HG4041 Theories of Grammar

Raising and Control

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Lecture 10 Location: LHN-TR+36

Overview

- > Intro to topic
- ➤ Infinitival **to**
- > (Subject) raising verbs
- > (Subject) control verbs
- > Raising/control in Transformational Grammar
- > Object raising and object control

Where We Are & Where We're Going

> Revision

- ➤ In the last two lectures, we have seen a kind of **subject sharing** that is, cases where one NP served as the SPR for two different verbs. Examples?
- Last time, we looked at dummy NPs that is, non-referential NPs. Examples?
- Today, we're going to look at the kind of subject sharing we saw with **be** in more detail.
- Then we'll look at another kind of subject sharing, using dummy NPs in differentiating the two kinds.

What Makes This Topic Different

- The phenomena we have looked at so far (agreement, binding, imperatives, passives, existentials, extraposition) are easy to pick out on the basis of their form alone.
- In this chapter, we look at constructions with the general form NP-V-(NP)-**to**-VP. It turns out that they divide into two kinds, differing in both syntactic and semantic properties.

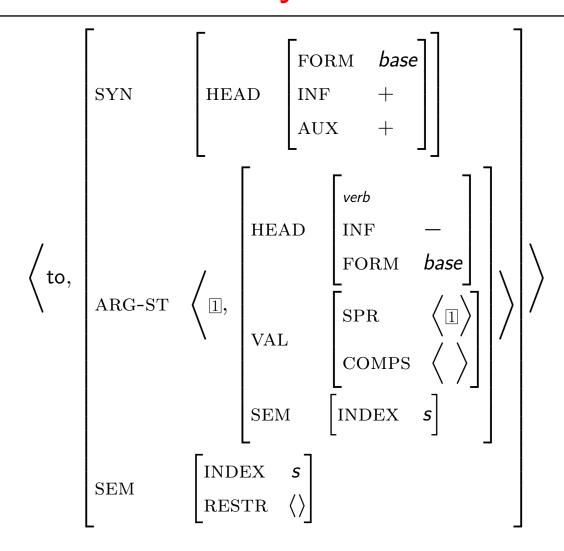
The Central Idea

- > Pat continues to avoid conflict and Pat tries to avoid conflict both have the form NP-V-to-VP
 - But continue is semantically a one-place predicate, expressing a property of a situation (namely, that it continues to be the case) continue(avoid(Pat,conflict))
 - Whereas try is semantically a two-place predicate, expressing a relation between someone who tries and a situation s/he tries to bring about. try(Pat, avoid(Pat, conflict)
- > This semantic difference has syntactic effects.

The Status of Infinitival to

- > It's not obvious what part of speech to assign to to.
- > It's not the same as the preposition to:
 - (1) Pat aspires to stardom
 - (2) Pat aspires to be a good actor
 - (3) *?Pat aspires to stardom and to be a good actor
 - (4) *Pat aspires to stardom and be a good actor
- > We call it an auxiliary verb, because this will make our analysis of auxiliaries a little simpler.

The Lexical Entry for Infinitival to

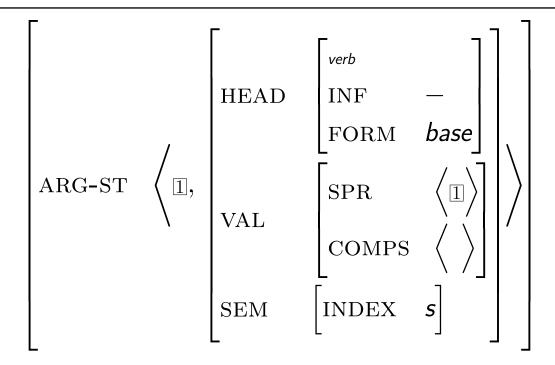


The Syntax of Infinitival to

$$\begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{FORM} & \textit{base} \\ \text{INF} & + \\ \text{AUX} & + \end{bmatrix} \end{bmatrix}$$

