



# Two Concepts of Truthmaking: a Compatibilist Solution to the Controversy Between Substantive and Deflationary Approach

Błażej Mzyk<sup>1</sup> 

Received: 13 June 2023 / Accepted: 18 July 2023  
© The Author(s) 2023

## Abstract

For many years there has been a debate in truthmaking theory between proponents of the substantive and deflationary approaches. Substantivists about truthmaking maintain that we need entities called truthmakers, while deflationists of truthmaking argue that the asymmetric form of the T-schema is sufficient. In contrast to incompatibilists, who argue that one should adopt only one of these approaches, I propose a compatibilist theory of truthmaking in which the two approaches complement each other through the distribution of different functions of truthmaking. I find that this helps to solve the problem of truthmaking of certain contentious truths, such as negative truths.

**Keywords** Truthmaking · Substantive truthmaking · Deflationary truthmaking · Compatibilism · Functions of truthmaking · Ontology

## 1 Introduction

Truthmaking theory has settled into a prominent place in the metaphysical debate. It is now 20 years since Armstrong published his famous work *Truth and truthmakers* (2004), and 40 years since Mulligan, Simons, and Smith's crucial article *Truth-makers* (1984). These authors were guided by an intuition that appealed to truthmaking entities such as states of affairs (Armstrong) or tropes (Mulligan et al.). In contrast to this intuition many proposed less ontologically committing accounts of how truthmaking is performed, leading to a controversy between two approaches to truthmaking: the standard one, which can be called substantive, and the non-standard one, which can be called deflationary. Twenty years have shown that the proponents

---

✉ Błażej Mzyk  
blazej.mzyk@uj.edu.pl

<sup>1</sup> Institute of Philosophy, Faculty of Philosophy, Doctoral School in the Humanities, Jagiellonian University, Kraków, Poland

of these two approaches have dug themselves deeply into their positions and seem determined to remain there permanently.

The substantive approach holds that in truthmaking it is crucial to identify truthmaking entities, such as states of affairs or tropes, that are responsible for the truth of propositions.<sup>1</sup> In contrast, the deflationary approach holds that no entities are needed for truthmaking, but that it is carried out by linguistic mechanism similar to T-schema.<sup>2</sup> It is widely accepted by participants in the debate that substantive and deflationary truthmaking cannot coexist. Among those who maintain incompatibilism, some believe that the deflationary approach should be rejected in favor of the substantive one (Asay and Baron 2020). Others believe that the substantive approach should be rejected in favor of the deflationary one (Hornsby 2005). In this sense, I speak of the incompatibilism of the two approaches to truthmaking, drawing on the terminology used in the debate over determinism and free will. Contrary to incompatibilism, I argue that we can adopt a compatibilist position and maintain both substantive and deflationary truthmaking. For this, I refer to the debate on the functions of truthmaking (see Asay 2018, 2020:31–49; Kitamura 2022; Tałasiewicz et al. 2013). It seems that incompatibilists assume that truthmaking should serve only one function. In contrast, I find that compatibilism, in which I accept the distribution of different functions of truthmaking by the two approaches, has significant advantages. Assigning the function of providing truth to deflationary truthmaking and the function of providing ontology to substantive truthmaking effectively solves the problem of truthmaking of contentious truths, such as negative (<There are no unicorns>) or analytic truths (<Bachelors are unmarried>). It also shows why, for other true propositions, providing truth alone is unsatisfactory.

I begin by characterizing the two concepts of truthmaking: substantive and deflationary (Section 2). Then, using the views of Jamin Asay and Sam Baron (2020) and also of Jennifer Hornsby (2005) as examples, I recall the arguments of incompatibilists (Section 3). I then argue for the compatibilism of substantive and deflationary truthmaking (Section 4).

## 2 Two Concepts of Truthmaking

In this section I invoke two notions of truthmaking: substantive, which is chronologically earlier in the debate, and deflationary, which is a reaction to substantive truthmaking. I will point out that deflationary truthmaking, in the strict sense, is not intended to refer to entities other than those usually assumed by substantivists, but to the asymmetric analog of the T-schema.

<sup>1</sup> I take propositions to be truthbearers, as is common in the theory of truthmaking. In the following, <*p*> stands for “the proposition that *p*.”

<sup>2</sup> Deflationary theory of truth and deflationary truthmaking, though related, are treated separately in the debate. Thus, when I write about deflationary truthmaking, I am not referring to the question of the relation of truthmaking theory as such to deflationary theory of truth (see Asay 2022; Simpson 2021; Vision 2005), but to the view arising from the dispute within truthmaking theory itself (see Asay 2018:132; Schulte 2011:420).

## 2.1 Substantive Truthmaking

I borrow the term “substantive truthmaking” from Asay and Baron (2020:7–8). Substantive truthmaking is sometimes referred to as standard (2020:15) or non-deflationary (2020: 3n4).<sup>3</sup> The term “substantive” indicates a strong or full-blooded understanding of truthmaking in which one is ontologically committed to truthmaking entities. This does not mean that the only truthmakers are entities belonging to the ontological category of substance (e.g., Aristotelian), but that they can be non-propositional entities belonging to various ontological categories, especially states of affairs and tropes. Moreover, substantivists also have a more metaphysical understanding of the relation of truthmaking. They assume various relations whose common denominator is that they are not merely linguistic devices à la T-schema, but lead to more ontological commitments. For example, they are cross-categorical: one relatum is a proposition, the other an entity in the world. Consequently, truthmaking substantivists usually refer to either modal necessitation or hyperintensional grounding.

This can be seen well in Armstrong (1997, 2004), the father of substantive truthmaking. He uses the relations of necessitation and special entities as truthmakers (states of affairs) whose main reason for existing is truthmaking theory:

Truthmakers must necessitate, and the mere entities or their mere mereological sum by hypothesis cannot necessitate the linkages required. So there must exist states of affairs to be the truthmakers (...). (Armstrong 2004: 48–49)

It is because the reason for his famous truthmaker argument (1997: 113–119, 2004: 49) is precisely the appeal to the relation of necessitation as a relation of truthmaking and to states of affairs as instantiations of universals by individuals as truthmakers. Armstrong’s appeal to states of affairs and necessitation primarily within the context of truthmaking theory makes it possible to see him as a truthmaking substantivist *par excellence*. This also explains why some authors call his theory of truthmaking the standard one (Tałasiewicz et al. 2013: 591; see also Schulte 2011: 414). In fact, it was Armstrong’s theory that became the larger target of attack by deflationists during the next two decades of truthmaking theory development.

Although Armstrong is the most prominent proponent of substantive truthmaking, other authors who share this approach can also be identified. These authors also use entities of categories other than states of affairs as truthmakers and relations other than necessitation as a truthmaking relations.

Mulligan, Simons, and Smith (1984) used tropes and individuals (in their own words, moments, and things) as truthmakers. Tropes as truthmakers have also been used by other participants in the debate (Cameron 2008: 419; Smith and Simon 2007: 82), including relational tropes (Simons 2010: 202–203) or bundles of tropes (Maurin 2010: 323). Similarly, other authors have referred to individuals (Simons

<sup>3</sup> See also Tałasiewicz et al. (2013: 591), who limit the term “standard truthmaking theory” to Armstrong’s view, and Schulte (2011: 414), who seems to be talking about standard truthmaking theory in the context of necessitation.

