1 Why Events? The Davidsonian proposal

• Adverbs

(1) a. Herb buttered the bread.
   b. butter(Herb, b)
   c. Herb slowly buttered the bread.
   d. What do we add?

   Straw man proposal: slowly(butter)(Herb, s)

   But what does this straw proposal mean? The truth conditions aren’t obvious....

   e. Davidson’s entailment:

   Herb slowly butter the salami $\rightarrow$ Herb butter the salami

   Straw man proposal does not derive this entailment.

• Events: An answer

$\exists$butter($e$, Herb, s) & slow($e$)

Notice we immediately get Davidson’s entailment:

$\exists$butter($e$, Herb, s) & slow($e$) $\rightarrow$

$\exists$butter($e$, Herb, s)

Because in general:

$p \& q \rightarrow q$
Example

John smokes and Harry drinks

→

Harry drinks

But there still had better be independent motivation for events....

• Counting

(2) a. The rock struck the vase three times.
b. What are there 3 of?

\[3 \times ??]strike(r, v)
c. Sue visited Jane 3 more times than Harry did.
d.

\[m : \text{The number of times Harry visited Jane} \]
\[n : \text{The number of times Sue visited Jane} \]
\[n = m + n \]

What kind of entities are we counting in ‘A did B M times’?

• Causality

(3) Herb’s pouring the poison into the tank caused the city’s water supply to be poisoned.

What kind of entities stands in the causality relation? What kind of entity causes something? What kind of entity is caused?

• Seeing

(4) a. Mary saw [the rock strike the vase]
b. see(Mary, \[\text{strike}(r, v)\] )

What kind of entity stands in the seeing relation to Mary?

Notice the difference between an example like (4) and (5):

(5) a. Mary believes the rock struck the vase.
b. believe(Mary, [strike(r, v)])

What kind of entity stands in the believing relation to Mary?

- and other perceptions

(6) a. Herb felt the earth move.
   b. Herb heard the plane land.
• Answer: All these are events

| What kind of entities are we counting in ‘A did B M times’? | Events |
| What kind of entities stands in the causality relation? | What kind of entity causes something? | What kind of entity is caused? | Events |
| What kind of entity stands in the believing relation to Mary? | An event |
| What kind of entities are perceived (seen, heard)? | Events |

• The Davidsonian treatment extends to an arbitrary number of modifiers...

(7) John buttered the bread slowly in the kitchen at midnight with a knife.

2 Issues and Counterexamples to Davidsonian Entailment Pattern

The (a) sentences do not entail the (b) sentences

(8) a. John partially cleaned the house.
    b. John cleaned the house.

(9) a. Red stripes covered the shirt from the collar to the top of the pocket.
    b. Red stripes covered the shirt.

(10) a. John allegedly shot the mayor.
    b. John shot the mayor.

(11) a. Possibly John shot the mayor
    b. John shot the mayor

These can’t be treated simply as conjoined relations on a Davidsonian treatment. So we haven’t solved the problem of ALL optional obliques and adverbials.

Truth conditional challenge
Can we really explain the truth conditions of

\textit{slow(e)}

for all events independent of what kind of event it is?

(12)  
  a. John slowly mounted the stairs.
  b. The leaves slowly turned color.
  c. John slowly realized the truth.
  d. ? John slowly knew the truth.
  e. John slowly built a 3-story house.
  f. John spoke slowly.
  g. ? John slowly denied that he had visited Mary.

References


3 \textbf{NeoDavidsonian Treatment: Castaneda}

the Davidsonian entailment again

(13)  
  a. I flew my spaceship to the morning star.
  b. I flew to the morning store.
  c. My spaceship was flown to the morning star.
  d. I flew.
  e. My spaceship was flown.

