kind of parsimony, arguably, may have important results in science, and it is tempting to transpose it to our philosophical explanations too. However, the naturalist background for sciences is much more uncertain for metaphysics, and consequently, we may have different metaphys-

ical theories, even non-naturalist ones, that agree with our scientific data. Furthermore, ontologically parsimonious theories are not necessarily the simpler ones, as we saw, because they must explain the reductions made somehow. Nothing beyond pragmatic or aesthetic motivations can ground an appeal to ontological parsimony. Notwithstanding, the philosopher who proposes a metaphysical theory is not just concerned with practicality, but also with some kind of true description of reality, and not grounded on a pragmatic conception of truth. Nonetheless, no satisfying defense of ontological simplicity can guarantee this ambition.

3. The germane ideology

Ideology is here understood as the capacity of explanation of a given theory (Quine 1951, p.14). If some theory has a greater explanatory power than another one, some claim, we usually consider it as the better one, in science or in philosophy. And a criterion for considering the power of an explanation is its ability to unify phenomena into a small number of laws.[10] For example, when Isaac Newton formulated a theory capable of explaining the motions of heavenly bodies as well as it could explain the motion of a falling stone, it was considered better than Aristotle's account. That is because Aristotle's physical theory separated the universe in two kinds of "worlds", so to speak, the sublunar and the supralunar, and each one had different motion laws. Of course, Aristotle's explanation was far more complicated than Newton's, and, hence, was substituted, since Newton unified a greater range of phenomena under a smaller number of laws.[11] The same goes for mathematics: mathematicians want to derive as many theorems from as few axioms as possible.

The pragmatic motivation for ideological simplicity is striking: the fewer the laws, the easier it is to work with the theory when dealing with specific cases. It is easier to work with Newtonian mechanics than with Aristotelian mechanics because, in the former, we have only one kind of motion, and its mathematized character makes it easier to deal with. We can predict more accurately, for instance, the trajectory of a comet or a planet in its orbit than when we have a law of motion for heavenly bodies totally different from the one involved when someone lets a stone fall. This is out of discussion. However, as I said in the previous section, the metaphysician (and the really committed philosopher) dives into a search for some kind of, say, stronger thing than just a pragmatical concern. She wants to find out how the world (or worlds) really is (or are), how we can describe reality accurately and truly. So, pragmatic concerns do not suffice for a rational explanation of the appeal to ideological simplicity.

Someone could claim that simplicity is not truth-conducive, but *law*-conducive, such as is exemplified by Eddy Chen's (2024, p.57) Principle of Nomic Simplicity

(PNS): other things being equal, when we have more than one candidate proposition, the simpler one is more likely to be a law. An important remark is that "more likely to be a law" does not entail "more likely to be true" (Chen 2024, p.59). Chen subscribes himself to a realism about physical laws, which he calls *nomic realism*, and consists in two parts: metaphysical realism and epistemic realism. The metaphysical realism is the claim that physical laws are objective and mind independent, while the epistemic realism is the claim that we have epistemic access to such laws (Chen, 2024, p.52). A good reason for taking simplicity as *law*-conducive in that sense is that some theoretical benefits would obtain (Chen 2024, §5.3).[12] There are, however, some points that make this solution not so comfortable for the metaphysician. First of all, the appeal to law-conduciveness because of theoretical benefits seems again to be a pragmatic justification for simplicity, and, once more, this is not what the metaphysician wants, this is not as strong as the metaphysician needs it to be. It seems that law-conduciveness could be applied, at best, to save science's appeal to simplicity, but metaphysics is still in trouble.

However, I believe that the major problem for Chen's PNS is that it does not put an end to the problem, it just pushes it to another place; the trouble still remains. Chen (2024, p.54) claims that simplicity is a way of solving epistemic gaps when we have cases of empirical equivalence, that is, when the same evidence could be entailed by different laws. However, he also claims that "as a fundamental principle, PNS is not justified by anything else" (Chen 2024, p.57). Again, we have the notion that simplicity grounds a choice as a bedrock, and as such it does not need any further justification. We get back to the problem I previously pointed out, just changing the term 'truth' for 'law': how can we guarantee that a simpler proposition is a law? Essentially, appealing to PNS, especially when it is coupled with nomic realism, is quite similar to holding that simplicity is truth-conducive or that simpler accounts have a higher probability of being true. If the law is metaphysically independent of our minds and we appeal to simplicity in determining which laws we choose, we are just travelling a longer distance to reach the same destination. In the end, we are asserting that something is true (or more likely to be true) because it is a law (or more likely to be a law) because, fundamentally, it is simpler. Furthermore, even if being a law does not entail being true, as Chen claims, we cannot find good grounds for defending simplicity as law-conducive, since the same problems appear again, just replacing 'truth' with 'law'. Hence, we get to the same impasse: either we accept a pragmatic account, which seems to be what Chen does, or we get to the same problems concerning simplicity as truth-conducive.

