

# Ling 566

## Nov 17, 2020

Raising, Control

**Poll!**

# Overview

- Intro to topic
- Infinitival *to*
- (Subject) raising verbs
- (Subject) control verbs
- Raising/control in TG
- Object raising and object control
- Reading questions

# Where We Are & Where We're Going

- 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.

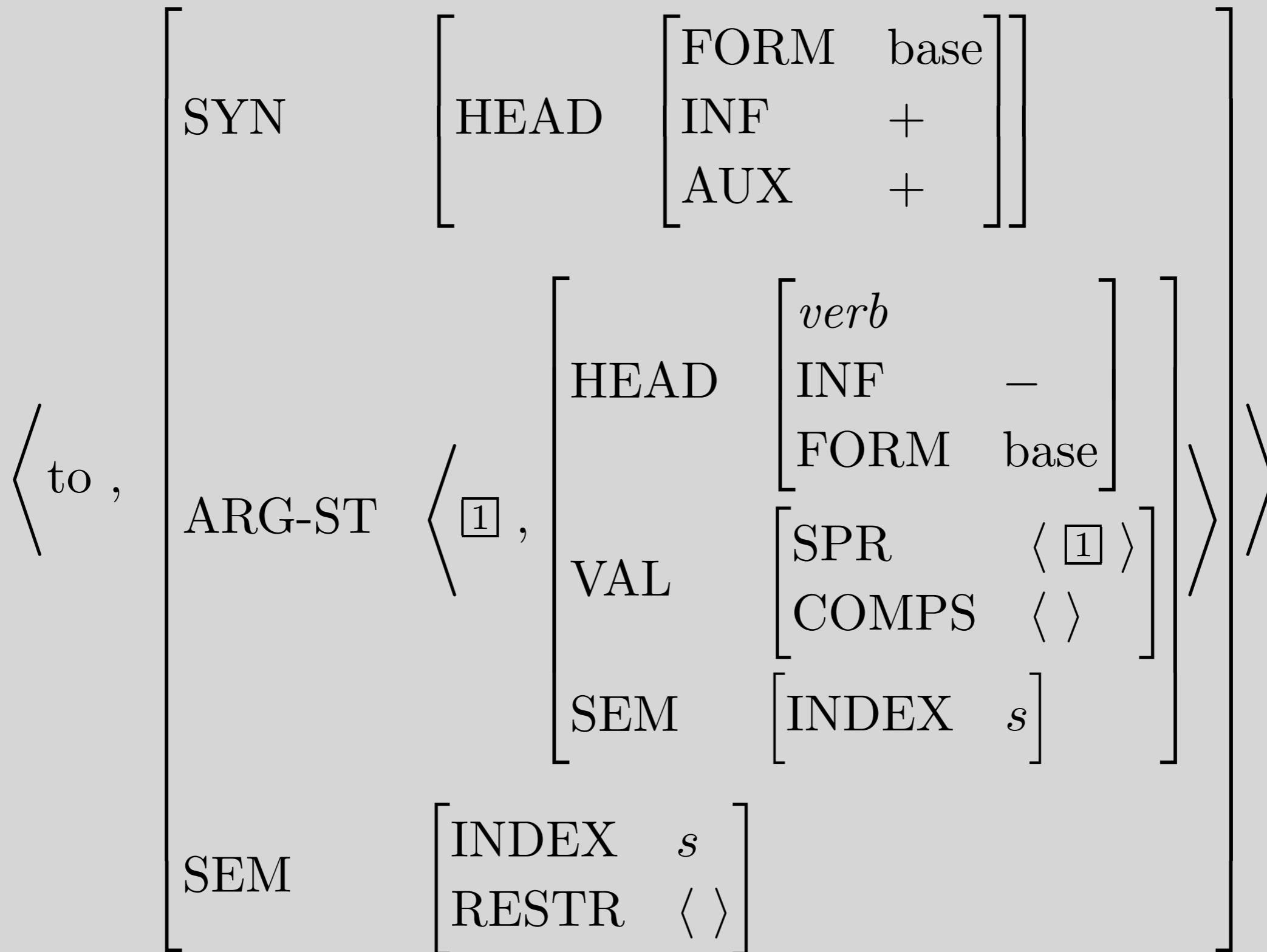
# The Central Idea

- *Pat continues to avoid conflict and Pat tries to avoid conflict*  
both have the form NP-V-*to*-VP
- But *continues* is semantically a one-place predicate, expressing a property of a situation (namely, that it continues to be the case)
- Whereas *tries* is semantically a two-place predicate, expressing a relation between someone who tries and a situation s/he tries to bring about.
- 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*:  
*Pat aspires to stardom*  
*Pat aspires to be a good actor*  
*\*Pat aspires to stardom and to 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*



