

On metaphysics' independence from truthmaking.

Or, why Humean supervenience is compatible with the growing block universe.

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Abstract

This paper aims to support the claim that analytic metaphysics should be more cautious regarding the constraints that truthmaking considerations impose on metaphysical theories. To this end, I reply to [Briggs and Forbes \(2017\)](#), who argue that certain truthmaking commitments are incurred by a Humean metaphysics and by the Growing-Block theory. First, I argue that Humean Supervenience does not need to endorse a standard version of truthmaker maximalism. This undermines Briggs and Forbes's conclusion that Humean Supervenience and the Growing-Block theory are incompatible. Second, I argue that the Growing-Block theory does not commit us to any weaker version of truthmaker maximalism, which also undermines Briggs and Forbes's conclusion. Finally, I point out other reasons to think that any version of truthmaker maximalism is disputable, undermining a fortiori Briggs and Forbes's conclusion and supporting the moral that metaphysical theories—or at least Humean Supervenience, the Growing-Block theory, and presentism—are little constrained by truthmaking commitments.

Keywords

Methodology in metaphysics; Truthmaker theory; Ontological commitment; Metaontology; Metametaphysics; Humean Supervenience; Growing-Block theory.

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1 Introduction

Briggs and Forbes (2017) allege an incompatibility between two widely discussed metaphysical theories: Humean Supervenience—the thesis that everything supervenes on the Humean mosaic—and Growing-Block theory—the thesis that the universe is a 4-dimensional growing block composed by the present and the past. Yet this incompatibility holds only if additional premises are granted, one of which is truthmaker maximalism—the view that every truth is made true by something in the world. The authors defend a standard version of this view by appealing to its relation with Humean Supervenience. The relation of Humean Supervenience with truthmaker maximalism is interesting by itself. Is a Humean naturally led to endorse a standard version of truthmaker maximalism, as Briggs and Forbes argue?

In this paper, first I assess the relation between Humean Supervenience and truthmaker maximalism, concluding that Humean Supervenience is not committed to the standard version of truthmaker maximalism required by Briggs and Forbes.

Second, I argue that their defense of truthmaker maximalism on the assumption of a Growing-Block universe is incorrect: the reasons for endorsing the Growing-Block

theory do not commit us to endorse any version of truthmaker maximalism (even when the latter is restricted to some future contingent statements).

Finally, the demand of truthmakers for future contingent statements implicitly depends on another of the authors' premises, namely that some future contingent statements have truth values. But, as I point out here, this is a disputed thesis, inadequately justified, and in a Humean Growing-block universe is hardly plausible, if not false.

Each of these three arguments suffices to undermine Briggs and Forbes's conclusion that "either Humean Supervenience or Growing-Block theory has to be false". Now, the premises that I criticize are sometimes assumed, explicitly or implicitly, in other debates in contemporary analytic metaphysics. Thus, more generally, each of these three arguments aims to support the moral that metaphysical theories—or at least Humean Supervenience, the Growing-Block theory, and presentism—are little constrained by truthmaking commitments. Hence, this paper aims to contribute to the debate about the methodology and legitimacy of metaphysics by urging caution on widespread strategies stemming from the twentieth century linguistic turn—along the lines of Lewis (1992); Varzi (2007); Wisniewski (2007); Liggins (2008); Betti (2014); Simpson (2014); Skiles (2014); Barceló (2015); Tallant (2018); Asay and Baron (2019); among others (see also references in §3.2).

2 The alleged incompatibility between Humean Supervenience and the Growing-Block theory

A substantial, carefully argued, metaphysical thesis is laid out in "The Growing-Block: Just One Thing After Another?" (Briggs and Forbes, 2017, *Philosophical Studies* 174, 4). The authors defend an incompatibility between two theses:

HUMEAN SUPERVENIENCE: The thesis that the world is fundamentally a vast mosaic of local matters of particular fact and that everything else, including any modal fact, supervenes on the mosaic.

GROWING-BLOCK THEORY: The theory that the past and the present are real, unlike the future, such that the universe is a four-dimensional block that grows as the present changes and becomes part of the past.

