

# Syntax Seminar

## S-selection. Argument structure

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### Readings

For this class: BESE Ch. 1.3, Ch. 2.1, 2.2

For the next class: BESE Ch. 3

There is also a very good book by A. Williams, *Arguments in Syntax and Semantics*; very much recommended (not obligatory, absolutely extra)

## 1 S-selection. Thematic roles

The overgeneration problem: consider the following ungrammatical sentences that our current X-bar model does not necessarily rule out.

- (1) a. \*Jennie smiled Bill.
- b. \*Susan hugged.

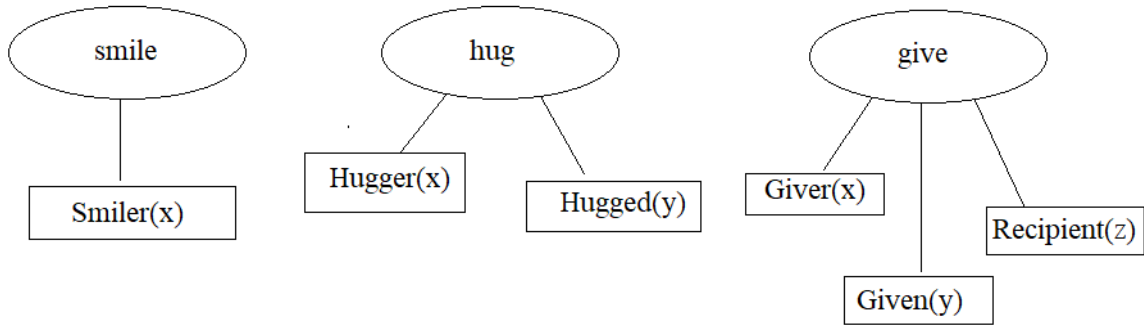
We perceive these sentences as either incomplete, as if some necessary component of the described situation is missing, or as redundant, as if some pieces of information do not fit.

**S-selection** (= semantic selection) – the conditions which a head imposes on its immediate context through its argument structure, i.e. the theta-roles it assigns.

Lexical items can serve as **predicates** – they denote a state/properties of a certain participant or a relation between participants.

Each obligatory participant (= *argument* in turn establishes a relation with the predicate – *a thematic relation* (= *theta-relation/thematic role/theta-role/ $\theta$ -role*).

All and only the obligatory relations are listed in the **theta-grid** of a predicate.



(2)

? Compare the following relations of the following predicates. Do they have something in common? Can we come up with a more general role to refer to them together?

- (3)
- Smiler of *smile*, Hugger of *hug*, Giver of *give*, Swimmer of *swim*, Baker of *bake*
  - Hugged of *hug*, Exister of *exist*
  - Given of *give*, Baked of *bake*, Grower of *grow*, Faller of *fall*
  - Recipient of *give*, Addressee of *send*, Destination of *send*

Generalizing thematic relations:

- (4)
- Smiler of *smile*, Hugger of *hug*, Giver of *give*, Swimmer of *swim*, Baker of *bake* → *Agent*
  - Hugged of *hug*, Exister of *exist* → *Patient*
  - Given of *give*, Baked of *bake*, Grower of *grow*, Faller of *fall* → *Theme*
  - Recipient of *give*, Addressee of *send*, Destination of *send* → *Goal*

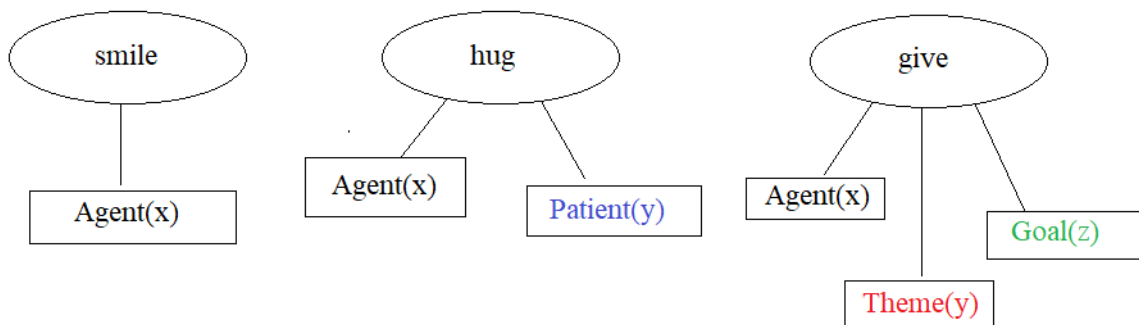
**Agent** – the initiator or doer of an action; active, with volition.

