

Handout #2

Interpretive Issues and Challenges

Davidson's Extensionalist Proposal

It is a salient fact that Davidson does not propose Convention A as the appropriate constraint a truth theory is to meet to serve as a vehicle for a meaning theory. Instead, he suggests that a correct, i.e., merely true, truth theory for a natural language will ipso facto enable one to interpret utterances. This is the ground for both the view that he intends to replace the theory of meaning with the theory of truth and the (competing) view that he intends to reduce meaning to truth conditions.

What we require of a theory of meaning for a language L is that without appeal to any (further) semantical notions it place enough restrictions on the predicate 'is T' to entail all sentences got from schema T when 's' is replaced by a structural description of a sentence of L and 'p' by that sentence. (Truth and Meaning (1967), p. 23)

There is no need to suppress, of course, the obvious connection between a definition of truth of the kind Tarski has shown how to construct, and the concept of meaning. It is this: the definition works by giving necessary and sufficient conditions for the truth of every sentence, and to give truth conditions is a way of giving the meaning of a sentence. To know the semantic concept of truth for a language is to know what it is for a sentence—any sentence—to be true, and this amounts, in one good sense we can give to the phrase, to understanding the language. (Truth and Meaning (1967), p. 24)

Compatibility with My Interpretive Proposal

T&M starts with the project of providing a compositional meaning theory. Call this *the initial project*. At the point at which Davidson makes the transition to his positive proposal, he also shifts his attention to the more general question of the nature of meaning in general, in part because he sees (or thought he saw) an opportunity for deeper illumination. Call this *the extended project*.

What he aims to do is to provide a solution to both the initial and extended projects simultaneously. To provide a solution to the extended project, he cannot simply assume that the theory meets Convention T, but must place substantive constraints on it which guarantee that it does (and, ultimately, that it satisfies Convention A).

In T&M, Davidson thought that an extensionally adequate theory for a natural language would be adequate because of the need to get the right truth conditions for sentences such as, 'That is snow', 'That is white', 'That is grass', 'That is green'. This was supposed to show that you couldn't get something like 'Show is white' is true iff grass is green' as a theorem.

Sentences with demonstratives obviously yield a very sensitive test of the correctness of a theory of meaning, and constitute the most direct link between language and the recurrent macroscopic objects of human interest and attention. (T&M (1967), p. 35).

If it worked, it would show something interesting: the work required just to get systematically correct assignments of truth conditions to sentences in a context sensitive language would not leave any room for a non-interpretive truth theory. This doesn't amount to a reduction of meaning to truth conditions, not a conceptual reduction, but it would show some interesting connection between truth, use, and meaning.

The Extensionality Problem

Extensional adequacy would not distinguish between (i) and (ii):

- (i) For any x, 'est rouge' is true of x iff x is red
- (ii) For any x, 'est rouge' is true of x iff x is red and the earth moves [alt: $2 + 2 = 4$].

The latter generates non-interpretive canonical theorems. Note that this problem shows that whatever constraint is imposed has to distinguish axioms more finely than either nomological or necessary equivalence. Davidson acknowledged the problem in later work and aimed to remedy the difficulty by requiring confirmability from the standpoint of the Radical Interpreter. For the purposes of a compositional meaning theory only, the problem is solved by requiring that the axioms of the theory meet Convention A.

Further Evidence in Favor of My Interpretive Proposal

The problem, upon refinement, led to the view that an adequate theory of meaning must characterize a predicate meeting certain conditions. It was in the nature of a discovery that such a predicate would apply exactly to the true sentences. ("Truth and Meaning (1967), p. 24)

A theory of truth entails, for each sentence s, a statement of the form 's is true if and only if p' where in the simplest case 'p' is replaced by s. Since the words 'is true if and only if' are invariant, we may interpret them if we please as meaning 'means that'. So construed, a sample might then read "'Socrates is wise" means that Socrates is wise'. (Semantics for Natural Languages (1970), p. 60)

A theory of truth will yield interpretations only if its T-sentences state truth conditions in terms that may be treated as 'giving the meaning' of object language sentences. Our problem is to find constraints on a theory strong enough to guarantee that it can be used for interpretation. (Belief and the Basis of Meaning (1974), p. 150)

If the metalanguage predicates translate the object language predicates, things will obviously come out right; if they have the same extensions, this might be enough. (Belief and the Basis of Meaning (1974), p. 151)

Someone who can interpret English knows, for example, that an utterance of the sentence 'Snow is white' is true if and only if snow is white; he knows in addition that this fact is entailed by a translational theory—that it is not an accidental fact about that English sentence, but a fact that interprets the sentence. Once the point of putting things this way is clear, I see no harm in rephrasing what the interpreter knows in this case in a more familiar vein: he knows that 'Snow is white' in English means that snow is white. (Reply to Foster (1976), p. 175)