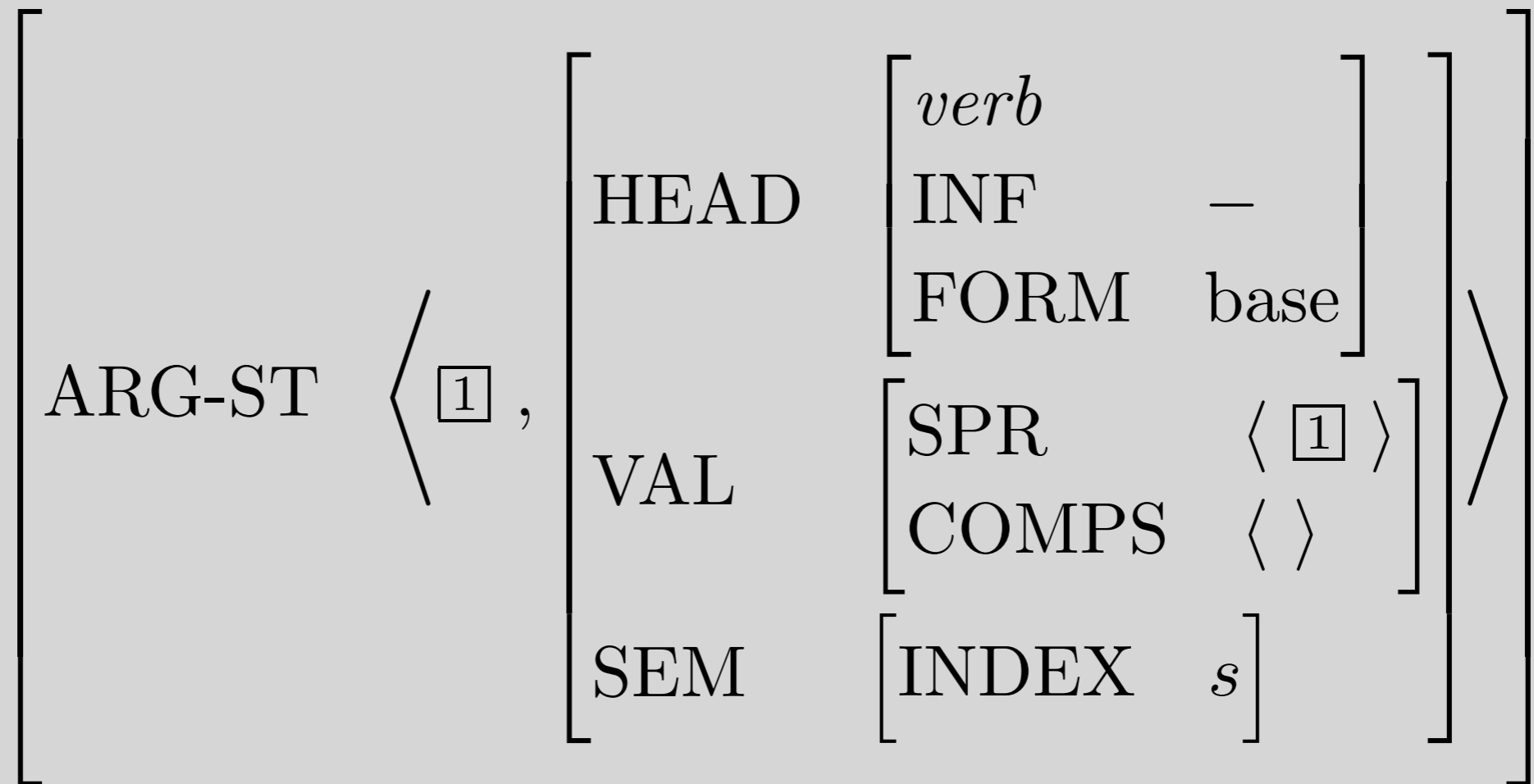
# The Syntax of Infinitival *to*

$$\left[ \text{SYN} \left[ \text{HEAD} \left[ \begin{array}{ll} \text{FORM} & \text{base} \\ \text{INF} & + \\ \text{AUX} & + \end{array} \right] \right] \right]$$

- 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 +]
  - complements of *should* are [FORM base] and [INF –]
  - complements of *help* are [FORM base]
- The meaning of [AUX +] becomes clear in Chapter 13.