**Theme** – a passive participant whose (change of) state or location is being described.

**Patient** – a participant undergoing the effect of some action.

**Goal** – a recipient or a destination.

**Experiencer** – an argument that feel or perceive events; see *like*, *see*, *frighten*.



(5)

- (6)
- smile, swim, jump <Agent>
  - hug, kiss <Agent, Patient>
  - give, send <Agent, Theme, Goal>

! The same thematic relations can be realized in syntax in several different ways.

- (7)
- a. send <Agent, Theme, Goal>
  - b. [Bob] sent [the book] [to Susan].
  - c. [Bob] sent [Susan] [the book].
  - d. [The book] was sent [to Susan] [by Bob].
  - e. ?[Susan] was sent [the book] [by Bob].
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\* Exercise: the following examples are semantically anomalous. For each predicate, provide its thematic grid and describe its s-selectional properties.

- (8)
- a. #The table saw Mary.
  - b. #The tree hopes that John will come back.
  - c. #The rain was happy.
  - d. #The cockroach is a teacher.

\* Exercise: What are the theta-grids of the verbal predicates in (9)?

- (9) *freeze* <\_\_\_\_\_, \_\_\_\_\_>
- a. [The extreme temperature] froze [the camera].
  - b. [The camera] froze [from the extreme temperature].
- (10) *increase* <\_\_\_\_\_, \_\_\_\_\_>
- a. [The government] increased [the funding].
  - b. [The funding] was increased [by the government].
- (11) *give* <\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_>
- a. [Mary] gave [a book] [to John].
  - b. [Mary] gave [John] [a book].
- (12) *load* <\_\_\_\_\_, \_\_\_\_\_>
- a. [The crew] loaded [the truck] [with the cargo].
  - b. [The crew] loaded [the cargo] [on the truck].

## 2 Theta Criterion

Language appears to have certain restrictions related to thematic roles. Consider the following ungrammatical examples.

? Try to formulate restrictions to rule out such cases.

- (13)
- a. \*John saw. – where John = Experiencer & Patient
  - b. \*John saw Susan Bill. – where John = Experiencer, Susan = Patient
  - c. \*Sam built. – where Sam = Agent
  - d. \*Sam built a house a garage. – where Sam = Agent, a house = Theme, a garage = Theme

(14) **The 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.

! The Theta Criterion concerns only arguments, i.e. obligatory participants. It does **not** regulate the behavior of adjuncts, i.e. optional modifiers.

! Certain syntactic transformations allow us to remove/demote/add arguments.<sup>1</sup>

- (15)
- a. [The bear] destroyed [the sand castle].
  - b. \*Destroyed [the sand castle].
  - c. [The sand castle] was destroyed.

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\* Exercise: Show how each of the following sentences is a violation of the theta criterion. Use theta grids to explain your answers.

- (16)
- 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.
  - g. \*John placed the flute.
  - h. \*John placed the flute the violin on the table.
  - i. \*The rock placed the sky with the fork.
  - j. \*John placed the flute the table.

On the next page you can find some more optional questions to think about.

On the last pages you can find the answers to the optional tasks from Handout 3.

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<sup>1</sup>Many languages also allow an argument to remain implicit, i.e. syntactically present but not pronounced, if it is easily recoverable from the context. Read about *pro-drop* and *topic-drop*, if you are interested. These do not affect the theta-grid of the predicate.

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Some **optional puzzles** for you to think about **in your spare time** (there may be no perfect answer). These are **not** a part of the obligatory home assignment. If you come up with an answer please do email it to me and then we can discuss it via email and/or have an online meeting.

1. Consider the following pair of examples. What are the theta-grids of these predicates? Would you analyze these alternations in terms of a transformation (similar to passivization) or rather as pairs of distinct homonymous predicates?

