A Plea for Inexact Truthmaking

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Assumption: we want to use both exact and inexact truthmaking

Question: do we need to treat both truthmaking relations as primitive?

- Fine (2017): We can define inexact truthmaking in terms of exact truthmaking, but not vice versa. So we should treat only exact truthmaking as primitive.
- Me (now): We can define exact truthmaking in terms of inexact truthmaking, but not vice versa. So we should treat only inexact truthmaking as primitive.

Other options:

- interdefinability
- neither: but can define both using other notions
- neither: treat both as primitive.

1 Defining Exact Truthmaking

With exact truthmakers, we can make useful distinctions which are difficult—perhaps impossible—to draw with inexact truthmakers. E.g.,

	A	$A \vee (A \wedge B)$
a	✓	✓
$a \sqcup b$		✓

Table 1: Exact Verifiers

	A	$A \vee (A \wedge B)$
a	✓	✓
$a \sqcup b$	✓	✓

Table 2: Inexact verifiers

Could we get this distinction with some kind of *minimal* inexact truthmakers?

s is p-minimal[1] $=_{\text{df}}$ $(s \Vdash_i p) \wedge \forall s'(s' \sqsubset s \supset s' \nVdash_i p)$.

s exemplifies[2] p $=_{\text{df}}$ s is p-minimal $\vee\ \forall s'(s' \sqsubseteq s \supset s' \Vdash_i p)$

[1]See Berman (1987) and Heim (1990).
[2]See Kratzer (2002).

If we use simple definitions, like

$s \Vdash_e p$ $=_{\text{df}}$ s is p-minimal, or $s \Vdash_e p$ $=_{\text{df}}$ s exemplifies p,

the answer is 'No', as Fine (2017) observes.

	A	$A \vee (A \wedge B)$
a	✓	✓
$a \sqcup b$		

Table 3: (Quasi-)Minimal verifiers

But I think the inexact truthmaker fan need not yet despair. What I suggest instead: treat exact truthmaking as exemplification only in the atomic case, then mimic the semantic clauses of exact truthmaker semantics, for the rest.[3]

(d.i)$^+$ $s \Vdash_e r$ $=_{\text{df}}$ s exemplifies r
(d.iii)$^+$ $s \Vdash_e p \wedge q$ $=_{\text{df}}$ $t \Vdash_e p, u \Vdash_e q$, and $s = t \sqcup u$
(d.iv)$^+$ $s \Vdash_e p \vee q$ $=_{\text{df}}$ $s \Vdash_e p$ or $s \Vdash_e q$

If this gets things right in the atomic case, it will get it right in every other case, too (including $A \vee (A \wedge B)$).

This also gives us a strategy for dealing with problematic 'atomic' cases, like

(1) There are infinitely many stars.[4]

We can define exact truthmaking as exemplification for the atomic sentences like 'a_1 is a star', then mimic exact truthmaker clauses for quantification. In this case the result would be something like: $s \Vdash_e$ (1) iff s is a fusion of infinitely many states, each of which exactly verifies 'There is a star'.

2 Defining Inexact Truthmaking?

Can we start with exact truthmaking and define inexact truthmaking from it? Here's Fine's proposal for doing so:

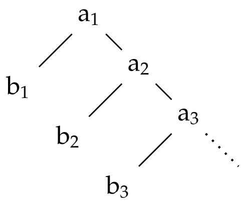
"*s inexactly verifies* A, if *s* contains an exact verifier of A."

This is intuitive and works for just about every case.

But I think there may be some cases for which it doesn't.

[3]For falsification and negation, we need to introduce what I call 'negxemplification', which is just like exemplification, except the former has inexact falsification where the latter has inexact verification.
[4]See Kratzer (2002, p. 171) and Armstrong (2004, pp. 21–22), who attributes this kind of example to unpublished work from 1995 by Greg Restall.

Imagine a mixture of *a*-stuff and *b*-stuff with the following sort of structure.



Now consider

(2) There is some *a*-stuff.

or better yet,

(3) Ingest some *a*-stuff!

It seems there are inexact verifiers/compliers (e.g., a_1 or the ingestion of a_1) that don't have any exact verifiers as parts.

Admittedly, this is a weird case. But (i) we should be able to account for weird cases and (ii) perhaps there are less weird cases with relevantly similar structure.

Assume time is dense, and that the exact truthmakers for activity sentences like

(4) John is moving.

must involve proper intervals, whereas exact truthmakers for achievements like (5) are about points of time.

(5) Mary won the race.

What will the truthmakers be for the following?

(6) John was moving when Mary won the race.

Inexact: the fact that John was moving throughout $[t_1, t_5] \sqcup$ the fact that Mary won the race at t_3, given that $t_3 \in [t_1, t_5]$.

Exact? Any interval of John's motion will contain irrelevant sub-intervals (we can always find a smaller one that still contains t_3). So if we take the fact that John was moving throughout $[t_1, t_2]$ to be a part of the fact that he was moving throughout $[t_1, t_5]$, which seems plausible, there will be no exact truthmakers for (6).

References

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