2010: 204) or substances (Smith and Simon 2007: 92). Other ontological resources used by substantivists include properties (Martin 1980: 9), simply entities from different ontological categories (Asay 2020: 22; Griffith 2014: 211n45; Lowe 2005: 188; Simons 1992: 159) or the world itself (Schaffer 2010).

On the other hand, regarding the nature of truthmaking relations, substantivists, in addition to necessitation (Fox 1987; Maurin 2010; Rodriguez-Pereyra 2005), also adopted its derivatives such as entailment (Restall 1996), co-entailment (Smith and Simon 2007), projection (Smith 1999), or essential dependence (Lowe 2005).<sup>4</sup> In addition, they also used grounding (Griffith 2014; Rodriguez-Pereyra 2005) or said that the task of truthmaking is to provide ontology (Asay 2018, 2020; Asay and Baron 2020). Following (Merricks 2007: 96), I also include supervenience in substantive truthmaking, which is used by some authors (Bigelow 1988; Lewis 2001). Although it allows for the rejection of truthmakers for negative truths, it still speaks of their metaphysical dependence on being (Baron et al. 2022; see also Liggins 2005: 107) and commits to instantiation of properties and relations (Lewis 2001: 613–614; Merricks 2007: 68, 96). Moreover, similar to necessitation, supervenience allows “catching metaphysical cheaters.” Like necessitation it helps to reject views that claim the truth of some propositions without any basis in the accepted ontology, such as phenomenalism, behaviorism (Liggins 2005, sec. 1.2), or presentism (Melia 2005: 82; Merricks 2007: 96).

## 2.2 Deflationary Truthmaking

“Deflationary Truthmaking” is an umbrella term for various concepts of truthmaking that have in common the rejection of substantive truthmaking. Deflationary truthmaking was born in part because of the problems with necessitation used in substantive truthmaking.<sup>5</sup> While the rejection of substantive truthmaking has been characteristic of many participants in the debate over the past two decades, it is only recently that Asay and Baron (2020) have identified these concepts under the common thread of deflationary truthmaking. For Asay and Baron (2020), deflationary truthmaking has two things in common:

- (1) The notion of truthmaking is philosophically acceptable.
- (2) The notion of truthmaking does not require substantive ontological commitments for its acceptance (Asay and Baron 2020: 3).

<sup>4</sup> In the debate, entailment is treated as similar in nature to necessitation by analyzing them as one approach to truthmaking (see Perrine 2015: 187). Similarly, projection (Griffith 2014: 2; Perrine 2015: 187). Of course, it should be noted that entailment is usually distinguished from necessitation by the propositional nature of its relata, although it still ultimately invokes entities in the world (Beebe and Dodd 2005: 2).

<sup>5</sup> For reasons of space, I won't go into the objections to necessitation here. For some, see Melia (2005), Restall (1996), Schnieder (2006), and Schulte (2011).

Thus, deflationists can speak of truthmaking, but, unlike substantivists, they do not invoke ontological commitments to do so. Instead of invoking truthmakers and truthmaking relations, deflationists invoke only the analog of Tarski's equivalence schema, which they claim is sufficient for providing truth (Melia 2005; Merricks 2007; Williamson 2013, Ch. VIII):

(B-schema)  $\langle p \rangle$  is true because  $p$  (Asay and Baron 2020: 5)

Deflationists call their equivalent of Tarski's schema "B-schema" from "because-schema" due to the fact that it is asymmetric. It is supposed to express the original truthmaking intuition that it is so that  $\langle p \rangle$  is true because  $p$ , not so that  $p$  because  $\langle p \rangle$  is true (Dodd 2007: 398; Perrine 2015: 192). By using the "because" operator, they want to mark their difference from the "in virtue of" operator used by substantivists, which makes ontological commitments to different truthmaking entities (Asay and Baron 2020: 13). Instead, deflationists argue that truthmaking does not require entities that belong to any ontological categories: facts, tropes, individuals, and so on. Thus, the B-schema is merely a mechanism of semantic ascent (Asay and Baron 2020: 18; see Dodd 2007: 399) and a linguistic or sentential device (Asay and Baron 2020: 14). That is, it connects linguistic beings—on the left side of the schema is a metalinguistic truth ascription, and on the right is a first-order claim about the world (Asay 2018: 908; Asay and Baron 2020: 8n9).<sup>6</sup>

This strategy can be seen in the conception put forward by Merricks (2007, 2011), who argues that negative, modal, and temporal propositions trivially depend on being, which can be expressed by an asymmetric variant of the Tarskian schema (i.e., by the B-schema):

[W]e deny that the truth of *that hobbits do not exist* depends on being in the substantive ways (...) But we should still say that its truth depends on being in a trivial way. That is, we should still say that *that hobbits do not exist* is true *because* hobbits do not exist. (Everyone should say this.) More to the point, we should still object that its gets things backwards to say that hobbits do not exist *because* of the truth of *that hobbits do not exist*. (Merricks 2007: 110, his italics)

As he notes, trivial dependence on being, as opposed to substantive dependence on being, refers neither to particular entities (objects, events, etc.) nor to the instantiation of particular properties (2011: 212). All that is needed to speak of propositions becoming true is to show their semantic descent and the asymmetry that  $\langle p \rangle$  is true because  $p$ , not that  $p$  because  $\langle p \rangle$  is true. Besides Merricks (2007, 2011), deflationists include Audi (2020), Hornsby (2005), Macbride (2014), Mcgrath (2003), Perrine (2015), Schnieder (2006), Tallant (2009), and Williamson (2013), ch. VIII.

Asay and Baron (2020) also identify (or suggest) other authors (Dodd 2007; Melia 2005; Rychter 2014) as truthmaking deflationists, even if they do not use the B-schema in the strict sense. This second type of deflationism is not understood

<sup>6</sup> Alternatively, following Hornsby, one can say that it combines proposition and sentence (2005: 33) or simply sentences (2005: 39).

as abandoning all ontological commitments like the deflationists described above. Instead, they give up only a specific set of them, mostly associated with the standard truthmaking theory, such as commitments to states of affairs and tropes as truthmakers. In their place, they opt for other less controversial entities, such as individuals and properties that are not combined into states of affairs. This is well illustrated by Rychter's (2014) conception, which I propose to classify as this second type of deflationism. He rejects states of affairs and tropes as truthmakers, instead relying on objects, properties, and relations not connected into states of affairs as responsible for truthmaking. Similarly, he rejects necessitation as a relation of truthmaking, opting instead for ontological dependence in the form of grounding. A similar position is taken by Dodd (2007), who also rejects states of affairs and tropes as truthmakers, opting instead for objects, properties, and grounding (Dodd 2007: 398; see Perrine 2015: 198). Although, as he notes, "The sense in which a proposition's truth is grounded in reality is conceptual rather than metaphysical (...). The groundedness of truth concerns, not truthmaking, but understanding" (Dodd 2007: 400). Melia (2005: 79), on the other hand, who prefers nominalism, suggests replacing states of affairs with individuals and the truthmaking relation with an operator understood as a non-truthfunctional connective. This demonstrates the tactic of this second type of deflationist: let us reject the substantive theory of truthmaking with its controversial entities and use the ontological resources we have independently of it to replace entities most commonly used as truthmakers.

