TRUTHMAKING AND THE SLINGSHOT [*]

Gonzalo Rodriguez-Pereyra

University of Edinburgh

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§1 In this paper I shall show how the Correspondence Theory of Truth can block Davidson's Slingshot (Davidson 1984), which threatens to make the Correspondence Theory collapse. In particular I shall show that the Slingshot is unsound – and in so doing I shall show that the Correspondence Theory has some metaphysical commitments about the nature of facts.

§2 Truthmakers are often characterised in terms of entailment. For space reasons I cannot say here why I consider these definitions inadequate. In any case this is my definition of truthmakers:

> (T) Entity E is a truthmaker of sentence 'S' if and only if E is an entity *in virtue of* which S is true.

Let me now briefly and, for space reasons, rather dogmatically say what I consider to be the truthmakers of certain kinds of sentences, since what I say about them will be useful for my way of blocking the Slingshot arguments.

The truthmakers of singular existential sentences and identity sentences are the particulars referred to by the individual constants featuring in those sentences (Simons 1992, 163). Thus both 'Socrates exists' and 'Socrates = Socrates' are made true by Socrates himself.

Disjunctive facts should *not* be postulated as the truthmakers of disjunctive sentences. For a disjunction is true *in virtue of* the truth of either of its disjuncts, and what *makes* true a disjunction is the truth of either of them. This is, of course, compatible with disjunctions being made true *also* by disjunctive facts, *if* there are any. But my point is simply that there is no reason to posit them as such truthmakers, given that that rôle is already played by the facts which make true any of the disjuncts. Thus I shall take as truthmakers of disjunctions the truthmakers of any of the disjuncts, i.e. the facts that Socrates is wise and that Plato is wise are *separate* truthmakers for 'Socrates is wise or Plato is wise'.

Existential generalisations are similar to that of disjunctions, since they also have separate truthmakers. In general an existential generalisation is made true by whatever makes true any of its true instances. Thus the facts that Socrates is wise and that Plato is wise separately make true the sentence 'There is something wise'. As in the case of disjunctive facts and disjunctions, existential facts – if there are any – should not be postulated as the truthmakers of existential generalisations, since that rôle is already played by other facts.

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How about conjunctions? Here the temptation to postulate conjunctive facts as their truthmakers should be resisted. Thus I follow Mulligan, Simons, and Smith (1984, 313), in making '**F***a*&**F***b*' made true by the facts that **F***a* and that **F***b*, not *separately* of course, but *jointly*. In general, on this view, conjunctions are jointly made true by the truthmakers of their conjuncts. Thus the truthmakers of 'Socrates is wise and Plato is wise' are *both* the facts that Socrates is wise *and* that Plato is wise, i.e. the facts that Socrates is wise and that Plato is wise make 'Socrates is wise and Plato is wise' true *jointly*.

Finally, universal generalisations. This is a much debated topic; some philosophers think that general facts are necessary to account for the truthmakers of universal generalisations and others think that the truthmakers of all the instances suffice. I cannot here decide between these two positions but, in any case, what matters here is what the two parties agree about, which is that *at least part of what makes true a universal generalisation is what makes true each of its instances*.

§3 The Slingshot uses the following two assumptions (a) and (b):

(a) A truthmaker for sentence S is equally a truthmaker for a sentence logically equivalent to S; and
(b) A truthmaker for a sentence S is equally a truthmaker for a sentence which is derived from S by substitution of a co-referring singular term.

Then the argument runs as follows: Assume first a natural thesis of the Correspondence Theory, say (1) (where 'S'='Socrates is wise' and 'P'='Plato is wise'):

(1) The fact that Socrates is wise is a truthmaker of 'S'.
(2) The fact that Socrates is wise is a truthmaker of '$(\iota x)(x=a\&S) = (\iota x)(x=a)$'.
(3) The fact that Socrates is wise is a truthmaker of '$(\iota x)(x=a\&P) = (\iota x)(x=a)$'.
(4) The fact that Socrates is wise is a truthmaker of 'P'.

