Fundamental truthmakers and non-fundamental truths

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Abstract

Recently, philosophers have tried to develop a version of truthmaker theory which ties the truthmaking relation (T-REL) closely to the notion of fundamentality. In fact, some of these *truthmaker-fundamentalists* (TF-ists), as I call them, assume that the notion of fundamentality is intelligible in part by citing, as central examples of fundamentals, truthmakers, which they understand necessarily as constituents of fundamental reality. The aim of this paper is first to bring some order and clarity to this discussion, sketching how far TF is compatible with orthodox truthmaking, and then critically to evaluate the limits of TF. It will be argued that truthmaker theory cannot directly help with articulating the nature of fundamental reality and that T-REL does not necessarily relate truths with anything more fundamental, unless what is fundamental is what the truthbearers in question are about. I shall argue that TF faces a rather thorny dilemma and some general problems. I shall present two exhaustive types of fundamentalism on which a version of TF can be based: deflationary and inflationary. It will be argued that each version of TF runs into significant troubles accounting for all truth, specifically ordinary truths and metaphysical truths about the relations between ordinary facts and fundamental facts. I shall not attempt to solve these problems, but rather, at the end, diagnose the issues with TF as lying in the difficulties with reconciling the manifest image with the scientific and metaphysical images of reality.

Keywords Truthmakers · Aboutness · Fundamentality · Non-fundamental truths · Ontological seriousness · Deflationary and inflationary fundamentalism

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1 Introduction

The recent upsurge of work in analytical metaphysics comes on the back of calls to put metaphysics first and demands for ontological seriousness.¹ At its heart, ontological seriousness is a virtue of theories and practices manifested by the refusal to read ontology off of language.² Prime examples include those approaches which refuse to draw conclusions about the world from the structure of sentences and propositions (e.g. that the world contains sentence-structured entities corresponding to the sentences we use to talk about them).³ Two questions have taken centre-stage:

(Q1) what makes truth?; and

(Q2) what is fundamental?

The first aims to bring ontological seriousness to all our talk, including our everyday talk, by moving us beyond language and asking what are the aspects of *reality* to which truths are beholden. The second aims to make our metaphysical investigations serious by moving us to inquire about what reality is like at the deepest, most fundamental level. A natural answer which has been proposed recently aims to answer these questions together: what makes truth is what is fundamental. I call this view *truthmaker-fundamentalism* (TF, for short). Its central claim is:

TF-TRUTH: truths must be grounded in, that is, made true by, truthmakers understood necessarily as fundamental entities.⁴

¹ See especially Heil and Martin (1999: *passim*) who criticise “Linguisticism”, which encapsulates those philosophical approaches which replace talk of worldly matters with linguistic or formal matters, e.g. replacing talk of states of minds with mental attributions, of properties with predicates, of causation with theories, and of objects or states of affairs with statements, properties, or sentences (ibid, p. 36; the rest of the paper has many more concrete examples). They argue that this lack of ontological seriousness and focus on formal matters “can have a corrupting effect on our thinking [...] too often divert[s] attention from ontologically deeper matters [...] and the hard questions” (ibid., pp. 34–35). See also Unger’s (2014: *passim*) trenchant criticisms of what he takes to be *concretely empty* rather than *concretely substantial* ideas. He includes among those who express empty ideas ordinary language philosophers and most of mainstream analytical philosophy, including his main targets, Putnam, Davidson, and Kripke, and also his own early work (e.g. Unger (1979)). Unger (2014, p. 7) takes his early work to be empty because the arguments turn on the semantic unsatisfiability of terms such as ‘chair’—this argumentation, according to him, is verbal and not sufficiently metaphysical. I shall argue later (Sect. 5.2) that there is a sense in which this early nihilistic work can be taken to be ontologically serious. See Lewis (1986) and Unger (2006) for examples of concretely substantial philosophy. See also Cameron (2010b, pp. 8–11) for more examples and further discussion.

² This is the way that Cameron (2010b, p. 8) articulates it. It may strike some readers as a rather vague explication of this notion. However, it is particularly important that I stick with this general formulation because this is exactly how the view I shall criticise understands one of its main motivations: its ontological seriousness. See Sects. 5.1 and 5.2 for further discussion.

³ See Dyke’s (2007: *passim*) discussion of the “representational fallacy” and Schipper (forthcoming: *passim*).

⁴ Following Russell, who demands that any theory of truth must “admit of its opposite, falsehood” and “find a place for falsehood” (1912, p. 120), a TF-ist must account for falsehood. Thus,

TF-FALSEHOOD: falsehoods are not grounded in what is fundamental.

To keep the discussions focused on the aims of the paper, I shall assume that any exceptions to the claim that all truths require truthmakers (called “maximalism”) must be well-founded.

TF is thus intended to be a contribution to truthmaker theory, by answering (Q1) with “fundamental reality makes truth”. It is intended to be a contribution, too, to metaphysics by allowing us to answer (Q2) with “truthmakers are fundamental”.⁵ Thus if we find the truthmakers for truths, then we discover what is fundamental.

The main rationale for TF-TRUTH is twofold: (1) the way it allows philosophy to be ontologically serious, and (2) its parsimony. Rettler (2016, p. 1424; my emphasis) recently succinctly captures both of these motivations when he writes: about (1), TF-TRUTH “allows us to rely less on language to determine what we ought to be ontologically committed to”; and about (2), “it allows us to say that English sentences that nearly everyone *accepts are true*, but without the ontological baggage that the Quinean view requires”. Both of these points will be presented in more detail in Sect. 5.1 and critically discussed in Sect. 5.2.⁶

There are several ways to understand TF, according to how one thinks of fundamental reality. Before we explore these in Sect. 3, I shall, in Sect. 2, present some preliminary platitudes that any account of truthmaking must accept. Although the main aim of the paper is clarificatory, I shall argue that answering (Q1) and (Q2) with *ontological seriousness*⁷ leads us not to use heavy-weight, fundamentalist and grounding machinery to answer (Q1) for all truths. In fact, using such machinery to explain many truths, including truths about ordinary, non-fundamental reality and truths about metaphysical relations (including grounding relations themselves), does the opposite of what it sets out to do: instead of ontological seriousness, it brings ontological disengagement and arbitrariness, making truth lose sight of what exactly we are talking about. In short, I shall assume that (Q1) and (Q2) are important questions to answer for metaphysics and philosophy generally and argue that the best way to answer each is to answer them separately.

2 Preliminaries: truthmaking

First, some preliminaries about truthmaker theory. Here are several basic assumptions, which I shall assume any version of truthmaker theory must accept.

Truthmaker-dependence (TD): the truthmaking relation (T-REL) is a species of dependence; generally, truths asymmetrically depend for their truth on truthmakers.

Truthbearer-requirement (TB): T-REL is a relation which, given normal linguistic practices, only rarely has truthbearers on both sides of the relation.

Aboutness-requirement (AC): truths are made true by the parts (or aspects) of reality *which they are about*.

⁵ Barnes goes even further when she writes, “fundamentality can be cashed out in terms of truthmakers” (2012, p. 876).

⁶ These are the main reasons for TF-TRUTH generally, although they are presented also as arguments for the specific versions of TF, which I shall introduce later. See Rettler (2016: 1413ff) for his presentations of these arguments. He also provides a third rationale: that it allows us to make sense of cases like Sider’s (2013, p. 8) Nihilism case. There is not enough space to discuss this rationale.

⁷ It will be an assumption running throughout this paper that ontological seriousness is one of the highest virtues. Hence, in a dispute about methodology, *ceteris paribus*, the more ontologically serious method wins.

TD is the central motivating claim at the heart of truthmaker theory. There are, of course, many other kinds of dependence relations which are not *asymmetric*, such as relations of interdependence or mutual dependence or co-dependence. So, it is important to make it clear that T-REL is a generally *asymmetric* sort of dependence. That is, true truthbearers depend for their truth on the being⁸ of their truthmakers, but truthmakers do not depend for their being on the truth of the truthbearers which they make true.

TB expresses the thought that generally, the dependence is a two-place relation with linguistic entities on one side and the parts of *reality* which make these entities true on the other side. Truthbearers are sometimes on both sides of the relation, e.g.

T1: There are many truthbearers in Russell's *The Problems of Philosophy*.

