

### **On Weak Truthmaking**

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#### **Ontological analysis as a search for truthmakers**

What to put in our domain of discourse?

**Ontological answer:** those entities that are responsible for the truth of our propositions.

**Ontological analysis** as a search for truthmakers:

- What makes our statements about the world true?
- When...? (Where...?)
- How do we believe the world is, when we say
  - John is married with Mary
  - This rose is red
  - My name is Nicola
- Ontological analysis is all about *making truth-makers explicit*



#### Strong truthmaking

- The truthmaker of a property P, holding for x, is a suitable y in virtue of which P(x) holds.
- What's the meaning of *in virtue of*?
- Standard answer: in virtue of y = in virtue of the *existence* of y

(T) x is a truthmaker of  $\phi$  at w iff for every w', the existence of x at w' entails the truth of  $\phi$  at w'

- rose(a) holds in virtue of the existence of a certain rose denoted by a
- red(a) holds in virtue of the existence of a certain redness event (actually, a state)

Strong truthmakers: their mere existence entails the proposition's truth

Important distinctions among properties can be made according to the nature of their truthmakers

(i.e., according to whether or not they coincide with the argument of the property)

# The assumptions (and the problems) behind strong truthmaking

• Truthmaker *essentialism* (standard assumption)

if t is a truthmaker of  $\phi$  at w, then t is a truthmaker of  $\phi$  in every w

- Truthmaker *maximalism* (debatable assumption many variants):
   *every* true sentence must have a truthmaker.
  - Serious problems for necessary propositions, negation, disjunction...
  - Parsons' modest position:

"the best we can demand is that every contingent truth either has a truthmaker, or is a conjunction, disjunction, negation, or some other more complicated Boolean function of propositions that would have truthmakers were they true."

#### The relevance problem

- if *t* is a truthmaker of  $\phi$  and  $\phi$  is true iff  $\psi$  is true, then *t* is a truthmaker of  $\psi$  as well
- Any two logically equivalent sentences have the same (strong) truthmakers. But, intuitively, the truthmakers for *being an equilateral triangle* should be different from those for *being an equiangular triangle*
- Relevance assumption:

(R) x is a truthmaker of  $\phi$  only if t is **relevant** to  $\phi$ 

• Notoriously, it is very difficult to capture relevance formally...

#### Weak truthmaking: denying essentialism

- Strong truthmaking: *P*(*x*) holds in virtue of the *mere existence* of something ...i.e., in virtue of *whether* something exists
- Weak truthmaking: *P*(*x*) holds in virtue of the *way* something is ...i.e., in virtue of *how y* is (*either essentially or contingently*)



#### Parsons' first criterion for weak truthmaking

(i) for every true sentence, there is some thing such that the sentence *cannot become false* without a *qualitative change, a non-Cambridge change*, in that thing. That thing, whatever it is, is the sentence's truthmaker.

J. Parsons, "There is no 'truthmaker' argument against nominalism," Australasian Journal of Philosophy, 1999.

### Individual qualities as *minimal* weak truthmakers of properties



Value(rose1.color, FF0000) @t1

Rose1 undergoes a change in one of its aspects: its color. It is just *in virtue of its color* that it is red at *t1* and brown at *t2*.

So, there is something *internal* to the rose that is responsible of the way it is: its color.

Value(rose1.color, 993300) @t2

Both the rose and its color are *weak truthmakers* of Red(rose1) and Brown(rose1). The rose's color is the *minimal* weak truthmaker.

The rose's color is an *individual quality* in the DOLCE, UFO, and BFO ontology.

#### Socrates and his snub nose

![](_page_8_Picture_1.jpeg)

What's the minimal weak truthmaker of 'Socrates is snub-nosed'?

Socrates' nose, or -more exactly- its shape!

Both the nose and its shape *ground* the statement. 'Socrates is snub-nosed cannot become false without a qualitative change of these entities.