Here (2) follows from (1) and (4) follows from (3) by assumption (a) and (3) follows from (2) by assumption (b). Thus, according to this argument, that Plato is wise is made true by the fact that Socrates is wise. But since this argument can be repeated with any other true sentences in place of 'S' and 'P' it is concluded that all true sentences are made true by the same truthmakers, which is absurd and makes the Correspondence Theory collapse.

The force of the Slingshot depends on the plausibility of its two assumptions. (a) is supported by the definition of truthmakers, for if sentences S and S* are such that logic alone guarantees that they share their truth-value, how can it be that when they are true they are true in virtue of different entities?

Assumption (b) also looks very plausible. Its rationale is that *if a fact makes true a sentence then it must make true any other sentence expressing the same fact*. And how can two sentences express different facts if they differ only in containing different but *co-referring* singular terms?

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and discussion of previous versions of this paper and/or other material from which it derives.

§4 Let us first concentrate on (b). Is then (b) so plausible? If one adopts a referential view of descriptions – i.e. accounts which make definite descriptions *refer* to the entity (if any) that uniquely satisfies the description – assumption (b) stays. For having assumed the truth of 'S' and 'P', '$(\iota x)(x=a\&S)$', '$(\iota x)(x=a\&P)$' and '$(\iota x)(x=a)$' all refer to the same thing, namely *a*. And so any identity sentences in which any two of them flank the identity sign would express the same fact, namely that *a* is identical to *a*.

But on Russell's view on descriptions, '$(\iota x)(x=a\&S)$', '$(\iota x)(x=a\&P)$' and '$(\iota x)(x=a)$' do *not* refer to the same thing since on this view descriptions are not genuine singular terms. And then (b) does not survive, since as Neale (1995, 785) has pointed out, assumption (b) only licenses the step from (2) to (3) if definite descriptions are taken to be singular terms.

Thus Russellianism provides a quick way out of the Slingshot. But Russellianism cannot be the end of the story, for one can also run a Russellian Slingshot. Indeed, as Whitehead and Russell showed, even if definite descriptions are not genuine singular terms, when a predicate '**F**' applies exactly to one object, the description '$(\iota x)(\mathbf{F}x)$' can be treated for derivational purposes in truth-functional contexts as if it were a singular term (Neale 1995, 786). But then the Slingshot can be run for a Russellian reading of descriptions, by appealing to the following assumption:

(b′) a truthmaker for a sentence 'S' is equally a truthmaker for a sentence which is derived from 'S' by substitution of definite descriptions that apply to the same objects.

Is then Russellianism an enemy of the Correspondence Theory? No. For on a Russellian reading the logical forms of (5) and (6) are (7) and (8) respectively:

(5) '$(\iota x)(x=a\&S) = (\iota x)(x=a)$'

(6) '$(\iota x)(x=a\&P) = (\iota x)(x=a)$'

(7) $(\exists x)((\forall y)(y=a\&S \equiv y=x) \,\&\, (\exists w)((\forall z)(z=a \equiv z=w) \,\&\, w=x))$;

(8) $(\exists x)((\forall y)(y=a\&P \equiv y=x) \,\&\, (\exists w)((\forall z)(z=a \equiv z=w) \,\&\, w=x))$.

Now, (7) and (8) are existential generalisations, and so are made true by what makes true any of their true instances – two of which are (9) and (10) respectively:

(9) $(\forall y)(y=a\&S \equiv y=a) \,\&\, (\exists w)((\forall z)(z=a \equiv z=w) \,\&\, w=a)$;

(10) $(\forall y)(y=a\&P \equiv y=a) \,\&\, (\exists w)((\forall z)(z=a \equiv z=w) \,\&\, w=a)$.

Since (9) and (10) are conjunctions they are jointly made true by the truthmakers of their conjuncts. Take then the first conjunct of each:

(11) $(\forall y)(y=a\&S \equiv y=a)$;

(12) $(\forall y)(y=a\&\mathrm{P} \equiv y=a)$.

(11) and (12) are universal generalisations, at least partly made true by what makes their instances true, two of which are (13) and (14) respectively:

(13) $(a=a\&\mathrm{S} \equiv a=a)$;
(14) $(a=a\&\mathrm{P} \equiv a=a)$.