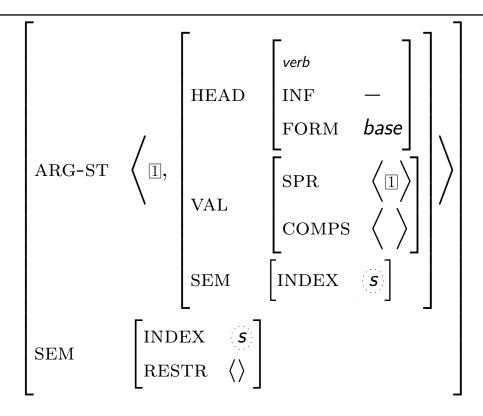
- This makes it a verb, because AUX is declared on verb
- > [INF +] uniquely identifies the infinitival **to**
- > Verbs select complements with different combinations of FORM and INF values, e.g.
 - > complements of *condescend* are [FORM *base*] and [INF +]
 - \triangleright complements of **should** are [FORM **base**] and [INF -]
 - complements of help are [FORM base]
- \triangleright The meaning of [AUX +] becomes clear in Chapter 13.

The Argument Structure



- > What kind of constituent is the second argument?
- The tagging of the first argument and the SPR of the second argument is exactly like **be**.

The Semantics of Infinitival to



- \succ The INDEX value is taken from the SEM of the second argument.
- What is the semantic contribution of to?

Dummies and continue

- > Some examples:
 - (5) There continue to be seats available.
 - (6) It continues to matter that we lost.
 - (7) Advantage continues to be taken of the innocent.
 - (8) *It continues to be seats available.
 - (9) *There continues to matter that we lost.
 - (10) *Advantage continues to be kept of the innocent.
- ➤ Generalization: Non-referential NPs can appear as the subject of *continue* just in case they could be the subject of the complement of *continue*.

A New Type, for Verbs like continue

Subject-Raising Verb Lexeme (srv-lxm) $\begin{bmatrix} ARG-ST & \left\langle \mathbb{I}, \begin{bmatrix} SPR & \left\langle \mathbb{I} \right\rangle \\ COMPS & \left\langle \mathcal{I} \right\rangle \end{bmatrix} \\ SEM & \left[INDEX & S \right] \end{bmatrix}$ SEM $\begin{bmatrix} RESTR & \left\langle \left[ARG & S \right] \right\rangle \end{bmatrix}$

- The subject sharing is just like for **be** and **to**: the subject of **continue** is also the subject of its complement
- > continue imposes no other constraints on its subject
- The index of the complement must be an argument of the predication introduced by the verb

The Lexical Entry for *continue*

$$\left\langle \text{continue,} \begin{array}{c} \left[\begin{array}{c} \text{srv-lxm} \\ \text{SYN} \end{array} \right] \left[\begin{array}{c} \text{ARG-ST} & \left\langle X, \text{ VP } \left[\text{INF} \right. + \right] \right] \right\rangle \\ \left[\begin{array}{c} \text{INDEX} & s_1 \\ \text{RESTR} & \left\langle \begin{bmatrix} \text{RELN} & \textbf{continue} \\ \text{SIT} & s_1 \end{array} \right] \right\rangle \right] \end{aligned}$$

continue with Inherited Information

$$\left\{ \begin{array}{ll} \text{Srv-lxm} \\ \text{SYN} \end{array} \right. \left. \left[\begin{array}{ll} \text{HEAD} & \begin{bmatrix} \text{verb} \\ \text{PRED} & - \\ \text{INF} & - \\ \text{AGR} & \boxed{2} \end{array} \right] \right]$$