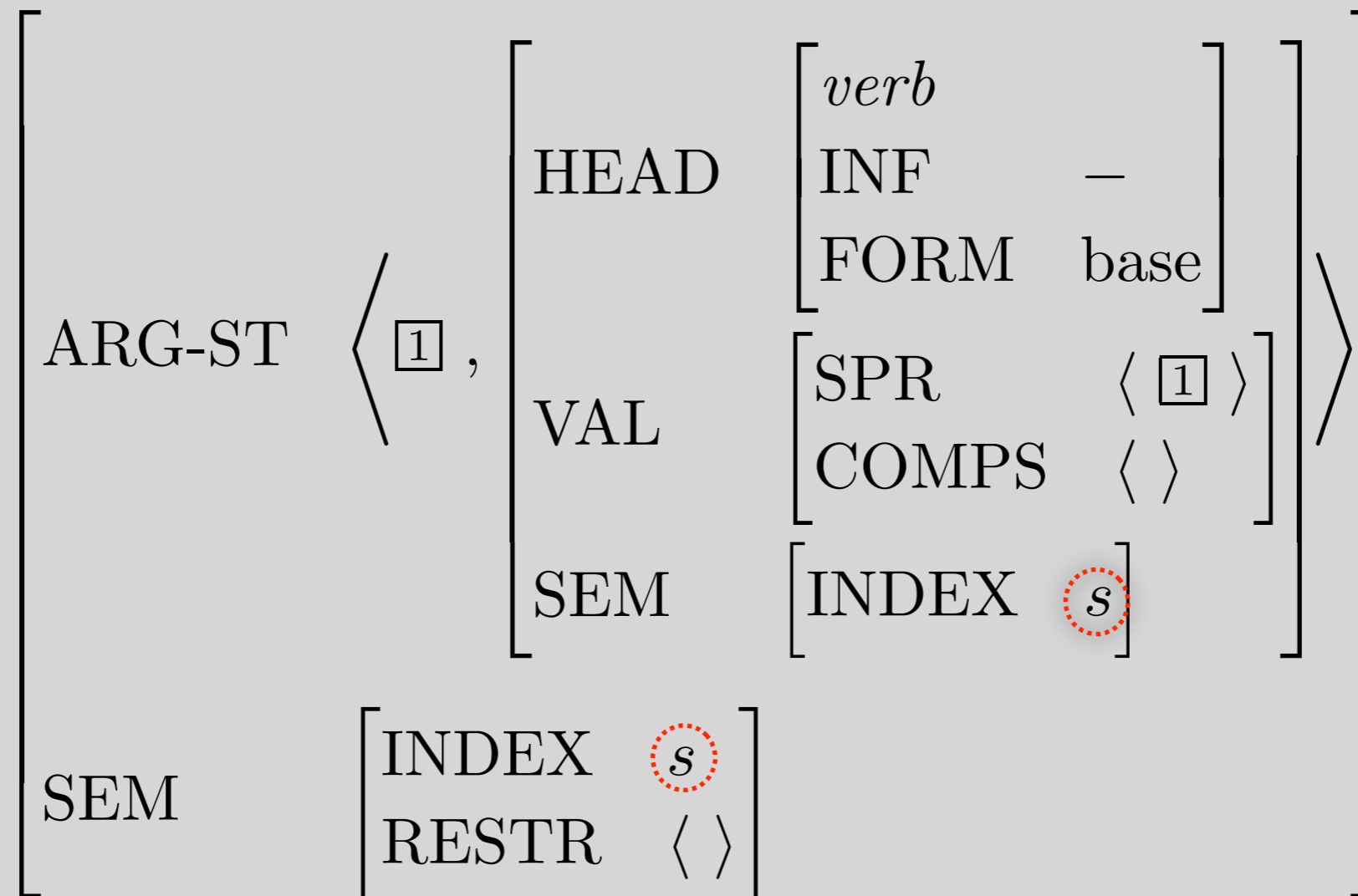


# The Argument Structure



- 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*



- The INDEX value is taken from the SEM of the second argument.
- So what is the semantic contribution of *to*?

# Dummies and *continue*

- Some examples:

*There continue to be seats available.*

*It continues to matter that we lost.*

*Advantage continues to be taken of the innocent.*

*\*It continues to be seats available.*

*\*There continues to matter that we lost.*

*\*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*.

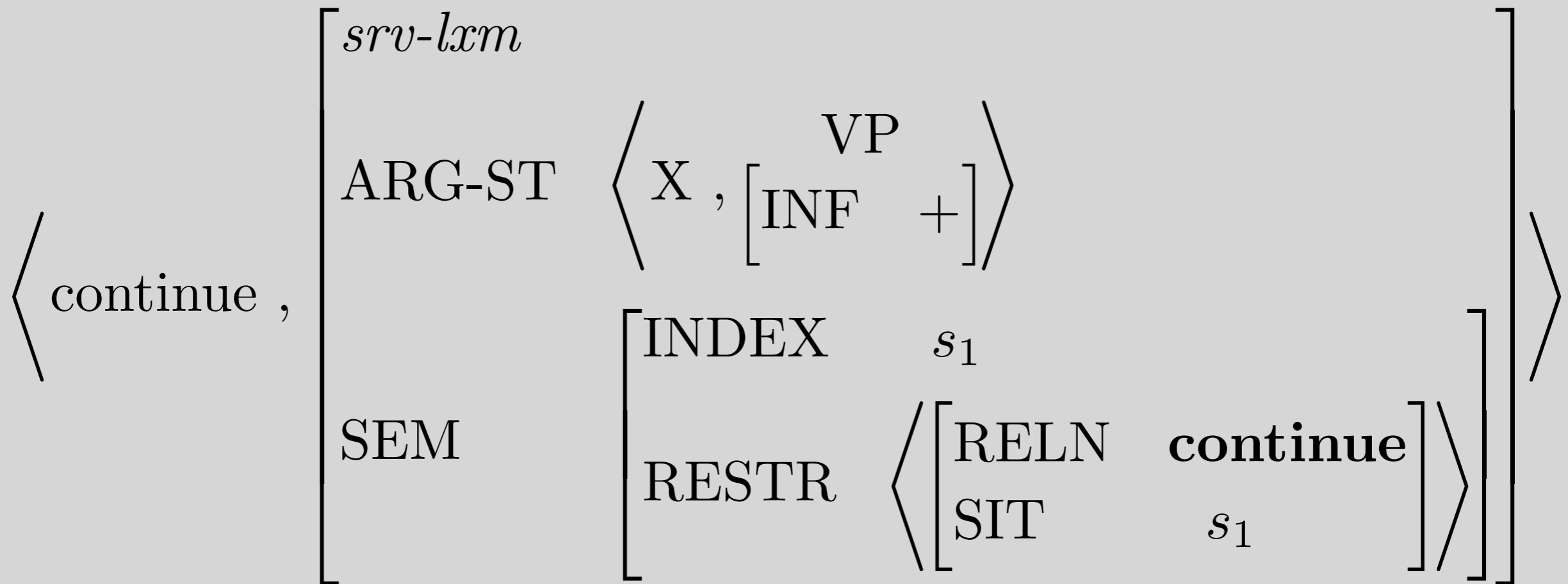
# A New Type, for Verbs like *continue*

*Subject-Raising Verb Lexeme (srv-lxm):*

$$\left[ \begin{array}{l} \text{ARG-ST} \left\langle \boxed{1}, \left[ \begin{array}{ll} \text{SPR} & \langle \boxed{1} \rangle \\ \text{COMPS} & \langle \rangle \\ \text{INDEX} & s_2 \end{array} \right] \right\rangle \\ \\ \text{SEM} \left[ \text{RESTR} \left\langle \left[ \text{ARG} \quad s_2 \right] \right\rangle \right] \end{array} \right]$$

- Notes on the ARG-ST constraints
  - 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
- Note on the SEM constraint
  - The index of the complement must be an argument of the predication introduced by the verb