Presumably, the truthbearers in Russell's book are the truthmakers for T1. This is clearly correct, for T1 is *about* these other truthbearers. Thus, it is easy to see that AC is also a central part of truthmaking. Lewis writes, "roughly speaking, truths must have *things* as their *subject matter*" (1999, p. 206; my emphasis on 'subject matter'), and "[a]ny proposition has a subject matter, on which its truth value supervenes" (2003, p. 25). Van Fraassen also puts this in terms of 'signification': "A sentence *A* is true if and only if every fact that *A* describes as being the case (or *signifies*) is the case" (1969, p. 481). Besides its striking intuitiveness, the main philosophical motivation for making AC explicit and thereby fixing what Smith calls truthmaking's "relevance constraint" (1999, p. 279) has been to avoid paradoxical consequences such as contingent facts making true necessary truths even though they have *no relevance* to each other. Consider, for instance,

T2: $2 + 2 = 4$.

T2 is true in all worlds where it exists and where Theresa May's favourite pink shoes exist. Thus, according to necessitation,

Necessitation (NEC): truthbearer *p* is made true by truthmaker *x* iff in all possible worlds where *p* exists and *x* exists, *p* is true,⁹

her pink shoes are a truthmaker for this necessary truth. With AC, we clearly rule out such trivial truthmakers, for ' $2 + 2 = 4$ ' is not about May's pink shoes. Adding AC solves the problem of trivial truthmakers (Restall 1996, p. 333; Lewis 2001, p. 604) and others, such as that of malignant necessitators (Smith 1999, p. 278). Thus whatever account of dependence is given, it must solve these problems with some relevance or aboutness constraint.¹⁰

A variety of different kinds of dependence relations are distinguished not along *symmetry* lines. For example, causal dependence, essential dependence, and constitutive dependence are distinguished along other lines. T-REL is also a dependence relation which must be distinguished from others not just along symmetry lines. Given TB, the dependence involved in truthmaking is not a logical dependence such as entailment, since such relations are between truthbearers, not between truthbearers and

⁸ I say 'being' here instead of 'existence', because I leave it open that truthmakers are not just *entities* but *how things are with the entities*. See Lewis (1992, p. 218) and Dodd (2002, p. 77).

⁹ This is what Merricks (2007, p. 7) articulates as *conditional necessitarianism*.

¹⁰ See Merricks (2007: §2.2–2.3) for an in-depth presentation of the various problems motivating AC. Cf. Schaffer (2008a: 303ff) for some challenges. See also Yablo (2014).

non-truthbearers. It is also generally agreed that the sort of dependence is not a causal one.¹¹ A popular way of understanding TD is that T-REL is a species of grounding. Armstrong, for instance, repeatedly speaks of a truthmaker being an entity which acts as a truth's "ontological ground".¹² He writes, "The truthmaker is whatever it is *in the world* that makes a truth true. Gustav Bergmann and his followers have used the phrase 'ontological ground' and have had the same thing in mind. The idea is an old one" (1997: 13). Rodriguez-Pereyra (2005: 25ff) argues that the *asymmetry* of T-REL is best explained by understanding that true truthbearers require ontological grounds.¹³ One way of understanding these kinds of statements and the approach they encapsulate is that the enterprise of truthmaker theory is of discovering *ontological grounds* for truths. Enter TF.

3 Truthmaker fundamentalism

The basic idea behind TF is to use some "heavy-weight metaphysical" (Schaffer 2010, p. 309)¹⁴ machinery to understand T-REL, specifically in terms of grounding and to understand the makers of truth as necessarily part of fundamental reality. What is common to all versions of TF is that only parts of fundamental reality can be truthmakers and can ground truth. But both 'grounding' and 'fundamental reality' can be understood in different ways. And, these ways can be described independently of any commitments to truth or truthmaking. I shall distinguish two main types of fundamentalism before discussing their consequences for truth: *deflationary* and *inflationary* fundamentalism.¹⁵ I shall then discuss fundamentalism's main consequences for truth generally at the end of this section and then the specific versions of TF which correspond to these two types of fundamentalism in Sects. 4 and 5, respectively.

Inflationists think that reality is layered or has levels: everything that is part of fundamental reality is at one level, but there is at least one other level and perhaps many more levels containing everything non-fundamental, often called "derivative reality".¹⁶ Reality as a whole is ordered by the grounding relation, which relates fundamental with non-fundamental entities, relations, properties, etc. On this picture of reality, fundamental reality has a privileged status, which derivative reality lacks. There are many ways to cash out this distinction, the details of which are not important for our purposes. But to illustrate, one might model the layers of reality based on

¹¹ See Beebe and Dodd (2005: p. 2) and Armstrong (2004: p. 5). A reason for this is that causation is deeply tied with time and process, while truthmaking is not temporal, but instantaneous.

¹² See Armstrong (1978, p. 150, 1989a, p. 9, 1989b, pp. 89, 96, 107, 1989c, pp. 56, 89, 1991, p. 190, 1997, pp. 43, 115, 116).

¹³ See Hornsby (2005) for an extended criticism of Rodriguez-Pereyra's (2005) account.

¹⁴ See also Schaffer (2008a, b).

¹⁵ I follow von Solodkoff and Woodward (2013: 566ff). Also, for the sake of clarity, I want to point out that one can be an inflationist or deflationist without believing in TF. These varieties of fundamentalism are views about whether reality comes in levels. The corresponding inflationist and deflationist versions of TF will adopt the structure of the more general inflationist and deflationist versions of fundamentalism.

¹⁶ See Barnes (2012: p. 878) for a useful diagram which distinguishes different versions of inflationist fundamentalism based on whether there are two levels or more levels.

grounding relations between the objects quantified over by the various sciences: for instance, the objects of special sciences, such as psychology and economics, may be grounded in and determined by the supposedly more fundamental objects of chemistry and biology, which in turn might be grounded in the objects of physics. One might put the distinction also as one between fundamental objects which “carve reality at its natural joints” vs derivative objects which do not match nature’s joints or do this with varying degrees of accuracy (or splintering, to use Plato’s corresponding metaphor).¹⁷ Inflationists introduce a quantifier ‘*really exists*’ or ‘*fundamentally exists*’ which is supposed to carve the world at its joints and match its fundamental structure, leaving the ordinary English quantifier ‘exists’ to butcher reality.¹⁸ Fine makes the distinction between fundamental and non-fundamental with appeal to what he calls “a concept of Reality as it is in itself” (2001, p. 25). To use his example, “though two nations may be at war, we may deny that this is how things really or fundamentally are because the entities in question, the nations, and the relationship between them, are no part of Reality as it [is] in itself” (ibid.). One may also, for instance, accept that it is a fact that one is sitting, “but not accept that this fact is constitutive of how things really are” (Fine 2005, p. 267). Thus, we have a distinction between *merely* existing objects, and *really* or *fundamentally* existing objects.

By contrast, according to the deflationist, reality is not layered and consists only of fundamental reality.¹⁹ As von Solodkoff and Woodward (2013, p. 560) put it, “the distinction between the fundamental and derivative is not a distinction that is drawn *in* the realm of being but a distinction *between* the realm of being and the realm of non-being”. In short, everything which deflationists might call “derivative” is not, as the inflationist would construe it, “*merely existing*”, but just *not existing* at all.²⁰

Let us now bring out the consequences of these different versions of fundamentalism for truth. Truths purely about fundamental reality, that is, *fundamental* truths, must satisfy Sider’s purity constraint on which “fundamental truths only involve fundamental notions” (2011, p. 106). These truths are uncontroversially wholly about²¹ and made true by fundamental reality. The most interesting cases to consider are those

¹⁷ See Plato (1997, *Phaedrus*, 265d–e), Lewis (1983, p. 346), and Sider (2011: *passim*).

¹⁸ See Cameron (2010b, pp. 16, 25) who explicitly introduces the fundamentality quantifier. Though, some trickiness arises in his interpretation of the English quantifier ‘exists’. Despite the inflationist rhetoric, as we shall see in Sect. 5, given that he deflates the ordinary English quantifier to be not ontologically committing, perhaps his strategy is also generally deflationist.

¹⁹ This view is most explicitly defended by Williams (2010: 103ff; 2012: 169ff), but also by Cameron (2010a: 249ff), Melia (2005: 67ff), and Sider (2011: p. 348 and §8; and 2013: 241ff). Bennett (2011, pp. 28–29) captures this view with the thought that “the world is *flat*”. She claims that she has “no knockdown argument against the claim that the world is flat. But every fiber of my being cries out in protest” (ibid., p. 28).

²⁰ For the purposes of this paper, I ignore Meinongians, who believe that there are things which lack being (noneism) and that there are a plurality of ways of being (pluralism), and contemporary noneists such as Routley (1980) and Priest (2005) who, roughly, reject pluralism. They perhaps would say that derivative reality doesn’t exist, but subsists. Meinongianism or noneism is not the same as contemporary fundamentalism.

