

Logique & Analyse 169–170 (2000), 17–41

TRUTH-MAKER OPTIMALISM

PETER SIMONS

Kaiser Josef II.: “Zu schön für unsere Ohren, und gewaltig viel Noten lieber Mozart!” Mozart: “Gerade so viel, Eure Majestät, als nöthig ist.”¹
Reputed exchange after the first performance of *Die Entführung aus dem Serail*, 16 July 1782.

Franz Xaver Niemetschek, *Leben des K.K. Kapellmeisters Wolfgang Gottlieb Mozart nach Originalquellen beschrieben*, Prague: 1798, p. 23.

Introduction

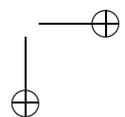
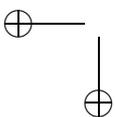
In this paper I canvass a mid way between truth-maker maximalism, the view that every truth has a truth-maker, and truth-maker minimalism, the view that while there are truth-makers, they are few and not crucial to truth in every case. The middle way is a version of Bigelow’s principle that truth is supervenient on being. Because the issues are complex I have chosen to present the arguments in the form of two dialogues with protagonists of the main positions arguing their cases. In that way the reader is perhaps better able to judge for him- or herself which of the three positions (if any) is the optimal one.

1. *Overture: Terms and a Relation*

On a first approximation, a truth-maker is an entity which, by existing, makes something true.² The idea that truths require truth-makers is an ontological rendering of the principle of sufficient reason, that there needs to be a reason why a truth is true. Disambiguating ‘reason’ in one of two possible ways, truth-makers are entities in the world which ground truths rather than other

¹ Joseph II: “Too beautiful for our ears, and far too many notes, my dear Mozart.” Mozart: “Exactly as many, Your Majesty, as are needed.”

² Found variously: see Mulligan, Smith and Simons 1984.



truths which explain or entail truths. The belief in truth-makers is thus a form of realism and at the same time an acceptance of the need for a substantive theory of truth.

Truth-making is embodied in a relation with two terms: to give names to the roles we say that which makes true is a truth-maker, that which is true is the truth-bearer, and the relation is making true. The nature of the terms and the nature of the relation all need discussing: an idea of 'making true' or some cognate, while cropping up at various junctures in the history of semantics, is too rare and too technical to have acquired a rich tradition.

Consider first the nature of truth-bearers. Among the prime candidates which have been discussed in the literature — independently of issues of truth-making — are abstract entities, mental entities, actions, and linguistic entities. The abstract entities are abstract propositions: Bolzano's *Sätze an sich*, Frege's *Gedanken*, Russell and Moore's propositions. If truth-bearers are propositions then the form of truth-making is

A makes it true that p

where ' p ' stands in place of suitable clauses and the we can regard the phrase 'that p ' as naming the proposition in question. Those who are already committed to propositions or inclined to think ontology requires them will follow this line, and it has been to date the predominant way of formulating the idea and principles of truth-making.

Propositions are unappealing because of their abstractness, much as they simplify theory. They are uncongenial to many kinds of physicalist and naturalist as residing outside space-time. For that reason the more hard-minded might prefer linguistic items: sentences. These have a noble modern pedigree through their use in the Polish school. The frame for truth-making will then be something like

A makes s true

where ' s ' names a sentence. To avoid abstractness however these should be sentence-tokens, not sentence types. Those who do not object to abstracta are advised to go for propositions straight away, as they are less encumbered with the problem of indexicality, which threatens to make truth a property relative to circumstance. Problems of indexicality apply to sentence-tokens too but the main reason to look askance at them as primary truth-bearers is that they can be true or false only thanks to the animating understanding of speakers and hearers, or writers and readers (generally: authors and recipients). So the spotlight shifts to the mental: acts of thinking, judging, understanding, and states of dispositions of believing. This view, long the leading one, has the disadvantage of rendering primary truth-bearers private.

There is no denying that there are such truth-bearers, the question is whether they are in some sense basic to others. Sadly for publicity, I think they are, though acts of uttering can also be appraised as true or false. This choice of primary truth-bearers is argued elsewhere³ and I do not intend to repeat it here. To give such truth-bearers a name we might use the word ‘thought’. The frame for truth-making is thus

A makes *T* true

where ‘*T*’ stands in for the name of a proposition. However, because *we* need to be able to specify such a thought, and will typically do so by adverting to its (publicly expressible) content or meaning, and because in practice we are not interested for current purposes in the differences between thoughts that ‘think the same thing’, we shall abstract from the differences between different thoughts and thinkers and, i.e. are interested in effect in

A makes true thought *T* of *S* at time *t* that *p*
(and likewise any other thought “saying the same” as *T*)

we shall employ for convenience the propositional framework

A makes it true that *p*

with the difference from the previously rejected position that we deny the ontological commitment to abstract propositions of those who would take this frame at face value.

If this sounds like trying to have one’s cake and eat it, the answer is that it is, but blame the phenomena, not the theory.

Next we consider the nature of truth-makers. There are two kinds of theory: specialist and generalist. Specialist theories propose a category of entities whose specific job it is to be truth-makers for truth-bearers. Typical examples are facts or states of affairs, depending on theory.⁴ I shall not be fussy about this distinction because I reject the need for specialist truth-makers,⁵ though I shall concede later that there are reasons why one may be drawn to them which arise out of the optimization difficulties which are the main topic of this paper. That leaves generalist theories. These say that all

³ Simons (forthcoming).

⁴ See Russell 1986, Armstrong 1997, for example, though the theory goes back at least to the Middle Ages.

⁵ Simons 1992, 1997, 1998, 1999.

or some of the objects which we take to exist anyway serve the role of truth-maker. Here is a knock-down argument that all entities are truth-makers, at least potentially. Let A be any entity. Then any thought to the effect that A exists (in shorthand: the proposition that A exists) is by definition made true by A . All that is required for A to in fact be a truth-maker is that there be in fact a thought (or other truth-bearer) *about A and to the effect that A exists*. For most actual entities, there will be no such thought, for the simple reason that no one is acquainted with A individually, there being far more things in heaven and earth than there are names or indeed descriptions in the total mental inventory (assuming we leave any divinity out of the picture). Thus actual instances of truth-making by entities are rare, but anything in principle distinguishable by an intelligent being is a potential truth-maker for "its own" potential existential thought, let's say, its own existential proposition. In shorthand then, any entity makes its own existential proposition true.