The suggestion to distinguish this second type can be found, in a sense, in Asay and Baron (2020), who present an argument against deflationism in response to two strategies of its proponents. What the authors themselves do not note, however, is that the two types of deflationist strategies actually suggest a certain division among them. Similarly, Vision (2005: 367) distinguishes thick deflationary truthmaking ("that takes the making true condition seriously") from thin deflationary truthmaking ("that deflates the making true condition along with truth"), which also supports the intuition of the non-uniformity of deflationism. A clue to my distinction of the second type of deflationism is also found in Melia (2005: 70). He divides nominalism into semantic and metaphysical, depending on whether the nominalist provides a metaphysical analysis of expressions like "a is F." Similarly, my division is based on whether the deflationist provides a metaphysical analysis of the nature of truthmakers.

Nevertheless, I believe that this second type of deflationism is not essentially different from substantive truthmaking. They do not differ in the fact that they appeal to certain ontological commitments, but only in the type of ontology adopted. The second type of deflationist, as presented by Dodd (2007), Melia (2005), and Rychter (2014), appeals to ontological resources other than those primarily used in truthmaking theory, but these are still ontological resources. Merricks (2007: 96–97) makes a similar observation about supervenience and substantive truthmaking. He argues that there is no difference between supervenience and substantive truthmaking as far as their nature is concerned. The only difference is whether or not one accepts the ontology of states of affairs and what the essence of states of affairs is. There is no difference between the two as to their nature, since they both commit to the existence of things and properties, and allow for the rejection of views that assume truths without ontological coverage (like presentism). Analogous to Merricks, I

argue in the context of this second type of deflationism and substantive truthmaking that the only difference between them is the kind of ontology assumed. For example, whether we take the objects and properties themselves or their complexes in the form of states of affairs (or tropes) as truthmakers. Just because one does not call mere objects and properties truthmakers does not change the fact that one invokes ontological resources and ontological commitments. This is in some ways implied by Asay and Baron themselves:

One interpretation (...) is that (...) [statements of proponents of this second kind of deflationism] are just statements of fellow truthmaker theorists who refuse to acknowledge that they are fellow truthmaker theorists. Truthmaker theorists want to understand what sorts of ontological posits are required for truths to be true, and then commit to those posits. Rychter and Dodd do precisely that. (...) It's clear that Rychter and Dodd do not want to commit to Armstrong's states of affairs, or the tropes of Mulligan, Simons, and Smith (1984), but avoiding those particular posits is not sufficient for exiting the truthmaking game. (Asay and Baron 2020: 10)

If we assume, following Asay (2018), that the task of (substantive) truthmaking is to provide ontology, then it does not matter what kind of entities we provide. Thus, in what follows, I assume that deflationary truthmaking in the proper sense means only those concepts that invoke the mere B-schema, and not those that differ from substantive truthmaking only in the type of ontology assumed.

### 3 Incompatibilism About Two Concepts of Truthmaking

In the previous section, I tried to show the difference between substantive and deflationary truthmaking. Deflationary truthmaking is a response to the ontological postulates of truthmaking theorists, especially those proposed by Armstrong in terms of states of affairs as truthmakers. I also noted that the relevant dispute is between substantive truthmaking and deflationary truthmaking in the proper sense, that is, invoking the B-schema, rather than just entities belonging to ontological categories other than those usually assumed by substantivists. In this section I want to recall the arguments of those participants in the debate who claim that substantive truthmaking is incompatible with deflationary truthmaking. By incompatibilism of substantive and deflationary truthmaking I mean a situation in which either (a) one accepts only substantive truthmaking and at the same time rejects deflationary truthmaking, or (b) one accepts only deflationary truthmaking and at the same time rejects substantive truthmaking. In what follows, I will illustrate the first strategy using the views of Asay and Baron (2020) as an example, and the second strategy using the views of Hornsby (2005) as an example.

Asay and Baron's (2020) incompatibilist reasoning is significant because they use the term "deflationary truthmaking" to directly address the group of views they reject by at the same time adopting substantive truthmaking. Asay and Baron's argument for substantive truthmaking versus deflationary truthmaking consists of three points.

First (2020: 12–15), the fact that deflationists declare that the “because” in the B-schema to be merely linguistic does not make it less metaphysical in its essence than the ontological dependence expressed by substantivists also linguistically by “in virtue of.” In other words, both deflationists and substantivists agree on the ontological dependence of truth on being.<sup>7</sup> Whether we express it with “because” or with “in virtue of” is irrelevant. Both “because” and “in virtue of,” in addition to expressing ontological dependence, are explanatory and express the necessary nature of  $p$  being true because of the way the world is (“modal guarantee”). Thus, according to Asay and Baron, the deflationist seems to offer no real alternative to the “in virtue of” relation. At most, “because” offers a notational variant of the same thing as “in virtue of.” Thus, for Asay and Baron, a true deflationist should also deflate ontological dependence, but fails to do so:

Deflationists, then, need to supplement their deflated truthmaker theory with a new account of the nature of ontological dependence. In particular, they need to provide an account of the relevant kind of dependence that makes no use of any relations between true propositions and the world. (...) Our point is just that, at present, the deflationist’s project is incomplete. It is not just truthmaking that they need to deflate; they need to deflate ontological dependence as well. (Asay and Baron 2020: 15)

Thus, we can say that the deflationist says one thing (that the providing of truth has nothing to do with ontological dependence), but assumes another (that truth is ontologically dependent on reality).

Secondly (2020: 15–17), even if we agree on the ontological dependence of truth on being, it is not clear how the deflationary “because” is supposed to do the work of a full-blooded “in virtue of.” “In virtue of” imputes a certain structure on the world that “because” cannot impute without falling into truthmakers. Hence, “because” seems to be devoid of content, and deflationists can only stipulate that their B-schema can do the work of “in virtue of,” which has no basis in reality. Consequently, deflationists are left with recourse to an epistemic rather than an ontic theory of explanation of truth. However, this leads to the situation that, in a world without epistemic agents, nothing depends ontologically on anything. Such a situation undermines necessitation, since it may be that  $\langle p \rangle$  is false despite  $p$ .

Third, Asay and Baron (2020: 18–20) note that deflationism ultimately boils down to the claim that  $\langle \langle p \rangle$  is true  $\rangle$  depends on the truth of  $\langle p \rangle$ . This is a mere statement of semantic ascent, which provokes the question of what the truth of  $\langle p \rangle$  depends on, and thus only postpones the question of truthmakers. A deflationist might reply that the B-schema says that what makes the truth of  $\langle p \rangle$  true is whatever  $\langle p \rangle$  is about. However, according to Asay and Baron this is merely a rephrasing of the truth in question, and we can still ask further questions about ontological grounds. In the context of these three arguments, Asay and Baron state that: “[T] here is no defensible deflationary theory of truthmaking to be found” (2020: 2).