To defend their incompatibility, they appeal to certain premises which they then defend. Two of these premises are:

TRUTHMAKER MAXIMALISM: The thesis that every true proposition is true in virtue of something in the world. In a more modest formulation, it is the thesis *truth supervenes on being*.

TRUTHS ABOUT THE FUTURE: The thesis that there are non-trivial truths about the future. That is, some future contingent statements have truth values at their times of utterance (e.g. “There will be a solar eclipse on December 14, 2020”).

Briggs and Forbes (2017) admit that there might be counterexamples to TRUTHMAKER MAXIMALISM (for instance, mathematical truths), but they only need this principle to hold for some future contingent statements, and they argue that it does hold for this subset of cases.

From these premises—together with a third premise which I will not challenge—they conclude that either HUMEAN SUPERVENIENCE or GROWING-BLOCK THEORY has to be false. In a nutshell, the incompatibility arises because GROWING-BLOCK THEORY faces the challenge of explaining what makes future statements true, and any such explanation turns out to be unattainable if one assumes a Humean ontology.¹

For how could future contingent statements be grounded in a Growing-Block universe? The only way to achieve this seems to be to resort to *a revised version of*

¹Their other premise is: “If some propositions about the future are made true by something (or things) not in the future, then there are irreducible necessary connections between distinct existents” (Briggs and Forbes, 2017, 928). Indeed, this may sound like the least obvious of the three premises. Still, this paper focuses on criticizing Briggs and Forbes’s defense of the other two, as they are sometimes assumed in other debates in contemporary metaphysics.

TRUTHMAKER MAXIMALISM, similar to that proposed in the literature addressing the grounding problem for presentism (Tallant, 2009b; cf. Tooley, 1997, 41, Meyer, 2013, 25). According to the revised version proposed for presentism, truth supervenes not only on actual (i.e. present) being but also on past and future being. An analogously revised principle for the Growing-Block theory tells us that

REVISED TRUTHMAKER MAXIMALISM: Truth supervenes on being or future being.²

With this revised principle in hand, a Humean Growing Block theorist is able to ground future contingent statements—they are grounded in future being. However, a Humean cannot coherently accept this revised version, because she is committed to *rejecting irreducible hypothetical properties*. Recall that HUMEAN SUPERVENIENCE is inspired by David Hume’s (alleged) skepticism towards any necessary connections in nature. In a similar spirit, Sider (2001) advocates the rejection of (irreducible, unless otherwise specified) hypothetical properties:

“What seems common to all cheats is that irreducibly *hypothetical* properties are postulated, whereas proper ontology should invoke only categorical, or occurrent, properties and relations. Categorical properties involve what objects are actually like, whereas hypothetical properties ‘point beyond’ their instances” (Sider, 2001, 41)

In Sider’s terms, then, categorical properties belong to the fundamental structure of the world, while hypothetical properties don’t. Accordingly, Briggs and Forbes (2017, 935) reasonably claim: “the objection the Humean has to irreducible modality is at heart the same objection Sider has to hypothetical properties.” This includes the rejection of temporal properties (e.g., the temporal property of there being a sea-battle tomorrow), so “the Humean would be failing to follow the spirit of their own view if they accepted an appeal to what WILL exist but doesn’t” (Briggs and Forbes, 2017, 935).

Therefore, we will be able to ground future contingent statements in a Growing-Block universe only if we appeal to modal notions or hypothetical properties—but

this is inconsistent with a Humean metaphysics, which is wary of primitive modal notions and hypothetical properties. Hence the incompatibility.

3 The independence of metaphysics from truthmaking

However, the argument just presented is unsound, for HUMEAN SUPERVENIENCE does not commit us, I will argue, to the required standard version of TRUTHMAKER MAXIMALISM (§3.1). Furthermore, GROWING-BLOCK THEORY does not commit us to any version of TRUTHMAKER MAXIMALISM (§3.2). Finally, a more general worry is that TRUTHMAKER MAXIMALISM is a disputed thesis, in turn relying on TRUTHS ABOUT THE FUTURE in the context of future contingent statements, which is also a disputed thesis, inadequately justified, and especially implausible in a Humean Growing-block universe (§3.3).

