Theta grids

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1 Parts of a theta grid

Lexical entries

\begin{tabular}{|c|c|}
\hline
think & \text{Experiencer} \\
 & \text{DP} \\
\hline
 & \text{Proposition} \\
 & \text{CP} \\
\hline
be cool & \text{theme} \\
 & \text{DP} \\
\hline
\end{tabular}
Theta grids: Indices in second row represent syntactically supplied arguments. First row represents lexically supplied roles.

\[
[\text{dp the boy}]_i \text{thinks} [\text{cp that} \ [\text{dp Mary}]_k \text{is cool}]_j
\]

\[
\begin{array}{|c|c|}
\hline
\text{Experiencer} & \text{Proposition} \\
\hline
\text{dp} & \text{cp} \\
\hline
i & j \\
\hline
\end{array}
\]

\[
\text{be cool}
\]

\[
\begin{array}{|c|c|}
\hline
\text{theme} & \text{cp/dp} \\
\hline
\text{dp} & l \\
\hline
k & \\
\hline
\end{array}
\]

Worth noting

- The predicates in theta-grids have no tense. Predicates come out of the lexicon. Verbs don’t have tense in the lexicon. As we now see, they get combine with tense in the syntax, either by \(V \rightarrow T\) movement, or by affix-lowering.

2 Right Answers

1. \([\text{Adam}]_i \text{asked} [\text{cp if} \ [\text{Hyacinth}]_j \text{likes} [\text{pineapples}]_k]_l\).

\[
\begin{array}{|c|c|}
\hline
\text{Experiencer} & \text{Proposition} \\
\hline
\text{dp} & \text{cp/dp} \\
\hline
i & l \\
\hline
\end{array}
\]

\[
\text{like}
\]

\[
\begin{array}{|c|c|}
\hline
\text{Experiencer} & \text{Theme} \\
\hline
\text{dp} & \text{dp} \\
\hline
j & k \\
\hline
\end{array}
\]

Worth noting
• You must recognize the embedded clause to get it right; two clauses means two predicates
2. [Michael], asked [dp a question]

<table>
<thead>
<tr>
<th>Experiencer</th>
<th>Proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP</td>
<td>CP/DP</td>
</tr>
<tr>
<td>i</td>
<td>j</td>
</tr>
</tbody>
</table>

Worth noting

- Using the same roles for this as for the previous. Seems plausible that there is one meaning of ask with two different realizations. Consider also Michael asked the time.

3. [I], feel [cp that [it] is unfortunate [cp that [TV], is so vulgar these days]k]l.

<table>
<thead>
<tr>
<th>Experiencer</th>
<th>Proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP</td>
<td>CP</td>
</tr>
<tr>
<td>i</td>
<td>l</td>
</tr>
</tbody>
</table>

be unfortunate

<table>
<thead>
<tr>
<th>proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP</td>
</tr>
<tr>
<td>k</td>
</tr>
</tbody>
</table>

be vulgar

<table>
<thead>
<tr>
<th>theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP</td>
</tr>
<tr>
<td>j</td>
</tr>
</tbody>
</table>

Worth noting

- these days, an adjunct, is left out of the theta-grid of be vulgar.
- it is an expletive. By definition, an expletive gets no theta-role. And no theta-index.
- Be is never treated as a predicate.
- Three predicates means three theta-grids. Three clauses means three predicates.
4. \([_{\text{cp}} \text{ that } [_{\text{Angus}}] \text{ hates } [_{\text{sushi}}]_{j}]_{k} \text{ is mysterious}\)

   be mysterious

   Proposition
   \[
   \begin{array}{c}
   \text{CP} \\
   \text{k}
   \end{array}
   \]

   hate

   Experiencer
   \[
   \begin{array}{c}
   \text{DP} \\
   \text{i}
   \end{array}
   \]

   Theme
   \[
   \begin{array}{c}
   \text{DP} \\
   \text{j}
   \end{array}
   \]

Worth noting

- You must recognize the embedded clause to get it right; two clauses means two predicates.
- \(Be\) is never treated as a predicate.
- You must the right arguments with the right predicates. Treating \(sushi\) as an argument of \(be \text{ mysterious}\) won’t cut it.
5. \[ \text{it} \] is sunny \[ \text{in the living room} \],

\[
\text{be sunny}
\]

\[
\begin{array}{c}
\text{location} \\
\text{PP} \\
i
\end{array}
\]

Worth noting

- \text{It} is treated as an expletive here. By definition, an expletive gets no theta role.

6. \[ \text{it} \] is sunny \[ \text{in the living room} \] (alternative)

\[
\text{be sunny}
\]

Worth noting

- \text{In the living room} is treated as an adjunct.