<sup>7</sup> See also Smith and Simon (2007: 81), who assume that a non-maximalist need not reject the grounding of truth.



On the other hand, as for incompatibilists who reject substantive truthmaking and accept deflationary truthmaking, this can be shown by the views of Hornsby (2005). Her views are significant in this regard because she disagrees with Rodriguez-Pereyra. Rodriguez-Pereyra, as a substantivist, argues that truth is grounded in reality (2005: 21) and that in “an important class of synthetic true propositions that includes inessential predications” entities are required for truthmaking (2005: 18). Hornsby argues against substantivism on the basis of four arguments.

First (2005: 35–37), she notes that one possible substantivist formulation of the fact that truth is grounded is the use of the expression “is explained by.” It follows from the syntax of “is explained by” that it can combine truth  $\langle p \rangle$  with an appropriate nominalization, which indicates a truthmaking entity. However, as Hornsby observes, any nominalization is only an “approximate equivalence” of the sentence in the place of  $p$ . Thus, expressing the grounding of truth in terms of nominalization (s) being explained by nominalization (t) is just one way of expressing the ontologically non-committing B-schema that she prefers as a deflationist. Moreover, even if the substantive truthmaking phrase “is explained by” uncovers entities appearing in the B-schema, expressions denoting truthmaking entities (states of affairs in her example) should appear on both sides of that phrase. Thus, the truth  $\langle p \rangle$  on the left side of “is explained by” should also denote the truthmaking entity. The consequence, however, is that either truth  $\langle p \rangle$  denotes a state of affairs different from itself, and therefore different from that which makes it true, or it denotes the same state of affairs as it, i.e., the one on the right side of “is explained by.” However, this second option leads to a symmetrical relation that is inconsistent with the asymmetrical intuition of truthmaking.

Secondly, according to Hornsby (2005: 37–39), it does not seem possible to generalize the truthmaking claim to say that every truth depends on reality. She mentions necessary truths as examples of controversial propositions. It follows that considering the claim about the dependence of truths on reality makes sense only for selected classes of truths, such as negative truths, disjunctive truths, truths about the future, or predicative truths about existing entities. In the case of the first two, however, even certain advocates of states of affairs will agree that they are not ontologically committed to negative and disjunctive states of affairs. And in the case of truths about the future, it is difficult to find an additional argument that their nominalization denotes an entity. So we are left only with the question of whether predicative truths depend on reality. However, as Hornsby notes

Rodriguez-Pereyra speaks of the rose as the subject matter of ‘the rose is red’; but we may not be confident that ‘A rose is red’ has any ‘subject matter’ in the intended sense. (...) All in all, it is doubtful that whatever Rodriguez-Pereyra has to say to persuade us of a truthmaker for  $\langle$ The rose is red $\rangle$  could carry much weight when it comes to true propositions more generally. (Hornsby 2005: 38–39)

Third, Hornsby (2005: 39–41) argues against Rodriguez-Pereyra’s claim that since there are more ways in which the rose is, it is necessary to reify them in order to make true propositions about the rose. She points out, however, that this requires at most an endorsement of properties that need not be reified at all. It is enough that they are linguistic beings.

Fourth, Hornsby (2005: 41–42) argues against Rodriguez-Pereyra’s claim that grounding connects entities and therefore truth is grounded in entities. She notes that grounding of truth does not commit one to the existence of a grounding relation, since it would be sufficient to use the sentential connective “because” to do so.

Finally, after rejecting substantive truthmaking, Hornsby (2005) adopts her deflationary view of the nature of truthmaking, in which the B-schema is sufficient for truthmaking. In her understanding, the B-schema is based on an asymmetry that results from the fact that more is required to accept its left side ( $\langle p \rangle$  is true) than its right side ( $p$ ). This is because it is not necessary for  $p$  to express the proposition that  $\langle p \rangle$  is true. Thus, there is no need to invoke ontology in order to formulate the asymmetry in our thinking about truth.

## 4 Compatibilism About Two Concepts of Truthmaking

In the previous two sections, I characterized substantive and deflationary truthmaking and invoked the arguments of incompatibilists. I have referred to both those authors, who prefer substantive truthmaking and reject deflationary truthmaking (Asay and Baron 2020) and those who prefer deflationary truthmaking and reject substantive truthmaking (Hornsby 2005). Each side argues that both deflationary and substantive truthmaking are untenable at once. In this section, however, I will argue the opposite, trying to show that both concepts of truthmaking are needed because they serve different purposes. The proposed compatibilist approach can be based on the distribution of functions truthmaking. The “because” of the deflationists does not need to try to do the work of the “in virtue of” of the substantivists, since it has its own task. The functions of substantive truthmaking and deflationary truthmaking are not mutually exclusive, but complementary. In the first part of this section, I will highlight the issue of different functions of truthmaking. In the second part, I will propose a compatibilist approach and describe what it offers us and why it is better than incompatibilism.

### 4.1 Functions of Truthmaking

Truthmaking can be analyzed through the prism of three components: truthmakers, truthbearers, and the truthmaking relation. However, when it comes to the truthmaking relation, one can either ask about its *nature* or its *function*. When we ask about its nature, we ask whether it is necessitation, grounding, supervenience, B-schema, and so on. When we ask about the function, we ask whether it provides truth, whether it provides ontology, or whether it provides an explanation. The difference between the nature and function of truthmaking is pointed out, for example, by Kitamura (2022: 23n7), who notes that it is different to formulate the idea of the dependence of truth on being (the nature of truthmaking) and to specify distinctive form of explanation (one of the functions of truthmaking).

The tension between different functions of truthmaking can be seen in the debate (Asay 2018, 2020: 31–49; Baron et al. 2022; Kitamura 2022; Rodriguez-Pereyra

2022; Tałasiewicz et al. 2013). Participants in the debate distinguish two main functions of truthmaking: providing truth and providing ontology. However, recently, there are also authors who distinguish the function of providing explanation as well (Asay 2018, 2020; see also Kitamura 2022; Rodriguez-Pereyra 2022). Moreover, authors do not stop at distinguishing the different functions of truthmaking. In the debate, two approaches have emerged that consider one of the two main functions of truthmaking (providing truth, providing ontology) as leading.

The first approach emphasizes that the main function of truthmaking is to provide truth. Truthmaking according to this approach does not aim to find out what ontology is behind truths, but it is enough to make the truthbearer take on the logical value of truth. This approach is favored by B-schema deflationists who claim that no indication of ontology is needed for truthmaking (Hornsby 2005; Mcgrath 2003; Perrine 2015; Schnieder 2006). This is the most modest approach to the task of truthmaking. It also seems to be an approach shared by Tałasiewicz et al. (2013, sec. V), who argue that the B-schema is a trivial explanation, but non-trivial truthmaking. As they note, all truthmaking is within the B-schema (understood as  $\langle p \rangle$  because [p]), which suggests that it primarily provides truth rather than ontology.<sup>8</sup> According to them, the essential feature of truthmaking is not, in definition, the explanation of true propositions by ontology.