²¹ See Yablo (2014, p. 14) and Schipper (2018: §4.2.4; and forthcoming: §1.1).

which concern other, non-fundamental truths. Let's start with ordinary truths, such as

T3: Tables exist.

We can safely assume, for now, that tables are not fundamental entities. One can, then, either (a) be an error theorist about such ordinary truthbearers, rejecting them not as truths but as falsehoods, or (b) accept them as true but somehow made true by fundamental entities which are not tables. Fine (2001, p. 2) and Schaffer (2009: §2.1), among others, argue that (b) is the more plausible option, and is the right way to go for metaphysical views on pain of being susceptible to threats which make their rejection trivial. Consider Schaffer on the obvious truth of truthbearers about numbers despite their exclusion from fundamental reality:²²

Here, without further ado, is a proof of the existence of numbers:

1. There are prime numbers.
2. Therefore there are numbers.

1 is a mathematical truism. It commands *Moorean certainty*, as being more credible than any philosopher's argument to the contrary. Any metaphysician who would deny it has *ipso facto* produced a *reductio* of her premises. And 2 follows immediately, by a standard adjective-drop inference. Thus numbers exist. End of story. (2009, p. 257)

1 is well-founded and widely accepted as true (not just by commonsense but by mathematicians) and the inference from 1 to 2 is valid and perfectly ordinary since it uses a standard adjective-drop inference. So, 2 should follow uncontroversially and validly. These types of arguments for the existence of non-fundamentals are easily constructible and use standard, valid inferences. For instance, we can also present a similar one-premise argument in support of T3:

3. Jack the carpenter made twenty-three mahogany tables last year.
- Therefore,
4. Tables exist.

3 is a fact, and since making something results in what is made existing, 4 follows uncontroversially.²³ Error theorists about some specific domain (e.g. numbers or tables), who will want to resist the conclusions of these arguments (e.g. 2 and 4), are left with a dilemma: either (a) also reject the premises of the relevant arguments, and thereby clearly clash with (Moorean) commonsense, or (b) accept the premises and explain why very standard inferences are not valid for talk about the objects of

²² Let's go along with the plausible idea that numbers are not fundamental.

²³ This argument mirrors Schaffer's (2009, p. 359) more controversial argument for the truth of 'Sherlock Holmes exists' via the premise 'Arthur Conan Doyle created Sherlock Holmes', which apparently also commands *Moorean certainty*. The existence of tables is less controversial than the existence of fictional objects. This will become relevant in Sect. 5.2.

the domain in question.²⁴ Both options are not attractive and deeply problematic.²⁵ Further, given that the premises command Moorean certainty, any argument that the error theorist might wield will most likely start from far more controversial premises than those of commonsense.²⁶ To sum up, denying claims like 1–4 would be to clash with Moorean certainty, and this is fairly universally acknowledged to have deep costs. Denying only the conclusions would be just as, if not more, problematic as one would have to deny standardly valid inferences (such as those from 1 to 2 and 3 to 4), which runs the risk of undermining our ability to rely on normal arguments to establish conclusions in philosophy and in everyday life.

What should TF-ists say about T3? The first thing to reiterate, to be absolutely clear, is that one can be a fundamentalist of either kind without being a TF-ist. One can accept either that reality is layered or not while not thinking that truths are made true by fundamental reality.²⁷ For instance, one may be a fundamentalist while not accepting any version of truthmaker theory or while accepting a standard pluralist version of truthmaker theory on which both fundamentals and non-fundamentals can be truthmakers. Both clash with TF-TRUTH, which requires not only an acceptance of truthmaking but also that only fundamentals (and not also non-fundamentals) are truthmakers. Indeed, something that motivates the TF-ist is the *prima facie* efficiency of answering (Q1), “What makes truth?”, and (Q2), “What is fundamental?”, together (see Sect. 1): if the TF-ist is successful, she will have solved two problems with one answer, picking two flowers with one hand.

With this distinction between two types of fundamentalism in place, we can now articulate two corresponding versions of TF:

²⁴ Lipman (2016, p. 2), supposedly following Dorr (2010: paragraph 6), goes even further and argues about Schaffer’s argument that error theorists would clash with the “relatively uncontroversial role of argumentation in philosophy” and “If even a simple argument like this fails to establish anything, one starts to wonder how anything can be established by the sorts of argumentation that we philosophers engage in”. Thus, if Lipman is right, there might also be a risk of clashing with our ability to use standard inferences generally. However, this does not seem to be a problem for the error theorists and nihilists who will reject both the conclusion and the premises, since doing so will allow them to accept the inferences as valid. I thank an anonymous reviewer for discussion here.

²⁵ Just to be clear, I am not suggesting that this is an insuperable challenge. See Sect. 5.2 for further suggestions potentially favourable to the error theorist. An error theorist might, for instance, try to block standard inferences using quantifiers by utilising Hofweber’s (2005) distinction between two types of quantification: internal and external, of which only the latter range over and are about a domain of entities. He (ibid., pp. 219–220) argues that numerical terms are not referential expressions and that numerical quantifiers should be understood internally: they are not about a domain of entities and, instead, are governed by their inferential role. See also Hofweber (2016: §5, esp. p. 148) and Carnap (1956, p. 206) for the distinction between internal and external questions about what there is. An error theorist about numbers may argue, for instance, that 1 and 2 are false on the external reading and true on an internal reading where they do not range over any entities. However, this is not a strategy that standard error theorists about numbers (such as Field 1980 and 1989) or other domains such as morality (e.g. Mackie 1977, p. 77) would take, for such theorists argue in the following way: (1) the truth of these sentences require that numbers (or moral values) must exist as entities for these sentences to be true, and (2) such entities are very strange (too strange in fact to exist); so, (3) there are no numbers (or moral values) and (4) those sentences are systematically false. Thus, the standard error theorist seems to read the quantifier externally.

²⁶ However, see Sect. 5.2 for suggestions in favour of the error theorist on this issue between the relative plausibility of commonsense vs error theory.

²⁷ For instance, Melia (2005: 67ff) and Sider (2011: p. 348 and §8; and 2013: 241ff) are deflationist fundamentalists but would most likely reject TF.

Deflationary TF (Deflationism or DTF, for short): accepts TF-TRUTH and takes reality to be exhausted by fundamental reality.²⁸

Inflationary TF (Inflationism or ITF, for short): accepts TF-TRUTH and takes reality not to be exhausted by fundamental reality (rather, it consists of both fundamental and non-fundamental reality).²⁹

These are both versions of TF. So, both deflationists and inflationists believe in TF-TRUTH, that truthmakers are necessarily fundamental entities. The distinction, however, is exclusive and exhaustive for the central difference between them is that DTF takes reality to be exhausted by what's fundamental, while ITF does not. So, one cannot accept both DTF and ITF without contradiction (exclusivity). And one cannot be a TF-ist without (ultimately) holding one of these views (exhaustiveness).³⁰ Part of the main aim of this paper is to bring conceptual clarity and order into what TF can say about non-fundamental truths such as T3. The discussion will be organised broadly along these two lines. In regard to T3, the central difference is: since we can assume for now that tables are not fundamental, according to the deflationist, tables do not exist, while according to the inflationist, they do exist, although they *merely exist* and thus do not exist fundamentally. What might the deflationist and the inflationist TF-ist say in regard to the truth and the truthmakers for T3? Now that I have introduced this novel distinction between two different exclusive and exhaustive versions of TF, I shall sketch what each has to say about T3, deflationary TF in Sect. 4 and inflationary TF in Sect. 5, and argue that both have significant problems.

Before I proceed, I want to stymie a potential cause of confusion. TF-ists up until now have mostly been inflationists. However, in their writings, they often seem to oscillate and equivocate between these two versions of TF. Influential examples include Heil³¹

²⁸ See especially Cameron (2010b: 16ff) and (2008a, p. 5). Insofar as Heil rejects the levels conception of reality, he might also be best interpreted as a deflationist, for, as we saw above, the idea that reality is exhausted by fundamental reality is often expressed by the rejection of the view that reality is layered or comes in levels. See especially (2003: Chapters 4 and 5) and (forthcoming: §1). He (ibid, p. 7) also explicitly argues that ordinary objects such as trees are not any less fundamental than fundamental particles. He writes, "There is but one reality, one universe, but many, equally legitimate, ways of dividing it up and counting its parts" (ibid., p. 11). All this suggests that he could be interpreted as a deflationist, at least in these texts and passages. As I note at the end of this section, however, both Cameron and Heil might also be best interpreted as inflationists, based on other things they say.