Finally consider truth-making itself, the relation. The signs are that it is not analysable in terms of anything more primitive, but we need to be able to say more than just that. So we ought to consider it as specified by principles of truth-making. Here are some principle schemata:

FACT If A makes it true that p , then p

EX If A exists, then A makes it true that A exists

ENT If A makes it true that p , and that p entails that q , then A makes it true that q

A special case is where p entails that not q :

If A makes it true that p , and that p excludes that q , then A makes it true that not q

For these principles to operate sensibly, entailment must be a strong relevant connective, but the entailment or exclusion need not be simply logical: it may be analytic entailment based on meaning, as when whatever makes it true that this leaf is (uniformly) green makes it false that it is uniformly red.

INC If A makes it true that p , and B includes A , then B makes it true that p

Inclusion can come about in one of three ways, depending on whether we are talking about mereological inclusion, numerical inclusion, or a combination of both. Mereological inclusion is where A is part of B . Numerical inclusion is where A is one of B or A are some among the B . Finally if A is a part

of C and C is one of B then B includes A indirectly, or if A are several things and each one is part or all of some thing which is one of B then A are included in B . In this way for example Jascha's two hands make it true that Jascha has ten fingers. Notice they do not make this true via making true that Jascha has two hands, for Jascha's having two hands by no means entails that he have ten fingers. Rather his actual two five-fingered hands suffice themselves to render it true that he has ten fingers, those ten fingers all being parts of those two hands.

As this example makes clear, truth-making frequently calls not just for single individuals but for collections or pluralities of individuals to be joint truth-makers. No single finger can make it true that Jascha has ten fingers, nor need there in principle always be a single entity encompassing the required many individuals (though in this case there is: Jascha himself.)

Within truth-maker theories there are many candidates for the actual entities that serve as truth-makers. I shall try to avoid detailed discussion of the nature of these candidates because I wish to focus on a basically quantitative question. How many truth-makers do we need? Obviously it is not a number we are after, but principles or at least hints of principles of when to accept and when to exclude. Call this the truth-maker optimization problem. The correct answer to this problem constitutes truth-maker optimalism. But what is the correct answer?

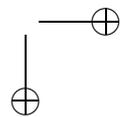
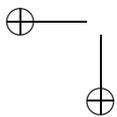
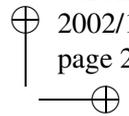
2. *First Duet: Too Many Truth-Makers*

Here is the principle of truth-maker maximalism:

MAX For any p , if p then there is something A such that A makes it true that p

The principal arguments against truth-maker maximalism are (1) that we can manage with fewer truth-makers than maximalism requires and (2) that some truths would seem to require problematic truth-makers. These points have been put forward by truth-maker minimalists, and countered by maximalists. I shall be arguing below that there are three basic positions among truth-maker advocates, not just these two, and shall distinguish between two positions denying maximalism. One is more moderate than the other. Let us introduce two fictitious characters, Max, who believes in maximalism, and Mid, who adopts the more moderate of the two anti-maximalist positions.

Mid: You, Max, proclaim the principle MAX. But consider an arbitrary proposition that p which is made true by some entity or entities A . By the entailment principle ENT, which you accept, A also makes true that p or q ,



so there is no need to postulate a special further truth-maker for the proposition that p or q , since A will do the job by itself.⁶

Max: You have misunderstood me. I did not say (like some advocates of facts and states of affairs) that there has to be a *unique specific* truth-maker for every true proposition, only that there has to be *some* truth-maker, and for that purpose A is as good as any in making it true that p or q . If B were to make it true that q then B would do as well. If both A and B exist, so much the better. Only what we cannot have is the case where nothing makes it true that p and nothing makes it true that q , for then by MAX if nothing makes it true that p then by default it is false that p and similarly it is false that q so by truth-tables it is false that p or q . A disjunction cannot be true unless one or other of its disjuncts — maybe both — is made true.

Mid: Very well, I concede that (like Russell) you do not need to invoke special disjunctive truth-makers. I take it that you would by analogy not want to invoke special existential truth-makers for the truth of existential propositions such as 'there exist scorpions in Africa'.

Max: You take it correctly. Any individual scorpion in Africa (or any two if we are being fussy about the plural) will make this general proposition true.

Mid: Because of cases of analytic exclusion, I agree with you that there are sometimes truth-makers for negative propositions like 'This is not red'. Whatever makes it true that this (pointing to a blue flower) is blue thereby makes it false that it is red. But what about a proposition like 'This (pointing to some water) liquid is odourless'? Surely there is no candidate for an excluding odour, by construction. Are there not cases of mere lacks without the items lacking being thereby excluded?⁷ What about true negative existential propositions such as 'There are no centaurs' or 'Wotan does not exist'? Surely you would not wish to postulate truth-makers for these: what is that that, by virtue of existing, could make it true that no centaurs exist, or what, by existing, could make it true that Wotan does not exist? Surely not non-existing centaurs, or a non-existing Wotan? That would be in self-contradiction.

Max: This is an old and well-understood difficulty, and is one of the main reasons why Brentano, Meinong, Reinach and others were led to postulate

⁶Russell 1986, 191.

⁷Cf. Findlay 1963, 51.

states of affairs or closely related entities. What makes it true that Wotan does not exist is the state of affairs that Wotan does not exist. It *does* exist, and that is why that proposition is true. If it did not, then by excluded middle for states of affairs, the state of affairs that Wotan does exist would exist, and therefore so would he. It's easy. With existential states of affairs we avoid confusing an existential proposition's truth-maker with its subject, which is a mistake many people have been prone to make. There are no negative things and (*pace* Meinong) no non-existing things, but there are negative states of affairs, and many of them exist.