Why our theories should be ideologically simple, then? We could defend an account that seems to be a platitude for the mathematician and the logician: simpler theories depart from a small number of given truths we must accept. Somehow, an axiom requires some kind of leap of faith. When we read Euclid's *Elements*, there is

a point from which we should start in order to work with Euclidean geometry, otherwise all you have to do is to depart and develop your own non-Euclidean way of doing geometry. So, the axioms must be embraced for going on, and they are considered self-evident truths. Someone, then, could ask why this is so, how these truths are self-evident, what do the mathematician means by 'self-evident', and so on. Ordinarily, these questions are not asked by those who work in physics departments or who make calculations for building bridges, but they are open to be asked. It seems compelling, then, to reduce our margin of uncertainty by decreasing the number of axioms (or self-evident truths) in our theories. By reducing our flanks, we are likewise decreasing the possibility of being wrong too, it can be argued.

In fact, the lesser we took as granted, the lesser can be set against us when we are deriving truths. However, we are working with probabilities here, not with certainties. A wrong axiom is a wrong axiom, no matter how many others we have around it, and the "truths" derived from it will be proved to be wrong as well. There might be an effective system explaining how the world is by positing much more self-evident truths than another false theory. Similarly, a simpler theory can be proved to be wrong, whereas a more complicated one could be shown as being correct.[13] Another problem with this possible argument is that it puts mathematical truths in the same package as our metaphysical beliefs, and this seems to be at least headlong. We can define what is an axiom much more easily than we can define a self-evident metaphysical truth. For example, it is a self-evident truth for the physicalist that there is not another kind of substance in the world, except for all physical things; and this underpins whatever this philosopher will claim after that. However, how much self-evident is this true? Is it derived from other self-evident truths such as causal closure or scientific discoveries? But we have people dedicated to criticize causal closure and with alternative theories which, as I remarked earlier, can fit scientific views of the world equally well. Therefore, it seems we have a much more blurred sense of 'self-evident truths' in metaphysics than the metaphysician would like to have.

Another defense of ideological simplicity is based on the argument that simpler theories have proven to be more successful than more complicated alternative proposals. So, the argument proceeds, given the continuity of this pattern, it is reasonable to think that simpler theories are more successful, or have more probability of being successful, than their rivals (Willard 2014, p.171–2). There is a number of problems with this argument. First of all, such as the previous justification for simplicity I presented, it is based on some kind of probability instead of a certainty, and probabilities are open to the possibility of not being the case. One day can have the probability of 80% of raining and, nonetheless, be a sunny day. The same could be the case for a theory, even whether there is a higher probability of a simpler one being true, this does not guarantee it will be. Moreover, Hume's followers could object to the assertion that this past repetition of successfulness of simpler theories is a reason to

consider our simpler future theories as successful ones. There is no guarantee, given the past recurrence, that future cases will resemble to them (Brenner 2017, p.2701–2). Some could even argue that it is debatable whether past appeals to ideological simplicity were really the case, i.e., whether we actually have past cases of successful appeal to ideological simplicity in theory choice (cf. Bueno & Shalkowski 2020, p.463ff). In metaphysics, by the way, it is far more complicated, since we have no cases of confirmed earlier theories for grounding our claim that the simpler ones will be successful. We just need to remember that the realism *versus* nominalism debate is still going on for a long time now. The major problem this defense of ideological simplicity faces, I maintain, is that we cannot even spell out when a metaphysical theory is successful, because our criteria are much more blurred than in science (where they are also blurred sometimes).

Again, it seems we arrived to that epistemic impasse I already pointed out in the case of ontological simplicity: we do not even have a criterion for underpinning our judgments that some theory is the best one for explaining the world. Ideological simplicity neither implies nor is implied by ontological simplicity (as already shown in §2); it does not give us the guarantee of being closer to the truth; and its alleged larger probability of being right is not rationally justified in the way the metaphysician would like it to be. Again, we can have other external justifications for ideological simplicity, such as the pragmatic option, but this is not what metaphysicians want; they want the truth (can they handle the truth?), or something like that.

