

**1    The cluster of subjecty properties**

1. a) Subjects tend to bear certain kinds of semantic roles: Agent, Experiencer
- b) Subjects are structurally 'prominent' (high in the clause)
  - negative elements in subject positions license NPIs in other positions
  - subjects typically take wider scope than elements in other positions
  - subjects may bind reflexive & reciprocal pronouns in other positions but not vice versa
- c) Subjects get special marking, either positionally
  - all subjects must appear in a certain spot in the clause
  - or morphologically
    - subjects get a certain case marking, or trigger agreement with the verb
- d) Seems like (in English, French, German, at least) every clause has to have a subject. In no language is there such a rule for any other position
- e) Subjects seem to be DPs in the usual case.
- f) Subjecthood is central in the system of 'promotion and advancement of nominals'

**2.    Semantic roles: Theta theory (p. 55-61 of Roberts)**

- we've been talking rather loosely so far about 'arguments' of verbs
- let's formalize it

Verbs (and other predicates) do not refer, by themselves, to a complete proposition. They necessarily involve at least one entity.

2.    → "swim" is an activity that involves at least one entity
- "hit" is an activity that involves at least two
- "give" is an activity that involves at least three
- "melt" seems to be an activity that may involve one *or* two entities
- "see<sub>1</sub>" is an activity that involves two entities
- "see<sub>2</sub>" is an activity that involves a single entity

Logicians would represent this by representing verbs as predicates with unsaturated arguments. This is essentially what generative syntax does too. The arguments a verb needs are said to be *assigned* a "theta-role" by the verb, usually notated  $\theta$ -role.

In the lexicon, the entry for a verb has three different kinds of information associated with it:

3. Some lexical entries

<u>Phonology</u>	<u>Syntax</u>	<u>Semantics</u>
[hIt]	V, [+acc]	[ <u>Hitter</u> , Hittee] (plus concept <i>hit</i> )
[swIm]	V	[ <u>Swimmer</u> ] (plus concept of <i>swim</i> )
[gIv]	V, [+acc], [+dat]	[ <u>Giver</u> , Gift, Givee] (plus concept of <i>give</i> )
[mElT]	V, ([+acc])	[( <u>Melter</u> ), Meltee] (plus concept of <i>melt</i> )
[see]	V, [+acc]	[ <u>Seer</u> , Seen] (plus concept of <i>see</i> <sub>1</sub> )
[see]	V	[ <u>Seer</u> ] (plus concept of <i>see</i> <sub>2</sub> )

The part of the semantics that tells you how many arguments a verb takes is called its *theta-grid* (because it specifies the verb's  $\theta$ -roles)

4. What ensures that every verb is associated with the right number of arguments in the syntax?

**The Theta Criterion:** every  $\theta$ -role must be assigned to one and only one argument; every argument must receive one and only one  $\theta$ -role

(Now replaced by the *Principle of Full Interpretation*, a Minimalist condition on LF that accomplishes the same thing — if you have a verb without enough arguments in a sentence, or an argument that doesn't relate to any predicate, your structure won't be interpretable).

This rules out sentences like:

- a) \*John sneezed Mary
- b) \*Mary hit.
- c) \*The giraffe fell that the monkey liked it.

5. What are the conditions on theta-role assignment?

→ In Government-and-Binding theory, the assumption was that theta-roles could only be assigned under Government, which roughly equals sisterhood.

→ Hence, theta-roles had to be assigned under sisterhood -- except for one particular kind

6. In unmarked, active declarative sentences, subjects tend to bear theta-roles that convey a particular meaning:

- a. John hit Bill, Mary drew a circle, Sue drank the water, Jill said she wanted to leave, Peter swam
- b. John saw Bill, Mary liked the movie, Sue felt upset, Jill believed that she wanted to leave

→ Generally speaking, subjects seem to be a kind of Agent (of an action, as in 6a) or a kind of Experiencer (as in 6b).