How can a theory of absolute truth give an account of communication, or be considered a theory of meaning? It doesn't provide us with the materials for defining or analysing such phrases as 'means', 'means the same as', 'is a translation of', etc. It is wrong to think that we can automatically construe T-sentences as 'giving the meaning' of sentences if we put no more constraint on them than that they come out true. (Reality without Reference (1977), p. 224)

Apparently Contrary Passages

I do not mean to argue here that it is necessary that we be able to extract a truth definition from an adequate theory ..., but a theory meets the conditions I have in mind if we can extract a truth definition; in particular, no stronger notion of meaning is called for. ("Theories of Meaning and Learnable Languages" (1966), p. 8)

... I have argued that a theory of truth patterned after a Tarski-type truth definition tells us all we need to know about sense. Counting truth in the domain of reference, as Frege did, the study of sense thus comes down to the study of reference. ("Mood and Performances" (1979), p. 109)

A theory of truth entails, for each sentence *s* of the object language, a theorem of the form '*s* is true if and only if *p*'. Since the sentence that replaces '*p*' must be true (in the metalanguage) if and only if *s* is true (in the object language), there is a sense in which the sentence that replaces '*p*' may be called a translation of *s*; and if the metalanguage contains the object language, it may be called a paraphrase. ... But it should be emphasized that paraphrasing or translation serves no purpose here except that of giving a systematic account of truth-conditions. There is no further claim to synonymy, nor interest in regimentation or improvement. A theory of truth gives a point to such concepts as meaning, translation, and logical form; it does not depend on them. ("Reply to Cargile" (1970), pp. 143-44)

Verdict

We get the best systematic reading of Davidson if we think of his project as having two parts: the specification of how to give a compositional meaning theory in which we can assume knowledge of what primitives mean; the specification of constraints that can be placed such a theory which don't presuppose anything about the meaning object language expressions so as to yield a theory that meets Convention T.

This makes best sense Davidson's starting point, of the course the discussion takes, with the emphasis on the rejection of assigning entities to expressions generally, of the specification of the design problem

which pairs object language sentences with metalanguage sentences that translate them, and the “discovery” that a Tarski-style truth theory will solve the problem,

and of the subsequent proposal, as he shifts to the extended project, of placing non-semantic constraints on the theory, in the context of empirically confirming it, that are to secure that it meets Convention T.

The Determination Problem

This is the problem of picking out from all of the theorems of a truth theory those which in virtue of which it satisfies Convention T. We have already provided the solution: you specify a canonical proof procedure the aim of which is to draw only on the content of the axioms in proving T-theorems. Given that the axioms meet Convention A, this guarantees that the T-theorems are interpretive.

A canonical proof is any proof of a sentence of form ‘s is true iff p’ without semantic vocabulary on the right hand side from the axioms on the basis of the rules UI, S, and R is. In this case, the rules have been restricted in such a way that nothing extraneous can be introduced.

Foster’s Objection

Knowledge of a truth theory T (including what its axioms are) and of what it states is not enough for interpretation, because this doesn’t include that the theory states what it does. One must add knowledge minimally of what the axioms state. But this violates Davidson’s own constraints that what is known be extensional and that we use only an extensional logic.

Reply: Davidson doesn’t require that what is known be extensional: at most he requires that the truth theory be extensional, not what is known about it that enables us to use it for interpretation. The commitment to an extensional logic is to using an extensional logic with the truth theory; this doesn’t preclude stating what one has to know about a truth theory using expressions that create intensional contexts, since that is not part of what the truth theory states but something about it.

Context Sensitivity

How does the form of a theory have to change to handle context sensitivity? How can we formulate an analog of Convention T for a context sensitive language? How can we formulate an analog of Convention A for a context sensitive language?

Two options :Relativize the truth predicate to contextual parameters, for example, speaker and time; Treat the truth predicate as applying to utterances, whose truth conditions are specified relative to context.

Option 1

$(S)(t)\text{ref}('I', S, t) = S$

$(S)(t)(\text{if } x = \text{dem}('that', S, t) \text{ then } \text{ref}('that', S, t) = x)$

$(S)(t)\text{ref}('Obama', S, t) = \text{Obama}$

(S)(t)(N)(N+'smiles' is true(S,t) iff ref(N,S,t) smiles)
 (S)(t)(s)('not:' + s is true(S,t) iff it is not the case that s is true(S,t))
 (S)(t)(s₁)(s₂)(s₁+'and'+s₂ is true(S,t) iff s₁ is true(S,t) and s₂ is true(S,t))

Interpreting 'true(S,t)'

x is true(S,t) = x as uttered by S at t is true
 x is true(S,t) = if x were to be (or had been) uttered by S at t, then x would be true
 'I am silent' is true(S,t) iff S is silent at t.
 'I do not exist' is true(S,t) iff it is not the case that S exists at t.
 x is true(S,t) = x understood as if uttered by S at t is true [preferred version]