Entailment pattern

1. (13a) entails (13b)-(13e)

2. (13b) optionality of object: just like the obliques. When missing you get a sentence entailed by (13a)

3. (13c) optionality of subject: just like the obliques. When missing you get a sentence entailed by (13a)
4. (13d) optionality of object and oblique: just like the obliques. When missing you get a sentence entailed by (13a)

Conclusion

Subject and object must be treated parallel to the others.

(14) a. I flew my spaceship to the morning star.
    b. Neo-Davidsonian
        \[\exists e[\text{fly}(e) \& \text{subj}(e, I) \& \text{obj}(e, \text{my ship}) \& \text{to}(e, \text{morn star})]\]
    c. Davidsonian
        \[\exists e[\text{fly}(e, I, \text{my ship}) \& \text{to}(e, \text{morn star})]\]
    d. My spaceship was flown to the morning star.
        \[\exists e[\text{fly}(e) \& \text{obj}(e, \text{my ship}) \& \text{to}(e, \text{morn star})]\]

What does ‘obj’ really mean?

The Davidsonian treatment is called a **decomposition** of the verbal predicate or (less often) a **sub-atomic treatment**

(15) a. Davidsonian
    \[\exists e[\text{give}(e, x, y, z)]\]
    b. Neo-Davidsonian
    \[\exists e[\text{give}(e) \& \text{subj}(e, x) \& \text{obj}(e, y) \& \text{to}(e, z)]\]

**References**

4 Optionality: Definite and indefinite missing arguments

The Davidsonian analysis needs to existentially quantify when an argument is optional

(16) a. Brutus stabbed Caesar. 
    \[ \exists e[\text{stab}(e, b, c)] \]
    b. Brutus stabbed. 
    \[ \exists e, x[\text{stab}(e, b, x)] \]

The Neo-Davidsonian analysis just leaves out a conjunct

(17) a. Brutus stabbed Caesar. 
    \[ \exists e[\text{stab}(e) & \text{subj}(e, b) & \text{obj}(e, c)] \]
    b. Brutus stabbed. 
    \[ \exists e[\text{stab}(e) & \text{subj}(e, b)] \]

Different predictions: (16b) representation is WRONG! (17b) representation is RIGHT!

(18) a. 
    Brutus stabbed \( \not\rightarrow \) There is someone Brutus stabbed
    b. Brutus might have missed!
    c. Fred kicked the chair.
    d. Fred kicked.
    e. Fred kicked \( \not\rightarrow \) There is something that Fred kicked

Let’s call the inference pattern with \textit{stab} the Parsons (1990) pattern. Other verbs show the predicted Davidsonian pattern

(19) a. Fred ate. 
    b. Fred ate \( \rightarrow \) There is something that Fred ate

Similarly, there are obliques that follow a Davidsonian entailment pattern...
(20)  a. Brutus stabbed Caesar  
     b. Brutus stabbed Caesar \[\rightarrow\] 
        There is something that Brutus stabbed Caesar with.

Observation The Parsonian analysis is simpler for the Parsonian inference pattern. It seems to be a tie for the Davidsonian pattern:

(21)  a. Brutus ate  
    \[\exists x[\text{eat}(e) \& \text{subj}(e, b) \& \text{obj}(e, x)]\] 
    \[\exists x[\text{stab}(e, b, x)]\]

There are optional elements that behave like definites or pronouns

(22)  a. # John found a sandwich and ate. [reading: he ate the sandwich]  
     b. John found a sandwich and ate it.  
     c. John entered a contest and won. [reading: he won the contest]  
     d. There was a job at Xerox and John applied. [reading: he applied for the job at Xerox]

5 Thematic Roles

A variant of the NeoDavidsonian analysis

(23)  a. Brutus stabbed Caesar with a knife  
    \[\exists e[\text{stab}(e) \& \text{agent}(e, b) \& \text{patient}(e, c) \& \text{with}(e, k)]\]

There are issue about these new labels, called thematic roles. Can the notion agent be assigned a consistent set of semantic features (entailments)?

