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MACIEJ SENDŁAK\*

## TRUTHMAKING IN METAPHYSICS AND SEMANTICS INTRODUCTION TO THE TOPICAL COLLECTION ON THE METAPHYSICS AND SEMANTICS OF TRUTHMAKING

The common pre-theoretical view holds that truth depends on reality. For example, the statement "Plato was a student of Socrates" is true because there is a corresponding aspect of reality that grounds this truth. Conversely, the statement "Plato was a student of Kant" is false because no part of the world supports it. This intuition is philosophically captured by the metaphysical relation of truthmaking (Tm), a dyadic relation between something on the side of language or thought (a truthbearer, tb) and something on the side of being (a truthmaker, tm). In this framework, what makes a given sentence true is its participation as a relatum in the relation of truthmaking.

Despite its intuitive plausibility, the notion of truthmaking has become a focal point for numerous philosophical disputes. As a result, it is not easy to come across a statement about truthmaking that is both interesting and finds universal acceptance among theorists. Thus, philosophers argue over what truthbearers are (sentences, propositions, beliefs, judgments, etc.), what truthmakers are (facts, existing facts, states of affairs, objects, etc.), and, most critically, the nature of the relation between them. The nature of this relation is particularly significant as some argue that unresolved questions about it cast doubt on the viability of the truthmaking framework itself.

A good illustration of these disputes lies in debates over two interconnected principles: the thesis of entailment (TE) and the principle of maximalism (PM), both of which are rooted in the assumption that a key feature of the truthmaking relation is its necessity. Specifically, if Tm holds between s (a truthmaker) and A (a truthbearer), then it is necessarily so. This means that if s makes A true, it is

<sup>\*</sup> University of Warsaw, Faculty of Philosophy, Krakowskie Przedmieście 3, 00-927 Warsaw, Poland, e-mail: m.sendlak@uw.edu.pl, ORCID: https://orcid.org/0000-0002-0539-5924.



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impossible for *s* to be the case and *A* to not be true (Armstrong 2004: 7). Thus, in the light of possible worlds semantics, we can define a truthmaker as follows:

(TM) s is a truthmaker of a given A (sTmA) iff in every s-world, A is true.

Unfortunately, despite the strong intuition regarding the connection between necessity and truthmaking, a precise expression of this relation is more difficult to produce than it may seem (MacBride and Daly 2024).

Part of the difficulty lies in addressing broader questions about the scope and nature of truthmaking. For instance, does every true *A* require a truthmaker, or do only certain types of truths require a truthmaker (e.g., atomic or positive ones)? Should each true truthbearer have a unique truthmaker, or can a single entity *s* serve as the truthmaker for multiple truthbearers? Most – if not all – theorists of truthmaking hold that Tm is (at least) a one-to-many relation, meaning that a single entity can make more than one truthbearer true.<sup>1</sup> For instance, if *s* makes *A* true, then it also makes, e.g.,  $A \lor B$  true. After all – due to Disjunction Introduction – in every case in which *A* is true,  $A \lor B$  is also true, meaning that there is no case where *A* is true but  $A \lor B$  is not. If this is truly so, then there is no need to introduce an additional *tm* for  $A \lor B$ . This is reflected by the commonly accepted Thesis of Entailment:

(TE) If sTmA and  $A \vdash B$ , then sTmB.

In virtue of the above, if *s* makes *A* true, and *A* logically entails *B*, then *s* makes *B* true as well (Mulligan, Simons, and Smith 1984: 84). Another widely discussed principle is the Thesis of Disjunction, which states that if  $sTm(B \lor ~B)$ , then either sTmB or sTm~B (Restall 1996: 334). In other words, if a state *s* is a truthmaker for the disjunction, it must make one of the disjuncts true.

Although both the Thesis of Entailment and the Thesis of Disjunction appear plausible at first glance, accepting them introduces a fundamental problem for advocates of truthmaking. Consider a contingently true sentence *A*, such as "Plato was a student of Socrates." If *A* is true, it is because some fact *s* makes it true. Crucially, under classical logic's notion of entailment, every necessary truth is entailed by any given statement, e.g.,  $A \vdash (B \lor \sim B)$ . Thus, the statement "Plato was a student of Socrates" entails the truth of a tautology like "Either Donald Trump is the president of the USA, or he is not the president of the USA." According to

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<sup>&</sup>lt;sup>1</sup>Indeed, most theorists of truthmaking hold that Tm is a many-to-many relation.

the Thesis of Entailment, this means that the fact that makes "Plato was a student of Socrates" true would also make the tautology true.

The Thesis of Disjunction compounds the issue. It implies that the fact that makes "Plato was a student of Socrates" true would also make either "Donald Trump is the president of the USA" or "Donald Trump is not the president of the USA" true. If this reasoning holds, then any truthmaker for a contingent statement could serve as a truthmaker for any other contingent truth. As Greg Restall has shown, this conclusion strays far from the initial philosophical aims of truthmaking theory (Restall 1996). After all, there is no meaningful or philosophically significant connection between the truth of "Donald Trump is the president of the USA" and the fact that Plato was a student of Socrates.

The mentioned TE also relates to another problem, i.e., the debate between maximalism and non-maximalism. The former has it that

(PM) every truth requires a corresponding truthmaker.

Non-maximalists challenge this principle, arguing that it is overly demanding and difficult to satisfy. The central debate revolves around whether this principle applies universally or if there are truths that do not require truthmakers. Maximalists defend their position by appealing to the intuition that truth is grounded in reality, maintaining that even negative truths require a truthmaker. However, this view often leads to complex ontological commitments.