Mid: Surely in this case we are running the risk of unnecessary duplication of entities. The true proposition that Wotan does not exist is, you say, made true by the existing state of affairs that Wotan does not exist. Well, three things. First, you are led to invoke specialist truth-makers. Secondly, in my ears this sounds awfully like a confusion between 'fact' as entity (Russell, Wittgenstein) and 'fact' as true proposition (Frege, Ramsey). You are borrowing the triviality that if Wotan does not exist it is a fact that he does not and turning it to make a disputable existential claim. Thirdly, if you are accepting states of affairs why be coy about disjunctive ones? Any old logical constant will serve to yield new state of affairs, disjunction included.

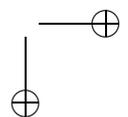
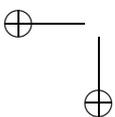
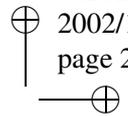
Max: That is true, but consider the following alternative. Like you I would prefer if possible to avoid postulating specialist truth-makers. Let's then say that the world as a whole makes it true that there are no centaurs, that Wotan does not exist. The world is, you will agree, something positive, and (*pace* Wittgenstein) not a fact or multiplicity of facts.

Mid: I agree about the world, but your solution is *ad hoc* and smacks of desperation. Just because there is nothing in the world which makes it true that centaurs exist does not mean that the world as a whole makes it true that there aren't. I agree if you go that way you need the whole world because otherwise you might run the risk of missing out just that corner where a centaur lurks. But I offer a much more attractive position. If, as we both admit, there is nothing in the world which makes it true that centaurs exist, then why not say that *for just that reason* the proposition is false? If it is false, then by logic its negation is true.

Max: But then the principle MAX is falsified.

Mid: Precisely!

Max: Well I refuse to argue in a circle of course. But consider your position carefully. You seem to argue by default. If nothing makes it true that *p* then



p is false. But in your case nothing makes it true that centaurs exist (nothing can, because it's false) but also nothing makes it true that centaurs do not exist, by your argument. Hence by your default reasoning centaurs both do and do not exist. That (*pace Priest*)⁸ is going too far. My world as truth-maker is preferable to true contradictions.

Mid: I agree, but I reject the default principle you ascribed to me, which is nothing but a contraposed version of MAX. I did not say that in all cases where a truth-maker is not forthcoming, the proposition is false. Some propositions are true without there being anything that makes them true. Take tautologies of logic or the necessary truths of mathematics for example: why should ' $a = a$ ' or 'not (p and not p)' or ' $2 + 2 = 4$ ' require truth-makers? Surely such truths are unconditionally true and hence in need of no truth-makers.

Max: I allow that the principle MAX may be reasonably restricted to empirical truths, though some of my fellow-maximalists insist on looking for truth-makers in all cases. But let's not argue the point as it's not important here. I take it you think 'There are no centaurs' is, *prima facie* at least, an empirical proposition, and if not that, then we can find another example like it which is.

Mid: I agree.

Max: Well then if you lack truth-makers for each side of a pair of contradictory propositions, how is it that one of them is true and the other not? Surely the absurdity of the situation is what gives MAX credence.

Mid: You have to learn to be more discriminating about the forms of propositions. Russell and Wittgenstein made a distinction between atomic propositions and others. Wittgenstein said that if an atomic proposition's truth-maker exists (he thought it was a state of affairs) then the proposition is true, and if the truth-maker did not exist, then the atomic proposition is false.⁹ I disagree with Wittgenstein about the nature of the truth-bearer but the principle is a good one. If an atomic proposition lacks a truth-bearer it is false, by default. If it has a truth-bearer, it is true. There is an asymmetry: the negation of the atomic proposition is true when the atomic proposition lacks a truth-maker, but it does not require its own truth-maker for this to be the

⁸ Priest 1987.

⁹ Wittgenstein 1961, 4.25.

case. It goes by default. That is how atomic propositions are different.

Max: Yes but the whole notion of an atomic proposition is fraught with problems. Wittgenstein notoriously failed to provide an example of one, while Russell gave examples but they are unconvincing metaphysics. In my theory (MAX) there is no metaphysical *Angst* involved in trying to discern these reputed atomic propositions: we just get on with whatever propositions we have and do not strive to reach a possibly elusive bedrock.

Mid: I understand your concern but I believe I can allay it. Take a kind of proposition that Wittgenstein did not accept, but quite wrongly, namely a singular (or particular) existential proposition, whether true or false, such as 'Elvis exists' (I of course mean the verb tenselessly) or 'Wotan exists'. You agree that by the definition of truth-maker, Elvis makes it true that Elvis exists?

Max: I'll go along with that for the sake of argument.

Mid: Well, what about Wotan? He doesn't exist, and the proposition that he does not is true, but certainly *he* does not make any proposition true, because there is no *he* to do so. If you do not want to buy into states of affairs then for negative existentials the default position is a good option.

Max: Fair enough, but I still think you'll have difficulty finding out other kinds of atomic propositions than existential ones. In any case many apparently atomic propositions are by no means existential. What about 'This (pointing at a blue flower) is blue' for example?

Mid: I concede that it's not always transparent to analysis what counts as atomic, and that is a difficulty with my theory, but it's part and parcel of a general position I hold which is that linguistic analysis does not go far at all to disclosing the truth-makers for propositions. I call it the *opacity point*, and regard it as a hidden strength of my view, namely that it is up to empirical, not semantic theory to discover truth-makers.¹⁰ However that may be, let me note that if you accept my view on negative singular existentials you are committed to rejecting MAX in its full generality.

Max: For that very reason I'm inclined to think my admission was a bit hasty. Very many logicians and philosophers have denied that singular existential propositions are meaningful, or have held that they are in reality

¹⁰Cf. Mulligan et al 1984.

general propositions, of the form 'for some x , $x = a$ ' for example.

Mid: That does not mean they cannot be treated by my theory. If 'for some x , $x = a$ ' is false then what makes its negation true on your view? On my view nothing at all. You are committed to there being something which makes it true that everything is not a , or that everything is not a centaur, to use the general example.

Max: I'm very glad you brought that up, because that is another and less *ad hoc* way to account for the truth of negative existentials by MAX, and that is to invoke *universal* truth-makers. Russell called them 'general facts',¹¹ Armstrong calls them 'totality states of affairs'.¹² Facts like the fact that every body is heavy, that every man is mortal, that no star is less massive than the planet Jupiter are all examples (I am excluding non-empirical cases as far as I can). These are all universal facts. You may choose different ways to explain what they consist in, but the main point is that they are truth-makers for universal propositions which work directly. Because they exist, such universal propositions are true. Of course by ENT they also serve to make their instances true.

