



It would be a convenience, nothing more, if we could take the propositional content of a sentence in context as its semantic value. But we cannot.

Lewis 1980

SUMMARY

Soames (1987, 2008) has provided one of the most influential arguments against unstructured propositions—i.e. propositions as sets of truth-supporting circumstances. He claims that the assumption of unstructured propositions in combination with the direct reference thesis (and some further innocent assumptions) leads to absurd conclusions.

The aim of this paper is to show that Soames makes a mistake in his *reductio* by conflating *assertoric content* and *semantic value*. I suggest that this distinction leads to two distinct theses/assumptions with regards to direct reference and that neither of these theses can support Soames' argument. Finally, I will suggest that it might be worthwhile to try to formulate his argument with the assumption of *rigidity* instead of direct reference.

SOAMES' STARTING ASSUMPTIONS

- ▶ **A1** The semantic content of a sentence or formula (relative to a context and assignment of values to variables) is the collection of circumstances supporting its truth (relative to the context and assignment)
- ▶ **A2** Propositional attitude ascriptions report relations to the semantic contents of their complements – i.e. $\ulcorner x \text{ } v\text{'s that } S \urcorner$ is true with respect to a context c , assignment g (of values to variables) and a circumstances i of evaluation iff in i , the referent of ' x ' with respect to g bears R to the semantic content of S relative to c and i .
- ▶ **A3** Many attitude verbs distribute over conjunction. For these verbs, $\ulcorner x \text{ } v\text{'s that } P \& Q \urcorner$ is true with respect to c , g , and i only if $\ulcorner x \text{ } v\text{'s that } P \urcorner$ and $\ulcorner x \text{ } v\text{'s that } Q \urcorner$ are too.
- ▶ **A4** Names, indexicals, and variables are directly referential – their semantic contents, relative to contexts and assignments, are their referents with respect to those contexts and assignments.
- ▶ **Com.** If $S1$ and $S2$ are non-intensional sentences/formulas with the same grammatical structure, which differ only in the substitution of constituents with the same semantic contents (relative to their respective contexts and assignments), then the semantic contents of $S1$ and $S2$ will be the same (relative to those contexts and assignments).

SOAMES' Reductio WITH VARIABLES

- ▶ **R1** There is a planet x that is seen in the morning sky and a planet y that is seen in the evening sky and the ancients believed that x was seen in the morning and y was seen in the evening
- ▶ **R2** The planet seen in the morning is the planet seen in the evening
- ▶ **R3** There is a planet x and a planet y such that the ancients believed that x was seen in the morning and y was seen in the evening and there was a planet that was both seen in the morning and the evening
- ▶ **R4** The ancients believed that there was a planet that was both seen in the morning and in the evening

A CRUCIAL DISTINCTION

We must distinguish [...] between knowing the meaning of a statement in the sense of grasping the content of an assertion of it, and in the sense of knowing the contribution it makes to determining the content of a complex statement in which it is a constituent: let us refer to the former simply as knowing the content of the statement, and to the latter as knowing its [semantic value] (Dummett 1973)

- ▶ **Assertoric Content:** *what is said* by a sentence, what is believed or asserted, and what is true or false.
- ▶ **Semantic Value:** what a sentence contributes to a more complex sentence in which it is embedded.

This leads to the following possible formulations of **A4**:

- ▶ **DR1:** The semantic value of names, indexicals, and variables (relative to contexts and assignments) are their referents (relative to those contexts and assignment)
- ▶ **DR2:** The assertoric content of names, indexicals, and variables (relative to contexts and assignments) are their referents (relative to those contexts and assignment)

DIRECT REFERENCE, VARIABLES, AND SEMANTIC VALUE

Some basic predicate logic for the semantic value of variables;
· For a variable α , $\llbracket \alpha \rrbracket^g = g(\alpha)$
· $\llbracket \forall \alpha \phi \rrbracket^g = 1$ iff for all $i \in U$, $\llbracket \phi \rrbracket^{g[\alpha := i]} = 1$

Variables get their content from the assignment function, i.e. the assignment function is 'a content generating parameter'.

Quantifiers get their content from the integer product of the sequence of truth-values, i.e. they look across the 'assignment profile'.

- ▶ $g(x) = g(y) \rightarrow Fx = Fy$
- ▶ $g(x) = g(y) \rightarrow \forall x Fx \neq \forall x Fy$

Conclusion: If variables are directly referential at the level of semantic value (**DR1**), they should be compositional but they are not (see above). Thus, variables are *not* directly referential at the level of semantic value.

DIRECT REFERENCE, VARIABLES, AND ASSERTORIC CONTENT

If variables are directly referential at the level of assertoric content, they are no longer compositional.

- | | |
|----------------------|---|
| 1. It is raining | 3. It was the case that it is raining |
| 2. It is raining now | 4. It was the case that it is raining now |

Sentences (1) and (2) say the same thing, i.e. have the same assertoric content, but they embed differently, (3) and (4), i.e. do not function compositionally. As Lewis (1980) said;

It would be a convenience, nothing more, if we could take the propositional content of a sentence in context as its semantic value. But we cannot. The propositional contents of sentences do not obey the compositional principle

Conclusion: If Soames meant that variables are directly referential at the level of assertoric content, there is a clash between the direct reference assumption (**A4**) and the compositionality principle (**Com.**). Giving up either of these would lead to block the *reductio*.

MAYBE RIGIDITY. . .

Maybe Soames could reformulate his *reductio* using 'ridigity' instead of 'direct reference' in **A4**.

Rigidity: A variable refers to the same object in every world, i.e. $\forall w$ and w' , $\llbracket \alpha \rrbracket^{g,w} = \llbracket \alpha \rrbracket^{g,w'}$

- ▶ **A4'** Names, indexicals, and variables are rigid designators—their referent, relative to contexts and assignments, is the same in all possible worlds (relative to those assignments).

Given that rigidity does not say anything about the content of an expression, the assumptions **A2** and **Com.** would have to be reformulated. It remains to be seen if this can be done. . .