According to the second approach, which some call ontology first (Asay 2018, 2020; Baron et al. 2022), truthmaking is primarily about identifying the ontology behind truths, be they facts, tropes, individuals, and so on. In the jargon of proponents of this approach, truthmaking can be said to be about “doing” or “building ontology” (Asay 2018: 914, 2020: 36, 2022: 126; David 2008: 140; see also Smith and Simon 2007: 92). The most prominent representative of this approach in the discussion is (Asay 2018, 2020, 2022), who claims that the fundamental function of truthmaking is ontological accounting. As he says, “to be is to be a truthmaker” (2020: 22). According to him, providing ontology is primarily related to answering the question “What is there?” In addition to Asay, this approach can be found in Armstrong (2004), Asay and Baron (2020), Smith and Simon (2007), and Baron et al. (2022).<sup>9</sup> That the function of providing ontology is different from the function of providing truth is indicated by the fact that deflationists provide truth without providing ontology, as I will develop in the next section.

The functions of providing truth and of providing ontology seem to be the main functions of truthmaking. Recently, however, a view has emerged that also distinguishes the function of providing explanation as separate (Asay 2018, 2020). Up to this point, it seems that providing explanation has been combined with the functions of providing truth or providing ontology, rather than being treated as separate from them. For example, Schnieder (2006: 37) argues that providing truth is conceptual

<sup>8</sup> Although [p] refers to the fact that p, i.e., to a certain ontology, they give the tautology  $p \rightarrow p$  (“p entails p”) as an illustration. It suggests that the ontology is not relevant here and that [p] means propositional fact (fact identified with true proposition).

<sup>9</sup> The latter also speak of a “truthmaking-first” strategy, which seems a good name for the approach that favors the function of providing truth but still they use it in the context of providing ontology (creating a truthmaking theory and then checking whether different views according to it do not make ontological commitments without being covered by the ontology).

explanation. In particular, providing explanation has been associated with providing ontology. This was expressed by talking about the so-called “ontological explanation” (Asay and Baron 2020; Rodriguez-Pereyra 2022; Smith and Simon 2007). It has been thought that by providing an ontology one explains the correspondence theory of truth or the rejection of idealism and pragmatism (see Daly 2005). Similarly, appeal to ontology (or rather the lack of a needed ontology) has been used to explain the falsity of views such as phenomenalism or behaviorism (see Liggins 2005).

In contrast, however, a view that distinguishes between the function of providing ontology and the function of providing explanation has recently emerged in the debate. This is captured by Asay (2018), who argues that truthmaking is not explanation. He argues that explaining truth through truthmaking is not privileged at all, since one can point to competing models of explanation (such as the deductive-nomological model). They also explain truth but do not invoke the theory of truthmaking. Thus, according to him, the most important function of truthmaking is to provide ontology. However, it is difficult to identify any participant in the debate who would claim that the primary function of truthmaking is to provide explanation and not to connect it in any significant way with the function of providing truth or the function of providing ontology. As a result, I think it is inappropriate to distinguish another approach in terms of considering the function of providing explanation as leading, in addition to the approach that favors providing truth and the approach that favors providing ontology. Providing truth and providing ontology are the two main frameworks when it comes to choosing a particular function of truthmaking as leading. Asay (2018) himself seems to agree with this. On the one hand, he argues that explanation is not part of the essence of truthmaking. On the other hand, providing ontology (an essential function of truthmaking for him) can provide us with explanation, as long as the cognitive interests of the subject in a given context seek such a form of explanation. Moreover, he argues that explanation can also be provided by the B-schema (Asay 2020: 37–38), which is an expression of the function of providing truth without providing ontology. Explanation, then, is not an option that excludes either the function of providing ontology or the function of providing truth. Rather, it is an optional feature of truthmaking, regardless of which of its two leading functions we focus on. Tałasiewicz et al. (2013: 604) think similarly, although they refer to an objective rather than subjective conception of explanation, claiming that explanation is “objective aim of research in a given area that tells us what explanations we need (2013: 601n13).” Thus, in summary, two main functions of truthmaking can be distinguished: providing truth and providing ontology.<sup>10</sup>

## 4.2 The Compatibilist View and What Does It Give Us?

In the previous section, I described the two main functions that can be expected of a theory of truthmaking: providing truth and providing ontology. I pointed out that

<sup>10</sup> For more on explanation in truthmaking theory, see the recent debate between Rodriguez-Pereyra (2022) and Kitamura (2022), who argue that truthmaking primarily provides explanation, and (Asay 2020), who disagrees. Other proponents of combining truthmaking with explanation include Dodd (2007), Liggins (2005), Perrine (2015), Schnieder (2006), Schulte (2011), and Smith and Simon (2007). For a comprehensive list of authors who combine truthmaking and explanation, see Tallant (2017: 141–142) and Asay (2020: 33–34).

some authors prefer one to the other. In this section I will argue that the compatibilism of substantive and deflationary truthmaking rests on the proper distribution of these two functions. Thus, deflationary truthmaking (B-schema) can be combined with the function of providing truth, while substantive truthmaking can be combined with the function of providing ontology. If each of the two concepts of truthmaking has its own task, which does not exclude but complements the task of the other, there will be no need to abandon either concept of truthmaking.

One way to present the compatibilism of the two concepts of truthmaking is to refer to closer and further explanations in the chain of explanations. Deflationary truthmaking can provide a closer (or even the closest) explanation, while substantive truthmaking provides further explanations (further links in the chain of explanations). In other words, deflationary truthmaking via the B-schema provides truth, while substantive truthmaking provides ontology. For example, take the truth <The rose is red>:

<The rose is red> is true because the rose is red (deflationary truthmaking, i.e., providing truth) because there is a trope of the redness of the rose (substantive truthmaking, i.e., providing ontology).

The concept of a chain of explanations can be found in Schulte (2011: 418–419). For him substantial truthmaker explanations are contracted versions of series of explanations that include simple truthmaker explanation and substantial truthmaker explanation:

The statement “<p> is true because [q] exists” is an abbreviation of the full explanation, “<p> is true because [p] exists, and [p] exists because [q] exists”, where [p] denotes fact that p. (Schulte 2011: 419n19)

Simple explanation can be trivial in a sense. It involves explaining truth by fact, e.g., <Aristotle exists> is true because Aristotle exists, or <Rose is red> is true because the fact [Rose is red] exists. In contrast, substantial truthmaker explanation explains one fact by another. Schulte argues that simple truthmaker explanations can do without the concept of truth (2011: 421), and that substantial truthmaker explanations are central to the search for truthmakers in various domains of ontology (2011: 420). From there it is not far to my compatibilist proposal, in which the deflationary B-schema performs the function of providing truth, and substantive truthmaking provides the necessary ontology. This is also suggested by Schnieder (2006: 37–38). He also refers to the chain of explanations and explicitly claims that the B-schema provides the closest explanation for which further causal or conceptual explanations can be given. Nevertheless, he ultimately focuses only on simple explanations (Schulte 2011: 419n20). Intuitions of a chain of explanations can also be found in Mcgrath (2003: 670) and Kitamura (2022: 23–24n4). Similarly, Rodriguez-Pereyra (2022: 4) notes that the B-schema provides only brute explanations. However, explanations track relations between entities, and thus must be grounded in specific relations between them. In the case of truthmaking, this is the relation of metaphysical determination between explanandum and explanans.<sup>11</sup>

<sup>11</sup> See also Smith and Simon (2007: 91n17), on levels of ontological explanation.