$$\left\langle \begin{array}{ll} \text{Continue,} \end{array} \right. \left. \begin{array}{ll} \text{ARG-ST} & \left\langle \mathbb{I} \begin{bmatrix} \text{HEAD} & \textit{nominal} \\ \text{VAL} & \begin{bmatrix} \text{SPR} \left\langle \right\rangle & \textit{comps} \left\langle \right\rangle \end{bmatrix} \right], \text{ VP} \begin{bmatrix} \text{INF} & + \\ \text{SPR} & \left\langle \mathbb{I} \right\rangle \\ \text{INDEX} & s_2 \end{array} \right] \right\rangle \right.$$

$$\left. \left[\begin{array}{ll} \text{MODE} & \textit{prop} \\ \text{INDEX} & s_1 \\ \end{array} \right.$$

$$\left. \left[\begin{array}{ll} \text{RELN} & \textit{continue} \\ \text{SIT} & s_1 \\ \text{ARG} & s_2 \end{array} \right] \right\rangle \right]$$

Key Property of Subject-Raising Verbs

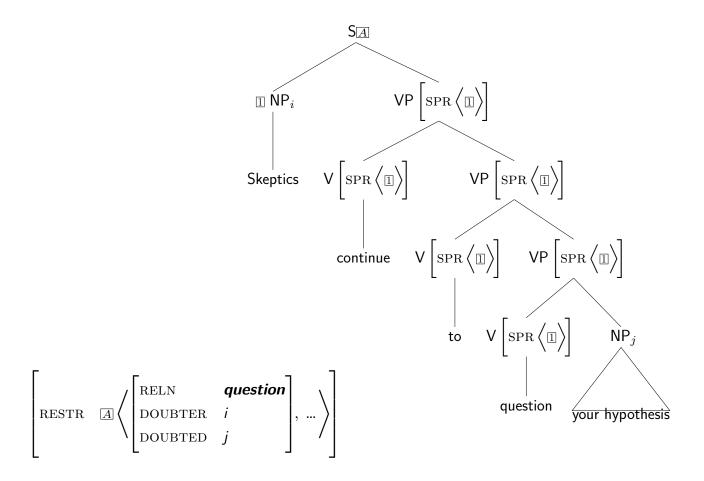
The subject plays no semantic role in the predication introduced by the **SRV** itself. Its semantic role (if any) is only in the predication introduced in the complement.

$$\left\langle \text{continue,} \right. \left. \left\{ \begin{array}{l} \text{Srv-lxm} \\ \text{ARG-ST} \end{array} \right. \left\langle \begin{array}{l} \text{HEAD} \quad \textit{nominal} \\ \text{VAL} \quad \left[\text{SPR} \left\langle \right\rangle \quad \textit{comps} \left\langle \right\rangle \right] \right], \text{ VP} \left[\begin{array}{l} \text{INF} \quad + \\ \text{SPR} \quad \left\langle \begin{array}{l} \text{IDEX} \quad \left\langle \begin{array}{l} \text{SPR} \\ \text{SPR} \end{array} \right\rangle \right] \right\rangle \\ \text{INDEX} \quad \left\langle \begin{array}{l} \text{NODE} \quad \textit{prop} \\ \text{INDEX} \quad s_1 \\ \text{SEM} \end{array} \right. \\ \left. \begin{array}{l} \text{RELN} \quad \textit{continue} \\ \text{SIT} \quad s_1 \\ \text{ARG} \quad \left\langle \begin{array}{l} \text{SPR} \\ \text{SIT} \end{array} \right. \right\rangle \right\}$$