²⁹ The main ITF-ists include Schaffer (2008a, b, 2009, 2010) and Heil (2003). Although Barnes (2012, p. 877) articulates ITF's application to non-fundamental truths very clearly and helpfully (I present the relevant quotation at the beginning of Sect. 5), she is explicitly neutral about whether deflationism or inflationism is the right version of fundamentalism.

³⁰ I say 'ultimately' here because TF is *prima facie* compatible with agnosticism about whether or not reality is layered. However, one way to understand Heil and Martin's insistence on the need for "an infusion of ontological seriousness [...] in philosophy generally" (1999, p. 35) is that agnosticism is not enough: one must ultimately come down on the hard metaphysical issues such as whether or not reality is layered. I would think that this is especially pressing for TF-ists. See also Cameron (2008b, p. 124) who says that TF-TRUTH "in the absence of a story about what features of the world are in fact fundamental [...] doesn't really say anything much of interest". So, I shall assume that agnosticism is not an option ultimately. However, see Rettler's (2016) defence of what he calls the "General Truthmaker View" as opposed to the "Specific Truthmaker View" (2016: *passim*; see especially §6).

³¹ See citations above and below, especially concerning his rejection of the layered conception of reality. Interestingly, in a recent paper on these issues (forthcoming: see esp. §2), he tries explicitly to reject some ways of expressing fundamentality and grounding as unhelpful ways of talking. He does, however, allow

but especially Cameron:³² although in general they are probably best understood as inflationists (see below), they sometimes talk like deflationists or defend seemingly deflationist positions. Since the views exclude each other, TF-ists should come down clearly on either side if they want to defend a sufficiently fleshed out and coherent version of TF. If authors have perhaps unknowingly equivocated and fluctuated between them in the past, the hope is that this distinction will, among other things, help them avoid doing so in the future—but this will also mean facing their problems.

4 Deflationary TF

For deflationists, given that tables are not fundamental entities, reality is such that there are no tables. One might expect that, to give DTF the best run for its money and the fairest shake possible, the deflationist should be presented as rejecting T3, ‘Tables exist’, as false. If there are no tables, then truthbearers stating that there are *are* false. The immediate problem that arises with this stance towards T3 is that it runs afoul of Moorean certainty and hence comes with the deep costs that come with this.

The alternative DTF-strategy would be to accept T3. The problem that this strategy faces is this. If T3 means that tables exist, and tables are not fundamental and thereby, according to DTF, tables do not exist, then DTF faces a straightforward contradiction.

Cameron (2008a, p. 5), however, thinks that being able to accept T3 is one of the main attractions of TF: that it allows one to be “nihilist” about ordinary entities such as tables but “universalist” about truths about them, for such truths are made true by fundamental reality. The DTF-ist gets to avoid clashing with Moorean certainty, for she can accept T3, but does not need to posit non-fundamentals such as tables into her ontology. The most straightforward interpretation of this strategy is deflationist. We have a combination of three views: (1) tables do *not* exist (nihilism), (2) ‘There are tables’ and T3, ‘Tables exist’, are true (universalism), and (3) these truths are made true by what’s fundamental (TF-TRUTH). Cameron explicitly states that this is an “intuitively [...] very attractive option”(ibid.). But how attractive is it really?³³

According to this DTF-strategy, T3, ‘Tables exist’, is true, but the only ontology that’s out there to make it true is fundamental ontology (perhaps this contains only subatomic particles arranged in various ways) since the derivative objects (the tables) don’t *really* exist. So, when one says that tables seem to be the truthmakers for T3, the deflationist would flatly deny this, since given what’s fundamental, there are no tables to make it true. Instead, fundamental entities are the best candidates for truthmaking

Footnote 31 continued

talk of grounding as ontological dependence. Ontological dependence is often taken to be systematically linked to fundamentality and grounding; talking about one is a normal alternative way of talking about the other [Heil (ibid.) admits as much. See Correia and Schnieder (2012: esp. §4.3) who point out that this is the traditional take on dependence arguably going back to Aristotle.]

³² See especially Cameron (2008a: 5); I discuss a key passage in Sect. 5.1 and at the beginning of Sect. 4 below. I thank an anonymous reviewer for an extensive discussion of Cameron in which the reviewer argues that Cameron often equivocates. I cannot repeat their arguments here. I welcome them to argue for this in further detail elsewhere.

³³ See also Sects. 5.1 and 5.2 for further discussion of this point by Cameron.

since they are the only candidates.³⁴ But, given that T3 is clearly about tables and not, for instance, about fundamental particles, it seems that deflationism must reject AC, one of truthmaking's central constraints.

How might the deflationist respond? Since the deflationist does not take there to be a distinction between fundamental and non-fundamental reality, she does not have recourse to the normal machinery of grounding. For instance, the deflationist cannot claim that T3 is made true by fundamental particles arranged table-wise because tables are grounded in fundamental particles arranged table-wise, since there are no tables. She needs a story about why it's plausible to think that T3 is made true by these fundamental particles despite its not being about these particles and despite the particles not grounding anything that it is about. The sense of the groundedness of truth which the deflationist must employ in her account of truthmaking must then be able to say why fundamental entities can make truthbearers true which are not about them and also explain the earlier problems of trivial and malignant truthmakers, e.g. explain how necessary truths such as ' $2 + 2 = 4$ ' are grounded for their truth, and not grounded in any old fundamental particles (e.g. the ones inhabiting the space of May's pink shoes). Without such an account, which in fact is not forthcoming,³⁵ TF will be straddled with the problem of trivial truthmakers (and other related problems). And whatever fundamental entities the fundamentalist tries to provide as the candidate truthmakers both for ordinary and necessary truths runs the serious risk of being arbitrary or question-begging.

Another response would be for the deflationist to take a paraphrase strategy and argue that T3 in fact means something completely different from what we thought it means and is in fact about fundamental reality, e.g. about subatomic particles arranged table-wise. However, this completely severs the link between aboutness and ordinary understanding. We could, then, only understand claims such as T3 *after* we discovered subatomic particles. In fact, we may not yet have the right theory of fundamentality. In this case, we would fail to understand T3. This seems implausible and makes the ordinary understanding of simple sentences too reliant on fundamental metaphysics.

³⁴ For instance, Cameron (2010b: 16ff) argues that fundamental entities or what he calls "real existents [what *really* exists] are the *truthmakers* for the true sentences of English" (ibid.: 16).

³⁵ In fact, Cameron (2008b: 23f), a leading fundamentalist, argues that such truths are ungrounded. He argues that necessary truths such as mathematical truths, including existential ones (e.g. 'there is a prime number between 8 and 12'),

are 'trivial' in the sense that, in not requiring an ontological ground, their truth simply makes no demands on the world and that's why they're necessary. And of course, as a result it's necessary that there are numbers [...though,] there aren't *really* any numbers: the mathematical truths don't demand there to be *any* real existents – they don't demand *anything*! (ibid.)

The basic idea seems to be that since these truths are true in all worlds, no way any world really is could affect whether or not they are true. Hence, they require no truthmakers. Although Cameron is a fundamentalist, this strikingly seems to be a straightforward counterexample to TF. And nothing is said about why mathematical truths might constitute an exemption from truthmaking (except that they are necessary and thereby undemanding). I think that, in fact, this is a promising solution to the problem of necessary truths. However, if necessary truths are exempt from TF on the basis of what they demand of reality, then one should wonder why non-fundamental truths are not similarly exempt on the basis of what they demand of fundamental reality, that is, nothing.

