# ENGLISH GRAMMAR.
## Government & Binding Theory

Lecture 4.

# Theta-roles and clause structure

■ The theta-criterion functions as a tool for syntactic analysis in that it guides us in determining the structural relations in a sentence.

(1)   a. <u>Thelma</u> believes <u>this story</u>.

   1                    2

   b. <u>Thelma</u> believes <u>Louise</u>.

   1                 2

   c. Thelma believes [<u>that Louise has abandoned her husband</u>].

   c′. <u>Thelma</u> believes    [<u>that Louise has abandoned her husband</u>].

   1                                    2

                          [      1                              2                     ].

# The first building blocks of the sentence: the verb and its argument (s).

(1) d. Thelma believes Louise to have abandoned her husband.

Semantically (1d) is very close in interpretation to (1c), where believes takes a clausal complement and in which *Louise* is an argument of *abandoned*. In (1d) the verb believe also has thematic roles, as in previous sentences, and these are assigned to its subject *Thelma* and to its complement, *Louise to have abandoned her husband*. Cf.:

d´. <u>Thelma</u> believes        [<u>Louise to have abandoned her husband</u>].

2

[    1                                                    2            ].

c´. <u>Thelma</u> believes    [<u>that Louise has abandoned her husband</u>].

1                                                2

[        1                                                    2            ].

# Locality and thematic structure

- The arguments required by a verb tend to be realized in the vicinity of the particular verb. There is a **locality requirement** on the realization of the argument structure.

(2) a. [Mary] showed [her sister] [ why [Louise] had destroyed [the painting]]

          1                  2                      3

    b.*[Mary] showed [her sister] [the painting][ why [Louise] had destroyed]

          1                  2          3                    ?

                                                    1        2?

(2a) is a complex sentence: it contains an embedded clause. The verb show is associated with three thematic roles. Within the embedded clause the verb *destroy* takes two arguments. (2b) is ungrammatical: the verb *destroy* is missing one argument.

(3) a. Which painting did Mary say that Louise had destroyed?

b. Who did Mary say had destroyed the painting?

It looks as if arguments moved away from the verb which assigns them a theta-role, the theta-assigner, to positions outside the sentence in which the theta-assigner appears. In (3a) *which painting* appears to the extreme left of the sentence; it is closer to the verb say that to the verb destroyed. Yet, which painting is the THEME argument of *destroyed*.

■ A verb has an argument structure associated with it. The arguments are either realized in the same sentence as the verb with which they are associated or else they are moved away from the verb, leaving an open slot. Cf.

(4) a. Mary said [that Louise had destroyed the painting].

 b.  Which painting did Mary say [that Louise had destroyed [—]]?

 c.  Who did Mary say [[—] had destroyed the painting]?

In (3a) the Od of *destroyed*, *which painting*, is extracted from the embedded clause; in (3b) the S of the embedded clause is extracted. The position from which a constituent moves is called its **extraction site**; the position to which a constituent moves is called its **landing site**.
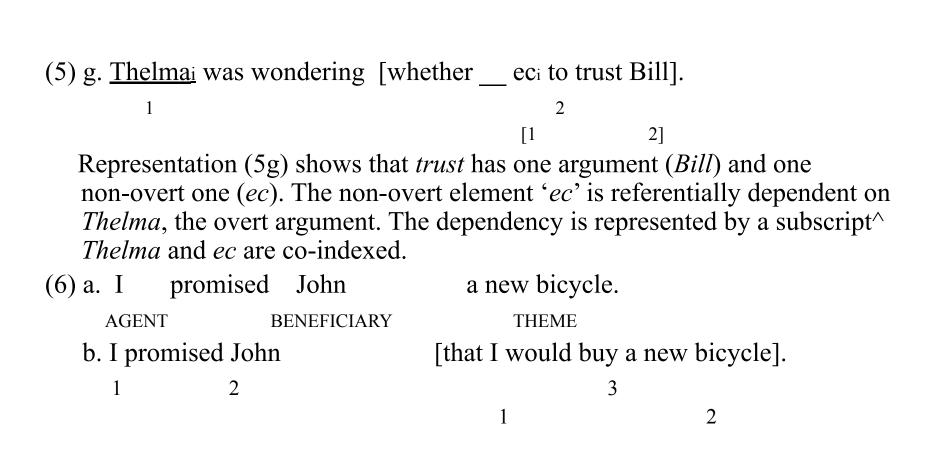
# Implicit arguments

■ The arguments of the verb are always realized explicitly or overtly. Cf.:

(5) a. She trusted Bill.

    b. *Trusted Bill.

    c. Thelma was wondering whether she should trust Bill.

    d. *Thelma was wondering whether should trust Bill.