Option 2

(S)(t)ref('I',S,t)=S
 (S)(t)(if x = dem('that',S,t) then ref('that', S, t)=x)
 (S)(t)ref('Obama',S,t)=Obama
 (S)(t)(N)(u)(if U(u,N+'smiles',S,t) then u is true iff ref(N,S,t) smiles)
 (S)(t)(s)(u,u₁:u⊂u₁)(if U(u,'not:' +s,S,t), U(u₁,s,S,t) then u is true iff it is not the case that u₁ is true(S,t))
 (S)(t)(s₁)(s₂)(u,u₁,u₂:u⊂u₁,u₂)(if U(u,s₁+'and'+s₂,S,t) and U(u₁,s₁,S,t) and U(u₂,s₂,S,t) iff u₁ is true and u₂ is true)

The relation between a T-sentence for a truth theory with a truth predicate relativized to contextual parameters such as speaker and time, and a T-sentence for a truth theory that applies the truth predicate to utterances, is illustrated in the following schema:

For all speakers S, times t, s is true(S, t) in L iff p
 iff
 for all speakers S, times t, utterances u,
 if u is an utterance of s by S at t
 then (u is true in L iff p)

Convention T Extend to Natural Languages

Re-express Convention T as follows:

An adequate truth theory must have as theorems all sentences of the form (T) such that corresponding instances of (M) are true.

(T) S is true iff p
 (M) S means that p

Convention D (in honor of Davidson) then requires:

An adequate theory must have as theorems all sentences of the form (T*) such that corresponding instances of (M*) are true.

(T*) (s)(t)(S is true(s,t) iff p)
(M*) (s)(t)(S means(s,t) that p)

Convention A

An adequate truth theory must have interpretive axioms. An axiom x is interpretive iff if x is a reference axiom for a context insensitive term, the metalanguage term used to give the referent translates the object language term; if x is a reference axiom for a context sensitive term, the metalanguage rule which determines an object relative to context parameters determines the referent of the object language term relative to those parameters; if x is a predicate axiom of the form

$$(s)(t)(N_1)(N_2)\dots(\varphi(N_1, N_2, \dots) \text{ is true}(s,t) \text{ iff } \Phi(\text{ref}(N_1, s, t), \text{ref}(N_2, s, t), \dots))$$

then every instance of it in which all metalanguage semantic terms are eliminated from the right hand side is such that the corresponding instance of 'is true(s,t) iff' can be replaced with the corresponding instance of 'means(s,t) that' salva veritate; if x is a recursive axiom for a logical connective, then the metalanguage connective used to provide the recursive truth condition translates the object language connective.

Lack of Precise Grammar

It is as vague and shifting as usage, so we can at best approximate the grammar of a natural language; but it doesn't stop linguists from providing grammars and it should not stop the semanticist from using them.

Ambiguity (and Polysemy)

The best approach is to give the truth theory for a disambiguated language and map expressions of it onto sentences in use to provide interpretations, as appropriate. It is not appropriate to provide a single theorem for an ambiguous word because this does not yield a determinate interpretation and fails to show something about the language. The problem is worse for structural ambiguity because you need proofs to operate over syntax and to preserve truth.

Vagueness

The threat of vagueness is that some axioms and T-sentences will fail to be true; for example,

For all x, 'is bald' is true of x iff x is bald.

Since this covers cases in which 'is bald' neither applies nor fails to apply to a subject (a borderline case), if it is true iff every instance is true, it is not true.

The resolution is a by-product of something we have already noted: namely, that strictly speaking the truth theory is not the meaning theory, and that, moreover, the truth of the meaning theory does not require the truth of the truth theory. It follows that the meaning theory can be true and its meaning theorems true though the truth theory it is about is not.

The form of the meaning theory is the following:

[1] Every instance of the following schema is true:

For all speakers s , times t , S means for s at t in L that p iff it is canonically provable on the basis of the axioms of an interpretive truth theory T for L that for all speakers s , times t , S is true for s at t in L iff p .

[2] T is an interpretive truth theory for L whose axioms are ...

[3] Axiom ... of T means that ...; Axiom ... of T means that ...; ...

[4] A canonical proof in T is ...

Semantic Paradoxes

[L] The Liar is not true in English.

[TL] 'The Liar is not true in English' is true in English iff The Liar is not true in English.

Ref('The Liar') = 'The Liar is not true in English'

[TL+] 'The Liar is not true in English' is true in English iff 'The Liar is not true in English' is not true in English.

Two Responses:

(1) Excise the semantic predicates from the language before treatment.

(2) Don't worry: the meaning theory doesn't entail the truth theory, and there is nothing wrong with

'The Liar is not true in English' means in English that The Liar is not true in English

because the truth of that requires only that the sentence used to give the meaning translates the sentence for which it gives the meaning.