Still, Briggs and Forbes’s conclusion does follow from their premises. That is interesting in itself. And given that one philosopher’s modus ponens is another’s modus tollens, if we assume that HUMEAN SUPERVENIENCE and GROWING-BLOCK THEORY are compatible, Briggs and Forbes’s argument could instead be seen as a *reductio* of Truthmaker Maximalism.³

3.1 Is the Humean led to endorse standard truthmaker maximalism?

First, although the rejection of hypothetical properties seems in line with the Humean spirit, it could be objected that this is nevertheless an additional and thus unjustified assumption. For HUMEAN SUPERVENIENCE may be endorsed for certain reasons—such as, say, the rejection of primitive modal notions—without necessarily having any trouble with hypothetical properties. That is, Sider’s stance can be seen as an independent, stronger, commitment that the Humean does not need to endorse.

³In the *modus ponens* $\{p \rightarrow q; p \models q\}$, p is TRUTHMAKER MAXIMALISM, and q is the incompatibility between HUMEAN SUPERVENIENCE and GROWING-BLOCK THEORY. Then, the *modus tollens* concludes that $\neg p$. (Cf. this suggestion with the criticisms cited in §3.2 esp. fn 3.2.)

More importantly, even granting that HUMEAN SUPERVENIENCE commits us to rejecting hypothetical properties, this is nevertheless insufficient to establish the standard version of truthmaker maximalism that Briggs and Forbes require. In other words, contra Briggs and Forbes (2017, 935), Sider’s stance does not preclude the revised version of truthmaker maximalism described above.

Sider’s aim is to avoid *postulating* hypothetical properties *in our ontology*. But this does not preclude a revised version of truthmaker maximalism, since the latter merely *appeals to* future truthmakers that do not exist yet, i.e. to hypothetical properties. That is, we can accept Sider’s rejection of hypothetical properties in our fundamental ontology while *speaking of* hypothetical properties and *appealing to* them to ground truth-values. There is no reason for a Humean to refuse to appeal to hypothetical properties merely because, on her view, fundamental reality does not include them. It does not follow that appealing to X implies that X exists.⁴ The distinction between ‘speaking of’ and ‘ontologically committing to’, or in other words, between ‘appealing to’ and ‘postulating’, is not new, but has been invoked throughout the history of philosophy. This corresponds to the ancient warning against *reifying* linguistic discourse—the paradigmatic example being the medieval nominalist criticizing the realist about universals (dating back to Stoicism (Modrak, 2012, 659-60)). Accordingly, appealing to future truthmakers need not amount to any more than just talking about something—something that we are expecting that it *will* be the case. There is, then, no need to reify, i.e. actually postulate, future truthmakers now. (Compare Section 4, where I raise an analogous criticism to Quine’s metaontological criterion of ontological commitment.)

At this point one might object that, still, hypothetical properties are appealed to here to ground future contingent statements, and grounding has to be done by categorical properties—by something existent! Indeed, it seems reasonable to expect that something existent grounds the truth-value of future contingent statements, and hypothetical properties do not exist. (One might think that the truths of mathematics

⁴Nor is there any problem for the Growing-Block theory in appealing to the non-existent future. This theory, unlike Humean Supervenience, is neutral about ontological commitments to non-existent entities. The neutrality of presentism regarding the ontological commitments to abstracta is defended by Filomeno (2016), which *mutatis mutandis* holds for the Growig-block theory.

or fictional discourse do not need something existent to make them true, but this is harder to maintain for future contingent statements.)

However, REVISED TRUTHMAKER MAXIMALISM is immune to this objection. This version explicitly postulates that truthmakers need not exist: truth supervenes on being *or future being*. What this revised version requires is that truthmakers exist sooner or later, at some period of time. See Westphal (2006), who argues that it is facts, as ordinarily understood, that make future-tensed statements true—facts that will obtain when their time comes. Then, grounding is, in the end, done *by categorical properties*⁵—by properties that in the future, not now, are part of being.

