Syntax

Comparing raising and control predicates

Neal Snape

(1) He does seem [to scare them]

(2) He does want [to scare them]

Raising Predicates

• In the raising structure (1), the verb scare merges with (and assigns the experiencer theta-role to) its internal argument/thematic complement them.

• The resulting V-bar scare them then merges with (and assigns the agent theta-role to) its external argument/thematic subject he.

Argument structure and theta-roles

• A predicate is an expression denoting an activity or event, and an argument is an expression denoting a participant in the relevant activity or event.

• The italicised verbs are predicates in (3) and the bracketed expressions represent their arguments:

(3)
(a) [The guests] have arrived
(b) [The police] have arrested [the suspect]

• The verb seem in (1) is a raising predicate, but the verb want in (2) is a control predicate.

• We will see that this reflects that the verbs seem and want differ in respect of their argument structure.

• The internal argument of the verb scare is them

• The external argument of the verb scare is he
• The arguments of a verb are typically its subject and complement(s).

• A verb like arrive, when used with a single [bracketed] argument in a structure like (3a), is said to be a one-place predicate.

• A verb like arrest when used with two [bracketed] arguments in a structure like (3b) is said to be a two-place predicate.

• These two arguments play very different semantic roles in relation to the act of arrest, e.g., The police arrested the suspect.

  • the police are the individuals who perform the act and
  • the suspect is the person who suffers the consequences of the act (e.g. being handcuffed).

• the police has a semantic role in the sentence and the suspect has a semantic role, but they are not the same roles.

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• List of roles played by arguments with respect to predicates

<table>
<thead>
<tr>
<th>Role</th>
<th>Gloss</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>theme</td>
<td>Entity undergoing the effect of some action</td>
<td>Mary fell over</td>
</tr>
<tr>
<td>agent</td>
<td>Entity instigating some action</td>
<td>Debbie killed Harry</td>
</tr>
<tr>
<td>experiencer</td>
<td>Entity experiencing some psychological state</td>
<td>I like syntax</td>
</tr>
<tr>
<td>locative</td>
<td>Place in which something is situated or takes place</td>
<td>He hid it under the bed</td>
</tr>
<tr>
<td>goal</td>
<td>Entity representing the destination of some other entity</td>
<td>John went home</td>
</tr>
<tr>
<td>source</td>
<td>Entity from which something moves</td>
<td>He returned from Paris</td>
</tr>
<tr>
<td>instrument</td>
<td>Means used to perform some action</td>
<td>He hit it with a hammer</td>
</tr>
</tbody>
</table>

• Semantic roles are known as thematic roles

• Since the Greek letter θ (= theta) corresponds to th in English and the word thematic begins with th, we use the expression theta-role or θ-role (pronounced theta-role).

• the police is the agent argument of the predicate arrested, and that the suspect is the theme argument of arrested.

• Each of the bracketed argument expressions in (4) carries one and only one θ-role, and no two arguments of any predicate carry the same θ-role.

  - (4) [The police] arrested [the suspect]
     (a) [agent] [theme]
     (b) [The suspect] received [a caution]
     (goal) [theme]
     (c) [The audience] enjoyed [the play]
     (experiencer) [theme]
     (d) [The president] went [to Boston]
     (theme) [goal]
     (e) [They] stayed [in a hotel]
     [theme] [locative]
     (f) [The noise] came [from the house]
     [theme] [source]

• Chomsky (1981) suggested that these thematic properties of arguments are the consequence of a principle of Universal Grammar traditionally referred to as the θ-criterion.

  Θ-criterion

  Each argument bears one and only one θ-role, and each θ-role is assigned to one and only one argument (Chomsky 1981, p. 36)
How do arguments come to be assigned theta-roles?

**Predicate-Internal Theta-Marking Hypothesis**
An argument is theta-marked (i.e. assigned a theta-role) via merger with a predicate.