Mid: I'm not so sure about that last point: after all in free logic (which takes non-existence seriously, logically but not ontologically), 'If the earth is less massive than Jupiter then the earth is not a star' does not follow from 'No star is less massive than Jupiter' (for all x : if x is less massive than Jupiter then x is not a star) without help of the existential premise 'the earth exists'.

Max: Fair enough, thanks for the lecture on free logic. I can accept it without giving up my main point which is the *sui generis* nature of universal facts. They give me truth-makers for 'Wotan does not exist' and 'There are no centaurs' in the form respectively of 'Nothing is Wotan' and 'Nothing is a centaur'.

Mid: Then you do accept facts or states of affairs after all.

Max: Indeed. Several arguments point in the direction of needing to do so. Your odourless liquid falls by the same axe: the universal fact [No odour belongs to this liquid] makes that proposition true. I have a further argument, due to Russell, for universal facts.¹³ If we tried to do without universal facts

¹¹ Russell 1986, 207.

¹² Armstrong 1997, Ch. 13.

¹³ Russell 1986, 207.

we'd have a logical gap in certain cases. Suppose for simplicity there are just three individuals, a , b and c , and that each has the property F . Then the three propositions that a is F , b is F , c is F are all true, but do not suffice between them for the truth of *Everything is F*, because it is not ruled out that there might be a fourth thing d which is not F . Hence whatever truth-makers there are for the three true singular propositions cannot make the universal true. We need the universal fact to do that. For what could we use to supplement the three singulars? It would have to be something making it true that there are no other objects than a , b and c . But that too is a universal proposition and if we try to find a non-universal truth-maker for it we go round in circles, a vicious regress. Hence there must be at least one true universal proposition made true by universal fact.

Mid: That argument presupposes that the truth-makers for the conjunction of the three singulars have to be *logically sufficient* for the truth of the universal. It isn't of course, hence your argument, but I deny the presupposition. I say the three singulars are (as it happens) *materially sufficient* for the truth of the universal. You don't need to add in the proposition that they are. Just by existing, those three truth-makers make it true that everything is F , even though they do not make it true in all possible worlds. Making true is not a relation which can be modalized with necessity. That surely fits in with our intuitions elsewhere: A makes it true that p or q but does not have to, because B might do the job. There is modal slack in the truth-making relation there. Incidentally Wittgenstein was on my side and rejected all truth-makers apart from those for atomic propositions. "The totality of existing states of affairs determines which states of affairs do not exist."¹⁴ "The existing and non-existing of states of affairs is reality."¹⁵ "The whole of reality is the world."¹⁶

Max: Yes but what about the status of 'totality', or the 'everything' in "The world is everything that is the case".¹⁷ Surely that just underlines Russell's point. Look at "The world is determined by the facts, and by their being *all* the facts."¹⁸ He has to use the universal clause there.

¹⁴ Wittgenstein 1963, 2.05.

¹⁵ Ibid., 2.06.

¹⁶ Ibid., 2.063.

¹⁷ Ibid., 1.

¹⁸ Ibid., 1.11.

Mid: Actually not, and it is arguably inconsistent with his principles elsewhere that such use is strictly illegitimate. But in any case let's not get bogged down in Wittgenstein exegesis. The point can stand on its own whether St. Ludwig agreed or not.

Max: Let me summarize our positions then. You reject MAX, but all you have to put in its place are a series of case-by-case arguments all of which are intended to pare the ontological cheese as thin as you can. I have a simple streamlined principle in MAX, but am compelled to admit facts or states of affairs into my ontology to cope with what would otherwise be unsolvable cases.

Mid: That summary is all right as far as it goes, but it overlooks that you have a relatively unenlightening account of truth (if p is true it's because of the existence of the fact that p), that you are committed to universal and negative facts ...

Max: We haven't spoken about negative ones, and I can subsume them as a special case of universal if I wish, but all right, I don't care, I have facts of all colours and logical forms.

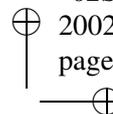
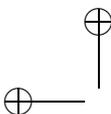
Mid: ... as I was saying, you are committed to an ontology of specialist truth-makers, which is unwieldy, unnecessary, and reduplicates the structure of propositions in a suspiciously close manner.

Max: At least *I* am sure I can cover all cases. We haven't even begun to talk yet about modal, metaphysical, mathematical, nomological and other kinds of proposition. My uniform recipe works well in all: you have to struggle to say anything sensible in any. So if you will forgive me I will get back to applying my theory of truth-making in new and profitable areas.

Mid: And at least *I* have the benefit of knowing I am engaged in honest toil, unclouded by the illusion that a theory of truth for the real world must in some way mimic the smooth and recursive procedures of logic.

Max: It seems we are unlikely to agree.

Mid: You're right, and thank you for making that clear through our discussion. Now I see my young but trenchant colleague Min approaching and will need to defend myself against her. Good morning Min!



Min: Good morning. I take it my friend Mid is as ever engaged in discussion about the proper ontology of truth?

Max: How do you do! Of course: there is no nobler pursuit. But are you one of us, a seeker after truth?

Min: I love metaphysics.

Max: Welcome sister!¹⁹ But if you will allow, I will withdraw to my study, for Mid has I am sure put your case as well as his in our discussion and I fear I shall have nothing to add to your cheese-paring debates. Good day to you!