# The Lexical Entry for *continue*

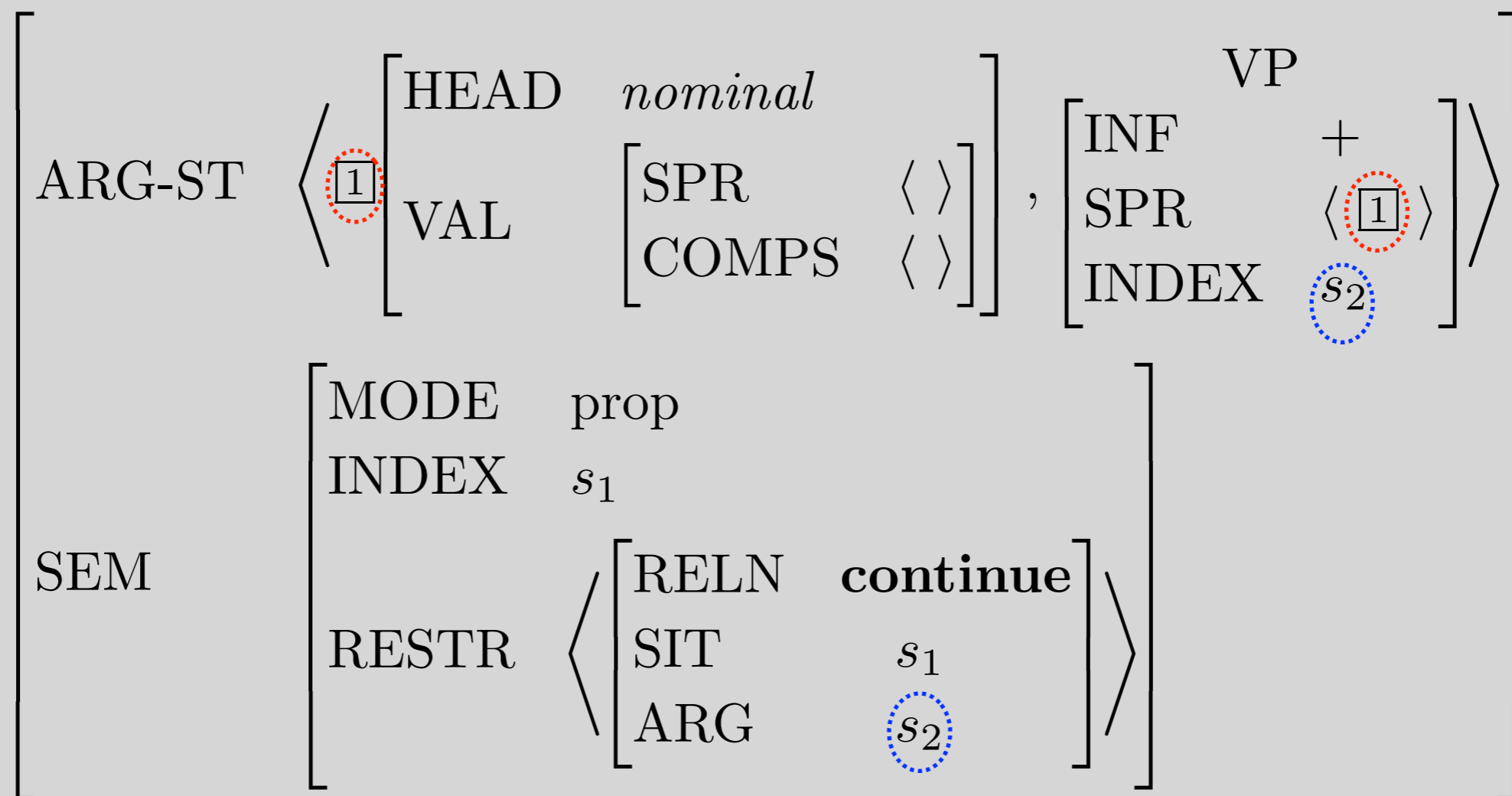


# Entry for *continue*, with Inherited Information

|                |  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
|----------------|--|-------------|---|-------------|---|-------|--|-------|-----------------|-------|--|-----|--|-----|-----------------|-------|-----------------------|-------|-----------------------|--|--|
| <i>srv-lxm</i> |  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| SYN            | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">HEAD</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 5px;"> <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;"><i>verb</i></td> <td style="border-left: 1px solid black; border-right: 1px solid black;"></td> </tr> <tr> <td>PRED</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>AGR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[2]</td> </tr> </table> </td> </tr> <tr> <td>VAL</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 5px;"> <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ [AGR [2]] ⟩</td> </tr> </table> </td> </tr> </table>   | HEAD        | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;"><i>verb</i></td> <td style="border-left: 1px solid black; border-right: 1px solid black;"></td> </tr> <tr> <td>PRED</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>AGR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[2]</td> </tr> </table>   | <i>verb</i> |   | PRED  | —  | INF   | —               | AGR   | [2]  | VAL | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ [AGR [2]] ⟩</td> </tr> </table>  | SPR | ⟨ [AGR [2]] ⟩   |       |                       |       |                       |  |  |
| HEAD           | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;"><i>verb</i></td> <td style="border-left: 1px solid black; border-right: 1px solid black;"></td> </tr> <tr> <td>PRED</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>AGR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[2]</td> </tr> </table>  | <i>verb</i> |   | PRED        | —   | INF   | —  | AGR   | [2]             |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| <i>verb</i>    |  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| PRED           | —  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| INF            | —  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| AGR            | [2]  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| VAL            | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ [AGR [2]] ⟩</td> </tr> </table>  | SPR         | ⟨ [AGR [2]] ⟩   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| SPR            | ⟨ [AGR [2]] ⟩  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| ARG-ST         | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">[1]</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 5px;"> <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">HEAD</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>nominal</i></td> </tr> <tr> <td>VAL</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"> <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ ⟩</td> </tr> <tr> <td>COMPS</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ ⟩</td> </tr> </table> </td> </tr> </table> </td> <td style="padding: 0 10px;">,</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 5px;"> <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><sup>VP</sup> +</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ [1] ⟩</td> </tr> <tr> <td>INDEX</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> </td> </tr> </table> | [1]         | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">HEAD</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>nominal</i></td> </tr> <tr> <td>VAL</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"> <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ ⟩</td> </tr> <tr> <td>COMPS</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ ⟩</td> </tr> </table> </td> </tr> </table> | HEAD        | <i>nominal</i>  | VAL   | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ ⟩</td> </tr> <tr> <td>COMPS</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ ⟩</td> </tr> </table>  | SPR   | ⟨ ⟩             | COMPS | ⟨ ⟩  | ,   | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><sup>VP</sup> +</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ [1] ⟩</td> </tr> <tr> <td>INDEX</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> | INF | <sup>VP</sup> + | SPR   | ⟨ [1] ⟩               | INDEX | <i>s</i> <sub>2</sub> |  |  |