This revised principle is thus consistent with a Humean ontology, as only categorical properties are included in the ontology.⁶ In sum, HUMEAN SUPERVENIENCE is not committed to a standard version of TRUTHMAKER MAXIMALISM.

For different reasons, Sorensen (2001, Ch. 11) and Greenough (2008) (following Quine, 1981) have defended the existence of truthmaking gaps, implying that there are truths without truthmakers. These authors preserve classical bivalent logic and hold that there are no truth-value gaps, while there are truthmaker gaps. Their reasons come from paradoxes (the Liar, but also the truth-teller and other variants) and vagueness puzzles. They remind us that the truths of the laws of logic are ungrounded, something which is also familiar from foundationalist view in epistemology.

Moreover, this objection—that grounding should be done by something presently existent—can also be disarmed by endorsing the view presented in §3.3, according to which future contingent statements lack truth-values, a view especially plausible in a Humean Growing-block universe. In such case there is nothing to be grounded, so we needn't go looking for truthmakers.

⁵As constituents of, say, larger states of affairs.

⁶In general, not only from the Humean viewpoint, the revised version seems more reasonable than the standard version. It can be said that the truth-value of a proposition about a certain period of time is grounded by what (part of) the world is like *at that period of time*. Furthermore, a proposition's truth-value is independent from the times at which its utterance is made (leaving of course aside indexical propositions). So, while (part of) the world at a certain period of time grounds propositions about that period, there is no requirement that the world at that period continues to exist at any other time (cf. Westphal, 2006).

3.2 Is Growing-Block theory led to endorse truthmaking maximalism?

Hence, a Humean metaphysics is not committed to a standard version TRUTHMAKER MAXIMALISM. This by itself suffices to refute Briggs and Forbes's conclusion. But, furthermore, their premise of TRUTHMAKER MAXIMALISM, in any version, is a disputed thesis and their defense of it, recurring to GROWING-BLOCK THEORY, is flawed.

That TRUTHMAKER MAXIMALISM is a disputed thesis is attested by the literature on truthmaking as well as by the literature on the grounding problem for presentism. Beginning with Lewis (1992, 215-219) in response to Armstrong (2004), criticisms of TRUTHMAKER MAXIMALISM have more recently been given, e.g., by Williamson (1999), Wisniewski (2007), Liggins (2008), Tallant (2009a), Jago (2013), Skiles (2014), and Simpson (2014). Yet of course there are also those who have explicitly defended the principle, e.g. Rodriguez-Pereyra (2006), Cameron (2008), Barrio and Rodriguez-Pereyra (2015), and Jago (2020). Similarly, part of the literature addressing the grounding problem for presentism has questioned TRUTHMAKER MAXIMALISM (or provided a revised version); see e.g. Keller (2004, §2), Tallant (2009b), Caplan and Sanson (2010), and Tallant and Ingram (2015).

One line of thought here is to stress that the principle should be defended not in virtue of its alleged intuitive appeal (as intuition can be seen to be, or is, an unreliable guide to truth), but rather by *testing* whether the principle holds in all cases (Tallant, 2009b, 414). Then, following this methodology the principle hardly seems plausible, given the variety of counterexamples: negative truths, past and future truths, mathematical truths, and fictional truths. Another line of thought is that dispensing with the principle is more ontologically parsimonious (Tallant, 2009a, §6). Yet another line of thought is that, much as the concept 'lack' in discussions about truthmakers of negative existentials does not lead us to think that the lack of some state of affairs should be reified, similarly the concept 'past' should not lead us to think that the past should be reified (*ibidem*, 424).

That being said, Briggs and Forbes (2017, §5) try to defend the principle aided by

the considerations that (i) they only need this principle to hold for future contingent statements, and (ii) this premise is more plausible within the context of GROWING-BLOCK THEORY than it is outside this context.

The reason for (ii) is that, given that the past exists, there is a truthmaker for a sentence such as:

(S*) There was a sea battle yesterday.

And this suggests that there should also be a truthmaker for:

(S) There will be a sea battle tomorrow.

As Briggs and Forbes (2017, 934) put it, “What asymmetry could there possibly be between (S) and (S*), such that (S*) requires a truthmaker while (S) does not?”