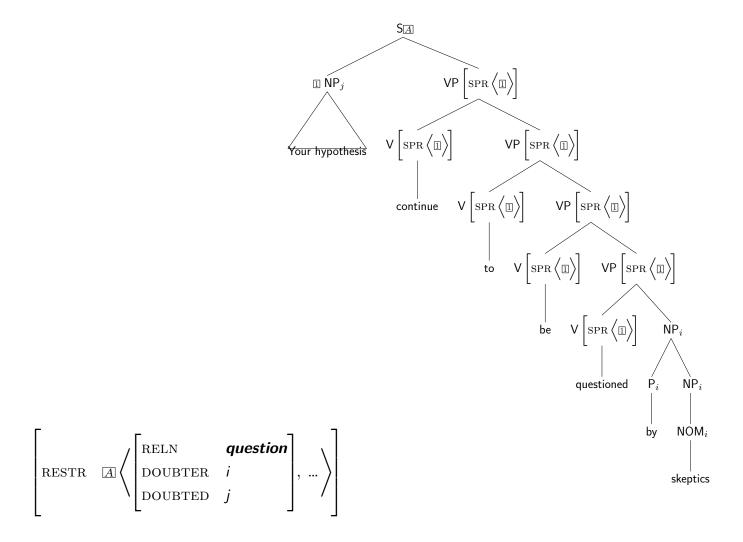
Constraints on SRV's subjects are from their complements

- > SRVs take dummy subjects when and only when their complements do.
- > SRVs take idiom chunk subjects when and only when their complements do.
- ➤ Passivizing the complement of an SRV doesn't change the truth conditions of the whole sentence:
 - (11) Skeptics continue to question your hypothesis
 - (12) Your hypothesis continues to be questioned by skeptics

continue with active complement



continue with passive complement



Control Verbs

- > Control verbs, like *try*, appear in contexts that look just like the contexts for raising verbs:
 - i. Pat tried to stay calm looks superficially like
 - ii. Pat continued to stay calm
- > Control verbs also share their subjects with their complements, but in a different way.
- > A control verb expresses a relation between the referent of its subject and the situation denoted by its complement.

Control Verbs Are Not Transparent

- They never take dummies or idiom chunks as subjects.
 - i. *There try to be bugs in my program
 - ii. *It tries to upset me that the Giants lost
 - iii. *Advantage tries to be taken of tourists
- > Passivizing the complement's verb changes the truth conditions.
 - i. The police tried to arrest disruptive demonstrators ≠
 - ii. Disruptive demonstrators tried to be arrested by the police

A New Type

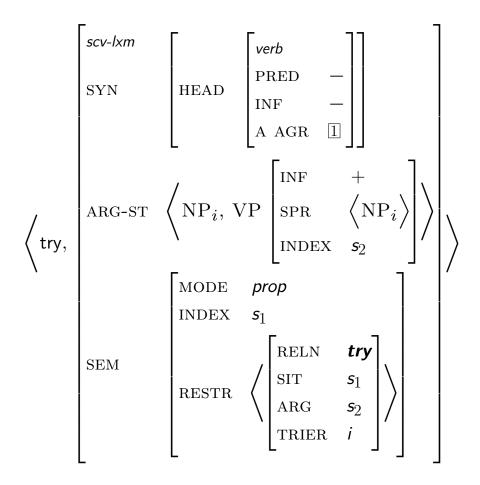
Subject-Control Verb Lexeme (*scv-lxm*)

- ightharpoonup This differs from *srv-lxm* in that the first argument and the SPR of the second argument are coindexed, not tagged (re-entrant).
- This means that they only need to share INDEX values, but may differ on other features
- ➤ And the first argument the subject must have an INDEX value, so it cannot be non-referential

The lexical entry for try

Note that the subject (NP_i) plays a semantic role with respect to the verb, namely the TRIER.

try with Inherited Information



Things to Note:

- ➤ The first argument has an index
- > The first argument is coindexed with SPR of the second argument
- ➤ Both the first and second arguments play semantic roles in the **try** relation
- Very little had to be stipulated in the entry

Questions

- What rules out dummies and idiom chunks as subjects of try?
- > What accounts for the semantic non-equivalence of pairs like the following?
 - i. Reporters tried to interview the candidate
 - ii. The candidate tried to be interviewed by reporters
- > Why does *continue* behave differently in these respects?

try with an active complement