- Subjects also seemed to be the only arguments that don't appear in a sisterhood relationship with the verb — they're in SpecIP, not complements to the verb.
  - This led to the notion that a verb may specify one of its  $\theta$ -roles to be assigned a privileged argument — the *external* argument; this would be the only  $\theta$  role that could be assigned external to the VP. The other  $\theta$ -roles, called *internal* arguments, would have to be assigned as usual under sisterhood.
7. Notice that there is nothing logically special about Agents and Experiencers — from a logician's view of function-argument relations, there should be no reason why we couldn't have a verb *tih*, which means exactly the same thing as *hit* but where the Hittee is in subject position and the Hitter in object position, so you'd say *The chair tih John* to mean *John hit the chair*. No language has a verb like *tih*, however.
- it is a deep property of human language that arguments with certain kinds of meanings usually occur in particular positions in the syntactic tree. Particularly relevant here is the observation that if a verb assigns a  $\theta$ -role with a meaning like Agent or Experiencer, *that*  $\theta$  role, and no other, is designated to be assigned to the external argument.
8. Now we have a reason for all the little *ts* that we've been littering all over the place in our syntactic trees
- traces represent the position where a particular argument gets its  $\theta$ -role
  - if we simply deleted the position when we moved it, we wouldn't have any record of its having received a  $\theta$ -role, and the  $\theta$ -criterion wouldn't be satisfied
  - the moved element and its trace together are said to form a *chain*
  - In modern-day Minimalism, Move is simply a combination of two operations: Copy, plus Merge. Merge we already know; Copy does what it says: makes a copy of an element. The copy and the original form a chain, and only the leftmost copy in any chain gets pronounced. This is called the *copy theory of movement*. Unless addressing it specifically, however, everyone just draws traces in their trees to indicate the origin of movement.

### 3 Subjects without subject-like meanings

9. What if *no* argument is designated "external"?
- a) There seems to be a man in the room.
  - a') A man seems to be in the room.
  - b) It is tough to please John
  - b') John is tough to please
  - c) It rained.
  - c') \*Rained.

In English, French and German (and many other languages), when nothing seems to be available to fill the subject position, a DP which is *not* an argument of the verb steps in to fill the subject position. In 9a-b, above, the meaning of the clause with and without *there*, or with and without *it*, is essentially identical.

→ *There* and *it* can be used as *expletive subjects*: elements that are just inserted to fill up the subject position when no meaningful element volunteers for the job.

→ There's no such thing as an object expletive

→ In languages with expletive subjects, there seems to be a requirement that Spec-IP be filled, no matter what.

10. What happens in pairs of sentences like the following?

- a. John broke the chair.
- b. The chair was broken (by John)
- c. Mary believed Bill.
- d. Bill was believed (by Mary)
- e. Mary believed that Luke had turned to the dark side.
- f. It was believed that Luke had turned to the dark side.

11. The passive seems to have a different set of -roles to assign than the active

<i>broke</i>	[ <u>Agent</u> , Patient]
<i>broken</i> <sub>pass</sub>	[ <u>Patient</u> ]
<i>believed</i>	[ <u>Experiencer</u> , Theme]
<i>believed</i> <sub>pass</sub>	[ <u>Theme</u> ]

"Passive" seems to be an operation that applies in the lexicon to change the argument structure of a verb by deleting the external argument.

12. *Does it necessarily create a new external argument?* I.e. does it change an internal argument into an external one?

- a. There were several chairs broken in the riot
- a'. Several chairs were broken in the riot
- b. It was clear to me then there was going to be a demonstration, but I'm disappointed there was property destroyed
- b'. ... I'm disappointed property was destroyed
- c. A junior AFM officer also radioed in that a plane had crashed and there were people hurt
- c'. ...and people were hurt

Passive seems to have applied in a, b, and c, but the subject position is occupied by an expletive, not by the Patient argument. How can we account for this option?

- Passive in the lexicon either has two variants, one which creates a new external argument, and one which doesn't or else it never creates a new external argument
  
- when an expletive fills up the subject position, nothing needs to move to subject position, otherwise the internal argument moves there
  
- we've seen other examples of fill-or-move situations before:
  - V-to-T in French (when T has an auxiliary in it, V doesn't move)
  - T-to-C in German (when C has a complementizer in it (i.e. in embedded clauses), T doesn't move to C)
  - Yes/no question formation in English vs. Japanese (English uses T-to-C movement, Japanese uses a special question particle in C)
  
- but there's something different about this kind of movement: it seems to be meaningless
- so far we've seen XP movement to Spec-CP triggered by sorta meaningful features: +wh in English, +Topic in German
- V movement to T triggered in French by sorta meaningful features - +finite (not in [-finite] clauses)
- but this kind of movement seems to be entirely meaning-neutral.