However, this defense of TRUTHMAKER MAXIMALISM for future contingent statements in a Growing-Block universe is flawed. There *is* an asymmetry between (S) and (S*), such that (S*) may be held to have a truthmaker while (S) does not need a truthmaker: namely, that (S*) is a past sentence and (S) is a future sentence. This asymmetry is relevant in a Growing-Block universe, where there is an ontological asymmetry between the reality of the past and the unreality of the future. In fact, one motivation for believing in GROWING-BLOCK THEORY is that it captures the apparent asymmetry of the past being settled, unlike the future (Hoefler, 2019, Ch.1); and this ontological asymmetry naturally fits with there being truthmakers for past sentences *but not for future* sentences.

Thus, GROWING-BLOCK THEORY does not commit us to truthmakers for the future, so it does not lend credibility to any version of TRUTHMAKER MAXIMALISM. We then seem to have no reason to endorse this premise. And if we do not endorse it, *a fortiori* the incompatibility claimed by Briggs and Forbes does not follow.

3.3 Must future contingents have truth-values?

Finally, there remains a more general objection to the demand for truthmakers in this favorable context of future contingent statements, which applies to any version

of TRUTHMAKER MAXIMALISM, and independently of any metaphysical theory.

The demand for truthmakers for future contingent statements implicitly depends on another premise which can and has been disputed: that future contingent statements have truth-values. That is, it depends on TRUTHS ABOUT THE FUTURE. Briggs and Forbes (2017, §4) also try to defend this premise, but they merely reply to one objection and then present the semantics for future truths that they proposed in (Briggs and Forbes, 2012). This is insufficient, as there are alternative views according to which future contingent statements lack truth-values now. These alternatives are not implausible, as I elaborate below, so Briggs and Forbes’s view cannot be taken for granted. Even worse, I argue that in our Humean Growing-Block universe this premise is barely tenable, if not inconsistent.

Since Aristotle first pondered the truth-value of the sentence “There will be a sea battle tomorrow”, various answers to the problem of future contingents have been proposed. One view is that at least some future contingent statements already (or always) have a truth-value. However, several alternative views deny this; that is, they deny TRUTHS ABOUT THE FUTURE. For instance, since the Epicureans, some views hold that the world might be fundamentally indeterministic, and they treat future contingent statements as neither true nor false, but rather as *undetermined*. Even if the world were deterministic, since the future is still non-existent, it can be said that any presently uttered proposition about any future event still lacks a truth-value—for there is nothing in reality that makes such sentences true or false. In the indeterministic scenario, this lack of truth-values is more patent: not only is there nothing existent that can be said to correspond to the proposition, but it is *unsettled* whether it will occur—whether the proposition will be true or false.

Such undetermination can be modelled as a third truth-value, as in Jan Łukasiewicz’s three-valued semantics (Prior, 1953). Other views that treat future contingents as neither true nor false include supervaluationism (Thomason, 1970); so-called Priorean Ockhamism (Belnap et al., 2002); and relativism (MacFarlane, 2003, 2008). These semantics can model a world where the future is unsettled and future contingent statements lack a settled truth-value. And such a world is not far-fetched. The actual world may well be indeterministic such that no future events are determined. Then,

even very likely events such as the predicted solar eclipse on October 14 2023 would, strictly speaking, not be determined with probability 1.

Rejecting TRUTHS ABOUT THE FUTURE can mean affirming either that all future contingents lack truth-value, or that they are all false. We can say, encompassing both of these options, that any future contingent is untrue. Each variant comes at a certain cost. For instance, endorsing Łukasiewicz’s three-valued semantics implies rejecting the principle of future excluded middle. This principle is a future-tensed version of *tertium non datur*, stating that either at some future time t , p , or at some future time t , $\neg p$ is. Formally: $F_t p \vee F_t \neg p$. This can be accepted, but it will lead us to deny that $F_t p \vee \neg F_t p$ is a tautology, despite its having the form of a classical tautology $\Phi \vee \neg \Phi$.⁷

Aside from the trade-offs, one objection to the views I am putting forward is that it follows that one should never assert anything about the future. For, according to these views,⁸ all future contingents are untrue. This can be solved by (1) adopting the view of the Thin Red Line (although it has been accused of incoherence, because it confers a special status to one branch, which violates the initial assumption of the future being contingent and truly indeterministic); or (2) revising or rejecting the Truth Norm for assertion; or (3) following MacFarlane (2014, 231)’s proposal to just accept this consequence, while taking on the philosophical task of clarifying why this is right, despite its seeming strange.