3. *Second Duet: Too Few Truth-Makers*

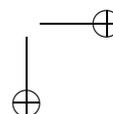
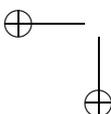
It may have appeared to date as though there were just two basic positions: truth-maker maximalism (defended above by Max) and the critique thereof (defended above by Mid). But in fact there are several more, not to mention various finer variations within the general areas defended by Max and Mid. One position, which denies an assumption that Max and Mid share, is that there is no need for truth-makers at all, that truth does not call for truth-makers. The usual reason for taking this line is that one is a deflationist or minimalist or redundantist about truth and considers it calls for no special ontology or anything like correspondence or truth-making. The true nub and gist of truth-theory is on this view captured in the trivial biconditional

TRIV For all p , it is true that p if and only if p

The defenders of this position (foreshadowed by Frege, clearly formulated by Ramsey, worked out in detail by Horwich)²⁰ rest their case primarily on the satisfactory and yet basically trivial or uninformative nature of TRIV, and spend their time arguing that those who seek more are mistaken, confused, wanting something it is unnecessary to have, or some combination. It is not my intention to confront this position here as it would take me too far afield. All the positions considered in detail in this paper accept the existence of some truth-makers. The disagreement is roughly speaking about how many it is right to accept. Deflationism is off this map. I will only point out that accepting TRIV is made much more difficult if one denies the existence of abstract propositions over which to quantify. Of course that in itself maybe

¹⁹ It seems things have improved doubly since Heyting 1956, 5.

²⁰ Horwich 1998.



used as a reason to justify accepting propositions: they conduce to a simple truth theory. But clearly this is a big debate so I shall skirt it.

There is another position which is distinct from both the views mentioned in the previous section, which is to accept truth-makers for only a minimum of truths which absolutely require them. This is truth-maker minimalism, and to date it may have seemed that Mid advocated it. But in fact Mid holds to a principle which the strong minimalist will deny. This is a principle formulated, in the service of truth-maker theory, by John Bigelow, called the Principle of Supervenience of Truth on Being.²¹ This states that

STB There can be no difference in what is true without a difference in what there is

Contrapositively stated, if the same things exist, the same propositions are true.

In this form the supervenience principle is very attractive, indeed for advocates of truth-makers it seems hard to imagine how one could gainsay it. Certainly Max would never think of doing so. But the new discussion participant Min does: she believes in fewer truth-makers than Mid, that is, believes some are not needed in cases where Mid thinks some are. Let us rejoin the debate.

Min: You, Mid, admit, unlike our colleague Max, that there are truths for which we have no need of a truth-maker?

Mid: Yes I do. Logical and other non-empirical truths for example, and the negations of false atomic propositions.

Min: Well, having made the all-important break with truth-maker maximalism, why stop there? Why not admit, as I do, that many empirical truths, including atomic ones, need no truth-maker in the sense of an object which by existing makes the proposition true?

Mid: But the point is that unless you are some kind of idealist or pragmatist or another sort of anti-realist about truth — and I take it you are not ...

Min: You take it correctly.

Mid: ... that such truths cannot be merely true but have to be true because of something in the world. That something is then their truth-maker (or one of

²¹ Bigelow 1988, 133.

them, if the truth has several). Otherwise how do you explain that they are true, and not false, these propositions?

Min: I concur wholeheartedly with your noble and honorable wish to avoid anti-realisms of any kind. Like you I am a realist in that I think true propositions — leaving non-empirical ones aside like you do — are true because of the way the world is ...

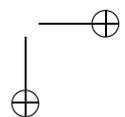
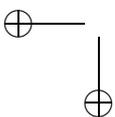
Mid: Well there you go then, you do agree!

Min: ... if you'll kindly let me finish what I was saying and not interrupt before I get to the end of my sentence!

Mid: Sorry. Please carry on.

Min: As I was saying, such truths are true because of how things are in the world. But *how things are* is not an additional thing in the world. If you say it is, you are reifying or hypostatizing it, quite unreasonably and unnecessarily. That is precisely what goes wrong with those theories of truth-makers which invent a special new category of thing expressly for the purpose of being truth-makers, namely facts, or states of affairs (if these are not the same thing).

Mid: You surely appreciate by now that I don't accept the need for states of affairs. If a particular electron E42 is negatively charged, this is true not because of the existence of a state of affairs of E42's being negatively charged but because of the existence of the negative charge itself, what one might call a moment or trope of negative charge. Call this trope C42. Then since C42 exists, E42, the individual of which C42 is a dependent part, is negative. Conversely expressed, E42 *is* negative because E42 *has* a negative charge, which is none other than C42 in this case. Indeed very many non-relational truths about quality and quantity are made true by individual tropes inhering in their substances in this way. Although I do not believe there is such a thing as a trope of redness (because being red is not a non-relational quality), if there were, then some such trope of redness inhering in the surface of a red thing would be the truth-maker for the proposition that the thing is red. Since the trope is ontologically dependent on that whole, we do not need to bring in a nexus or tie putting together a state of affairs of the thing's being red, as states of affairs theorists do who need to connect a particular to a universal. They need the state of affairs because the particular (this ball for example) and the universal (this shade of red) could exist without this ball's being red. In true truth-maker style they look for something else which makes it true



that this ball is red. I don't need to, because the trope itself will do the job.²² Its being a dependent particular means also that I have one less reason to accept the existence of universals. That is, my moderate nominalism gets by with tropes and substances (which may in fact just be trope bundles)²³ whereas a state-of-affairsist needs particulars, universals, a nexus tying them together (which has its own problems), and the states of affairs thus formed. Which ontology is leaner?

Min: You don't need to convince *me* of the excessive ontological baggage carried around by states of affairs theories. I'm fully at one with you there.²⁴ My point is that your tropes are not really any better than their states of affairs: you only need them because you are looking for a single item to make that singular proposition true. That's the point: there isn't anything obvious which we all agree exists which makes the proposition true, so you go hunting for something unobvious and you come up with these tropes. Come on now, if you ask the ordinary woman in the street what a trope is she hasn't the faintest idea what you are talking about, nor would she be able to name one. It's a blatant piece of philosophical invention solely for the purpose of satisfying the supervenience principle STB. If you give that up, you don't need tropes any more than you need states of affairs. My ontology is leaner still and yet still adequate to the pre-analytic data.

Mid: Steady on! That's a lot of objections at once. I'll take them one at a time. First off, the *name* 'trope' may be esoteric, but then so are many technical terms in other sciences. I admit I'm not wholly happy with the term but it has established itself, and the rhetorical sense of the word does not interfere with this one. We've surely progressed in philosophy beyond the stage where we are constrained to conduct our research exclusively in the polite and gentlemanly terms of the humanities common room. We may not need such a battery of technical terms as mathematics or the natural sciences, but we are allowed some if we need them. Secondly, the idea of a trope or individual dependent part or moment is by no means as esoteric as you imply. It has been a philosophical commonplace since the days of Aristotle. It is just what the medievals called an individual accident. I know it was revived in twentieth century analytic philosophy by G.F. Stout,²⁵ but he may well have

²² As in Mulligan et al 1984.

