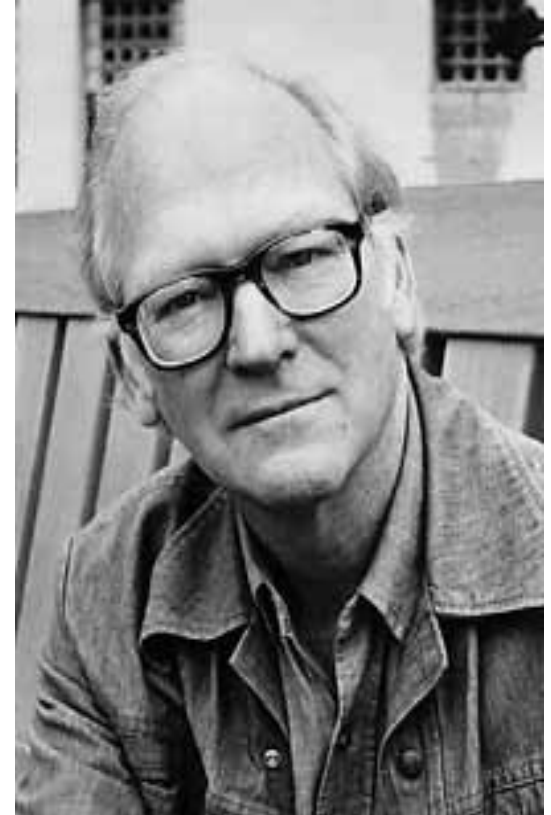


Events

- Donald Davidson (1966):
Logical form of action
sentences

We'll extend this theory to
other sentences, too.

Logical form = contribution of
structure to truth-conditions
representation of sentence
meaning using PC



Kelly Wise photo

Original example

(1) Jones buttered the toast slowly, deliberately, in the bathroom, with a knife.



(2) a. John buttered the toast.

b. John buttered the toast slowly.

c. John buttered the toast in the bathroom.

d. John buttered the toast deliberately.

e. It was an action done with a knife.

The puzzle

(1) Jones buttered the toast slowly, deliberately, in the bathroom, with a knife.

- The usual PC representation of (2a) is $\text{Buttered}(j, ixT(x))$
- How to represent all the stuff that modifies the action?

- Kelly's problem = "old" formula

(1') $\exists z[\text{Btr}(k, ixT(x), iyB(y), z) \& K(z)]$

The problem

- $B(a,b,c,d)$ does not entail $B(a,b,c)$

- For instance,

(3a') Ate(John, the shoe) (4a') Painted(Tom, the fence)

does not entail

(3b') Ate(John)

(4b') Painted(the fence)

Other motivations

- Reference to actions and events

(5) Jones did it slowly, deliberately, in the bathroom, with a knife.

(6) I crossed the Channel in 15 hours.

Good grief! That was slow!

- How to represent the reference to the action or event?
 - A simple e-type variable won't do if “it” refers to “Jones buttered the toast” (type t) or “buttered the toast” (type $\langle et \rangle$)

Introducing events

- Putting events into the formula – there are (at least) two ways to do it.
- We'll start with separating all parts of the sentence into their own propositions:

(1") $\exists e[\text{Btr}(e) \& \text{Agent}(e, j) \& \text{Patient}(e, ixT(x))$
 $\& \text{Location}(e, iyB(y)) \& \exists z(\text{Instr}(e, z) \& K(z))]$

- Actually, this is a later development (neo-Davidsonian approach)
 - There are important objections against it
 - We're just going to consider two (related) ones

Two methodological objections

- Neo-Davidsonian approach assumes that “painted” has different *lexical semantics* in (4a) and (4b),
 - to preserve the fact that there is NO entailment between them.

(4) a. Tom painted the fence. b. Tom painted.

- Also, there is no distinction between arguments and modifiers
 - a distinction with, arguably, semantic consequences

The original proposal

- Davidsonian approach to events:
 - Keep arguments as part of the original predicate
 - Connect the modifiers by using separate propositions

(1''') $\exists e[\text{Buttered}(j, ixT(x), e) \ \&\text{Slow}(e)$
 $\&\text{Location}(e, iyB(y) \ \&\exists z(\text{Instr}(e, z) \ \&K(z)))]$

- Use event variables for reference to events

(5') $\exists e[\text{Did}(j, e) \ \&\text{Slow}(e) \ \&\text{In}(e, iyB(y))$
 $\&\exists z(\text{With}(e, z) \ \&K(z))]$

Meaning of adverbs

(6) I crossed the Channel in 15 hours.

Good grief! That was slow!

(7) I swam.

Good grief! That was fast!

– “slow” and “fast” apply to the same event!

- Portner seems to think it’s an argument *against* events
- Davidson clearly thinks otherwise – why?
 - Parallel treatment of all modifiers:
 - both adjectives and adverbs can be intersective or functional

Meaning of adverbs (cont'd)

(8) I crossed the Channel slowly.

(9) Mickey is a large mouse.

- Unlike intersective modifiers, non-intersective ones must consider comparison class

(8') $\exists e[\text{cross}(\text{speaker}, \text{EC}, e) \ \& \ (\text{slow}(\text{cross}))(e)]$

(9') $\text{mouse}(m) \ \& \ (\text{large}(\text{mouse}))(m)$

– I'm glossing over several open debates here

A new type?

- What we had before:
 - Two basic types: entity (e) and truth-value (t)
- Are events a new type, or type e still?

- In any case, with events & event variables
 - verbs have different types depending on whether they denote events or not
 - Same for nouns

- Next question: what about times?

Three uses of pronouns

- Deictic

- represented by free variables

(10) a. (pointing) He shouldn't be here

b. She left me

c. I love you

d. We know them

Three uses of pronouns

- Anaphoric
 - represented by free variables

- (11) a. The woman in the house next door, she almost ran over me
- b. Sam took the car yesterday, and Sheila took it today
- c. Three guys came in. They sat down

Three uses of pronouns

- Bound
 - represented by bound variables

- (12) a. If one of the arrows hits the target, it's mine
b. Every boy spoke to his neighbor
c. No one could tell what he was being tested for
d. Mostly, if a man commmits perjury, he has to keep lying
e. Every Englishman worships his mother