Now, the key point that differentiates Briggs and Forbes’s view from these views is that it could be thought that an indeterministic world still allows for *some* future

⁷If one wants to keep all classical tautological inferences valid, one can choose the supervaluationist semantics, at the cost of denying that a disjunction can be true only if one of its disjuncts is; see Briggs and Forbes (2012, 14) for an excellent summary of the trade-offs. Besides, advocates of Łukasiewicz logic reject the rules Reductio ad Absurdum and Contraposition: these fail because classical contradictions, such as $Fp \vee \neg Fp$, may lack truth-value, and therefore have untrue negations. Conditional proofs fail for similar reasons; see Briggs and Forbes (2012, 24). In comparison with supervaluationism, Łukasiewicz assigns truth values to far fewer sentences, as every classical tautology has untrue instances, including the law of excluded middle (Briggs and Forbes, 2012, 21); although I don’t see this as a substantial virtue or flaw. To conclude, the balance of trade-offs is longer and requires philosophical assessment, see *ibidem*; Iacona (2020); Øhrstrøm and Hasle (2020). Now, we do not need to decide anything here; we just need to outline the plausibility of the alternatives.

⁸This includes 3-valued Łukasiewicz semantics, Supervaluationism, Peirce’s models, and MacFarlane’s relativism.

contingent statements having, in the present, determined truth-values. In fact, the future occurrence of certain macroscopic events hardly seems deniable. Consider, for instance, the aforementioned solar eclipse on October 14 2023, the death of the Sun, or the heat death of the universe.

However, this point is weakly founded for two reasons. One reason is that it conflates something very likely with something settled. The small difference in probability between ‘0.999999...’ and ‘1’ implies the big conceptual difference between a proposition’s truth-value being settled and it not being settled. The values ‘0.999999...’ and ‘1’ may be interchangeable for all practical purposes, but their metaphysical implications are substantially different. All sorts of overwhelmingly likely events, such as the next solar eclipse, may not be determined. And if the occurrence of all future events is not completely determined, then the propositions that predict their occurrence must not have *determined* truth-values. ^{9 10}

The second, more specific, reason against TRUTHS ABOUT THE FUTURE is that we are assuming a Humean Growing-block universe. In such a universe, no future contingent statement can have a settled truth-value. A Humean account of laws (such as the ‘Best System Account’) does not confer any governing role to the laws. Laws are merely the best compressed description of the patterns in the Humean mosaic. Laws then do not prescribe any events at any time. In particular, Humean laws can be deterministic or indeterministic (whatever is the best axiomatization of the patterns in the mosaic, be it deterministic or indeterministic, will constitute the laws of nature), but in any case such laws do *not determine* what happens in the unfolding

⁹This first consideration against TRUTHS ABOUT THE FUTURE does not hold if the world turns out to be deterministic, of course. For not only solar eclipses, but everything would be determined, and therefore settled. But of course, no one wants to need to assume determinism. The next reason applies regardless of whether the world is deterministic or not.

¹⁰There might be a way to justify the objection that propositions about *some* future macroscopic events have truth-values. The philosophy of physics literature on emergence has stressed the universality of certain events, *irrespective of* their details at the fundamental level. For instance, the occurrence of thermodynamic behavior may be independent of both initial conditions (the positions and velocities of gas particles in a closed container, say) and fundamental dynamics (the Newtonian laws guiding such particles) (Frigg 2009, cf. Batterman, 2018; Filomeno, Forthcoming). Then, a future event such as the increase of entropy in the universe seems to be a macroscopic event that will definitely occur, even if the fundamental laws are indeterministic. However, this speculation is disputable (e.g. it is unclear that the universality is really applying to *any* branch).

future. This means that what will occur in a Humean Growing-Block universe, i.e. how the Humean mosaic will unfold, is not determined by the laws but is rather a contingent *brute fact*. Thus, any given future event is neither partially determined by laws, nor by the present, nor by the past, nor by anything else. It seems hard, then, to maintain that a proposition about a non-existent and undetermined brute fact has some settled truth-value before its occurrence. And notably, this includes propositions about any future event, even overwhelmingly likely ones such as solar eclipses.