²³ Simons 1994.

²⁴ As is Min's friend Julian: see Dodd 1999.

²⁵ Stout 1921.

been influenced by Husserl, who was using the idea pretty much as Aristotle did, and it does similar jobs, such as accounting for change. In twentieth century terms tropes look esoteric, but only because they had disappeared from analytic philosophy due to the one-sidedly Platonic sympathies of Moore and Russell. When Moore affected not to understand what Stout meant by his dependent particulars,²⁶ I suggest he was being disingenuous. He pretended not to understand because it was rhetorically more striking to profess incomprehension than to confront the arguments. And history proved him right: hardly anyone took up tropes again until decades later. Finally, it's just plain wrong to say the woman in the street couldn't name a trope. She does all the time, perhaps without realising it. If Mary wakes up and say to John, "That headache I had last night: I still have it this morning", then she's referring to a trope, in this case a distressingly long-lived one: her headache. We all know about headaches, and other aches, and a whole variety of other kinds of dependent particular, the smile Mary did for the camera, the way her hair flicked up, the shape of her left eyebrow when she is cross. There are whole books written about tropes, like the collision between the *Titanic* and the iceberg in 1912, or the Battle of Waterloo in 1815, or the explosion of the *Challenger* in 1986.

Min: Just a minute! It's not tropes you're talking about there: it's events! Collisions, battles, explosions: paradigm cases of events surely! Yes, we talk and write and think about events all the time, but they aren't tropes, not like the whiteness of the piece of paper, for which we have no names.

Mid: I don't think there is a difference between events and tropes, or rather, I don't believe they are mutually exclusive categories. Events, at least those events which necessarily involve participants, like collisions and battles, *are* tropes. I admit they are dynamic tropes, and have temporal parts, but tropes are merely dependent particulars, things that cannot exist except with or in association with other things making up a whole. They can be dynamic or static, they can have temporal parts (be occurrents) or not (be continuants). Mary's headache is a continuant trope, as is her smile — whereas her *smiling* is an event and therefore an occurrent trope. These are I admit subtle differences and more needs to be said, but the general point is clear: we are extremely familiar with tropes, in fact they are probably the kinds of entity with which we have most intimate acquaintance through perception.

²⁶Moore 1923.

We only ever perceive a substance by perceiving some of its tropes.²⁷

Min: Well I don't want to get too involved in your neo-scholastic hankerings after defunct medieval theories. I still say we hardly ever refer to tropes by name, the way we refer to John and Mary and London and Warsaw.

Mid: No more than we do to events. We practically only ever refer to them by means of definite descriptions. You can call these descriptive names if you like, I have no objection.²⁸ But there are perfectly reasonable pragmatic explanations as to why we have proper names mainly for people and places and some artifacts: they are continuants and so persist as self-identical through time, so we know it's the thing and not a later phase of it we refer to, and secondly, we *are* people so of course we are most interested in distinguishing people by a neat system like proper names. So let's leave the ordinary language philosophy behind in the fifties where it belongs.

Min: All right, point taken. But what about relative or relational tropes? You remember Leibniz said an accident could not have legs in more than one substance. Your tropes are in the same boat. What on earth would it mean to have an individual trope of being next to or being 5 Km away from? It's absurd to postulate such things, again all for the sake of defending an obscure and insecure principle, STB.

Mid: Well Leibniz was wrong. A collision cannot take place without there being two things colliding. It takes two to collide. That's why the old Zen saw about the sound of one hand clapping is supposed to arrest one: it's patently absurd.

Min: I can clap with one hand.

Mid: What? Show me. [Min claps her fingers against her palm.] Oh go on, don't be so smart, you know what I mean! That's still two things colliding, your fingers and your palm. Forget the example, look at the principle!

Min: All right but for a start I still think your examples are of events, and of course many if not most events have more than one participant. Big deal. You still haven't answered my point about tropes of being next to or being 5 Km away from. Where is the trope of being 5 Km from to be found? Is is

²⁷ Mulligan et al 1984. The view goes back through Locke to Aquinas.

²⁸ Bennett 1988.

strung out in a straight line between the two objects like a piece of invisible metaphysical string? Do me a favour! If that's not metaphysical *Unsinn* I don't know what is. At least the Platonists know where to put the universal of being 5 Km from: nowhere! Your nominalistic relation-instance risks being much more nonsensical.

Mid: I admit that there are problems with spatial relations, and temporal ones for that matter. The Battle of the Somme was 101 years after the Battle of Waterloo but there's clearly no sense to be got out of the idea that the 101 years' temporal gap is somehow itself in time. But if I may I'll come back to space and time later, because it's frankly a problem for nearly everyone.

Min: Not for me.

Mid: We'll see about that. I just want to make an historical point. It wasn't until the nineteenth century that relations began to emerge from the shadows as a metaphysical topic, and it wasn't unconnected with their emergence that facts emerged as metaphysical entities in their own right too.²⁹ With a non-relational or property trope you can always say it's somehow *in* the substance (not as a part, as Aristotle said), at least you know where to locate it. Relations don't locate so easily, which is why people thought up facts, to give relations a way of connecting as well as explaining why we don't trip over relations. It also makes Platonism much more attractive. Aristotle notorious said relations had the least substantial mode of existence, and you can see why. Also in the Middle Ages what they called 'relations' were in fact relational properties.³⁰

Min: I wouldn't disagree with the history, but I wouldn't lay too much weight on it either. Let me get back to my main point, which is that you invoke truth-makers for true propositions where I say you have no need at all to do so.

Mid: Like where, for instance?

Min: Well, take the example of the red ball again. You say it's true because of the existence of a trope of redness in the ball, others say it's true because of the existence of the state of affairs of the ball's being red. I say you don't need either: both are driven by the need to find some single entity to satisfy STB. I say the proposition is true not because of the *existence* of anything,

²⁹ See Olson 1987, Ch. 2.