As a third option, the deflationist could respond by rejecting the initial assumption that tables are not fundamental entities. In fact, they might say that because we have discovered that tables must exist, for they are the truthmakers for truths such as T3, we have discovered that tables must be part of fundamental reality. Although this fits perfectly well with the deflationist vision of fundamental reality, this is also clearly problematic. It would mean that everything that we can genuinely talk about with truth is fundamental. And given that according to the deflationist, nothing is more fundamental than anything else, the notion of fundamentality seems to be empty. For there now seems to be no special reason to talk about fundamentality at all, rather than, say, mere existence. Also, to claim that tables must be fundamental merely because T3 is true and commands Moorean certainty would be in direct conflict with one of the central reasons for adopting fundamentalism and truthmaker theory in the first place: ontological seriousness. It would mean that we get things backwards, we would be reading off not just features of the world but features of *fundamental* reality from features of our representations in an objectionable way.³⁶

The general problem for deflationary theories seems to be this: they are *nihilist* about what is not fundamental. Yet many ordinary claims tend in fact to demand that the world is some way or, especially in the case of existential truths such as T3, that some things exist. Unlike the inflationist, who can be non-nihilist about the aspects of reality which these truths are about, and who, hence, can include tables into their ontology, the deflationist faces a contradiction. Given that (i) T3 is true (with Moorean certainty) and (ii) if T3 is true, then T3 (this is a simple application of the left-to-right direction of the Truth Schema: if ‘ ϕ ’ is true, then ϕ), then (iii) T3, that is, there are tables. But according to the deflationist (whose fundamentalism requires that if $\neg(\text{in fundamental reality}, \phi)$, then $\neg\phi$), given that (iv) $\neg(\text{in fundamental reality}, \text{T3})$, (v) $\neg\text{T3}$, that is, it is not the case that there are tables. Thus, we have a straightforward contradiction [between (iii) and (v)]. The overall point is that we should be able to rule out *nihilists* from our discussion, for they would and *should* say that such truthbearers are false. For if tables do not exist, then truthbearers such as ‘tables exist’ should not be true on any reasonable theory. But as we saw, this contradicts Moorean certainty. The deflationist must either (a) have very strong reasons to reject the obvious truths which command Moorean certainty but thereby incur deep costs and perhaps also run the risk of undermining our ability to use normal inferences in our arguments, or (b) accept everything that our obvious truths are about into the realm of fundamental ontology, running the risk of deflating not just non-fundamental reality but also fundamental reality. This dilemma is at the heart of the problem with *deflationary* TF strategies.

Perhaps the inflationist fairs better.

5 Inflationary TF

Consider the following central claim articulated by Barnes (2012, p. 877) which applies ITF to non-fundamental truths:

³⁶ See Heil (2003: 5ff), Dyke (2007, p. 10) who calls this “the representational fallacy”, and Cameron (2010b: 11).

ITF on Non-Fundamental Truths: “For any derivative entity x , ‘ x exists’ is true but made true, not by x , but by some collection of fundamental entities $y_1 \dots y_n$ ”.³⁷

A consequence of this claim is that no tables, assuming that they are derivative and not fundamental, make true truthbearers such as T3 ‘Tables exist’. Only fundamental entities make them true. However, this is clearly an inflationary strategy, for it accepts the existence of derivative, non-fundamental entities such as tables. Unlike the deflationist, the inflationist is not a nihilist and will agree that *tables* exist and are part of our ontology albeit as non-fundamental entities. Given that tables exist and are not fundamental, a pressing issue arises: the inflationist must explain why being non-fundamental rules them out as truthmakers.

Since tables have a much more obvious link to truthbearers about them than, say, the atomic particles out of which tables are composed, they seem *prima facie* to be the obvious candidates for truthmaking, especially if they exist. To ignore the obvious existing alternatives brings in an element of ontological arbitrariness and a puzzling disengagement with what the truthbearers are about. I’ll call this *the problem of the existing alternative*. I shall consider some responses. First, that an account on which all the truthmaking work is done at the level of fundamentals is more parsimonious and ontologically serious than alternatives. As a final response, I consider the best *specific* inflationist account, one which understands fundamental reality in terms of fundamental physics. I shall argue that this cannot satisfactorily address the problems I’ve raised, and draw out a general problem for fundamentalist approaches to truthmaking.

5.1 The argument from parsimony and seriousness: *the ontological commitment strategy*

Inflationists³⁸ explicitly hold that T3 is true, that indeed tables exist, but that tables don’t make the truthbearer true, because they aren’t fundamental. One influential strategy is to claim that the truthbearer is not ontologically committed to tables; we are only ontologically committed to truthmakers, understood always as fundamental entities. Thus, even though they exist, they are derivative and do not come at any theoretical cost. For tables (and other complex objects) are an ontological free lunch,³⁹ meaning they need not be included as part of our ontology even though they exist, because claims about their existence are made true by fundamental entities that *really* exist.

This is clearly a *revisionary* view of ontological commitment and of ontology. The standard view is that we are ontologically committed to what our best theories say *exists*, and our ontology contains *everything that exists* (and not just what’s fundamental). The inflationist strategy, instead, restricts our ontological commitments and ontology to what we take to be fundamental (and not also whatever else we take to exist). The inflationist takes what *merely* exists to be derivative, an ontological free

³⁷ This is perhaps the clearest and most basic statement of inflationary TF in the literature (also, henceforth, when I talk of inflationism, I shall mean inflationary TF unless otherwise specified). Further possible details which an inflationist can add to this will emerge in the coming pages. Prominent TF-inflationists include Schaffer (2008a,b, 2009, 2010) and Heil (2003).

³⁸ E.g. Cameron (2008a, p. 6).

³⁹ See Cameron (2008a, p. 13).

lunch, of no theoretical cost (or value), and hence to be excluded from our ontological theorising. This will of course strike normal ears accustomed to standard ways of speaking about ontological commitment and ontology as very odd and incoherent: we are told that tables exist but are not part of our ontology. However, this would be a result of not realising that this ITF-strategy proposes to think and talk about ontology and ontological commitment in a revisionary, fundamentalist way. But why think that this is a good way of thinking and speaking?

Rettler (2016) defends exactly this view of ontological commitment and truthmaker theory, saying that

On my view, the truthmaker theorist ought to deny [the following]: if *S* believes that statues exist, then *S* is ontologically committed to statues. She should think that existence claims come apart from ontological commitments [...]. The best way to deny [this] is to think that we are only ontologically committed to the fundamental, and that all and only the truthmakers are fundamental. [...] The truthmaker theorist thinks that there are many things that our English sentences say exist, but these things aren't the truthmakers for those sentences. Rather, some other things make those sentences true, and those things—the truthmakers—are the fundamental things, in virtue of which true English sentences are true; this is the version of the truthmaker view that I accept. (ibid., pp. 1411–1412)

We already saw in Sect. 1 what Rettler takes to be the main advantages of this view. Cameron argues that this strategy accepts an “intuitively [...] very attractive option: that the nihilist is right about the ontology but that the universalist is right about what sentences are true” (2008a, p. 5). Previously (in Sect. 4), I gave this quotation a deflationist interpretation (which is the natural interpretation, given standard views of ontology). On that interpretation, this motivation for TF had failed to convince. However, the inflationist interpretation is probably the intended interpretation. On this interpretation, “nihilism about tables” consists not in thinking that tables don't exist, but that they are to be excluded from our ontology and are not part of our ontological commitments. This must, then, be interpreted in the revisionist way: our ontology contains only what is fundamental, and not just everything that exists.⁴⁰

The reason why this is apparently so attractive is that this allows us to avoid the consequence that “serious ontological questions are being decided by linguistic facts [...i.e.] the Quinean idea that we have to resist the literal truth of ‘there are tables’ if we want to avoid ontological commitment to tables” (ibid.). A sum of simples (or whatever else is fundamental)⁴¹ does the truthmaking and not the derivatively existing tables because only fundamental entities, which *really* exist, are part of our ontology and our ontological commitment. The strategy is supposedly attractive because it is (a) *ontologically serious*: we figure out what the truthmakers are by doing ontology rather than being held hostage to language; and (b) *parsimonious*: there's no double-counting.

⁴⁰ I thank an anonymous reviewer whose penetrating comments pressed me to say more about ontological commitment so that the reader, as the reviewer writes, isn't “duped” by the fact that the TF-ist's talk of ontological commitment can “trend either in an inflationary/deflationary way”.

⁴¹ Cameron (ibid, pp. 13–14) claims that other theories of fundamentality, including those on which only macroscopic objects are fundamental, are compatible with what he says.

For instance, truthbearers such as ‘tables exist’ don’t require tables as truthmakers, just fundamental entities discovered by doing ontology.⁴²

5.2 Reply: *The standard approach is ontologically just as parsimonious and even more serious*

The fact that this strategy is, according to Cameron (2008a, p. 5), explicitly nihilist about non-fundamental ontology means that it comes with the problems raised for deflationism in the previous section; it doesn’t matter if the nihilist is understood either in a standard or revisionary way. These problems strike at the heart of the ontological commitment strategy’s understanding of the relation between *ontological seriousness* and language. Its way of being ontologically serious and of freeing ontology from the tyranny of language is to accept that ‘tables exist’ is literally true while rejecting that this has ontological commitment. On the standard interpretation this would mean that one would be able to accept that tables don’t exist. However, this entails a straightforward rejection of ‘if ‘tables exist’ is true, then tables exist’, which is a simple instance of the left-to-right direction of the Truth Schema: if ‘ ϕ ’ is true, then ϕ . This rejection of the Truth Schema is in itself problematic. But if this is the right way to be ontologically serious, perhaps we must accept it.⁴³

On the revisionary interpretation, one would be able to accept that tables exist, but one would claim that tables are excluded from our ontology by not being fundamental. The trouble with this is that this just shifts how we talk about ontology with no clear added benefit, neither in general nor for the TF-ist. Inflationist fundamentalists think that tables exist and are not fundamental—this is the case whether or not they accept this strategy and TF.⁴⁴ Both the non-TF-ist and the TF-ist can agree on what exists and also on what is fundamental. This TF-ist strategy with its revisionary interpretation of ‘ontology’ and ‘ontological commitment’ merely excludes tables from our ontological commitments and ontology because they are not fundamental. But it seems rather dubious to think that this is more ontologically serious and parsimonious if nothing in reality is different. Thus, since reality stays exactly the same, this seems not to be a matter of ontological substance but of labelling. And since reality is the same for the TF-ist and the non-TF-ist, there is no advantage in terms of parsimony.⁴⁵

⁴² These motivations for ITF reflect also how I understand what Rettler takes to be the main advantages of his TF-based version of ontological commitment. See Sect. 1 above.