Given that '$a=a$', 'S' and 'P' are true, the two parts of the biconditionals above are true and the biconditionals as a whole are made true by whatever makes their parts true. Consider (15) and (16), the 'antecedents' of the biconditionals (13) and (14):

(15) $(a=a\&\mathrm{S})$;
(16) $(a=a\&\mathrm{P})$.

(15) and (16) are made true jointly by the truthmakers of their conjuncts. Thus (15) is made true jointly by the truthmakers of '$a=a$' and the truthmakers of 'S', while (16) is made true jointly by the truthmakers of '$a=a$' and the truthmakers of 'P'. But what makes 'S' true is that Socrates is wise, while what makes 'P' true is that Plato is wise. Thus the fact that Socrates is wise is among the truthmakers of (15) and consequently of (13), (11), (9) and (7) but not of (16), (14), (12), (10) and (8); and the fact that Plato is wise is among the truthmakers of (16) and consequently of (14), (12), (10) and (8) but not of (15), (13), (11) (9) and (7). Thus (7) and (8) have different truthmakers. A Russellian account of definite descriptions falsifies thus assumption (b′), and so makes Davidson's Slingshot unsound.

§5 We saw in the previous section that there are reasons to reject assumption (b′) of Davidson's Slingshot. But how about assumption (a)? Can it also be rejected or does blocking the Slingshot depends upon rejecting assumption (b′)? Here are some positive reasons to reject assumption (a) of the Slingshot. Consider (7) and (15):

(7) $(\exists x)((\forall y)(y=a\ \&\ \mathrm{S} \equiv y=x)\ \&\ (\exists w)((\forall z)(z=a \equiv z=w)\ \&\ w=x))$;
(15) $(a=a\ \&\ \mathrm{S})$.

We saw in the previous section that the truthmakers of (15) are among the truthmakers of (7). But since (15) is a conjunction, its truthmakers are the truthmakers of '$a=a$' and 'S'. It follows that the truthmaker of '$a=a$' is among the truthmakers of (7) and so, by assumption (a), among the truthmakers of 'S' (='Socrates is wise') also, since 'S' is logically equivalent to (7). But the truthmaker of '$a=a$' is a. So assumption (a) leads to the conclusion that a – whatever it might be – is among the truthmakers of 'Socrates is wise', and this is absurd! One should then reject assumption (a).

But perhaps assumption (a) is defective only on a Russellian account of descriptions? If so then to defeat the Slingshot the Correspondence Theory would need to be supplemented by Russellianism

about definite descriptions, since our rejection of assumption (b′) requires Russellianism about definite descriptions. But the falsity of (a) is also easily seen on a referential view of descriptions. Take then definite descriptions as expressions referring to the particulars (if any) they uniquely describe. Since *a* is the truthmaker of '*a*=*a*' then according to assumption (a) *a* would be one of the truthmakers of 'Socrates is wise', for the truthmakers of (17) below, which is logically equivalent to 'S', are *a* and the fact that Socrates is wise.

(17) $(\iota x)(x=a) = (\iota x)(x=a)$ & S.

But of course it is wrong to make any arbitrary particular *a* a truthmaker of 'Socrates is wise'. Thus assumption (a) has the absurd consequence that any and every entity is the truthmaker of every true sentence. Assumption (a) should then be rejected – and stopping the Slingshot does not commit the Correspondence Theory to Russellianism or any other non-referential view of descriptions.

§6 In sections §4 and §5 I defended the Correspondence Theory of Truth by arguing that the assumptions of the Slingshot should be rejected. I rejected assumption (a) because it leads to the absurdity that any and every entity is the truthmaker of every true sentence. But this is absurd only if some true sentences express different facts (if all sentences mean the same or express the same fact then perhaps, depending on the fact they express, they are made true by any and every entity). And I rejected (b′) because of considerations like 'the fact that *Socrates is wise* is among the truthmakers of this sentence while the fact that Plato is wise is among the truthmakers of this other sentence, so they have *different* truthmakers'. In other words, my defence of the Correspondence Theory of Truth has presupposed that there is a multiplicity of facts. And this requires, I think, a criterion of identity for facts. But why does the Correspondence Theory need a criterion of identity for facts? Perhaps the only thing it needs is that there be a multiplicity of facts? No, for *even* the multiplicity of facts can be questioned, if one adapts (a) and (b′) as follows:

> (a*) Facts expressed by logically equivalent sentences are the same.
> (b*) Facts expressed by sentences that can be derived from each other just by substitution of definite descriptions that apply to the same objects are the same.

