1. Review of Theta Roles and Thematic Relations

1.1. Definitions.

**Thematic Relations:** semantic relations between a predicate and an argument, used as a means of encoding selectional restrictions, describes the role that the argument plays with respect to the predicate.

**Theta Role:** a bundles of thematic relations associated with a particular argument.
- **External** theta roles are roles associated with subject DPs or CPs while **internal** theta roles are associated with objects or indirect objects.

**Theta Criterion:**
(a) Each argument is assigned one and only one theta role.

(b) Each theta role is assigned to one and only one argument.

**Theta Grid:** The schematic representation of the argument structure of a predicate, where the theta roles are listed.

*Example:* Theta grid for *place* in *John* placed *the flute* on the table.

<table>
<thead>
<tr>
<th>Source/Agent</th>
<th>Theme</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP</td>
<td>DP</td>
<td>PP</td>
</tr>
<tr>
<td>i</td>
<td>j</td>
<td>k</td>
</tr>
</tbody>
</table>

The components of a theta grid:
- the name of the predicate
- a column for each of the arguments that the predicate requires; each column represents a theta role assigned by the predicate
- each column has two rows: the first row contains (i) the thematic relations of the argument and (ii) the category of the argument, the second row contains the argument’s index
- the thematic relations of an external argument are underlined
1.2. Thematic Relations.

<table>
<thead>
<tr>
<th>Thematic Relation</th>
<th>Role</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent</td>
<td>initiator of the action, could be capable of volition</td>
<td>Mark hit the table.</td>
</tr>
<tr>
<td>Experiencer</td>
<td>experiencer or perceiver of the event</td>
<td>Carmela saw the eclipse.</td>
</tr>
<tr>
<td>Theme or Patient</td>
<td>the entity that undergoes actions, is moved, experienced or perceived</td>
<td>Beth loves cookies.</td>
</tr>
<tr>
<td>Goal</td>
<td>the entity towards which motion takes place. Goals may involve abstract motion</td>
<td>Yasuko went to Sapporo.</td>
</tr>
<tr>
<td>Recipient</td>
<td>a special kind of goal that involves a change of possession</td>
<td>Alice gave Pavel a drink.</td>
</tr>
<tr>
<td>Source</td>
<td>the opposite of goal, entity from which movement occurs</td>
<td>Nancy gave Lorna the syntax assignment.</td>
</tr>
<tr>
<td>Location</td>
<td>the place where action occurs</td>
<td>The staff are all staying at the bar.</td>
</tr>
<tr>
<td>Instrument</td>
<td>the entity with which action occurs</td>
<td>Someone hacked the computer apart with an axe.</td>
</tr>
<tr>
<td>Benefactive</td>
<td>the entity for whom the action occurs</td>
<td>He bought these flowers for Jason.</td>
</tr>
</tbody>
</table>

1.3. Expletive Subjects.

- do not refer to any discourse entity
- are not arguments
- do not have theta roles
- yet they cannot be omitted

1.3.1. Weather verbs. The theta grid of weather verbs is empty because weather verbs do not assign theta roles.

1.3.2. Other predicates that take expletive subjects. Other predicates that take expletive subjects are predicates that optionally take a CP subject:

(1) \([\text{CP}] \quad \text{That Bill loves chocolate}\], is likely.
(2) \(\text{It is likely} \ [\text{CP}] \quad \text{that Bill loves chocolate}\].

The predicate is likely assigns one theta role to a clausal argument.

\(\text{is likely}\)

<table>
<thead>
<tr>
<th>Proposition</th>
<th>CP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

1.4. Expletives in the computational component.

**Expletive insertion rule:** Insert an expletive pronoun into the specifier of TP. (This rule applies when there is no other subject.)

**Extended Projection Principle (EPP):** All clauses must have subjects. (i.e. the specifier of TP must be filled.)
2. Exercises

2.1. Theta Grids. For each of the sentences below, identify each of the predicates. Provide the theta grid for each. Don’t forget: include only arguments in the theta grid; DPs and PPs that are adjuncts are not included. Index each DP, PP, CP argument with the theta role it takes. Assume that there are two different verbs give (each with their own theta grids) to account for (b) and (c); two different verbs eat (each with their own theta grids for (d) and (e); and two different verbs ask for (h) and (i).

(a) The stodgy professor left with his teaching assistant.
(b) Molly gave Calvin a kiss.
(c) Mercedes gave a test to the students in the lecture hall.
(d) Pangur ate a cat treat.
(e) Susan ate yesterday at the restaurant.
(f) Gwen saw a fire truck.
(g) Gwen looked at a fire trucked.
(h) Michael asked a question.
(i) Adam asked if Hyacinth likes pineapples.
(j) It is sunny in the dining room.
(k) That Angus hates sushi is mysterious.

2.2. Theta Criterion. Show how each of the following sentences are violations of the theta criterion. Use theta grids to explain your answers.

(a) *Rosemary hates.
(b) *Jennie smiled the breadbox.
(c) *Traci gave the whale.
(d) *Traci gave a jawbreaker.
(e) *placed the flute on the table.
(f) *John placed on the table.

2.3. Warlpiri. Which thematic relations can you relate to each of the suffixes glossed with -A, -B, -C, -D, and -E?

(3) Lungkarda ka ngulya-ngka nguna-mi.
    bluetongue AUX burrow-A lie-NON.PAST
    ‘The blue tongue skink is lying in the burrow.’

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1This exercise is based on General Problem Set 1 from Chapter 8 (Carnie 2007).
2This exercise is based on General Problem Set 5 from Chapter 8 (Carnie 2007).
3This exercise is based on General Problem Set 2 from Chapter 8 (Carnie 2007).
(4) \textit{Nantuwu ka karru-kurra parnka-mi.}
\textit{horse aux creek-B run-NON.PAST}
‘The horse is running to the creek.’

(5) \textit{Karli ka pirli-ngirli wanti-mi.}
\textit{boomerang aux stone-C fall-NON.PAST}
‘The boomerang is falling from the stone.’

(6) \textit{Kurdugku ka-jana pirli yurutu-wana yirra-rni.}
\textit{child-D aux stone road-E put-NON.PAST}
‘The child is putting stones along the road.’

3. \LaTeX guide

3.1. \textbf{Theta grids.}

\textit{is likely}

\begin{tabular}{|c|}
\hline
Proposition \\
CP \\
i \\
\hline
\end{tabular}

\LaTeX code:

\{\textit{is likely}\}

\begin{tabular}{|c|c|}
\hline
Proposition & CP \\
i \\
\hline
\end{tabular}

\textit{place}

\begin{tabular}{|c|c|c|}
\hline
Source/Agent & Theme & Goal \\
DP & DP & PP \\
i & j & k \\
\hline
\end{tabular}

\LaTeX code:

\{\textit{place}\}

\begin{tabular}{|c|c|c|}
\hline
Source/Agent & Theme & Goal \\
DP & DP & PP \\
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\hline
\end{tabular}