

PLING 228: Yablo on Aboutness

Nathan Klinedinst, Daniel Rothschild, and Yasu Sudo

Partial truth

Yablo pushes the idea of *partial truth* as a motivation for the idea of subject matter.

Canonical example: conjunction. A conjunct of a conjunction can be true while entire statement is false.

- (1) $3+3 = 7$ and snow is white.

This is false even though it is true about snow. Partial truth, according to Yablo, is just a matter of having a part that is true. (And parthood is not just logical entailment.)

So presumably one piece of evidence for this is our judgments that (1) is partially true, i.e. has a part that's partially true.

Yablo argues that the notion of a part is needed for other other phenomenon (where a notion of parthood is needed that is not implication):

Saying that If you make a statement and the statement has a part you also say the part.

Agreement Agreement only concerns parts.

Modals must and might. Commands don't transfer to implications, but do to conjunctions.

Relevant implication Conjunctions relevantly imply their conjuncts not disjuncts don't relevantly imply disjunctions including them.

Explanation Falsity of part explains falsity of whole, falsity if implication does not.

Knowledge? Knowing something allows us to know parts not consequences ?

Other cases:

- other conjunctive like implications:

- (2) Every $\rightarrow$ some

- (3) Most of the 100 students $\rightarrow$ to at least 30 students.

- simple clauses

- (4) John wrote an overdraft. $\rightarrow$ John wrote something. $\rightarrow$ John did something.

- presupposition type cases:

- (5) Tad know Caitlin is a serial killer $\rightarrow$ Caitlin is a serial killer:

He might know Caitlin is a serial killer $\rightarrow$? Caitlin might be a serial killer?

Question: do we really have a unified phenomenon here, that is some kind of stable notion of a part of a statement (considered as sentences or propositions)? Not clearly not.

From part to subject

Yablo's account of parthood: B is a part of A iff a is implied by B , and B 's subject matter is a part of A 's subject matter.

Subject matters directly

Another kind of intuition:

- (6) Alonzo and Alan were talking about the same thing.

Is 'thing' here necessarily an object? Not clearly, e.g. they could be talking about what Susan did last night, how many stars are in the galaxy, why grass is green, etc, none of which obviously refer to objects. We might want some kind of account what this is, and might hope this account will fit in via Yablo's formula to give us the answer we had before.

Linguistic Motivations

The same formal object used by Yablo for subject matters (or one of them!) is also used by linguists to account for a variety of phenomena:

- (7) Semantics of questions.
- (8) Relevance
- (9) Discourse structure.
- (10) Topic/Focus.

Yablo on Lewis

Lewis gave a definition of subject matter in terms of equivalence/relation or partition, which is also used by Groenendijk and Stokhof [1984] for semantics of questions. A subject matter is a partition of logical space where each cell differs only in the subject matter.

Part of subject matter:

n is a part of m iff:

- i) each n -cell includes an m -cell, ii) each m -cell is included in an n -cell.

(This is equivalent to a refinement of a partition)

Partial truth

Two notions:

- a) s has a part that is about m and that part is true.
- b) what s says about m is true.

For this latter notion: 'A is true about m in w iff A is true simpliciter a world m -equivalent to w .' This seems a bit weak? See examples p. 33–34. A statement and its negation can both be true, though about m ? There are as many pieces of cake as Zeus has brothers.

Equivalence relations?

The number of stars give or take 10. Not a partition.

Yablo, just has as similarity relation: symmetry and reflexivity but not transitivity. Reasons a disjunction is true (another example).

Semantics of questions:

- (11) What is the approximate number of stars in the universe? (Pre-supposition failure here?)

Subject matters of sentences

So now we have subject matters generally, but what about subject matters of sentences:

Linguistics lore: depends on focus relation/question words etc.

One idea:

S is wholly about m iff S 's truth-value supervenes on m , that is S always evaluated the same in m -equivalent worlds.

Obvious problems: finest partition included here. If we just take the coarsest we get S and not- S .