3 Wrong Answers

1. \[ \text{Susan}, \text{ate} \[ \text{yesterday} \], \text{[at the restaurant]} \]

\[
\begin{array}{c|c}
\text{Agent} & \text{theme} \\
\hline
\text{DP} & \text{DP} \\
i & j
\end{array}
\]

What’s wrong:

- \text{yesterday} is treated as an argument. It’s not. It’s an adjunct expressing the time of the event. Temporals and locatives are (almost) always adjuncts. This actually expresses a grammatically possible reading on which yesterday was devoured, parallel to the much more probable \text{I loved yesterday!} (It was the best day of my week!)
4 Theta criterion

1. * [Susan], loved.

\[\begin{array}{c}
\text{love} \\
\begin{array}{c|c}
\text{Agent} & \text{theme} \\
\hline
\text{DP} & \text{DP} \\
\text{i} & \text{DP} \\
\end{array}
\end{array}\]

What’s wrong:
- Too few arguments

2. * [Susan], fell [dp the toy],

\[\begin{array}{c}
\text{fall} \\
\begin{array}{c|c}
\text{Agent} & \\
\hline
\text{DP} & \text{i} \\
\end{array}
\end{array}\]

What’s wrong:
- Too many arguments

3. * [Susan], put [dp the toy], [dp the table],

\[\begin{array}{c}
\text{put} \\
\begin{array}{c|c|c|c}
\text{Agent} & \text{Theme} & \text{Location} & \\
\hline
\text{DP} & \text{DP} & \text{PP} & \\
\text{i} & \text{j} & \text{k} & \\
\end{array}
\end{array}\]

What’s wrong:
- Argument is wrong syntactic category.

4. * [Susan], put [dp the dirt], [pp with the shovel],

\[\begin{array}{c}
\text{put} \\
\begin{array}{c|c|c}
\text{Agent} & \text{Theme} & \text{Location} \\
\hline
\text{DP} & \text{DP} & \\
\text{i} & \text{j} & \\
\end{array}
\end{array}\]

What’s wrong:
• Instrument PP not appropriate for Location theta role. Perfectly
good adjunct, so we leave it out. But required Location role is
unfilled: Θ-violation.

5 Expletives

1. [ It ] is annoying [that [ John ] called [ his lawyer. ]]

   call
   \[
   \begin{array}{c|c}
   \text{Exp} & \text{Theme} \\
   \text{DP} & \text{DP} \\
   j & k
   \end{array}
   \]

   be annoying
   \[
   \begin{array}{c}
   \text{Proposition} \\
   \text{CP} \\
   \end{array}
   \]

   * Mary is annoying that John called his lawyer.

2. [ It ] is annoyed [that [ John ] called [ his lawyer ]]

   call
   \[
   \begin{array}{c|c}
   \text{Agent} & \text{Theme} \\
   \text{DP} & \text{DP} \\
   j & k
   \end{array}
   \]

   be annoyed
   \[
   \begin{array}{c|c}
   \text{Exp} & \text{Proposition} \\
   \text{DP} & \text{CP} \\
   i & l
   \end{array}
   \]

   * It treated as an ordinary NP that receives a theta role. To motivate
   this choice we again use the NP substitution test.

   Mary is annoyed that John called his lawyer.
6 What is a predicate?

Note that in both the theta grids involving annoyance, the predicates included what we sometimes think of as inflection, the \(-ing\) and \(-ed\) in *annoying* and *annoyed*. That is because in these examples *annoying* and *annoyed* are adjectives, not verbs:

a. Mary is very annoyed that John called his lawyer.
b. It is very annoying that John called his lawyer.
c. It (*very) annoyed Mary that John called his lawyer.
d. It is (*very) annoying Mary that John calls his lawyer so often.

So for the verb *annoy*, \(-ing\) and \(-ed\) are inflectional affixes that are attached to the verb stem in the syntax by affix lowering. Hence the predicate is *annoy*. But since deriving an adjective from a verb changes the part of speech it must be a derivational process that happens in the lexicon. Hence the adjectives *annoying* and *annoyed* are derived in the lexicon and therefore we need two different adjective predicates, *annoying* and *annoyed*. Interestingly, they have different theta roles: *annoying* has one propositional argument; *annoyed* has an experiencer and a proposition. Notice that adding inflectional morphology never changes the theta roles: All the different forms of the verb *annoy* have an experiencer and a proposition. By having the inflectional affixes combine in the syntax after theta roles are checked, we make this a theorem. That is, it is impossible to have a verb which has different theta role assignments for its \(-ed\) and \(-ing\) forms.