Hence, to wrap up in reverse order, (i) I have argued that in the scenario of a Humean Growing Block, the view that future contingents have truth-values is untenable; and (ii) this has been preceded by the more general observation that it cannot be taken for granted that future contingents have truth-values, as there are plausible views that maintain that every future contingent is undetermined. Hence, if we do not endorse TRUTHS ABOUT THE FUTURE, then there are no truth-values of future contingent statements to be grounded by any version of TRUTHMAKER MAXIMALISM; so again, *a fortiori*, the incompatibility claimed by Briggs and Forbes does not follow.

4 Conclusion

The three arguments given in Section 3 aim to support that HUMEAN SUPERVENIENCE is compatible with GROWING-BLOCK THEORY¹¹ and, more generally, the moral that contemporary analytic metaphysics should be cautious regarding the constraints that truthmaking considerations impose on metaphysical theories. In other words, metaphysics is largely independent of the alleged constraints of truthmaking theory, in the sense that it is barely constrained by them. Metaphysical theories retain a large degree of freedom from such linguistic considerations. Truthmaking considerations hardly constrain our metaphysics, unless they constrain it *ex hypothesi*, but then they are incurring in a *petitio principii*. The same conclusion is defended by Tallant

¹¹In fact, Humeanism is compatible with any ontological theory of time, since the same solution to the grounding problem applies, *mutatis mutandis*, to presentism; and it is compatible with eternalism.

(2018), who argues that truthmaking theory, when trying to determine our ontological commitments, is forced to assume some *prior* notion of which entities are dubious.

This moral can be framed in a wider perspective. Consider a precedent of truth-maker theory, Quine’s (1954) influential criterion of ontological commitment—a main responsible of revitalizing metaphysics after the linguistic turn. According to Quine, the scope of the quantifiers in a regimented language guides us in determining what there is: to use quantifiers to refer to entities while denying that one is ontologically committed is to fail to own up to one’s commitments, and thereby engage in a sort of doublethink (Bricker, 2016, §1.6.3). However, also this incurs in a *petitio principii*, unless such meta-ontological criterion is properly justified on other grounds. (Again, the same problematic dialectics is also found in a discussion in the vicinity; see Bricker 2016, §3.2.) Furthermore, there are alternative meta-ontological criteria, such as the Meinongian (see Berto and Plebani, 2015, Part II for other alternatives). The existence of alternative criteria suggests the meta-metaphysical conjecture that perhaps deciding among them cannot be positively decided. I do not mean that it is a verbal dispute, but rather that if we assume that no criterion is better justified than any other, we lack a substantial reason to decide, and thus metaphysics is independent of—unconstrained by—these disputes.

Similarly, returning to the debate on future contingents, the different semantics developed are motivated by adhering to certain desiderata. Subsequently, such semantics are hoped to be that which captures more accurately the metaphysical structure of the world—that which “carves at the joints”. One desideratum has been to accommodate the idea that some future contingents (like the eclipse sentence) already have a truth-value now. While this is not an unmotivated desideratum (as the examples mentioned attest), it is, however, too fragile a foundation for supporting the metaphysical significance of the corresponding logical semantics. Faced with the also fragile motivations of the alternatives, a precise, commensurable, discussion of the weight of the trade-offs might be unattainable. This kind of incommensurability between criteria bolsters the undecidability of metaphysics. Fortunately, the scope of this pessimistic diagnosis is limited: a careful analysis of the trade-offs may well clearly tip the balance. Yet the often neglected point is that sometimes, perhaps too

often, we encounter situations in which the foundations of the assumptions are too fragile (i.e. poorly justified), and a precise, commensurable, discussion of the weight of the trade-offs is unattainable. In the end, the metaphysical issue at stake might never be positively settled.¹²