    (5a) is a grammatical sentence. (5b) shows that we cannot omit the first argument of trust.

(5) e.  Trust 1: she

              2: Bill

    Each argument bears one theta-role, therefore, the NP, Thelma, cannot simultaneously realize as an argument of *trust* and an argument of *wonde*r.

(5) c. Thelma was wondering [whether she should trust Bill].

f. Thelma was wondering [whether to trust Bill].

In (5f) as in (5c) *trust* selects the NP *Bill* as one of its complements. The sentence is grammatical even though one argument of *trust* seems to be missing. In (5f) the second argument of *trust* is implicit: it is *Thelma*. The verb *trust* does have two arguments: one is overtly realized as Bill; the other is understood as non-overt. The argument is present in the abstract representation of the sentence which determines its interpretation, but it is not present in the phonetic string. Such abstract or non-overt arguments can be presented by the symbol *ec* (empty category).

(5) g. <u>Thelma$_i$</u> was wondering  [whether __ ec$_i$ to trust Bill].

           1                                   2

                                             [1             2]

Representation (5g) shows that *trust* has one argument (*Bill*) and one non-overt one (*ec*). The non-overt element '*ec*' is referentially dependent on *Thelma*, the overt argument. The dependency is represented by a subscript^ *Thelma* and *ec* are co-indexed.

(6) a.  I      promised   John              a new bicycle.

       AGENT              BENEFICIARY            THEME

b. I promised John            [that I would buy a new bicycle].

     1          2                             3

                                    1                  2

(7) a.   I promised John [to buy a new bicycle]. Cf.:

   I promised John  [that I would buy a new bicycle].

   b.   $I_i$ promised *John*    [$ec_i$ to buy a new bicycle].

   In case of (7a) the infinitival clause contains a non-overt subject, which is controlled by the subject *I* in the matrix clause. Cf. also:

(8) a.   I asked John a question.

   b.   I asked John if he would buy a new bicycle.

   c.   I asked John to buy a new bicycle.

   d′.   I asked $John_i$  [$ec_i$  to buy a new bicycle].

        1          2              3

                   1              2

# Do all verbs assign theta-roles?

(9) a. Thelma bought a new bicycle.

b. Thelma has bought a new bicycle.

c. Thelma is buying a new bicycle.

d. Thelma will buy a new bicycle.

Auxiliaries are treated as case inflections and therefore cannot assign theta-roles and accordingly take arguments.

# Do only verbs assign theta-roles?

■    Verbs, nouns, adjectives and prepositions can assign thematic roles.

(10)   a. <u>They</u> announced     [<u>that Thelma has arrived</u>].

          1                                            2

                                            1

    b. <u>They</u> announced    [<u>Thelma's arrival</u>].

          1                                2

                              [  1        ]

In (10b)  the complement of *announce* is *Thelma's arrival* (NP). In this NP, Thelma has a semantic relation which is parallel to the relation  of *Thelma* to *arrived* in (10a).

# Expletive subjects. *Expletive* it.

(11)  a. [That Louise had abandoned the project] surprised everyone.

                                1                                                      2

                 [      1                       2]

    b. It surprised everyone [that Louise had abandoned the project].

       ?               1          2

                        1                         2

(11b)  contains an additional NP, *it*. The clause is shifted to the right. And the subject position is occupied by *it,* which is not used as a referential unit/ It does not have a referent. A non-referential element like it in (11b), which seems to function as a mere filler for the subject position and which fails to contribute to the semantics of the sentence, is called expletive.

# *Expletive* there

- The element *there* can be used referentially, in which case it functions as a complement of the verb (12a) or as an adjunct (12b).

  (12) a. I put the bread there.

       b. I will meet my friend there after lunch.

  *There* is also an expletive subject. It functions as grammatical subject of a sentence whose logical or semantic subject is an NP.

  (13) <u>There</u> are three women working in the office.