Truth-maker idea: Something has changed between one world and another, where S 's subject matter is concerned, only if S is differently true in the two worlds.

So we come to this: the subject matter of S = the relation m such that worlds are m -disimilar iff S is differently true in them.

(This is how truth-makers and subject matters are related).

Question: do sentences have subject matters at all?

The part of A about m

A is true about m iff (intuitively) A is true, or A is false for a reason unrelated to m .

Yablo's idea here is to use a 'division' operator defined as follows:

$A \setminus m$ = the result of expanding A to include everything m -equivalent to any world in A .

Yablo calls this: The set of worlds where A is true about m .

To take an example: A = the number of stars is greater than the number of planets, m = the number of stars.

This alone is presumably too weak, we also need to have it that A really has a part about m , rather than what A says being completely orthogonal to m . p 51-53 goes through this... may take some time to unpack.

Semantics of Truth-Makers

All this relies on our having an idea of what the truth-makers of sentences are. We, however, have given no definition of this. Here Yablo brushes aside the metaphysics of truth-making (a popular if slightly dusty topic in metaphysics) to go for a semantic approach.

In particular he focuses on compositional accounts of truth-making. Here the idea is we take as primitive the truth/falsity makers of atomic sentences and look at how truth-makers build up in complex sentences.

So we associated each atomic sentence p with atomic truth makers and falsity makers P and $\bar{P}$.

Now we define truth-makers/falsity makers recursively:

Some notation (not Yablo's). Facts are sets of atomic truth-makers atomic.

$T(\phi)$ = the set of truth maker for ϕ $F(\phi)$ = the set of falsity maker for ϕ

$\{T(\phi), T(\psi)\}$ is the conjunctive truth-maker for both ϕ and ψ .

$T(\phi \wedge \psi) = T(\phi) \times T(\psi)$ (where this is the cross-product of the sets, but forming sets rather than ordered pairs)

$F(\phi \wedge \psi) = F(\phi) \cup F(\psi)$

$T(\neg\phi) = F(\phi)$

$F(\neg\phi) = T(\phi)$

Tautological entailment: ϕ tautologically entails ψ iff each of ϕ 's truth makers contains (as a subset) a truth maker for ψ . Allows ϕ to entail $\phi \vee \psi$. Yablo gives a more restrictive definition p 61.

Compare this with taking a sentence and representing it as a disjunction of conjunctions atomic sentences and their negations. Now truth-makers are just whatever of these conjunctions is true. So minimal models.

Different treatments of tautologies contradictions (Yablo calls these recursive versus reductive)

Some notes: hyperintensionality of van Fraassen's recursive story might explain implicatures (perhaps Fine explore this).

Contrast A or B versus A or B or both.

What are the atoms?

Picture of truth-makers given depends on a specification of the atomic sentences in a language. One route also rests on its syntactic form, the other just on the truth-conditions as statable in terms of atoms.

But some key examples were atomic sentences (in the syntactic sense). E.g. 'John ran last night' is about the subject matter 'what John did last night'. (Yablo has some rather obscure remarks about context p 68-69).

Again just because the atoms are not given in grammar, doesn't mean they are theoretically suspicious. Inspiration might be taken from the literature on presupposition triggering, where lexical meanings are broken down into component parts, similarly with event semantics, where non-conjunctive sentences become conjunctive. But in any case we can't just jerry-rig logical forms to explain things, we need some constraints, and Yablo doesn't really give them.

Summary

- We have some things that might need to be explained by notion of parts of statements.
- We have independent desire for notion of amounts.
- Linking principle: a part of a statement is an implication that whose subject matter is a part of the subject matter of the statement.
- Notion of subject matter is explained via truth-makers.
- Rival theories of compositional truth-makers, no theory of atomic truth-makers. (Do we have independent need for truth makers?)

References

Jeroen Groenendijk and Martin Stokhof. *Studies in the Semantics of questions and the pragmatics of answers*. PhD thesis, University of Amsterdam, 1984.