Theta grids

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Introduction to Syntax

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1   Parts of a theta grid

Lexical entries

think

Experiencer	Proposition
DP	CP

be cool

theme
DP

Theta grids: Indices in second row represent syntactically supplied arguments. First row represents lexically supplied roles.

[ₚₚ the boy]ᵢ **thinks** [_CP_ that [ₚₚ Mary]ₖ **is cool**]ⱼ

think

Experiencer	Proposition
DP	C P
i	j

be cool

theme
DP
k

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→T movement, or by affix-lowering.

2 Right Answers

1. [Adam]ᵢ **asked** [_CP_ if [Hyacinth]ⱼ**likes** [pineapples]ₖ]ₗ.

ask

Experiencer	Proposition
DP	CP/DP
i	l

like

Experiencer	Theme
DP	DP
j	k

Worth noting

- You must recognize the embedded clause to get it right; two clauses means two predicates

2. [Michael]ᵢ **asked** [_DP_ a question]

   ask

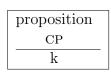 | Experiencer | Proposition |
   |:---:|:---:|
   | DP | CP/DP |
   | i | j |

   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]ᵢ **feel** [_CP_ that [it] **is unfortunate** [_CP_ that [TV]ⱼ **is so vulgar** these days]ₖ]ₗ.

   feel

Experiencer	Proposition
DP	CP
i	l

   be unfortunate

proposition
CP
k

   be vulgar

theme
DP
j

   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. [$_{\text{CP}}$ that [Angus]$_\text{I}$ **hates** [sushi]$_\text{J}$]$_\text{K}$ **is mysterious**

be mysterious

Proposition
CP
k

hate

Experiencer	Theme
DP	DP
i	j

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 mysterious** won't cut it.

5. [it] **is sunny** [in the living room]ᵢ

be sunny

location
PP
i

Worth noting

- *It* is treated as an expletive here. By definition, an expletive gets no theta role.

6. [it] **is sunny** [in the living room] (alternative)

be sunny ▌

Worth noting

- *In the living room* is treated as an adjunct.

3 Wrong Answers

1. [Susan]ᵢ ate [yesterday]ⱼ [at the restaurant]

eat

Agent	theme
DP	DP
i	j

What's wrong:

- **yesterday** is treated as an argument. It's not. It's an adjunct expressing the time of the envent. 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 *I loved yesterday!* (It was the best day of my week!)

4   Theta criterion

1. * [Susan]$_I$ loved.

    love

Agent	theme
DP	DP
i	

    What's wrong:

    - Too few arguments

2. * [Susan]$_I$ fell [$_{DP}$ the toy]$_J$

    fall

Agent	
DP	
i	j

    What's wrong:

    - Too many arguments

3. * [Susan]$_I$ put [$_{DP}$ the toy]$_J$ [$_{DP}$ the table]$_K$

    put

Agent	Theme	Location	
DP	DP	PP	
i	j		k

    What's wrong:

    - Argument is wrong syntactic category.

4. * [Susan]$_I$ put [$_{DP}$ the dirt]$_J$ [$_{PP}$ with the shovel]$_K$

    put

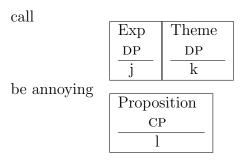 | Agent | Theme | Location |
    |-------|-------|----------|
    | DP | DP | PP |
    | i | j | |

    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.
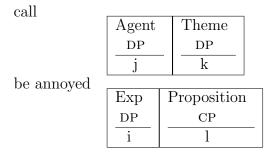
5 Expletives

1. [It]ᵢ is annoying [that [John]ⱼ called [his lawyer.]ₖ]ₗ

   call

Exp	Theme
DP	DP
j	k

   be annoying

Proposition
CP
l

   It treated as an expletive. Use the NP substitution test.

   * Mary is annoying that John called his lawyer.

2. [It]ᵢ is annoyed [that [John]ⱼ called [his lawyer]ₖ]ₗ

   call

Agent	Theme
DP	DP
j	k

   be annoyed

Exp	Proposition
DP	CP
i	l

   It treated as an 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.

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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 afffix 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.