The intuition of an explanatory chain should convince both Hornsby (who seems to combine providing truth and explanation, see 2005: 42) and Asay and Baron (who seem to allow combining providing ontology and explanation, see (2020: 13), see also Asay 2018: 915). The relationship between Asay and Baron's distinction between commitments to the truth of propositions (2020: 12) and ontological commitments can be interpreted as pointing to a certain explanatory chain, so it is not clear why they advocate incompatibilism. They claim that the substantivist considers ontological commitments that follow from commitments to the truth of proposition. In contrast, the deflationist stops only at the level of commitments to the truth of proposition. By accepting one truth through the B-schema, he accepts another, staying at the level of truths and not moving to ontology (2020: 18). But isn't this similar to the compatibilist solution, in which the deflationist does not move to ontology because he has his task of providing a simple explanation (providing truth), while it is the substantivist who has the other task of providing further explanations that provide ontology? So this distinction between commitments to the truth of proposition and ontological commitments can have both incompatibilist and compatibilist interpretations. Thus, Asay and Baron's choice of the former seems arbitrary.

If one is not satisfied with describing compatibilism in terms of a chain of explanations (as perhaps Daly [2005] or Asay [2018]), then the compatibilism of substantive and deflationary truthmaking through the distribution of functions of providing truth and providing ontology can be presented in another way: The fact that we provide truth by means of the deflationary B-schema that connects a proposition and its name in the metalanguage (Asay 2018: 908); Asay and Baron 2020: 18) does not invalidate the question of grounding the truth of this proposition in an ontology (Asay and Baron 2020: 19–20). The latter is the question of truthmaking substantivists who demand providing an appropriate ontology. In other words, the deflationary B-schema leads to the reference of the true proposition we are asking about. However, it is still possible to specify what category of entity it is, so either way it demands to be grounded in an appropriate ontology. Compatibilism can also be presented in other way. Providing truth via the B-schema is related to the asymmetry of truth and being (Daly 2005: 94; Dodd 2007: 393; Perrine 2015: 192), which is sometimes called the asymmetry in thinking about truth (Hornsby 2005: 42; Perrine 2015: 186). The B-schema is sometimes taken to be conceptual or epistemic (see Asay and Baron 2020: 17). This raises the question of a truthmaker for the conceptual account of the asymmetry or for the truth about the asymmetry of truth and being. This is the question of substantive truthmaking, the purpose of which is to provide an appropriate ontology. The question of which ontology to adopt is not settled by the very definition of truthmaking, but should be left to ontologists and their research (Baron et al. 2022: 317; see Daly 2005: 86), or one could simply assume that different entities can perform the function of being truthmakers (Asay 2020: 22; Griffith 2014: 211n45; Lowe 2005: 188; Simons 1992: 159).

The proposed compatibilist approach recalls the intuition of some of the fathers of the theory of truthmaking, who argued:

In place of Tarski-biconditionals of the form:

“This cube is white” is true iff this cube is white,

we thereby obtain—at least in simple cases—sentences of the form:

If “This cube is white” is true, then it is true in virtue of the being white (the whiteness) of this cube, and if no such whiteness exists, then “This cube is white” is false. (Mulligan et al. 1984: 297)

The schema of the fathers of truthmaking resembles the compatibilist approach. In it, “if ‘this cube is white’ is true” stands for deflationary truthmaking and the function of providing truth, while “it is true in virtue of the being white (the whiteness) of this cube” stands for substantive truthmaking and the function of providing ontology (see Simons 1992: 159). It seems that the fathers of truthmaking did not interpret this compatibilistically, because they did not distinguish between the functions of truthmaking and assumed that it should perform only one function, that of providing ontology. After 20 years of the emergence of deflationary proposals (in reaction to Armstrong [2004]), it can be seen that what the fathers identified with Tarski’s schema has survived in a new form in the B-schema of the truthmaking deflationists. In fact, however, the dispute is still about the same thing: whether truthmaking is to perform the function of providing truth or the function of providing ontology. However, it is only when these functions are separated that it becomes clear that they are not mutually exclusive, and that it is possible to speak of two different concepts of truthmaking.

This is precisely the point that has led some to incompatibilist rather than compatibilist conclusions. Like Mulligan et al., Asay and Baron (2020) do not distinguish between different functions of truthmaking, but assume that truthmaking should have only the function of providing ontology. Although they distinguish between commitments to the truth of proposition and ontological commitments, they do not see the former as sufficient for truthmaking (2020: 18). Thus, Asay and Baron reject deflationary truthmaking on the grounds that it does not perform the function of substantive truthmaking. However, we need not assume that truthmaking can only perform this function. On the other hand, the incompatibilist Hornsby (2005) also does not distinguish between the functions of truthmaking, but argues that the only function of truthmaking is to provide truth. This leads her to conclude that we do not need to appeal to ontology at all, because it is too much—it is enough to provide truth. Nevertheless, an appeal to ontology can serve a purpose other than providing truth. So it seems that incompatibilism arises from a misunderstanding that truthmaking does not have to serve only one function at all. It appears that both sides of the controversy fail to recognize that they are taking only one truthmaking function and evaluating competing theories from that perspective. However, providing truth and providing ontology are two different goals of truthmaking theory that are not mutually exclusive, so there is no need to insist on only one of them.

One might ask, however, whether substantive truthmaking does not already include the function of providing truth. In other words, when we provide ontology, are we not also providing truth? For one thing, when we speak of truthmaking, we usually mean the contraction of deflationary truthmaking and substantive truthmaking into one, which may give the impression that there is no need to distinguish the two components (see Schulte 2011: 419n19). However, we must be careful about using the name “(substantive) truthmaking” only as a kind of label for the

combination of the two concepts of truthmaking, since they actually perform separate actions. It is when we turn our attention to the borderline cases that we see the difference between the two concepts of truthmaking, as the need to pay attention to only one of the functions arises.

For example, when we encounter a negative truth like <There are no unicorns> or an analytic truth like <Bachelors are unmarried>, we realize that in this case there is no need to appeal to the function of providing ontology. In such cases it is only necessary to provide the truth of such propositions, not to show the ontology behind them. Substantive truthmaking does not deal with the problem of negative truths, since it would have to appeal to contentious entities such as reified absences and negative states of affairs. This confirms that substantive truthmaking has a different function from deflationary truthmaking. If we ascribe a single function to them, we encounter a problem with the truths given above. It turns out that it is difficult to provide an adequate ontology for them, and what we are primarily interested in is their truth. Hence, compatibilism provides an effective solution to the problem of negative truths. In their case, only the function of providing truth, or deflationary truthmaking, works. This is a significant advantage of compatibilism over incompatibilists in the style of Asay and Baron (2020), who argue that truthmaking should provide ontology and from this perspective evaluate deflationary truthmaking negatively. However, as we can see, ontology is not always necessary, and the proponent of incompatibilism in the style of Asay and Baron does not have the right tool to deal with such truths.