It is worth adding that in current theoretical physics similar methodological worries have recently been raised: not due to an excessive focus on natural language, but rather due to an allegedly excessive focus on the beauty of mathematical language. Some criteria guiding theoretical physics have been criticized as unreliable, fragile criteria: the technical notion of naturalness, the elegance of the mathematical formulation, as well as the acclaimed criteria of unification and simplicity, which have also been hugely influential in philosophy. These criticisms have recently been popularized by [Hossenfelder \(2018\)](#), while previous abundant discussions can be found in the philosophy of science literature.

Summing up, the diagnosis that too much (ontological) weight is given to linguistic considerations goes along the lines of the aforementioned [Lewis \(1992, 215-219\)](#); [Williamson \(1999\)](#); [Keller \(2004, §2\)](#); [Varzi \(2007\)](#); [Wisnewski \(2007\)](#); [Liggins \(2008\)](#); [Betti \(2014\)](#); [Simpson \(2014\)](#); [Skiles \(2014\)](#); [Tallant \(2018\)](#); [Asay and Baron \(2019\)](#). In other words, the moral is that, unfortunately, it does not seem that such meta-ontological criteria undergirding analytic metaphysics can reliably guide us to the truth.

Obviously, naturalistic metaphysics comes here to mind as a potential savior. However, let me just note that it is not clear that the astonishing success of physics is sufficient today to legitimize the enterprise of naturalistic metaphysics: in order for the naturalistic approach to be informative as to what there fundamentally is, not only one must accept scientific realism; one should also believe, *against the scientific*

¹²Alongside this fragile foundation of some linguistic-driven criteria in metaphysics lies the well-known unreliability of our intuitions and the manifest image. This has been highlighted for centuries, and the more the scientific image develops, the further it departs from the manifest image, so the more the latter appears as an unreliable, fragile basis for discovering the fundamental structure of the world. In fact, inspired by the astonishing discoveries of modern physics, Richard Feynman (leaving aside his funny but poor comparison of philosophy of science with ornithology) raised an illustrative point which should be kept in mind by those of us investigating “armchair” metaphysics: Nature’s imagination has turned out to be, as we have a posteriori discovered, much greater than man’s.

consensus, that current physics is *close* to the *fundamental* physics, close to something like a ‘Theory of Everything’. Yet it is not; e.g., it is officially acknowledged that Quantum Field Theory is not a fundamental theory. In other words, one has to, first, hope that the “unknown unknowns” won’t drastically change the current scientific image (the antirealist pessimistic meta-induction objection). Then, even worse, one has also to ignore the “*known* unknowns”, i.e. the numerous unsolved problems of the current Standard Model that suggest that we are far from a fundamental theory (e.g., the inconsistency between general relativity and quantum mechanics, understanding dark energy, the hierarchy problem, and basically all the reasons that motivate the research of physics beyond the Standard Model).¹³

If all this is correct, it is of course saddening for those of us who wish to investigate the fundamental aspects of reality beyond the limited scope of empirical evidence—who wish that the historically threatened legitimacy of metaphysics were on firmer ground.

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¹³At this point, rather than discontinue our research, we may still endorse the attitude proposed to deal with other big philosophical issues. For instance, regarding the meaning of life, you may conclude that what you deemed as the objective meaning of life merely is a subjective fiction, and there is no objective answer to aspire to. Yet faced with this, you might learn to accept living with such a profound limitation while still keep pursuing what you deem meaningful—even if it is not an objectively grounded purpose, and especially after realizing that there is nothing better to do. Analogously, regarding our perennial desire to inquire into metaphysical issues, we can accept our profound limitations while still keep pursuing our inquiry, as there is nothing better we can do. Cf. Van Fraassen’s pragmatic ‘acceptance’ in scientific inquiry. In other words, we are like sailors acknowledging that the compass is potentially misleading. We can stay at the dock and remain agnostic, or set sail accepting the uncertainty and that the compass can lead us down the wrong route.

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