⁴³ Just to be clear, I’ll argue that it’s not the right way to be ontologically serious.

⁴⁴ Recall, inflationist fundamentalists need not accept TF.

⁴⁵ I thank an anonymous reviewer for helpful comments which led me to disentangle some of the strange things that the TF-ist is saying here; the reviewer colourfully said that “Playing around with ‘ontological commitment’ is just another way of trying to muddy the waters to the TF-ist’s advantage”. Also, the same reviewer suggested another potential response from the ITF-ist: “My ontology is the same as yours (by which I mean we agree on what exists). It’s just that fewer things in my ontology are truthmakers. For you, presumably, everything is a truthmaker. For me, it’s just my fundamentals. So therein we find the advantage for my view: I have fewer truthmakers!”. The counter-response is that, again, there is no advantage in terms of ontological parsimony because reality is identical for the TF-ist and the non-TF-ist. One might, then, suggest a special parsimony principle involving truthmakers: the fewer the truthmakers, the better. In response: (i) it is unclear that the TF-ist indeed has fewer truthmakers than the non-TF-ist; but more

A central part of the argument for this strategy is that it is a significant improvement over its main competitor: the standard ontological strategy (SOS, for short).⁴⁶ It is argued that this strategy is not ontologically serious and is in the grips of linguistic tyranny, for, as Cameron argues above, its way of avoiding an ontological commitment to tables is to resist the literal truth of ‘there are tables’. The main problem with this argumentation and the strategy generally is that it is perfectly ontologically serious to take oneself to be avoiding an ontological commitment to tables merely by resisting the literal truth of ‘there are tables’. Ontology will not thereby be hostage to linguistic facts. Let’s say our best theory of the world dictates that there are not any tables and other macroscopic entities on the basis of, say, a distinctly metaphysical line of argumentation to do with the indeterminacy of their identities. The standard theorist would then be right to insist that we should resist the literal truth of T3. For if there are no tables, then nothing should make true the claim that there are tables, even if, as Schaffer claims, this commands Moorean certainty.

We may not be able to accept this rejection of the truth of T3 because of the conflict with Moorean certainty and the potentially accompanying problems for argumentation, but that is beside the point: it seems much more ontologically serious to think that if there are no tables, then nothing makes true the claim that there are. Epistemology should not hold ontology hostage either. The fundamentalist allows us to accept the truth of truthbearers such as T3 for reasons such as that they command Moorean certainty, while claiming that what they are about doesn’t really exist, and according to deflationists, doesn’t exist at all. This is not ontological seriousness but rather an instance of trying to have one’s cake and eat it. Specifically, it’s not taking either existence claims or existence itself ontologically seriously.

The tension between a fundamental ontology without tables and the truth of ‘there are tables’ is perfectly well-founded. What SOS demands is merely that what we take to be true should reflect our best theory of everything. Language should describe how things are in the world, which is discovered by our best science and our best metaphysical reasoning, and is then regimented by our best logic for the greatest ontological perspicuity. Ontological seriousness requires us not just to put ontological reasons before linguistic reasons, but that our language, especially our positive factual descriptions of reality, respects our ontological knowledge. If there are really no tables, then nothing should make true truthbearers which state that there are tables. The option that Cameron (2008a, p. 5) takes to be intuitively attractive, that we can accept both the literal truth of ‘there are tables’ (what they call universalism) and not accept tables into our ontology (nihilism), may be parsimonious in regard to ontology, but it also allows for a mismatch between truth and how things are.

Compare

T4: The average toddler is larger in 2017 than in 1917.

Footnote 45 continued

importantly, (ii) there seems no reason to think there is such a special truthmaker-based principle of theory choice.

⁴⁶ Cameron called this the “Quinean idea” (2008a, p. 5). But since some standard truthmaker theorists would not self-identify as Quinean, I shall call this the “standard ontological strategy”.

It would be ontologically naïve and wrong to think that T4 is committed to the existence of an entity *the average toddler*. What makes the truthbearer true are facts to do with the relation between the sizes of toddlers in 2017 and in 1917 divided by the number of toddlers in those years. It would be wrong to think that the truthbearer

T5: There is an average toddler in 2017 and there is an average toddler in 1917 and the former is larger than the latter.

is made true by the same truthmaker. For not only does T5 not present the right logical form of T4, but it is false. It has an ontological commitment to average toddlers when the first is neutral about such a commitment. If there are *really* no average toddlers and similarly *really* no tables, then there is something wrong with the language we use and our theory of truthmaking if anything makes true ‘there is an average toddler’ and ‘there are tables’. Such a language is not perspicuous and hence not ontologically serious. The standard ontologist doesn’t hold ontology hostage to language. Instead, she asks us to make sure that our language takes the way the world is seriously by being able to describe it accurately and perspicuously.

Further, this stance is also parsimonious for there is no double-counting of truthmakers. In fact, if there are no real tables then there shouldn’t be *any* counting of truthmakers at all, let alone any double-counting.

Also, if the nihilist is wrong and tables do exist, then there is no double-counting either. For, we are back at the original puzzle, which the inflationary TF-ist still needs to answer: why should anyone think that ‘tables exist’ is made true by fundamental particles out of which tables are composed rather than the tables themselves? The fundamental particles can make true claims such as ‘the fundamental particles out of which tables are composed exist’ and they contribute to making true claims such as ‘the tables are composed out of those fundamental particles’, but not ‘tables exist’, since that truthbearer isn’t about and doesn’t describe any fundamental particles, only tables. The existing alternative option counts just the existing tables as the direct truthmakers of ‘tables exist’, and the fundamental particles as, at best, indirect truthmakers by virtue of their grounding the tables. Thus, this non-fundamentalist approach to truthmaking is not just ontologically more serious than the fundamentalist, but it is also just as parsimonious.

The TF-ist might respond by reminding us of her main motivations for introducing the fundamentality quantifier as the ontologically committing quantifier and for denying both that the normal English quantifier ‘exists’ is ontologically committing and that Quine’s supposedly ontological question of what there is⁴⁷ is even an ontological issue. According to Cameron, existence questions are purely linguistic/conceptual matters, that is, that whether or not tables exist is purely a matter of usage. He writes, “the meaning of ‘exists’ is such that ‘there exist tables’ is true, because this just fits *so much better* with our usage: it doesn’t have us speaking falsely almost all of the time!” (2010b, p. 16). He also argues for this in terms of pragmatic efficacy: “Even if we knew that our world was the nihilist world, we wouldn’t aim to only speak of simples, their properties and the relations that hold between them: that’s simply impractical” (ibid.). The problem with this response is that it is just a weaker version of the Moorean

⁴⁷ See Quine (1948, p. 21).

point, put in terms of usage and what's practical to do. There's a difference between taking us to be speaking *truths* for pragmatic reasons, and for us to say things for pragmatic reasons but understanding that what we say is strictly speaking false but acceptable for pragmatic purposes. This is, in fact, at the heart of fictionalist strategies: they take pragmatic considerations seriously by taking them not to dictate that we are speaking truly, but merely that we can accept falsehoods for pragmatic purposes. Cameron, by contrast, is letting pragmatic considerations dictate truth. An alternative way of thinking of ontological seriousness to that of Cameron, which accepts the core anti-linguistic idea behind ontological seriousness, demands that the correct ontology (and science) dictate truth, leaving pragmatics perhaps to dictate usage in the face of falsity.⁴⁸ This is being both pragmatically responsible and ontologically serious about truth.