| [1]            | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">HEAD</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>nominal</i></td> </tr> <tr> <td>VAL</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"> <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ ⟩</td> </tr> <tr> <td>COMPS</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ ⟩</td> </tr> </table> </td> </tr> </table>  | HEAD        | <i>nominal</i>  | VAL         | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ ⟩</td> </tr> <tr> <td>COMPS</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ ⟩</td> </tr> </table> | SPR   | ⟨ ⟩  | COMPS | ⟨ ⟩             | ,     | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><sup>VP</sup> +</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ [1] ⟩</td> </tr> <tr> <td>INDEX</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> | INF | <sup>VP</sup> +  | SPR | ⟨ [1] ⟩         | INDEX | <i>s</i> <sub>2</sub> |       |                       |  |  |
| HEAD           | <i>nominal</i>   |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| VAL            | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ ⟩</td> </tr> <tr> <td>COMPS</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ ⟩</td> </tr> </table>  | SPR         | ⟨ ⟩   | COMPS       | ⟨ ⟩   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| SPR            | ⟨ ⟩  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| COMPS          | ⟨ ⟩  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| INF            | <sup>VP</sup> +  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| SPR            | ⟨ [1] ⟩  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| INDEX          | <i>s</i> <sub>2</sub>  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| SEM            | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">MODE</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>prop</i></td> </tr> <tr> <td>INDEX</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>RESTR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"> <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>continue</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> </td> </tr> </table>   | MODE        | <i>prop</i>   | INDEX       | <i>s</i> <sub>1</sub>   | RESTR | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>continue</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> | RELN  | <b>continue</b> | SIT   | <i>s</i> <sub>1</sub>  | ARG | <i>s</i> <sub>2</sub>  |     |                 |       |                       |       |                       |  |  |
| MODE           | <i>prop</i>  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| INDEX          | <i>s</i> <sub>1</sub>  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| RESTR          | <table style="border-collapse: collapse; width: 100%;"> <tr> <td style="padding-right: 20px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>continue</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table>   | RELN        | <b>continue</b>   | SIT         | <i>s</i> <sub>1</sub>   | ARG   | <i>s</i> <sub>2</sub>  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| RELN           | <b>continue</b>  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| SIT            | <i>s</i> <sub>1</sub>  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |
| ARG            | <i>s</i> <sub>2</sub>  |             |   |             |   |       |  |       |                 |       |  |     |  |     |                 |       |                       |       |                       |  |  |

# 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.



# Hence, constraints on the subjects of SRVs are imposed by 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 verb in the VP complement of an SRV doesn't change the truth conditions of the whole sentence:

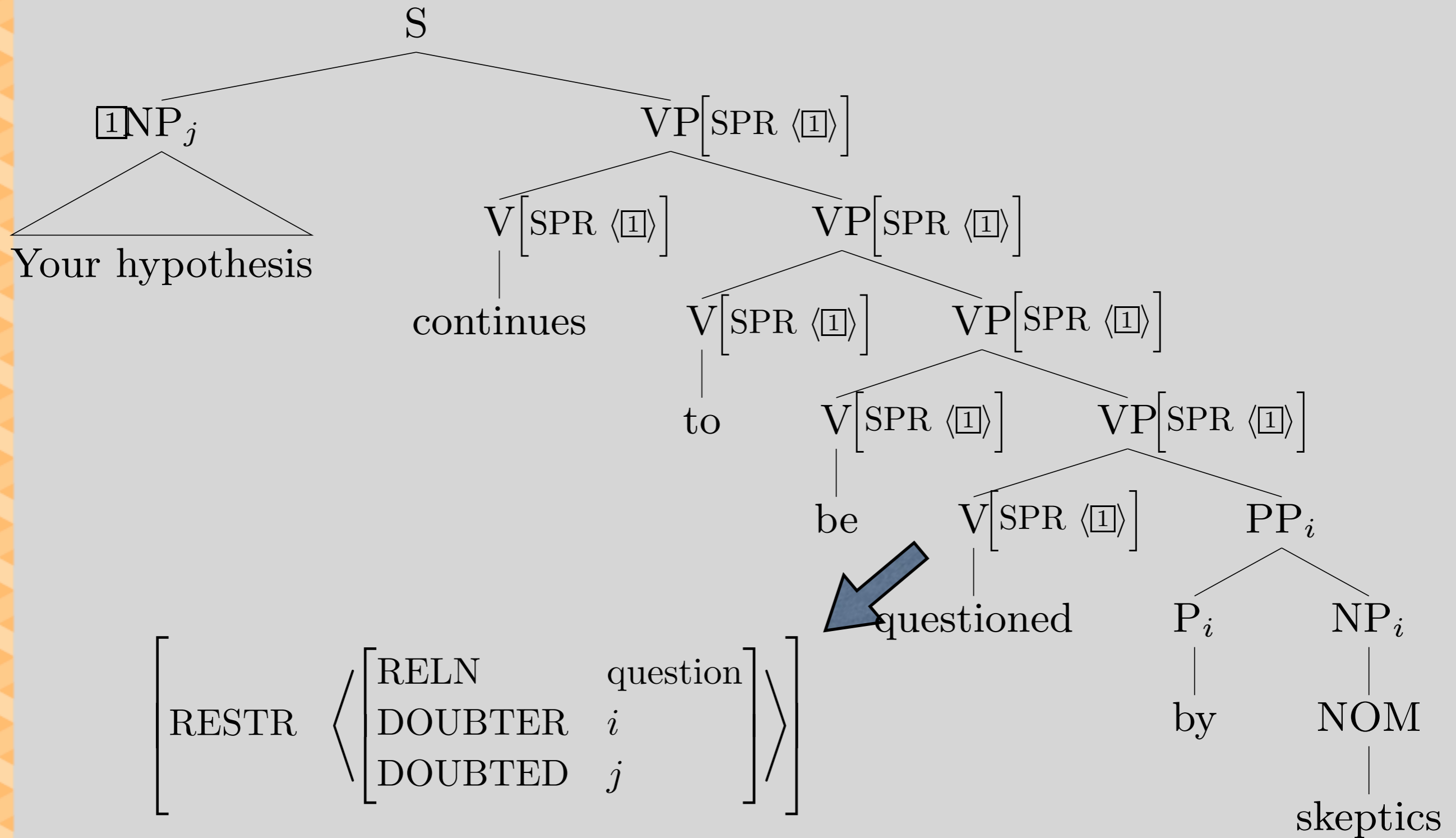
*Skeptics continue to question your hypothesis ~*