Critics highlight several kinds of truths that appear to resist the maximalist framework, such as negative truths ("There are no unicorns"), modal truths ("Plato could have been a painter"), universal truths ("All humans are mammals"), and mathematical or logical truths. These seem to be true even though there are no corresponding entities to make them true. In response, maximalists have proposed various solutions, including the introduction of negative facts (e.g., Barker and Jago 2012) or totality facts (e.g., Armstrong 2004). Yet, these solutions are often viewed as controversial, prompting some theorists to reject maximalism altogether. Moreover, some critics argue that if truthmaking only makes sense within the maximalist framework, the failure of maximalism might lead to the rejection of truthmaking theory as a whole.

Puzzles surrounding the metaphysics of truthmaking have led to skepticism about its plausibility and theoretical value, particularly when compared to the prominence it once enjoyed. Over the past decade, however, truthmaking has experienced a revival, yet this revival shifts the focus of the notion of truthmaking

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from *metaphysics* to *semantics*, resulting in a novel approach to questions about the semantics of conditionals, hyperintensionality, subject matter, partial content, paradoxes, and many others (e.g., Fine 2012, Fine 2017, Yablo 2014, Moltmann 2018, Jago 2020).

Inspired by works of Bas van Fraassen (1969), truthmaker semantics (TMS) focuses on the semantic relation between a statement (a truthbearer) and what makes this statement true (an object). This makes it a natural alternative to possible world semantics (PWS), which also seeks to explain the truth of statements in terms of objects. The key difference between these two lies in the fact that while PWS explains when (under what conditions) a statement is true, TMS goes further by telling us *what* makes the statement true. One consequence of this is a more fine-grained semantics that overcomes some of the limitations of PWS, which stem from two assumptions: (i) that the mentioned semantic object is a world (or more precisely, a set of worlds), and (ii) that the domain includes only possible worlds.<sup>2</sup> Due to the assumption that possible worlds are complete and consistent, propositions expressed by statements of the form  $A \lor \sim A$  and  $B \lor \sim B$  are identified with the same set of worlds (i.e., the universal set), making them identical. Similarly, both  $A \wedge \neg A$  and  $B \wedge \neg B$  are identified with an empty set, also making them identical. Thus, there is only one necessarily false and one necessarily true proposition.

This reveals the main problem with PWS: while it effectively answers *when* a proposition is true (or false), it fails to address *what* makes it true (or false). Even though  $A \lor \sim A$  is true in every world, what makes it true remains unexplained. This demonstrates possible worlds' inadequacy as semantic objects: they are both too "big" for atomic statements and too narrow in domain to provide fine-grained relationships between statements and objects. Since there is no world where something impossible takes place, there is no way to differentiate between necessarily false statements such as "2+2=5" and "some triangles are round." Likewise, since necessarily true statements are true in every element of the domain of worlds, "2+2=4" and "no triangle is round" are one and the same. In this sense, a more adequate semantics requires more fine-grained objects, i.e., states that play the role of *truthmakers*. After all, while the state *that 2+2=4* makes "2+2=4" true, it bears no significant semantic relation to "no triangle is round."

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<sup>&</sup>lt;sup>2</sup>For a comprehensive analysis of views that extend the domain by introducing *im*possible worlds, see (Berto and Jago 2023).

Although truthmaker semantics aimed to shift truthmakers from metaphysics to semantics, it partly revived the initial purpose of truthmaking, as is evident in numerous works readdressing metaphysical debates. Semantics traditionally explains how symbols relate to objects or how language relates to reality. Since TMS grounds semantics in states, proponents must commit to believing in states, thus inviting questions about their nature. One could avoid these questions by treating TMS as figurative and "state" as merely technical terminology. However, providing a metaphysical account of these states remains methodologically justified and philosophically valuable (e.g., Sendłak 2022). Thus, the development of truthmaker semantics has indirectly revived debates within truthmaking metaphysics.

As this discussion demonstrates, the relationship between truth and being embodies all the hallmarks of a major philosophical debate. Within this context, two distinct types of discussions emerge. First, there is the fundamental question of how truth relates to being, addressing core philosophical concerns about the grounding of truth in reality. Second, there are more specific debates that focus on the details of truthmaking, including the nature of truthbearers, truthmakers, and the relations between them. Together, these discussions have given rise to a range of challenges and a correspondingly vast array of theoretical positions.

This modest collection includes examples of both types of debates. In "The Twofold Objectivity of Truth," Howard Sankey approaches the relation between truth and being from a general point of view and focuses on the question of objectivity. Accordingly, he argues that truth about factual matters possesses a dual objectivity. First, truth is objective because it reflects a correspondence relationship to reality, independent of human beliefs or perceptions. This "non-epistemic" objectivity ensures that truth is determined by how the world is, not how it is believed to be. Second, the facts themselves that make assertions true are objective, grounded in the independent nature of reality and its components. Sankey distinguishes between ontological, epistemic, and truth-related objectivity, emphasizing the interplay between them. Ultimately, he contends that truth's objectivity is rooted in its correspondence to reality and the independent existence of objective facts, making it "objective twice over."

In "Non-maximalism Reconsidered: Truthmaking and the Dependence of Truths on Being," Błażej Mzyk focuses on one of the critical aspects of the relation of truthmaking, i.e., the debate between maximalism and non-maximalism. He critiques and refines the concept of the latter, which posits that not all truths require truthmakers. Mzyk identifies two dimensions in non-maximalism: the quantitative (how many truths lack truthmakers), and the qualitative (the degree of their dependence on being). He proposes a new classification that highlights six potential stances, emphasizing the nuanced relationships between truth, ontology, and dependence on reality. Mzyk ultimately advocates for a radical non-maximalist position that rejects truthmakers for all truths while affirming varying degrees of dependence on being, offering a unified framework that resolves inconsistencies in previous theories.

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