To illustrate this alternative SOS picture of ontological seriousness further, it is revealing to point out an issue with the desire, *ceteris paribus*, to accept truths such as T3. Schaffer wields several arguments such as the argument for the existence of numbers and the existence of tables which I presented in Sect. 3. Here is another one:

5. Arthur Conan Doyle created Sherlock Holmes.
- Therefore,
6. Sherlock Holmes exists.

Compare this to the following argument:

7. Arthur Conan Doyle completely made Sherlock Holmes up.
- Therefore,
8. Sherlock Holmes doesn't exist.

The argument from 5 to 6 is Schaffer's (2009: p. 359). He takes 5 to be a literary fact and that 6 follows because to create something is to make it exist. This is apparently commonsensical. However, 7 is also a literary fact, and 8 follows from it because to completely make something up is for that thing not to exist. This is also commonsensical. How should the TF-ist proceed?

If she takes both 6 and 8 to be made true by fundamental reality, then fundamental reality can make true contradictions as well, for if fundamental entity X makes true 6, p , and fundamental entity Ψ makes true 8, $\neg p$, then X and Ψ together make true $p \wedge \neg p$. If she takes only one to be true and made true, then we are back at the arbitrariness of truthmaking on the TF-picture. The history of metaphysics is also the history of deep puzzles which reveal contradictions and inconsistencies within the commonsense conceptions of the world. Consider *the problem of the many*.⁴⁹ According to commonsense, there is just one cloud in the sky right now (I see just one cloud!). But, according to commonsense, clouds are collections of water molecules

⁴⁸ Even our best scientific practices rely on models, idealisations, and thought experiments to foster epistemic functioning despite a widespread understanding that they are mere idealisations and hence not true. Elgin calls these "felicitous falsehoods [which] function as cognitively useful fictions" (2004, p. 113). To understand the epistemic and cognitive importance of these falsehoods, we must accept them for what they are. It would be to misunderstand their importance, as the TF-ist does, to demand as true what basic truth-principles coupled with our best science would take to be false.

⁴⁹ See Unger (1980).

and there are many collections of water molecules in the sky right now. So, there are also many clouds in the sky right now. Again, there being just one cloud and there being many clouds is inconsistent. Whatever the right resolution is to these puzzles and to these conflicts of commonsensical intuitions and arguments, once we settle them with hard metaphysical, and perhaps also scientific, work, we'll have an answer either way. The non-fundamentalist truthmaker picture of ontological seriousness is to demand that everyday talk reflect how the world is such that, if there are no clouds in the sky, then truthbearers such as 'there is a cloud up in the sky' are not made true, but are, instead, false. This is ontologically far more serious than to think that all or even a subset of these claims are true and made true by fundamental reality, and especially if it is purely for pragmatic reasons.

Further, standard ontologists need not be afraid of error theories and the possibility of nihilism concerning the objects of commonsense, especially if it turns out that there are good metaphysical and scientific reasons for rejecting commonsense. TF-ists, on the other hand, will confront existential problems, that is problems undermining the value of being a TF-ist. In the absence of the Moorean arguments, if we are convinced not to accept ordinary objects either as derivative or otherwise, then we would lose the main reason for thinking that reality is layered and that there is anything other than what's fundamental. This would lead the TF-ist straight to deflationism, with its accompanying problems. And this, in turn, would clearly be problematic for inflationary TF, for if deflationism is right, then inflationism cannot be. But, as we saw, the deflationist would have to decide between rejecting or accepting T3. And, accepting T3 leads the deflationist to contradiction and incoherence or to the vacuousness of 'fundamental'. Rejecting T3 will have a similar problem. If there is no longer a distinction between *merely existing* and *really existing* and everything that exists is fundamental, then what's the point of talking about fundamentals rather than just what exists? This is also a problem if there are no tables,⁵⁰ for then talking about what *really exists* or what *exists fundamentally* seems redundant. Why not just talk about what exists? These are not good results for any TF-ist. Thus, SOS fairs better generally, and can, in the face of strong metaphysical arguments against commonsense, take the ontologically serious path of embracing nihilism, while this would be problematic for TF-ists of either sort.

5.3 Inflationism and fundamental physics

Consider the following quotation:

I am inclined to think that 'this is a statue' can be, and often is, literally true. What makes it true is a complex, dynamic arrangement of particles [...] We cannot hope to paraphrase, translate, or replace talk of statues with talk of such collections. Even so, it seems clear that, with few exceptions, objects like statues that populate our everyday surroundings owe their existence to arrangements of more ultimate constituents. (Heil 2003, pp. 53–54)

First, the view described above is not of an error theorist concerning talk not directly about the "ultimate constituents" of reality—truthbearers such as 'this is a statue' are

⁵⁰ And not just if the TF-ist is forced to take tables to be fundamental, as I argued in Sect. 4.

literally true. Second, it is not reductionist about such truthbearers either. Talk of tables is not reducible, in any way, to talk of ultimate reality. Third, truthmaking does the work that ontologists had hoped reductionism would do. Talk of non-ultimate reality is *made true* by ultimate reality, and this is, at least in part, because things such as tables and statues owe their existence to “arrangements of more ultimate constituents”.

This final view we shall consider argues further that ontology is the study of truthmakers and not just the study of all that exists or of the ontological commitments of our best theories of the world. Heil explains:

Ontology enters only when you turn your attention to the nature of the truthmakers. Knowing what truths you accept is one thing; knowing what it is about the universe in virtue of which those truths are true is another matter altogether. (Heil 2012: p. 192)

Further, we need to get at “the deep story” about the “nature of truthmakers [and f]or that you must turn to science [...] The deep story eventually brings in fundamental physics” (ibid., pp. 192–193). For example, even though we *can*, as Heil writes, “‘quantify over’ trees [and] [i]t is most unlikely that we could analyze away talk of trees, or translate claims about trees into the language of fundamental physics” (ibid.: 191–192), truthbearers about trees (and all our ordinary truthbearers) are made true, if true, by fundamental physics. Trees, tomatoes, and the things in ordinary talk *exist*. However, since they are not fundamental, the inflationist will claim that they are not truthmakers and are not a concern for ontologists:

Talk of the existence of tomatoes is ontologically innocent when your aim is to get clear on the truths, when your interest is in *tomatoes*. But when you engage in ontology, when your goal is to get clear on the fundamental truthmakers, it is ill advised. (ibid.: 194)

5.4 Problem 1: *Existing alternatives and metaphysical relations*

The problem of the existing alternative is vividly applicable to the specific account presented with these quotations: it is unclear why truths about tomatoes, trees, and their properties are not made true by tomatoes, trees, and their properties. This is not just a matter of interest but a matter of fact. According to the normal story: truths about tomatoes are made true by tomatoes, as long as they exist, whatever their natures are and whatever the deep story about them turns out to be. Of course tomatoes need to have the natures that they have to be the truthmakers for truths about them. And obviously the story of their nature, which may well be given by fundamental physics, is important. But why think that *truthmaking* should provide this story? For it is, rather, the investigation of the varied relations between ordinary things and other things to which they are related, for example by essential dependence or supervenience, which provides that *metaphysically substantial* story. These are all further facts about the truthmakers that are articulated by other truths and hence can be made true by other features of reality, such as the facts (if there are any) involving the metaphysical relations that ordinary objects such as tomatoes have with fundamental particles, fermions

and bosons. Neither purely fundamental truthmakers nor fundamental physics can tell this story. For that, we need to do actual metaphysics, not physics.

Further, even if fundamental physics gives us the *deep story* of the world, it is doubtful that this story will give us the *full story* of the world.⁵¹ Most pressingly, it is no part of the story of *fundamental physics* to account for *metaphysical relations*. Modal notions such as supervenience and essential dependence, plausibly, are not part of the language of fundamental physics, but are rather part of the important *but separate* study of metaphysics and ontology. Other such ontologically important relations include *modal dependence*, *constitution*, *emergence*, and *instantiation*. These relations relate *fundamental* entities with *non-fundamental* entities, and what we might call *fundamental* modes of being with *non-fundamental* modes of being (as well as relating fundamentals with other fundamentals and non-fundamentals with other non-fundamentals). Even if inflationists are right that distinctions between entities in terms of fundamental and derivative can be made,⁵² the very fact that those philosophically and ontologically important relations relate both fundamental entities and non-fundamental entities means that non-fundamental entities must be an important part of the story of ontology and metaphysics. Since the entities, relations, properties, etc., posited by fundamental physics surely cannot properly account for or ground metaphysical relations and facts concerning, for instance, relations such as grounding, this story of the truthmakers won't be able to give the truthmaker-story for a whole swathe of truths that surely need to be accounted for somehow by truthmaker theory.⁵³

5.5 Problem 2: What grounds truths about grounding?

Bliss and Trogdon raise a related worry for grounding generally: “What, if anything, grounds the facts about what grounds what?” (2014: §7). Let's say it is true that facts concerning the July 2015 London Tube workers' labour strike *are grounded* in more fundamental facts concerning the workers' refusal to work, concerning their acting on their interests to have better control over their working hours, concerning how the trains are (namely, standing still), etc. Let's call the more fundamental facts WORKERS, the less fundamental facts STRIKES, and the fact that STRIKES is grounded in WORKERS: GROUNDS. The question is: what grounds GROUNDS?