*Your hypothesis continues to be questioned by skeptics*





# Continue with passive complement



# Control Verbs

- Control verbs, like *try*, appear in contexts that look just like the contexts for raising verbs:  
*Pat tried to stay calm* looks superficially like  
*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.
  - \*There try to be bugs in my program*
  - \*It tries to upset me that the Giants lost*
  - \*Advantage tries to be taken of tourists*
- Passivizing the complement's verb changes the truth conditions.
  - The police tried to arrest disruptive demonstrators ≠*  
*Disruptive demonstrators tried to be arrested by the police*

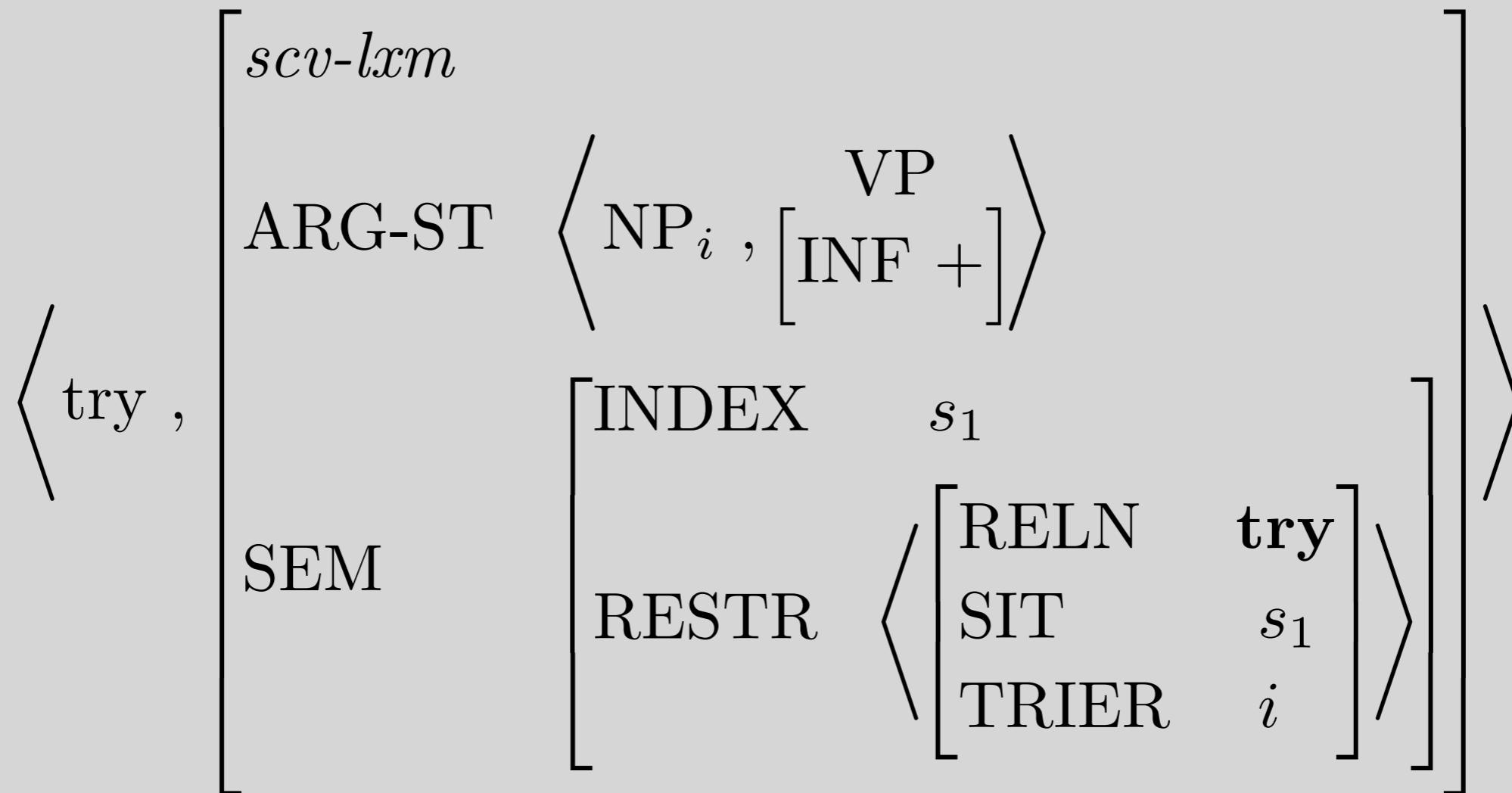
# A New Type

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

$$\left[ \begin{array}{l} \text{ARG-ST} \left\langle \text{NP}_i, \left[ \begin{array}{ll} \text{SPR} & \langle \text{NP}_i \rangle \\ \text{COMPS} & \langle \rangle \\ \text{INDEX} & s_2 \end{array} \right] \right\rangle \\ \text{SEM} \left[ \text{RESTR} \left\langle \left[ \text{ARG} \quad s_2 \right] \right\rangle \right] \end{array} \right]$$

- This differs from *srv-lxm* in that the first argument and the SPR of the second argument are coindexed, not tagged.
- 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 ( $\text{NP}_i$ ) plays a semantic role with respect to the verb, namely the “TRIER”