Then I run the following Slingshot:

(18) The fact that S is the same as the fact that S.
(19) The fact that S is the same as the fact that $(\iota x)(x=a) = (\iota x)(x=a\&S)$.
(20) The fact that S is the same as the fact that $(\iota x)(x=a) = (\iota x)(x=a\&P)$.
(21) The fact that S is the same as the fact that P.

Or, alternatively, one can run the following Slingshot (22)-(25), whose generalised conclusion would be that there is not fact at all, for no fact is identical to itself:

(22) The fact that S is not the same as the fact that P.
(23) The fact that S is not the same as the fact that $(\iota x)(x=a) = (\iota x)(x=a \,\&\, P)$.
(24) The fact that S is not the same as the fact that $(\iota x)(x=a) = (\iota x)(x=a \,\&\, S)$.
(25) The fact that S is not the same as the fact that S.

Thus showing that the truthmaker Slingshot (1)-(4) fails by showing that different sentences have different facts as truthmakers presupposes one has already dealt with this even more dangerous Slingshot. And the way to reject assumptions (a*) and (b*) is to provide either a criterion of identity for facts or at least a necessary condition of identity for facts. I can think of six initially plausible such criteria:

(i) Truthmaking criterion: Facts are identical if and only if they make exactly the same sentences true.
(ii) Causal criterion: Facts are identical if and only if they have the same causes and effects.
(iii) Spatiotemporal criterion: Facts are identical if and only if they occupy the same region of spacetime.
(iv) Existentialist criterion: Facts are identical if and only if they necessarily coexist.
(v) Logical criterion: Facts are identical if and only if sentences stating them entail each other.
(vi) Structuralist criterion: Facts are identical if and only if they have the same constituents combined in the same way.

(i) I cannot use the Truthmaking criterion to block the Slingshots (18)-(21) and (22)-(25), for that would make my strategy circular. Indeed to use the Truthmaking criterion to stop the Slingshots (18)-(21) and (22)-(25) presupposes that the Slingshot (1)-(4) fails, and so I cannot then reject the latter on the basis that there are *different* facts, which presupposes that the Slingshots (18)-(21) and (22)-(25) fail.

(ii) Some have used the Causal criterion to block certain other Slingshots (see Mellor 1995, 114-19; Rodriguez-Pereyra 1998a). But in the present context the problem with this criterion is that mathematical and other necessary facts, which I want to admit as truthmakers, lack causes and effects. So the Causal criterion would not enable us to deny that there is only one *necessary* fact.

(iii) The Spatiotemporal criterion might seem promising, since one might say that the fact that $(\iota x)(x=a) = (\iota x)(x=a\&S)$ shares *a*'s spatiotemporal location and thereby discriminate between it and the fact that S. This, of course, fails when *a*=Socrates. But the problem with the Spatiotemporal criterion is that it cannot discriminate between the facts that Socrates is wise, that Socrates is a man, that Socrates is a philosopher, that Socrates is intelligent, etc. Thus the Spatiotemporal criterion does not enable one to escape absurd Slingshot-like conclusions like 'The fact that Socrates is moral is the same as the fact that Socrates is a man'.

(iv) The Existentialist criterion is also useless, at least to someone like me who does not believe that necessary facts, like the facts that 7+7=14 and that if Plato exists then Plato is human, are necessarily the same. But the Existentialist criterion, like the Causal one, forces us to say that there is only one necessary fact. Even worse, the Existentialist criterion forces us to say that necessarily coexistent facts – like the facts that *a* has three angles and that *a* has three sides – are one and the same.