#### Parsons' second criterion

- (i) for every true sentence, there is some thing such that the sentence *cannot become false* without
   a *qualitative change, a non-Cambridge change*, in that thing. That thing, whatever it is, is the
   sentence's truthmaker.
- (ii) [Or,] the truthmaker for a sentence is that thing that is *intrinsically such that* the sentence is true.
- Criterion (ii) is considered as the central one by Parson (2005).

J. Parsons. There is no 'truthmaker' argument against nominalism. Australasian Journal of Philosophy, 1999.

J. Parsons. Truthmakers, the past, and the future.

In Helen Beebee and Julian Dodd, eds, Truthmakers: The Contemporary Debate. Clarendon Press, 2005.

#### **Intrinsically such that**

- (INT) A property holds intrinsically for x iff it holds independently of the presence or the absence of anything wholly distinct from x, where x is wholly distinct from y means that x is not identical to y nor to any of its proper parts.
- x is such that φ is a propositional property (a.k.a. vacous property) that holds just iff x exists and φ is true.
- It may hold intrinsically for some entities and extrinsically for others. *Being such that Socrates is snub-nosed* holds intrinsically for Socrates but not for Plato.

## The problem: qualities and parts are not minimal truthmakers any more

- Being such that Socrates is snub-nosed does *not* hold intrinsically for the nose nor for its shape, because it requires that something wholly distinct from them exists (namely, Socrates)
- Therefore, criterion (ii) is more *restrictive* than criterion (i), since some (very useful!) minimal truthmakers are excluded.

#### The solution: *de dicto* vs. *de re* interpretation of the 'intrinsically' modifier

- 1. Intrinsically, x is such that  $\phi$  (*de dicto*): The property of being such that  $\phi$  holds intrinsically for x. This means that nothing wholly distinct from x is required for the property to hold. This is Parson's interpretation.
- 2. x is intrinsically such that  $\phi$  (*de re*):  $\phi$  holds in virtue of the way x intrinsically is (i.e., in virtue of a property that holds intrinsically for x).
- Let x be the color of a certain rose, Rosie, which is actually red.
- According to (1), it is not the case that, intrinsically, x is such that Rosie is red, because the
  existence of Rosie is required.
- According to (2), *x* is intrinsically such that Rosie is red, since Rosie is red in virtue of the property *being a red color* that holds intrinsically for *x*.
- So, reading (2) of *intrinsically such that* would allow us to reconcile the two criteria (i) and (ii).

#### Still, the relevance problem is there...

- if *t* is a truthmaker of  $\phi$  in the world *w*, everything that is duplicate of *t* in *w* is also a truthmaker of  $\phi$  (any rose exactly resembling Rosie will be a weak truthmaker)
- Solution:

(CC) If a proposition p has arguments x1,...,xn, every truthmaker of p should be causally connected to at least one argument of p, where x is causally connected to x to y means that:

x is existentially dependent on y (including the case where x = y), OR
 x is internal to y, i.e., it is either inhering in y, proper part of y, or participant to y.

#### **Our final fix concerning relevance:** *aboutness*

(WT1c) For every object x and every proposition p equivalent to a relation r holding for arguments x1,...,xn at w, x is a weak truth-maker of p at w iff:

- 1. *x* is *causally connected* to at least one argument of *r*
- 2. there exists a property P such that r is *about* P, and P *holds intrinsically* for x at w iff p is true at w.

#### **Example: different truthmaking patterns for color properties**

![](_page_15_Figure_1.jpeg)

![](_page_16_Picture_0.jpeg)

#### **Josh Parsons (1973-2017)**

Justin Weinberg

[The following remembrance of Josh Parsons is written by Elizabeth Barnes, Ross Cameron, and Robbie Williams]

Josh Parsons, our beloved friend, mentor, and role-model, died on April 11, 2017. He was 44. Our thoughts are with his family, and most especially with his wife, Hannah Burgess.

Josh received his PhD from ANU in 2001. He then held a postdoctoral fellowship at the University of St. Andrews, followed by appointments at UC Davis, Otago University, and Oxford University. He resigned his position at Oxford in 2016 in order to pursue an alternative career path—a choice which he discussed in a blog post—but he always maintained his deep love of philosophy.