4. Can we choose a path?

At the beginning, the problem was whether we could choose a path between ontological simplicity and ideological simplicity for our metaphysical (and scientific) theories concerning how the world really is. Suppose we had two theories, one ontologically simpler, the other, ideologically simpler. In some cases, we have a difficult starting point, because it is hard to define what is ontologically or ideologically simpler. Sometimes, we do not have an accurate measurement standard for comparisons. David Lewis (1986, p.4), as I already mentioned in §1, presents an argument for his modal realism in terms of "trading ontology for ideology", or "paying for ideology in ontology coins". Yet, the same Lewis, in earlier times, claimed his view about possible worlds was also ontologically economical in a qualitative sense. According to him, we have two kinds of parsimony when it comes to ontology: qualitative and quantitative. Qualitative parsimony is to posit a minor quantity of *kinds* of entities, for example, positing just sets instead of positing sets and unreduced numbers. Quantitative parsimony is to posit a minimum number of existing things of a same kind, such as positing the existence of 10^{29} electrons rather than 10^{37} (Lewis 1973, p.87).

He concludes that modal realism is qualitatively parsimonious because it does not multiply kinds of entities, the modal realist just posits more worlds just like the actual world, such as a scientist does not posit new kinds of electrons when she says the world has more electrons than we previously thought.

Lewis's distinction could shed some light over our discussion about ontological and ideological simplicity, since we would have a more precise characterization of what really matters when we talk about ontological simplicity: in fact, what matters is qualitative parsimony. Indeed, if it was necessary to put forward a scientific theory considering the existing number of atoms in the world as wider than we previously thought, given a satisfactory justification, we would not offer resistance to its violation of quantitative parsimony. Of course, we would consider just the number we would need for our explanation, there is no need to expand it beyond. It is not difficult to see how different this is from positing that there are spirits and wicked witches, for instance. If we posit these fantastic entities, we are multiplying the kinds of things existing in the world and this is a violation of qualitative parsimony. Such a violation sounds much more unwelcome to us. However, this effort seems to make no further progress concerning our discussion in this text. We still have problems in measuring qualitative parsimony when talking about how economic are our theories, as we can see from a possible objection someone could raise against Lewis's modal realism. An opponent could claim that modal realism does not posit new things of the same kind as the actual world, since possible worlds apparently do not bear some features (maybe some essential features) that the actual one does. The problem concerning the demarcation of kinds will put the metaphysician in trouble once more.

Difficulties turn out to be even bigger in face of the discussion I presented so far. We have no way of determining what to appreciate more — either ontological or ideological simplicity —, but, over and above, we do not even have a way of identifying which theories do a better job within those areas.[14] We have no scorekeeping clearly defined. And we cannot even maintain why our metaphysical theories need to be ontologically or ideologically simple on rational grounds. Of course, in science, we could argue, the procedure is different, since we have a tacitly shared naturalist background metaphysics concerning the things that a scientific area considers as the furniture of the world. However, even among scientific theories we can see disagreements being raised and the rational grounds for simplicity as truth-conducive in science can also be questioned (van Fraassen 1980, p.90; Brenner 2017, p. 2697–705). Metaphysics is not any better in that sense. It seems we have no common background or, if we have one, it is too much strict. Furthermore, there are defendants for every different theory, with distinct and alternative assumptions between themselves, disagreeing and, mostly, talking past each other. They do not do this because they are dealing with a nonsense or a pseudo-question, it is important to remark. The view of metaphysics (and some other areas of philosophy) as dedicated to pseudo-problems

(Neurath; Hahn; Carnap 1973), seems not to reflect the real state of these questions. When someone asks what there is, or what exists, according to some theory, it is totally understandable what is being asked. As Bennett (2009, p.43) remarks, there seems to be a problem with philosophy as a whole — maybe because of its *a priori* character — that makes our conclusions subject to being deeply wrong. Hence, this is not an exclusive problem for metaphysics: we can present discussions between metaethicists on whether or not there are objective values; we can see debates between exceptionalists and anti-exceptionalists on the epistemic status of logic, and so on. I will address this more thoroughly in the next section.

The point I want to get clear here is that the absence of parameters makes our discussions of simpler theories seem to be so much truncated. First of all, we have no justification for putting simpler theories first, and in much cases, we have no criterion for determining which theory is the simpler one. Additionally, since we have ontological and ideological simplicity, and they usually get in conflict, we have no way of determining which one should be valued in face of the other. Another point is that the most compelling justification for simplicity is that it is easier to work with simpler theories, which I called here the pragmatic justification. However, when someone has a theory about how the world *actually* is, the aim is not to have the easier to work, but the true one, or at least the most likely to be true, and this justification does not suffice. Finally, I argue that the whole muddle involved in theories about what there is can be credited to the fact that we still do not have a set of determined criteria for assessing different theories; each one is measured by its own standard and, as a consequence, we have some kind of incommensurability. Of course, as Bennett (2009, p.73) also highlights, we should look at each particular debate (and this is a long-term endeavor), since it is not the case that all of them follow the same procedures. Nonetheless, it seems that a pessimistic conclusion is outlined here: as far as I can see, the appeal to simplicity in our theories is, at most, aesthetic or pragmatic.