There is a clear analogy with my criticism of the inflationist. If she thinks that truthbearers concerning non-fundamentals are made true by fundamentals, what makes true truthbearers concerning how fundamentals are related to non-fundamentals? Presumably, according to TF, the truthmaker for GROUNDS must be something that's fundamental and thereby doesn't include STRIKES.⁵⁴ But then it also doesn't include

⁵¹ See Chalmers (2012: §6).

⁵² The distinction relies on grounding. Sider (2011: §8) argues that grounding-theoretic proposals cannot provide an account of the correct and full fundamental description of the world without mentioning non-fundamentals.

⁵³ Of course, one can reject metaphysics and metaphysical truths altogether, but this is not an option for any fundamentalist.

⁵⁴ Presumably, all grounding theorists believe that the correct fundamental description of the world won't mention or be about STRIKES (let's assume that WORKERS are fundamental facts), and that all facts concerning

the grounding relation relating STRIKES to WORKERS. And it cannot be *just* WORKERS which ground GROUNDS because no facts contained in WORKERS can tell us anything about how WORKERS is related to STRIKES or anything else non-fundamental.⁵⁵ Grounding is supposed to be somewhat informative and explanatory.⁵⁶ But this option seems unable to account for GROUNDS informatively.⁵⁷

Another option would be to say that GROUNDS is grounded in a fundamental fact which as Bliss and Trogon describe it “speaks directly to the connection between [WORKERS] and [STRIKES]” (ibid.). This strategy⁵⁸ might go something like this: it is in *the nature of being a strike* that if WORKERS, then STRIKES is grounded in WORKERS, and this fact about the nature of STRIKES (call it ESSENCE) in conjunction with WORKERS grounds GROUNDS.

In response, one might worry that it is unclear what grounds ESSENCE.⁵⁹ However, the conjunction of ESSENCE and WORKERS can ground GROUNDS without involving STRIKES. It is unclear to me that this is the case however, for surely ESSENCE, which is just a fact about the nature of STRIKES, involves STRIKES somehow. It is, overall, very problematic how truthbearers about what grounds what can be made true by anything purely fundamental, let alone be grounded in anything *purely* fundamental. If this is already a problem for truthbearers about grounding relations, it is even clearer that there are still more problems for truthbearers about how fundamentals are related to non-fundamentals with non-grounding relations, such as *instantiation* or *similarity*. This is a deep worry for any inflationist account of TF.

By contrast, there is no similar worry for the non-ITF-ist. If one is a standard truthmaker theorist who rejects TF altogether (and thus also rejects ITF), then one holds the view that there is no necessary restriction to truthmakers to be purely fundamental. Such a standard truthmaker theorist could say that truthbearers about GROUNDS are

Footnote 54 continued

STRIKES are grounded in facts not concerning STRIKES but concerning fundamental things (e.g. WORKERS). If one thinks that GROUNDS is ungrounded, then there is a fact concerning STRIKES which is not grounded in anything. This analogous worry is clearly problematic for the grounding theorist. See Sider (2011: §8) and deRosset (2013).

⁵⁵ Bennett (2011: 32ff) argues that grounding is a superinternal relation, on which “the intrinsic nature of only *one* of the relata—or, better, one side of the relation—guarantees not only that the relation holds, but also that the other relatum(a) exists and has the intrinsic nature it does”. Her view is relevant here insofar as she can use it to argue that just WORKERS *can* ground both STRIKES and GROUNDS. Bennett argues that this account can solve the infinite regress problem: if GROUNDS is grounded in WORKERS, then it seems that we need a further fact GROUNDS* to ground the fact that WORKERS grounds GROUNDS, and so on. She (ibid.: §6) argues that if grounding is superinternal, then WORKERS can ground all these facts, blocking the regress. However, the objection that I’ve raised here to WORKERS grounding GROUNDS is a separate worry from the regress problem. We might call the current objection the problem from the *informativeness* of grounding. Bennett’s appeal to the superinternality of grounding doesn’t address this worry. In fact, in (ibid.: §8) she raises three objections to her superinternality solution to the regress. Her second objection is a very similar objection. But her response to it is: “Here I waded into a dangerous morass that I prefer to avoid for now (see the vast literature on, e.g., black and white Mary and the zombie argument). I merely flag it as a line for further inquiry”. This doesn’t sound promising for the TF-ist.

⁵⁶ See Bliss and Trogon (2014: §4).

⁵⁷ However, deRosset (2013) attempts to resolve this explanatory problem for explaining GROUNDS solely in terms of WORKERS.

⁵⁸ See Fine (2012) and Rosen (2010).

⁵⁹ See Bliss and Trogon (ibid.: §5).

made true by facts that involve both fundamentals and non-fundamentals. More specifically and most relevantly, the truthbearers can be made true by GROUNDS itself, which then need not be fundamental and can involve clearly non-fundamental facts such as STRIKES on one side of the relation. Similarly, other metaphysical relations can be part of the truthmakers of truthbearers about them, whether or not these relations are part of fundamental reality. Interestingly, DTF-ists, who are by definition also non-ITF-ists, similarly might not have this problem. Specifically, they reject as just false truthbearers such as those which state that GROUNDS is the case, for they reject grounding relations, because they reject the layered conception of reality. However, insofar as they accept them, for instance, in accounting for the relation between truth and reality as grounding, they have a lot of explaining to do. Truthbearers about STRIKES will, however, have the same issues that arose for T3 in Sect. 4. As for the wider problem of dealing with existing metaphysical relations, DTF will, again, have similar issues as T3. The main point, however, is that the grounding problem for GROUNDS is analogous to a *special* and deep problem for ITF: finding the truthmakers for truthbearers and truths about metaphysical relations such as GROUNDS. Furthermore, since TF-ists claim that truthmaking is also such a relation, this problem includes accounting for facts about truthmaking itself.

6 Conclusion

I have argued that truthmaking does not only relate truths with fundamental reality, for looking closely at the two most influential ways of understanding fundamentalism, namely deflationism and inflationism, reveals fundamental problems for TF. This constitutes a thorny dilemma for TF, for these ways of understanding fundamentalism are exhaustive. As a result, it seems that the two questions with which we started this paper: (Q1), “What makes truth?”, and (Q2), “What is fundamental?”, should be answered separately. If we stick with a simple non-fundamentalist account of truthmaking on which truths are just made true by the parts of reality which they are about, we seem to be able to give intuitive truthmakers for all truths that require them, including ordinary truths that are part of the manifest image, such as tables, chairs, and the objects of the special sciences, and the relationships between the manifest image and the scientific and metaphysical images, e.g. that tables are grounded in fundamental particles.⁶⁰ If we answer the second question separately, we can also hope to bring some ontological seriousness to our talk and to truth, for then we can discover what is true about fundamental reality. And if this has consequences for what is true about non-fundamental reality and for how the latter is related to the former, then we can discover truths about this as well. An answer to the second might then be able to contribute to an answer to the first question. But this may not be necessary. For the manifest and the scientific and metaphysical images may, in fact, not be reconcilable. I suggest, then, that these are matters which we must discover and not merely build

⁶⁰ The metaphysical image involves, in part, this kind of relation between objects of the manifest and scientific images.

into our accounts of truth, truthmaking, and fundamentality. Thus, we should try to answer (Q1) and (Q2) separately.

Overall, TF doesn't properly make sense of the importance of truthmaker theory for philosophy, nor of the important role played by ontology to guide us in understanding the world. TF requires that all truths are made true by fundamental reality. But many truths, and the things they are about, do not have a clear, non-derivative relation to anything in fundamental reality, especially not if fundamental reality is construed as *that which is described by fundamental physics*. These include many more truths than just those about the macroscopic entities of commonsense but also those involving such matters as the grounding relation itself. The existing alternative truthmakers are just the things we are talking about, whether or not they are fundamental. The fundamentalist doesn't seem to have any convincing way to rule them out as truthmakers. By construing truthmaking as the kind of grounding which relates truths only with what is fundamental, there is a danger of making truthmaker theory too narrow to be useful by losing its grip on the rest of reality.

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Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interest.

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