(v) The Logical criterion will block the Slingshots (18)-(21) and (22)-(25) by preventing the inference of (19) and (23) provided the notion of entailment in question, perhaps a relevance one, does not make 'S' and 'P' entail '$(\iota x)(x=a) = (\iota x)(x=a\&S)$' and '$(\iota x)(x=a) = (\iota x)(x=a\&P)$' respectively.

But the Logical criterion either presupposes a more fundamental criterion of fact identity or else conflicts with the Correspondence Theory. For suppose one manufactures some notion of entailment such that the corresponding version of the Logical criterion blocks the Slingshot. But then why believe that if '**Q**' and '**Q***' do not entail each other then the facts that **Q** and **Q*** are different? There are two options here: one says either that the inability of different facts to be stated by sentences which entail each other is grounded on some further fact about facts or else that what makes different facts different is that they are stated by sentences which do not entail each other.

The former horn of this dilemma commits one to a further criterion of fact identity, which one should use to base the Logical criterion. In that case the further criterion is the metaphysically fundamental one and so one should try to look for it. The second horn of the dilemma makes the identity of facts depend on the semantic properties of sentences. But then what will the existence of a fact depend on if not the truth of the corresponding sentence? But then how could facts *make* sentences true? True sentences, on this view, rather than being made true by facts, are *fact-makers*. And this goes against the Correspondence Theory.[1]

(vi) The Structuralist criterion is what the Correspondence Theory needs. For whatever one's views on definite descriptions, one of the constituents of the facts that $(\iota x)(x=a) = (\iota x)(x=a \ \& \ S)$ and $(\iota x)(x=a) = (\iota x)(x=a \ \& \ P)$ is *a* itself. And so provided '*a*' denotes something other than Socrates and Plato the Structuralist criterion prevents us inferring (19) and (23). Furthermore, if one is Russellian about descriptions, the Structuralist criterion also prevents us inferring (20) and (24). For then the facts that $(\iota x)(x=a) = (\iota x)(x=a \ \& \ S)$ and $(\iota x)(x=a) = (\iota x)(x=a \ \& \ P)$ have different constituents: Socrates is a constituent of the former but not the latter, and Plato is a constituent of the latter but not the former. And once the Slingshots (18)-(21) and (22)-(25) are blocked by using the Structuralist criterion, then one can stop the Truthmaker Slingshot (1)-(4) as I did, by showing how different sentences are made true by different facts.

By adopting the Structuralist criterion the Correspondence Theory is committed to a view on the nature of facts, namely they are complex entities composed by certain constituents. The nature of

[1] I used to have another line against the Logical criterion (see for instance my 1998b, 521-522). Conversations with Arnold Koslow prompted me to abandon that line and take the present one.

these constituents, i.e. whether they are universals, tropes or merely resembling concrete particulars, is something I cannot discuss here for space reasons.

§7 We have seen that the Correspondence Theory can be defended from the Slingshot because there are reasons to reject assumption (a) and (b′) on which it is based. But to block the Slingshot the Correspondence Theory needs a criterion of fact identity, namely the Structuralist criterion, which commits the Correspondence Theory to a view of facts as complex entities.

References

Davidson, D. (1984), "True to the Facts", in his *Inquiries into Truth and Interpretation*, Oxford: Clarendon Press, 37-54.

Mellor, D. H. (1995), *The Facts of Causation*. London: Routledge.

Mulligan, K., Simons, P. and Smith, B. (1984), "Truth-Makers", *Philosophy and Phenomenological Research* **44**: 278-321.

Neale, S. (1995), "The Philosophical Significance of Gödel's Slingshot", *Mind* **104**: 761-817.

Rodriguez-Pereyra, G. (1998a), "Mellor's Facts and Chances of causation", *Analysis* 58: 175-181.

Rodriguez-Pereyra, G. (1998b), "Searle's Correspondence Theory and the Slingshot", *The Philosophical Quarterly* 48: 513-522.

Simons, P. (1992), "Logical Atomism and its Ontological Refinement: A Defense", in K. Mulligan (ed.), *Language, Truth and Ontology*. Dordrecht: Kluwer Academic Publishers, 157-79.