³⁰ Henninger 1989, 4.

whether the ball, or the trope, or a state of affairs, or (to take another theory we both disagree with) a qua object or Brentanian accident like the red-ball, which exists as long as the ball is red but disappears when the ball changes colour, even though the ball continues to exist. I say the proposition is true simply because the ball is red! Not *what* exists makes it true (though I grant you need the ball to exist, but as a necessary, not a sufficient condition.) It's *how* the ball is that we are talking about, and this is not to be reified into something new, a trope or state of affairs. Not *what* things there are but *how* things are determine in large part what is true and what is false. So I can be a realist and yet still do without truth-makers for many true propositions. In fact when it comes down to it the only truth-makers I really need are those for existential propositions, like 'The ball exists' or 'Julius Caesar exists'. As you agree, those are made true by the objects themselves. But that's a very special case. That the ball is red is true not because of the existence of anything, but because of the way the ball is.

Mid: And what is that way?

Min: It's red. Of course.

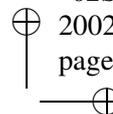
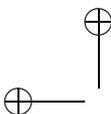
Mid: Not of course: the *ball* is red, but what is *the way the ball is*? What is that?

Min: There is no that or it that is "the way the ball is". That's precisely the point. In saying there is you're reifying again. Just resist the urge. Don't invent a thing where there isn't one. Resist the urge to nominalize. The ball is red. That's how things are. But there is no entity called 'how things are' or 'how the ball is' or 'what colour the ball is'. Just nominalizations fooling you into thinking there's an associated entity. Well there isn't.³¹

Mid: Yes well I'm the last person to say that all noun phrases stand for something so I can't disagree with the principle. But you end up giving no account at all of why the proposition is true. You just hammer away repeating that the ball is red. That's no better than the deflationists.

Min: I have a bit of a soft spot for deflationism. At least they don't scratch where it don't itch.

³¹ Cf. Dodd 2002.



Mid: Yes and they have nothing whatsoever to say about truth beyond trivialities. There's surely more to it than that.

Min: Are you so sure? Well anyway I won't argue about minimalism in general, let me come back to you with an example. Take a pendulum in a clock, swinging backwards and forwards. Suppose at the end of a swing the tip of the pendulum is 5 cm away from a certain point on the clock housing, say a fleck on the inner housing. Call the tip 'Tip' and the point 'Fleck'. Every two seconds, Tip is 5 cm away from Fleck, and rest of the time it isn't. You, if you forswear states of affairs, which you say you do (you might start to look on them more favourably after I get through), have to say that every two seconds there is an instantaneous relational trope of being 5 cm from which connects or subsists between Tip and Fleck. Frankly I think the theory is crazy. What on earth is such a thing supposed to be? Not only do you have this invisible intangible immaterial something, it comes into existence and immediately goes out of existence, and a new one comes about two seconds later, just like the first, and not only that: the pendulum is moving continuously (except at the endpoints of its swings) and so infinitely many such distance-tropes are being created and annihilated every moment. Personally I'd rather just say the pendulum is swinging back and forth, and that nothing is being created or destroyed in vast numbers: merely that things are changing in a very well understood way.

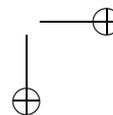
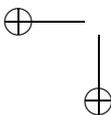
Mid: I'll leave it moot whether we understand motion quite as well you suggest. All right, I admit the theory seems counterintuitive at first ...

Min: Seems? Is!

Mid: ... but like I said, space and time are tricky for everyone. Now spatio-temporal relationships are precisely our best example of external relations, so clearly we need truth-makers for them.

Min: Says you. I don't buy the "clearly" because I don't by the Supervenience Principle.

Mid: It's all very well for you to say that the pendulum is just swinging, and that's all there is to it. No it isn't. The swing is such that at any time the parts of the clock are all at certain precise distances from one another (quantum fuzziness aside), and if we care to formulate propositions about these distances apart then they are going to be true and false and there will have to be as many reasons why the true ones are all true as there are truths that are true. Leave out the word 'truth-maker' if you like, we all agree it's ugly, but what are those reasons.? Just to say 'the pendulum is swinging' won't



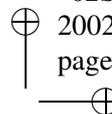
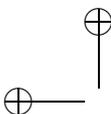
give them: it only begins to scratch the surface, ontologically speaking. A three year old can tell you that, but it isn't kinematics, it's a blunt and very imprecise description. I'm talking about the zillions of truths that could be formulated about the precise distances at different times of the swings. They are I agree legion, but I do have an answer as to what they are, which you don't.

Min: I can say the distances are as they are because of where the different clock bits are at different times. No truth-makers there, just objects distributed around the place and moving. For goodness' sake, no "wheres"!

Mid: Let's be absolutists about spacetime for a moment. We both agree that's an option. Suppose Tip and Fleck are 5 cm apart at 12:00:00.5 or half a second after midday today. What that really amount to, ontologically speaking, is that the points of spacetime occupied by Tip then and Fleck then are 5 cm apart (in the frame of reference taking the clock as a whole as at rest, and according to which those point-events are simultaneous). Now this can be decomposed into three facts, speaking with the Devil for a moment: that Tip-then is in SPT-point X, that Fleck-then is at STP-point Y, and that the distance between them in the spatial system is 5 cm. The latter fact is an essential one about those spacetime points, and an internal relation, so it needs no truth-maker, but the two other facts are contingent ones about the occupation of those spacetime points by those phases of the material entities or rather their lives. I'm willing to admit that occupation of a spatiotemporal point or region by an entity is a primitive kind of fact, and that occupations are a primitive kind of relational tropes that are truth-makers. Don't ask me just now to say what I think they are, because I have no clear idea, but they are surely a little less esoteric than those immaterial relations of distance. Distance between objects turns out to be a composite affair consisting of distance between points or regions of spacetime plus if you like instances of occupation. I can't do any better than that.

Min: All right, fair try. But suppose you are a relationist about spacetime? You don't have anything to say then. You'll want to explicate distance among spacetime points and regions in terms of distances among actual entities (or maybe even possible ones?) and you've bought right back into those mysterious distance-tropes.