(24)  a. Jubal left early.  
     b. Jubal did not leave early.  
     c. \[\sim \exists e[\text{leave}(e) \& \text{agent}(e, j) \& \text{early}(e)]\]  
     d. Inadvertently, Jubal left early and missed the speeches. [volitionality]  
     e. Deliberately, Jubal left early and missed the speeches.

Assignment
1. Find 3 transitive verbs that fit the Parsonian entailment pattern (other than *stab, kick*). Avoid violence if possible.

2. Find 3 transitive verbs that fit the Davidsonian entailment pattern (other than *eat*) in which the existence of an entity filling the direct object irole is entailed when the direct object is omitted. Avoid dietary excess if possible. Now find 3 obliques which are existentially entailed, like the instrumental in (20).

3. Find 3 verbs that have definitely omissible objects or obliques (other than *win*). Avoid competitiveness if possible.

References


6 Aspectual Categories and Boundedness

- Boundedness in events and nouns: Boundedness is property of properties of things and events, not of the things or events themselves

(25) **Misleading fact**

(a) Water is continuous, flowing
(b) Soldiers are discrete countable

(26) **Alternative conceptualizations**

(a) water: A glass of water
(b) water: a gallon of water
(c) water: a drop(let) of water
(d) infantry: footsoldiers
(e) furniture: pieces of furniture (French *meuble*)
(f) foliage: leaves
(g) gravel: pebbles
(h) kindling, firewood, timber: sticks, branches, logs

A property true of x...
(a) ... but not true of any subparts of individual x is quantized.

(b) Examples

<table>
<thead>
<tr>
<th>Quantized</th>
<th>Non Quantized</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 boys</td>
<td>boys</td>
</tr>
<tr>
<td>3 gallons of water</td>
<td>water</td>
</tr>
<tr>
<td>the boys</td>
<td>some boys</td>
</tr>
<tr>
<td>a piece of equipment</td>
<td>equipment</td>
</tr>
<tr>
<td>a block of cheese</td>
<td>cheese</td>
</tr>
<tr>
<td>an armful of cake</td>
<td>cake</td>
</tr>
<tr>
<td>a cord of wood</td>
<td>wood</td>
</tr>
<tr>
<td>a truckload of coal</td>
<td>coal</td>
</tr>
</tbody>
</table>

2. Quantization for events

A property true of event x...
(a) ... but not true of any subevents of event x is quantized.

(b) Examples

<table>
<thead>
<tr>
<th>Quantized</th>
<th>Non Quantized</th>
</tr>
</thead>
<tbody>
<tr>
<td>running a mile</td>
<td>running in the park</td>
</tr>
<tr>
<td>drawing a circle</td>
<td>drawing</td>
</tr>
<tr>
<td>eating sandwich</td>
<td>eating</td>
</tr>
<tr>
<td>beat the eggs</td>
<td>beat the eggs to a froth</td>
</tr>
<tr>
<td>pull the rope</td>
<td>pull the rope off the hook</td>
</tr>
</tbody>
</table>

3. Combining the two

<table>
<thead>
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<th>Non Quantized</th>
</tr>
</thead>
<tbody>
<tr>
<td>running a mile</td>
<td>running miles</td>
</tr>
<tr>
<td>drawing a circle</td>
<td>drawing circles</td>
</tr>
<tr>
<td>eating sandwich</td>
<td>eating sandwiches</td>
</tr>
</tbody>
</table>

(29) a. He ran a mile in 4 minutes.
b. # He ran miles in 4 minutes.
c. He drew a circle in 5 seconds.
d. # He drew circles in 5 seconds.
e. He ate a sandwich in 12 seconds.
f. # He ate sandwiches in 12 seconds.

(30) Iteration and Quantization
    (a) He signed the check all night. [weird iterative interpretation]
    (b) He signed checks all night. [iterative but not weird]
    (c) # He finished his book until November.
    (d) He finished books until November.

References