On the other hand, compatibilism also has an important advantage over Hornsby-style incompatibilists, who argue that the role of truthmaking is to provide truth, not ontology. However, there are some truths for which we are not originally interested in their truth, but rather in the ontology behind them. For example, <Set A and set B are equal>. Even if we know this to be true, we are interested in the elements of these sets, and consequently in the entities to which they refer. In this case, it is not enough just to say that it is true, but it is necessary to show the ontology behind it. Similarly, in the case of the truth of intrinsic relations, such as <John is taller than Peter>. In such cases, it is not enough to merely state that it is true. We expect to show the specific entity (John's height property, Peter's height property), because the relation "being taller than" is grounded in the properties of John and Peter (the height of each). These kinds of examples show that it is not enough for truthmaking to perform the function of providing truth, because sometimes we are originally interested in ontology. Therefore, Hornsby-style incompatibilism is not effective either. By adopting incompatibilism, we lose clarity about the distribution of functions of truthmaking by focusing on only one of them. Moreover, it leads to a rejection of the legitimate intuitions of the other side of the debate. Of course, in addition to the borderline cases above, which show that assuming only one function of truthmaking is not sufficient, there are regular truths, such as <The rose is red>, in which we focus equally on both functions.

Compatibilism also helps to better understand the intuitions of those participants in the debate who have looked for ways to express the intuition of differential application of truthmaking theory to different classes of truths. Griffith (2015), for example, has tried to express this by referring to what he calls a "pluralist theory of



truthmaking,” according to which different classes of truths are made true by different relations of truthmaking. According to him, the uncontroversial class of truths is made true by Armstrong-type truthmaking, while negative truths are made true by supervenience. Thus, it can be seen that Griffith, while recognizing the possibility of the coexistence of two tendencies in the theory of truthmaking, did not choose to adopt deflationary truthmaking for negative truths. For these truths, he remained with supervenience, which is weaker than necessitation but still ontologically committed. Nor did he consider the possibility that for certain classes of truths, different conceptions of truthmaking might interact. A clearer intuition of compatibilism can be seen in Merricks (2007, see also 2011). He argues that every truth trivially depends on being (i.e., it is made deflationarily true using the B-schema), while only certain classes of truths additionally depend substantively on being, either through supervenience (positive predicative truths) or through having truthmakers (positive existential truths). Thus, Merricks assumes that there are certain truths (negative, modal, and temporal truths) that depend only trivially on being. Therefore, it seems that Merricks would agree to formulate his position in such a way that for certain truths we only need to provide their truth, while for certain other truths we additionally need to provide their ontological basis. Moreover, Asay (2018: 916–917), who argues that truthmaking should first and foremost provide ontology, also notes that:

[T]here is no immediate call to find a truthmaker for <There are no hobbits>. The ontology-first truthmaker theorist considers what sorts of ontological constraints such a view imposes on our worldview. In this case, the proposition certainly does offer them: anyone who adopts the proposition thereby commits to an ontology without any hobbits. Negative existentials impose negative constraints on our ontology. (Asay 2018: 916)

It seems that although his approach at first glance suggests an incompatibilist understanding of truthmaking (truthmaking is primarily providing an ontology), it can in fact be understood as compatibilist, since in the case of certain propositions it turns out that an ontology is not needed, but (as a compatibilist would say) is sufficient to provide their truth. Thus, the compatibilist approach to the theory of truthmaking is an effective framework that helps to clarify the intuition about the distribution of functions of truthmaking that can be seen in some participants in the debate.

## 5 Conclusion

Some deflationists about truthmaking claim that we can get rid of substantive truthmaking because we do not need it to provide truth. On the other hand, some substantivists about truthmaking argue that we can get rid of deflationary truthmaking because it does not provide us with the ontology we need. Both sides of the conflict that accept the incompatibilism of deflationary and substantive truthmaking fail to see that we can accept both notions of truthmaking because each has its own specific task that does not preclude the task of the other. Thus, thinking about the relationship between these two concepts does not lead to an “either-or” answer, but to

an “and-and” framework. The compatibilism of deflationary and substantive truth-making, based on the appropriate distribution of the functions of providing truth and providing ontology, is built into thinking about truth. The effectiveness of this framework is confirmed by its successful application to both regular predicative truths <The rose is red> and borderline cases (<There are no unicorns>, <John is taller than Peter>).

**Acknowledgements** I would like to thank Sebastian Kołodziejczyk for his support and comments, as well as the participants of the doctoral seminar for a fruitful discussion. I am especially grateful to Paweł Rojek for his helpful remarks and advice. I would also like to thank Professor Cezary Cieśliński for his comments on a draft version of the paper.

**Funding** Scientific work funded by the science budget in 2020–2024 as a research project under the “Diamantowy Grant” program. Supported by the Ministry of Education and Science of the Republic of Poland under No. DI2019 0112 49.

## Declarations

**Conflict of Interest** The authors declare no competing interests.

**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article’s Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article’s Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

## References

- Armstrong, D. M. (1997). *A world of states of affairs*. In Cambridge studies in philosophy. Cambridge University Press. <https://doi.org/10.1017/CBO9780511583308>
- Armstrong, D. M. (2004). *Truth and truthmakers*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511487552>
- Asay, J. (2018). We don’t need no explanation. *Philosophical Studies*, 175(4), 903–921. <https://doi.org/10.1007/s11098-017-0898-1>
- Asay, J. (2020). *A theory of truthmaking*. Cambridge University Press. <https://doi.org/10.1017/9781108759465>
- Asay, J. (2022). The best thing about the deflationary theory of truth. *Philosophical Studies*, 179(1), 109–131. <https://doi.org/10.1007/s11098-021-01653-w>
- Asay, J., & Baron, S. (2020). Deflating deflationary truthmaking. *Philosophical Quarterly*, 70(278), 1–21. <https://doi.org/10.1093/pq/pqz036>
- Audi, P. (2020). Why truthmaking is not a case of grounding. *Philosophy and Phenomenological Research*, 101(3), 567–590. <https://doi.org/10.1111/phpr.12605>
- Baron, S., Chua, R. M., Miller, K., & Norton, J. (2022). Much ado about aboutness. *Inquiry*, 65(3), 298–326. <https://doi.org/10.1080/0020174X.2019.1592705>
- Beebe, H., & Dodd, J. (2005). Introduction. In H. Beebe & J. Dodd (Ed.), *Truthmakers: The Contemporary Debate* (pp. 1–16). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199283569.003.0001>
- Begelov, J. (1988). *The reality of numbers: a physicalist’s philosophy of mathematics*. Clarendon Press.