Mid: In that case, failing any better idea, I'd just have to bite the bullet and admit that they exist. I don't like it, and the argument I gave seems to give added support to absolutist spacetime, but that's not a wholly congenial position either, so I'm a bit flummoxed, as we say in Yorkshire.



Min: In Lancashire we'd say you're vexed. But you admit there's a problem?

Mid: Sure I do, it'd be dishonest not to. But I still don't think you can just wash your hands of the affair and say it's because of "how things are" that all these truths are true. I just don't see how you can say that and still deny that how things are is something. If it were nothing, there would be no "way things are" and all those things would not be true, or would at any rate have no reason for being true. That seems to me to be taking denial too far.

Min: I still say that "Things are thus" does not entail the existence of a thing which is the "thus". It's just hypostatizing again. Put the reification down! It's dangerous, it can go off in your hand!

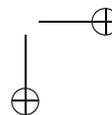
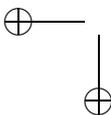
Mid: Well we're beginning to go round in circles so I guess we'd just better agree to disagree. I promise to give your ultra-lean view more thought and see if I can get friendly with it: I am an Ockhamist like you after all. Speaking of Munich, do you fancy a beer?

Min: Certainly, thanks. Let's grab Max as we go by. After all his full name is 'Maximilian' which is a good old Bavarian name.

Mid: Good. We'll drink a toast to the old Franciscan, however his Razor is supposed to cut.

4. *Coda*

If you, dear reader, are as flummoxed and vexed as Mid is, join the club. Finding the Mozartian Mean between too many truth-makers and too few is clearly no mean task, and aside from the positions sketched by our three protagonists there are no doubt many others with fine distinctions and gradations separating them. Yet it is an important dispute, and nothing less is at stake than the nature of the ontological side to the concept of truth, which, minimalists and idealists apart, many of us think is very important indeed. Perhaps Mid will be pushed by argument or gut-feeling towards Min, and accept that Hows are not entities. Or perhaps he will go in the other direction and embrace facts as truth-makers, at least for some truths, perhaps not all (like Max) but some, like Russell and Wittgenstein. Despite my predominant sympathies with Mid, I admit there is room for debate. Some of that debate — much of which I have had with myself — you have read. May others come and help bring more light.



ACKNOWLEDGEMENTS

Thanks to various people for discussions about this topic over the years: David Armstrong, Chuck Dement, Julian Dodd, Alexander Hieke, Paul Horwich, Bo Meinertsen, Edgar Morscher, Kevin Mulligan, Barry Smith, David Woodruff Smith. They have all contributed to the ideas knocked around herein so can take some of the blame for the plethora. Blame for the confusion and indecision I accept.

University of Leeds

REFERENCES

- Armstrong, D.M. 1997. *A World of States of Affairs*. Cambridge: Cambridge University Press.
- Bennett, J. 1988. *Events and their Names*. Cambridge: Cambridge University Press.
- Bigelow, J. 1988. *The Reality of Numbers*. Oxford: Blackwell. p. 133 for supervenience
- Dodd, J. 1999. "Farewell to States of Affairs". *Australasian Journal of Philosophy* 77, 146–160.
- Dodd, J. 2002. "Is Truth Supervenient on Being?", *Proceedings of the Aristotelian Society* 102.
- Findlay, J.N. 1963. *Meinong's Theory of Objects and Values*. Oxford: Clarendon Press, 2nd ed.
- Henninger, M.G. 1989. *Relations. Medieval Theories 1250–1325*. Oxford: Clarendon Press. (p. 4)
- Heyting, A. 1956. *Intuitionism: An Introduction*. Amsterdam: North-Holland.
- Horwich, P. 1998. *Truth*. Oxford Clarendon Press, ²1998.
- Moore, G.E. 1923. "Are the Characteristics of Particular Things Universal or Particular?" *Proceedings of the Aristotelian Society, Supplementary Volume 3*, 95–113.
- Mulligan, K., Simons, P.M. and Smith, B. 1984. "Truth-Makers". *Philosophy and Phenomenological Research* 44, 287–322.
- Olson, K.R. 1987. *An Essay on Facts*. Stanford: CSLI Publications. (Ch. 2)
- Priest, G. 1987. *In Contradiction. A Study of the Transconsistent*. Dordrecht: Nijhoff.
- Restall, G. 1996. "Truthmakers, Entailment and Necessity". *Australasian Journal of Philosophy* 74, 331–340.
- Russell, B. 1986. *The Philosophy of Logical Atomism and other Essays 1914–1919. Collected Papers* 8. London: Allen and Unwin.

- Simons, P.M. 1992. "Logical Atomism and its Ontological Refinement: A Defence". In: K. Mulligan, ed., *Language, Truth, and Ontology*. Dordrecht: Kluwer, 157–179.
- Simons, P.M. 1994. "Particulars in Particular Clothing. Three Trope Theories of Substance". *Philosophy and Phenomenological Research* 54, 553–576. Reprinted in: S. Laurence and C. Macdonald, eds., *Contemporary Readings in the Foundations of Metaphysics*. Oxford: Blackwell, 1998, 364–384.
- Simons, P.M. 1997. "Un mondo senza stati di cose". *Discipline filosofiche* 7 (1997), 29–48. German translation "Eine Welt ohne Sachverhalte." In: O. Neumaier, ed., *Satz und Sachverhalt*. St. Augustin: Academia, 2001, 229–254.
- Simons, P.M. 1998. "How the World Can Make Propositions True: A Celebration of Logical Atomism". In: M. Omyla, ed., *Sklonnosci Metafizyczna*. [Festschrift for Bogus-law Wolniewicz], Warsaw: Uniwersytet Warszawski, 113–135.
- Simons, P.M. 1999. Review of D.M. Armstrong, *A World of States of Affairs*, in *European Journal of Philosophy* 7 (1999), 119–124.
- Simons, P.M. (forthcoming). "Absolute Truth in a Changing World." In T. Placek and K. Kijania Placek, eds., *Festschrift for Jan Wolenski*, forthcoming.
- Stout, G.F. 1921. "The nature of Universals N.D. Propositions?" *Proceedings of the British Academy* X. Reprinted in G.F. Stout, *Studies in Philosophy and Psychology*. London: Macmillan, 1930, 384–403. 123–135.