5. No path, going nowhere

I do not want to get bogged down in the mud of my pessimistic conclusions, of course, and surely, if there was a foreseeable way out of this problem, I would spread the word. However, it seems we might have (a) some cases where we have shared backgrounds and a consensus is easier to get to; (b) cases where we have standards for deciding between some answers; and (c) cases where we have no path. When we get to (c), we usually appeal to simplicity as a way out. I presented mostly examples of metaphysical debates, since they are the common case discussed in an extensive literature passing through all the 20th century and still getting discussed nowadays. Notwithstanding, I finish this paper by questioning whether the scope of this problem

is beyond metaphysics, encompassing other areas, such as ethics and epistemology, or even all philosophy, and, why not, at least parts of science.[15]

The exercise of metaphilosophy briefly undertaken in this last section is just a sketch, but it reflects a questioning that has accompanied me ever since I got involved in doing philosophy. As discussed throughout this text, the major reason for not having definite answers for questions involving theories about what exists is the fact that we have no clear standard for comparing the competing sides. This counts against criteria such as ontological and ideological simplicity. That is why we do not have an answer for the debate between the modal realist and the modal anti-realist, or we get stuck when trying to answer whether or not there are mereological sums. While the modal realist claims that her theory is ideologically simpler and qualitatively parsimonious, the modal anti-realist charges her opponent of multiplying entities and claims that her theory is the ontologically simpler one. Analogously, the nihilist claims that abolishing mereological sums from our theory is ontologically parsimonious, while the believer in mereological sums claims that her theory is ideologically simpler, even if it leads to a larger set of existing entities.

For those familiarized with other areas of philosophy, however, these debates are not the only ones which seem to be stuck in the middle of nowhere. As I briefly remarked earlier, metaethicists are still debating about the nature of morality, by asking questions such as whether or not there is any kind of external and objective moral reason. There is no foreseeable evidence in favor of one of those parties in the dispute, since each one uses some set of data gathered by researches from moral epistemology and psychology in favor of their point. And although the studies are recognized by both sides as empirical evidence, the assumptions are not shared, hence each one claims this evidence for their own sake. It seems that questions about the psychology of morality are better clarified, since, when we get to this matter, we are entering in some scientific camp, and, as I previously noted, there is a shared background which makes easier (but surely it is not a piece of cake) to provide an account for this question. The more metaphysical our investigations become, the more uncertain are the results. Similarly, when we get to the discussion whether logical (and mathematical) knowledge is exceptional when compared to areas such as biology, physics and the day-to-day beliefs we have, the debate gets stuck in an aporia. Some will claim that there is a clear difference between these kinds of knowledge, whereas others will argue that this difference is, at most, just an appearance, and logic (some would say mathematics as well) is derived from our knowledge of the world around us, such as the earlier empiricists asserted.

It seems even that (at least some) scientific discussions can be counted among those nebulous ones concerning the ontological or ideological simplicity of our involved theories. A striking example is the scenario of replacing Newtonian mechanics with relativity theory. On the one hand, we have the claim that the latter is theoret-

ically less virtuous in so many ways that, if we were following the metaphysicians' appeal to virtues such as simplicity and unity, we would stick to Newton until the end (Bueno & Shalkowski 2020, p.463). On the other hand, we have the claim that, given the data we gathered during the last decades, relativity theory is surely simpler (Brenner 2023, p.8–10). It is common to see some people within the scientific community revolving around some kind of highly theoretical problem without getting to a solution. We have in theoretical physics, for instance, the debate concerning the non-relativistic quantum mechanics, which is given to multiple and incompatible interpretations (Bueno & Shalkowski 2020, p.463ff).

I could proceed by listing lots of philosophical and scientific discussions here, and maybe not all of them would be the kind with no path I have been presenting. However, a great part of them seems to be at least not so much clear, not to have standards for resolution, and fated to a perpetual regress. Again, this should be considered for each debate separately, since there might be some cases with clear standards for resolution. In the end, it seems we have no path for choosing simplicity as a criterion for our theories, at least. Neither ontological nor ideological simplicity suffices for giving us an answer for our metaphysical problems. Furthermore, it seems that we are in the same stage in some other areas of philosophy and science, too, at least until we discover more adequate objective criteria of resolution for our discussions. On the other hand, arguments in favor of simplicity as truth-conducive in science seem to be fragile as well. Therefore, even in this realm there are open questions concerning simplicity as truth-conducive and how we could measure this proposed simplicity. Until then (if there is a "then" sometime), we have a great number of ill-fated debates, destined to be a Sisyphus exercise, with lots of plainly qualified people talking past each other.