- The internal argument of the verb scare is them
- The external argument of the verb scare is he

The resulting VP *he scare them* is subsequently merged with the infinitival tense particle *to*, so forming the T-bar [{T to he scare them}].

- Like all T constituents, to has an *Extended Projection Principle (EPP)* feature which enables it to attract the closest noun or pronoun expression to become its subject, so forming the TP [{TP he to he scare them}].
- This in turn merges with the raising verb *seem* to form the VP [{VP he seem he to he scare them}].
- The resulting VP is then merged with the (emphatic) T-auxiliary *does*.

The EPP feature carried by [{does}] enables it to attract *he* to become its subject, so forming the TP [{TP he does seem he to he scare them}].

- This TP is merged with a null C which marks the clause as declarative in force, so forming the structure shown in simplified form below.

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[CP [T [0] [TP he [T does] [VP seem he [T to] [VP he [V scare] them]]]]]
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A key assumption made in the raising analysis is that the verb *seem* (as used there) is a one-place predicate whose only argument is its infinitival TP complement.

This means that the VP headed by *seem* has no thematic subject: note, in particular, that the verb *seem* does not theta-mark the pronoun *he*, since *he* is theta-marked by *scare*.

The VP headed by *seem* has no structural subject at any stage of derivation, since *he* raises to become first the subject of the lower TP headed by infinitival *to*, and then to become the subject of the higher TP headed by the present tense T-auxiliary *does*.

The property of having a theme complement but no thematic subject means that raising predicates like *seem* have essentially the same thematic properties as unaccusative verbs like *come*.

Many intransitive verbs like those in (5-8) allow a dual use as

1. (i) an unaccusative verb with an italicised nominal complement.
2. (ii) a raising verb with an underlined infinitival TP complement as in the corresponding (b) examples.

In such sentences, a raising verb is a one-place predicate with a TP as its complement, whereas an unaccusative verb is a one-place predicate with a noun or pronoun expression as its complement.

(5)
(a) There appeared *a grotesque face* at the window.
(b) His attitude appears *to have changed*.

(6)
(a) There has never before happened *anything quite so momentous*.
(b) It happened *to be raining at the time*.

(7)
(a) There remain *doubts about his competence*.
(b) That remains *to be seen*.

(8)
(a) There began *a long period of negotiation*.
(b) The situation began *to get worse*.
Control Predicates

- Let’s consider the derivation of the control infinitive structure (9) *He does want to scare them*.

- As before, the verb *scare* merges with (and assigns the experiencer theta-role to) its internal argument (i.e. thematic complement) *them*.

- The resulting V-bar *scare them* then merges with (and assigns the agent theta-role to) its external argument.

- Given that control infinitives have 'big PRO', the thematic subject of *scare them* will be PRO, and this will be merged in spec-V (in accordance with the VP-Internal Subject Hypothesis), and thereby be assigned the theta-role of agent argument of *scare*.

- The resulting VP *[VP PRO to PRO scare them]* then merges with infinitival to, forming the T-bar *[T to PRO to PRO scare them]*.

- The EPP feature of infinitival to enables it to attract PRO to become its subject, so forming the TP *[TP PRO to PRO to PRO scare them]*.

- The resulting VP *[VP he want ø PRO to PRO to PRO scare them]* is then merged with the T- auxiliary does, forming the T-bar *[T does he want ø PRO to PRO to PRO scare them]*.

- The EPP feature carried by *[T does] enables it to attract the closest noun or pronoun expression which it c-commands (= he) to become its subject, so forming the TP *[TP he does he want ø PRO to PRO to PRO scare them]*.

\[
\begin{array}{c}
\text{[CP [C ø] [TP \text{He [T does] [VP he [V want] [CP [C ø] [TP PRO [T to] \text{[VP PRO [V scare] them]]]]]]}}\\
\end{array}
\]
Exercises

1. He has decided to admit it. (control)
2. He is going to help me. (raising)