Chapter 4: Drawing Metaphysical Consequences from a T-Theory

Two questions:

(1) What kinds of metaphysical conclusions can be drawn from an absolute truth-conditional semantic theory, and how can we identify them?

(2) Can an absolute truth-conditional semantic theory be revised to avoid metaphysical commitments?

4.1 The Nature of the Metaphysical Commitment

Each axiom of a T-theory has an implicit universal quantification:

\[ \forall x [\text{Val}(x, \text{“snow”}) \iff x = \text{snow}] \]

“Because the quantification…is not vacuous, [this axiom] commits us to the existence of snow”; in general, “to be is to be a semantic value” (p. 66).

4.2 Sample Cases

The Commitment to Properties

T1

a. \( \text{Val}(x, \text{“dog”}) \iff x = \text{the property of being a dog} \)
\( \text{Val}(x, \text{“cat”}) \iff x = \text{the property of being a cat} \)

b. \( \text{Val}(x, \text{“barks”}) \iff x = \text{the property of barking} \)
\( \text{Val}(x, \text{“walks”}) \iff x = \text{the property of walking} \)

c. \( \text{Val}(x, \text{“sees”}) \iff x = \text{the seeing relation} \)
\( \text{Val}(x, \text{“likes”}) \iff x = \text{the liking relation} \)

d. \( \text{Val}([\text{True}, [s \ \text{NP} \ \text{VP}]] \iff \text{for some } x \text{ and for some } p, \text{Val}(x, \text{NP} \text{ and Val}(p, \text{VP}) \text{ and } x \text{ has } p \)
\( \text{Val}([v \ p \ V \ \text{NP}]) \iff \text{for some } r \text{ and for some } z, \text{Val}(r, V) \text{ and Val}(z, \text{NP}) \text{ and } p \text{ is the } \text{property of bearing } r \text{ to } z \)

T2

a. \( \text{Val}(x, \text{“dog”}) \iff x = \text{is a dog} \)
\( \text{Val}(x, \text{“cat”}) \iff x = \text{is a cat} \)

b. \( \text{Val}(x, \text{“barks”}) \iff x \text{ barks} \)
\( \text{Val}(x, \text{“walks”}) \iff x \text{ walks} \)

c. \( \text{Val}(\langle x, y \rangle, \text{“sees”}) \iff x \text{ sees } y \)
Val((x, y), “likes”) iff x likes y

d.
Val(True, [s NP VP]) iff for some x, Val(x, NP) and Val(x, VP)
Val(x, [VP V NP]) iff for some y, Val(y, NP) and Val((x, y), V)

T1 commits us to the existence of properties and relations, while T2 does not. Should we let our metaphysics inform our semantics, or our semantics inform our metaphysics?

Some linguistic arguments (from usage observations) for the existence of properties (Wright 1983, Chierchia 1984) can be shown to be erroneous (p. 69), but Larson & Segal (1995) argue that theories like T1 face difficulties when it comes to VP-conjunctions:

T2: Val(x, [VP VP1 and VP2]) iff Val(x, VP1) and Val(x, VP2)
T1: Val(p, [VP VP1 and VP2]) iff Val(p1, VP1) and Val(p2, VP2) and p is the property of having properties p1 and p2

Theories like T1 “will require the introduction of some kind of property-combining mechanism. But what sort of mechanism?… how is the mechanism to work, and how is it to be integrated into the axioms of the T-theory in an intelligible way? The answer is far from clear” (p. 70). Even if we do find answers to these questions, the fact that theories like T1 are supposed to characterize the semantic knowledge of a speaker yet invoke abstract entities like properties and relations in their axioms is enough to discourage this approach. “Strictly speaking, knowing that x is red is more fundamental than knowing what redness is… one has to wonder what work the property is doing here” (p. 70).

Names

If “to be is to be a semantic value,” then our semantics seems to commit us to the existence of such entities as “Pegasus” and “Orpheus” which clearly don’t exist. But perhaps the axioms for words describing nonexistent entities don’t actually invoke the entities themselves, but rather are definite descriptions:

Val(x, “Pegasus”) iff x = [the x : x is white, x is winged, …]
Val(x, “Orpheus”) iff x = [the x : x is male, x is a lyrist, …]

Events

Davidson (1976b) argued for the existence of events based on the observation that if we ascribe the following logical form to an action sentence like “John ate the chips gracefully,” we can easily explain the common inference from that sentence to “John ate the chips”:

∃e[ate(John, the chips, e) & graceful (e)]

Whether or not there is explicit quantification like this in the LF’s of the object language, what matters for our ontology is whether there is explicit quantification in the meta-language truth conditions. These axioms, for example, might commit us to the existence of events:
Val(\text{True}, [S \text{ NP VP}]) \text{ iff for some } e, \text{ Val}(e, \text{ VP}) \text{ and for some } x, \text{ Val}(x, \text{ NP}) \text{ and } x \text{ is the agent of } e \text{ e}
Val(e, [V_P V \text{ NP}]) \text{ iff Val}(e, V) \text{ and for some } y, \text{ Val}(y, \text{ NP}) \text{ and } y \text{ is the theme of } e
Val(e, [N_P V \text{ ADV}]) \text{ iff Val}(e, V) \text{ and Val}(e, \text{ ADV})

But all these axioms commit us to is “things (whatever we may choose to call them) that have agents... and themes... , and of which adverbs like ’intentionally’ and ’slowly’ are true.

4.3 Can a T-Theory Avoid Having Metaphysical Consequences?

It has been argued that by replacing pure quantification in the metalanguage with “substitutional quantification” (where quantification is over terms instead of individuals), we can avoid the kind of metaphysical commitment discussed above:

“A dog barked” is true iff for some term t, t \cdot “is a dog” is true and t \cdot “barked” is true
(where “ \cdot ” is the concatenation operator)

Quine (1969) argues that such a treatment “does not embody a genuine concept of existence” (Ludlow, p. 75), and that adopting it is “simply to drop ontological questions” (Quine, quoted on p. 75). Parsons (1971a) disagrees, and draws a parallel with Husserl (Ideas) to support his argument. “[T]here are many candidate notions of existence in the idealist tradition and elsewhere, and... [a] reconstruction of certain idealist conceptions of being could easily involve resources like substitutional quantification. In short, the move to substitutional quantification does not necessarily eliminate ontological commitment in the sense that we are interested in” (p.76).