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Notes

[1]For Quine's sense of ontological commitment, see Quine (1948). For a more rigorous inquiry about the idea of ontological commitment, see Rayo (2007).

[2]It is not my aim here to give an exhaustive account of this question, and there are many criticisms of this view, especially when it comes to Russell's theories of descriptions and names (Strawson 1950; Kripke 1980). In any case, I just want to make it clear that I can take a way out to resume my discussion without being precluded by the neo-Meinongian.

[3]For an example of an exercise of convincement in these lines, see Lewis (1986), especially the first chapter. See also Angere (2017) for a defense of the existence of round squares.

[4]Following Parsons (1979, pp.660–1), someone could claim that, even in cases where the same kind of simplicity is being measured, there are problems: "There is no *prima facie* reason to suppose that the universe contains a small number of things, or a small number of kinds of things. There is no *prima facie* reason to believe that a theory that endorses a smaller number of things, or kinds of things, or employs a smaller number of primitives, is simpler or likelier to be true or likely to yield more insight than another". This quote also shows that the discussion on the truth-conduciveness (or not) of simplicity is not new. Though I agree with Parsons that simplicity is not truth-conducive, my argument will not proceed exactly in his lines, since my

aim in this paper is also to assert that, even when someone values simplicity, the tradeoff between ontological simplicity and ideological simplicity puts the metaphysician in trouble. Thanks to an anonymous reviewer for bringing Parsons's argument to my attention.

[5]I will return to this matter later in this text. For a thorough explanation of simplicity claims in philosophical theories, see Willard (2014).

[6]A more thoroughgoing discussion of cases bearing such conflicts is presented in Bennett (2009).

[7]It is worth noting that there is a pragmatic conception of truth, following the lines of C. S. Peirce's and William James' theories. Willard (2014) highlights that this pragmatic conception is not enough to fulfill the metaphysician's goal in describing the metaphysical reality.

[8]This blurring of boundaries can be traced back to Thomas Kuhn (1996, p.41–2 184).

[9]Kripke (1980, p.144ff), for example, claims that a materialist theory of mind misses something about his considerations on the identity thesis, and, without denying scientific considerations concerning brain activities, sets himself against materialist views.

[10]This discussion is within the scope of a broader matter involving the use of theoretical virtues in theory choice in science and in metaphysics. In a certain sense, what I am doing here is the analysis of a subset of those virtues. Besides simplicity, there is also explanatory power, elegance, unity, etc. Brenner (2023) argues that these theoretical virtues are truth-conducive. I, on the other hand, feel compelled by Bueno and Shalkowski (2020) that we may have troubles with those virtues, although I think science is not free from these uncertainties also.

[11]And, given life's vicissitudes, Newtonian mechanics was replaced by the relativity theory when the latter proved to explain even more phenomena, so they say. We should not be bothered by the fact that, in the real course of history, this was not the only motivation for dropping and embracing theories (Feyerabend 1993), since we are here just analyzing the justifications evoked for defending ideological simplicity. Bueno and Shalkowski (2020, p.463) consider this case as an example of their argument against the alleged truth-conduciveness of theoretical virtues. Brenner (2023, §3.3) has recently presented a reply to this example.

[12]Thanks to an anonymous reviewer for pressing me on this possible reply appealing to simplicity as law-conducive.

[13]According to Bueno and Shalkowski (2020, p.463ff), that is precisely what happened in the substitution of Newtonian physics for the theory of relativity.

[14]One possibility for solving the problem of choosing between ontological and ideological simplicity would be to consider the ontological variant somehow reducible to the ideological one, i.e., ontological simplicity would become some special kind of ideological simplicity. If that was the case, it seems that ideological simplicity would be the most valuable one. However, even if this is possible, the absence of a congruous scorekeeping for deciding which theory is ideologically simpler persists. Furthermore, the problem of how this simplicity would be truth-conducive (beyond pragmatic truth) would also hold. Thanks to Marco Ruffino for pressing me on this point.

[15]There is already an ongoing discussion in philosophy of science concerning the conflict between theoretical virtues and other values. For example, the theory taken as the simplest one may contribute to the maintenance of negative gender biases (Crasnow 2024). Thanks to an anonymous reviewer for bringing this discussion to my attention.

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