- (17)
- a. John melted some chocolate in the microwave.
  - b. The chocolate melted in the microwave.
  - c. The puppy broke the vase.
  - d. The vase broke.
  - e. The captain sank the ship.
  - f. The ship sank.

Hint: Read about *inchoative – causative* alternations.

2. The verb *kiss* appears to have a theta-grid <Agent, Patient>. Yet, the following example, which describes a change of state, is grammatical:

- (18) Prince Charming kissed Aurora back to life.

Would you argue that there are two lexical entries for *kiss* with different theta-grids? What would be (dis)advantages of such an approach? Can you think of other examples where a typically Patient occasionally alternates with a Theme? Can you think of examples where a typical Agent occasionally alternates with a Theme?

3. Consider the following examples. What are the theta-grids of these predicates? Is "it" a meaningful argument here?

- (19)
- a. It rained yesterday.
  - b. It often snows on Christmas.

Hint: Read about *expletives* and *0-place predicates*.

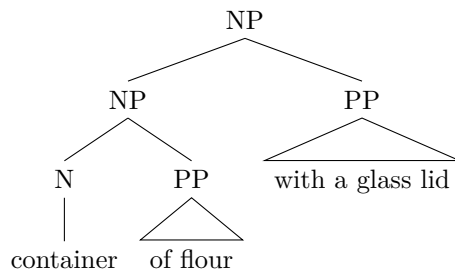
scroll down to see the answers to the optional exercises from HO3

1. Using the tests such as reordering, adjacency, multiplication, *one* replacement determine whether the PPs in the following NPs are complements or adjuncts. Give the examples that you used in constructing your tests. Some of the NPs have multiple PPs. Be sure to answer the question for every PP in the NP. Draw the structures (for NPs only or for the whole DPs).

Some hints:

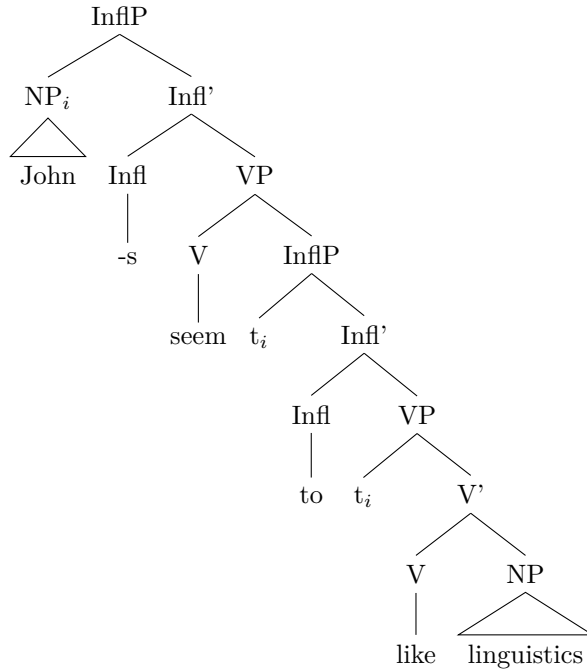
- (20) a. A container [of flour] – a complement:  
*\*a container [of flour] [of marbles]*  
*\*a container [with a glass lid] [of flour], but a container [of flour] [with a glass lid]*  
*\*I had a container and it was of flour.*
- b. A container [with a glass lid] – an adjunct:  
*a container [with a glass lid] [with a plastic bottom]*  
*a container [in red stripes] [with a glass lid]*  
*I had a container and it was with a glass lid.*
- c. The collection [of figurines] [in the window] – see the examples above, [of figurines] – a complement, [in the window] – an adjunct
- d. The statue [of Napoleon] [on the corner] – see the examples above, [of Napoleon] – a complement, [on the corner] – an adjunct
- e. Every window [in the building] [with a broken pane] – both adjuncts

An example tree:



2. Consider the following example of a complex sentence that consists of two clauses. Which verb does "John" belong to, *seem* or *like*? What is the ultimate syntactic position of "John"? Draw a syntactic structure for this sentence.

(21) John seems to like linguistics.



Hint 1: *to* belongs to the category Infl (it is in complementary distribution with other members of this category – modals and tense markers).

Hint 2: don't forget about movement (internal merge).

Hint 3: read about *subject raising* after you have done the task.