- Cameron, R. P. (2008). How to Be a Truthmaker Maximalist. *Noûs* 42(3), 410–421. <https://doi.org/10.1111/j.1468-0068.2018.00687.x>
- Daly, C. (2005). So where's the explanation? In H. Beebe & J. Dodd (Eds.), *Truthmaker: The Contemporary Debate* (pp. 85–104). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199283569.003.0006>
- David, M. (2008). Truth-making and correspondence. In E. J. Lowe & A. Rami (Eds.), *Truth and Truth-Making* (pp. 137–157). Acumen Publishing Limited. <https://doi.org/10.1017/UPO9781844654154.009>
- Dodd, J. (2007). Negative truths and truthmaker principles. *Synthese*, 156(2), 383–401. <https://doi.org/10.1007/s11229-006-0007-z>
- Fine, K. (2012). The pure logic of ground. *The Review of Symbolic Logic*, 5(1), 1–25. <https://doi.org/10.1017/S1755020311000086>
- Fox, J. F. (1987). Truthmaker. *Australasian Journal of Philosophy*, 65(2), 188–207. <https://doi.org/10.1080/00048408712342871>
- Griffith, A. M. (2014). Truthmaking and grounding. *Inquiry*, 57(2), 196–215. <https://doi.org/10.1080/0020174X.2013.855655>
- Griffith, A. M. (2015). Towards a pluralist theory of truthmaking. *Erkenntnis*, 80(6), 1157–1173. <https://doi.org/10.1007/s10670-014-9717-7>
- Hornsby, J. (2005). Truth without truthmaking entities. In H. Beebe & J. Dodd (Eds.), *Truthmaker: The Contemporary Debate* (pp. 33–48). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199283569.003.0003>
- Kitamura, N. (2022). In defense of explanation-first truthmaking. *Asian Journal of Philosophy*, 1(1), 23. <https://doi.org/10.1007/s44204-022-00026-2>
- Lewis, D. (2001). Truthmaking and difference-making. *Nous*, 35(4), 602–615. <https://doi.org/10.1111/0029-4624.00354>
- Liggins, D. (2005). Truthmakers and explanation. In *Truthmakers* (pp. 105–116). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199283569.003.0007>
- Lowe, E. J. (2005). *The four-category ontology*. Oxford University Press. <https://doi.org/10.1093/0199254397.001.0001>
- Macbride, F. (2014). How truth depends upon being. *Analysis*, 74(3), 370–378. <https://doi.org/10.1093/analys/anu057>
- Martin, C. B. (1980). Substance substantiated. *Australasian Journal of Philosophy*, 58(1), 3–10. <https://doi.org/10.1080/00048408012341001>
- Maurin, A.-S. (2010). Trope theory and the Bradley regress. *Synthese*, 175(3), 311–326. <https://doi.org/10.1007/s11229-009-9511-2>
- Mcgrath, M. (2003). What the deflationist may say about truthmaking. *Philosophy and Phenomenological Research*, 66(3), 666–688. <https://doi.org/10.1111/j.1933-1592.2003.tb00283.x>
- Melia, J. (2005). Truthmaking without truthmakers. In H. Beebe & J. Dodd (Eds.), *Truthmaker: The Contemporary Debate* (pp. 67–84). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199283569.003.0005>
- Merricks, T. (2007). *Truth and ontology*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199205233.001.0001>
- Merricks, T. (2011). Replies. *Philosophy and Phenomenological Research*, 83(1), 212–233. <https://doi.org/10.1111/j.1933-1592.2011.00513.x>
- Mulligan, K., Simons, P., & Smith, B. (1984). Truth-makers. *Philosophy and Phenomenological Research*, 44(3), 287. <https://doi.org/10.2307/2107686>
- Perrine, T. (2015). Undermining truthmaker theory. *Synthese*, 192(1), 185–200. <https://doi.org/10.1007/s11229-014-0558-3>
- Restall, G. (1996). Truthmakers, entailment and necessity. *Australasian Journal of Philosophy*, 74(2), 331–340. <https://doi.org/10.1080/00048409612347331>
- Rodriguez-Pereyra, G. (2005). Why truthmakers. In H. Beebe & J. Dodd (Eds.), *Truthmakers* (pp. 17–32). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199283569.003.0002>
- Rodriguez-Pereyra, G. (2022). A defense of explanation-first truthmaking: Some thoughts on Jamin Asay's a theory of truthmaking. *Asian Journal of Philosophy*, 1(1), 4. <https://doi.org/10.1007/s44204-022-00008-4>
- Rychter, P. (2014). Truthmaker theory without truthmakers. *Ratio*, 27(3), 276–290. <https://doi.org/10.1111/rati.12042>

- Schaffer, J. (2010). The least discerning and most promiscuous truthmaker. *The Philosophical Quarterly*, 60(239), 307–324. <https://doi.org/10.1111/j.1467-9213.2009.612.x>
- Schnieder, B. (2006). Truth-making without truth-makers. *Synthese*, 152(1), 21–46. <https://doi.org/10.1007/s11229-004-7905-8>
- Schulte, P. (2011). Truthmakers: A tale of two explanatory projects. *Synthese*, 181(3), 413–431. <https://doi.org/10.1007/s11229-010-9716-4>
- Simons, P. (1992). Logical atomism and its ontological refinement: A defense. In K. Mulligan (Ed.) *Language, Truth and Ontology* (pp. 157–179), Springer Netherlands. [https://doi.org/10.1007/978-94-011-2602-1\\_10](https://doi.org/10.1007/978-94-011-2602-1_10)
- Simons, P. (2010). I—Peter Simons: Relations and truthmaking. *Aristotelian Society Supplementary Volume* 84(1), 199–213. <https://doi.org/10.1111/j.1467-8349.2010.00192.x>
- Simpson, M. (2021). Deflationism and truthmaking. *Synthese*, 198(4), 3157–3181. <https://doi.org/10.1007/s11229-019-02273-y>
- Smith, B. (1999). Truthmaker realism. *Australasian Journal of Philosophy*, 77(3), 274–291. <https://doi.org/10.1080/00048409912349041>
- Smith, B., & Simon, J. (2007). Truthmaker explanations. In J.M Monnoyer (Ed.), *Metaphysics and Truthmakers* (pp. 79–98). de gruyter. <https://doi.org/10.1515/9783110326918.79>
- Tałasiewicz, M., Odrowąż-Sypniewska, J., Wciórka, W., & Wilkin, P. (2013). Do we need a new theory of truthmaking? Some comments on disjunction thesis, conjunction thesis, entailment principle and explanation. *Philosophical Studies*, 165(2), 591–604. <https://doi.org/10.1007/s11098-012-9964-x>
- Tallant, J. (2009). Ontological cheats might just prosper. *Analysis*, 69(3), 422–430. <https://doi.org/10.1093/analys/anp077>
- Tallant, J. (2017). *Truth and the world: An explanationist Theory*. Routledge. <https://doi.org/10.4324/9781315143491>
- Vision, G. (2005). Deflationary Truthmaking. *European Journal of Philosophy*, 13(3), 364–380. <https://doi.org/10.1111/j.1468-0378.2005.00234.x>
- Williamson, T. (2013). *Modal logic as metaphysics*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199552078.001.0001>

**Publisher's Note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.