# Entry for *try*, with Inherited Information

|   |  |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
|---|--|--|---|---|--|-------------|---|----------------------------|--------------------------------|--------------------------------|-----------------------|---|--|-----------------------|--|------|---------------|---|--------|--|--------------------------|---|-------|----------|-----|----------------------------|-----|--------------------------------|-----|---|-------|-----------------------|------|------|-------|---|------|------------|-----|-----------------------|-------|----------|-----|-----------------------|
| <i>scv-lxm</i>  | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">SYN</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">HEAD</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;"><i>verb</i></td> <td style="border-left: 1px solid black; border-right: 1px solid black;"></td> </tr> <tr> <td>PRED</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>AGR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[1]</td> </tr> </table> </td> </tr> <tr> <td>VAL</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ [AGR [1]] ⟩</td> </tr> </table> </td> </tr> </table> </td> </tr> <tr> <td style="padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">ARG-ST</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">NP<sub><i>i</i></sub>,</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">+</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ NP<sub><i>i</i></sub> ⟩</td> </tr> <tr> <td>SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[INDEX <i>s</i><sub>2</sub>]</td> </tr> </table> </td> </tr> </table> </td> </tr> <tr> <td style="padding: 10px;">SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INDEX</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>MODE</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">prop</td> </tr> <tr> <td style="padding-right: 10px;">RESTR</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>try</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>TRIER</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>i</i></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> </td> </tr> </table> </td> </tr> </table> </td> </tr> </table> | SYN  | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">HEAD</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;"><i>verb</i></td> <td style="border-left: 1px solid black; border-right: 1px solid black;"></td> </tr> <tr> <td>PRED</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>AGR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[1]</td> </tr> </table> </td> </tr> <tr> <td>VAL</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ [AGR [1]] ⟩</td> </tr> </table> </td> </tr> </table> | HEAD  | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;"><i>verb</i></td> <td style="border-left: 1px solid black; border-right: 1px solid black;"></td> </tr> <tr> <td>PRED</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>AGR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[1]</td> </tr> </table> | <i>verb</i> |   | PRED                       | —                              | INF                            | —                     | AGR   | [1]  | VAL                   | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ [AGR [1]] ⟩</td> </tr> </table> | SPR  | ⟨ [AGR [1]] ⟩ | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">ARG-ST</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">NP<sub><i>i</i></sub>,</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">+</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ NP<sub><i>i</i></sub> ⟩</td> </tr> <tr> <td>SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[INDEX <i>s</i><sub>2</sub>]</td> </tr> </table> </td> </tr> </table> </td> </tr> <tr> <td style="padding: 10px;">SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INDEX</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>MODE</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">prop</td> </tr> <tr> <td style="padding-right: 10px;">RESTR</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>try</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>TRIER</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>i</i></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> </td> </tr> </table> </td> </tr> </table> | ARG-ST | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">NP<sub><i>i</i></sub>,</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">+</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ NP<sub><i>i</i></sub> ⟩</td> </tr> <tr> <td>SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[INDEX <i>s</i><sub>2</sub>]</td> </tr> </table> </td> </tr> </table> | NP <sub><i>i</i></sub> , | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">+</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ NP<sub><i>i</i></sub> ⟩</td> </tr> <tr> <td>SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[INDEX <i>s</i><sub>2</sub>]</td> </tr> </table> | INF   | +        | SPR | ⟨ NP <sub><i>i</i></sub> ⟩ | SEM | [INDEX <i>s</i> <sub>2</sub> ] | SEM | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INDEX</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>MODE</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">prop</td> </tr> <tr> <td style="padding-right: 10px;">RESTR</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>try</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>TRIER</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>i</i></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> </td> </tr> </table> | INDEX | <i>s</i> <sub>1</sub> | MODE | prop | RESTR | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>try</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>TRIER</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>i</i></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> | RELN | <b>try</b> | SIT | <i>s</i> <sub>1</sub> | TRIER | <i>i</i> | ARG | <i>s</i> <sub>2</sub> |
| SYN   | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">HEAD</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;"><i>verb</i></td> <td style="border-left: 1px solid black; border-right: 1px solid black;"></td> </tr> <tr> <td>PRED</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>AGR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[1]</td> </tr> </table> </td> </tr> <tr> <td>VAL</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ [AGR [1]] ⟩</td> </tr> </table> </td> </tr> </table>  | HEAD   | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;"><i>verb</i></td> <td style="border-left: 1px solid black; border-right: 1px solid black;"></td> </tr> <tr> <td>PRED</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>AGR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[1]</td> </tr> </table>  | <i>verb</i>   |  | PRED        | —   | INF                        | —                              | AGR                            | [1]                   | VAL   | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ [AGR [1]] ⟩</td> </tr> </table> | SPR                   | ⟨ [AGR [1]] ⟩  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| HEAD  | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;"><i>verb</i></td> <td style="border-left: 1px solid black; border-right: 1px solid black;"></td> </tr> <tr> <td>PRED</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">—</td> </tr> <tr> <td>AGR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[1]</td> </tr> </table>   | <i>verb</i>  |   | PRED  | —  | INF         | —   | AGR                        | [1]                            |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| <i>verb</i>   |  |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| PRED  | —  |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| INF   | —  |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| AGR   | [1]  |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| VAL   | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ [AGR [1]] ⟩</td> </tr> </table>   | SPR  | ⟨ [AGR [1]] ⟩   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| SPR   | ⟨ [AGR [1]] ⟩  |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">ARG-ST</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">NP<sub><i>i</i></sub>,</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">+</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ NP<sub><i>i</i></sub> ⟩</td> </tr> <tr> <td>SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[INDEX <i>s</i><sub>2</sub>]</td> </tr> </table> </td> </tr> </table> </td> </tr> <tr> <td style="padding: 10px;">SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INDEX</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>MODE</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">prop</td> </tr> <tr> <td style="padding-right: 10px;">RESTR</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>try</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>TRIER</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>i</i></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> </td> </tr> </table> </td> </tr> </table> | ARG-ST   | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">NP<sub><i>i</i></sub>,</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">+</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ NP<sub><i>i</i></sub> ⟩</td> </tr> <tr> <td>SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[INDEX <i>s</i><sub>2</sub>]</td> </tr> </table> </td> </tr> </table> | NP <sub><i>i</i></sub> ,  | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">+</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ NP<sub><i>i</i></sub> ⟩</td> </tr> <tr> <td>SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[INDEX <i>s</i><sub>2</sub>]</td> </tr> </table> | INF  | +           | SPR   | ⟨ NP <sub><i>i</i></sub> ⟩ | SEM                            | [INDEX <i>s</i> <sub>2</sub> ] | SEM                   | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INDEX</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>MODE</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">prop</td> </tr> <tr> <td style="padding-right: 10px;">RESTR</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>try</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>TRIER</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>i</i></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> </td> </tr> </table> | INDEX  | <i>s</i> <sub>1</sub> | MODE   | prop | RESTR         | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>try</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>TRIER</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>i</i></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table>   | RELN   | <b>try</b>   | SIT                      | <i>s</i> <sub>1</sub>   | TRIER | <i>i</i> | ARG | <i>s</i> <sub>2</sub>      |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| ARG-ST  | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">NP<sub><i>i</i></sub>,</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">+</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ NP<sub><i>i</i></sub> ⟩</td> </tr> <tr> <td>SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[INDEX <i>s</i><sub>2</sub>]</td> </tr> </table> </td> </tr> </table>   | NP <sub><i>i</i></sub> ,   | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">+</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ NP<sub><i>i</i></sub> ⟩</td> </tr> <tr> <td>SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[INDEX <i>s</i><sub>2</sub>]</td> </tr> </table>   | INF   | +  | SPR         | ⟨ NP <sub><i>i</i></sub> ⟩  | SEM                        | [INDEX <i>s</i> <sub>2</sub> ] |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| NP <sub><i>i</i></sub> ,  | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INF</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">+</td> </tr> <tr> <td>SPR</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">⟨ NP<sub><i>i</i></sub> ⟩</td> </tr> <tr> <td>SEM</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">[INDEX <i>s</i><sub>2</sub>]</td> </tr> </table>  | INF  | +   | SPR   | ⟨ NP <sub><i>i</i></sub> ⟩   | SEM         | [INDEX <i>s</i> <sub>2</sub> ]  |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| INF   | +  |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| SPR   | ⟨ NP <sub><i>i</i></sub> ⟩   |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| SEM   | [INDEX <i>s</i> <sub>2</sub> ]   |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| SEM   | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">INDEX</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>MODE</td> <td style="border-left: 1px solid black; border-right: 1px solid black;">prop</td> </tr> <tr> <td style="padding-right: 10px;">RESTR</td> <td style="border-left: 1px solid black; border-right: 1px solid black; padding: 10px;"> <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>try</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>TRIER</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>i</i></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> </td> </tr> </table>  | INDEX  | <i>s</i> <sub>1</sub>   | MODE  | prop   | RESTR       | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>try</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>TRIER</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>i</i></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table> | RELN                       | <b>try</b>                     | SIT                            | <i>s</i> <sub>1</sub> | TRIER   | <i>i</i>   | ARG                   | <i>s</i> <sub>2</sub>  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| INDEX   | <i>s</i> <sub>1</sub>  |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| MODE  | prop   |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| RESTR   | <table style="border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">RELN</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><b>try</b></td> </tr> <tr> <td>SIT</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>1</sub></td> </tr> <tr> <td>TRIER</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>i</i></td> </tr> <tr> <td>ARG</td> <td style="border-left: 1px solid black; border-right: 1px solid black;"><i>s</i><sub>2</sub></td> </tr> </table>  | RELN   | <b>try</b>  | SIT   | <i>s</i> <sub>1</sub>  | TRIER       | <i>i</i>  | ARG                        | <i>s</i> <sub>2</sub>          |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| RELN  | <b>try</b>   |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| SIT   | <i>s</i> <sub>1</sub>  |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| TRIER   | <i>i</i>   |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |
| ARG   | <i>s</i> <sub>2</sub>  |  |   |   |  |             |   |                            |                                |                                |                       |   |  |                       |  |      |               |   |        |  |                          |   |       |          |     |                            |     |                                |     |   |       |                       |      |      |       |   |      |            |     |                       |       |          |     |                       |

## Things to Note:

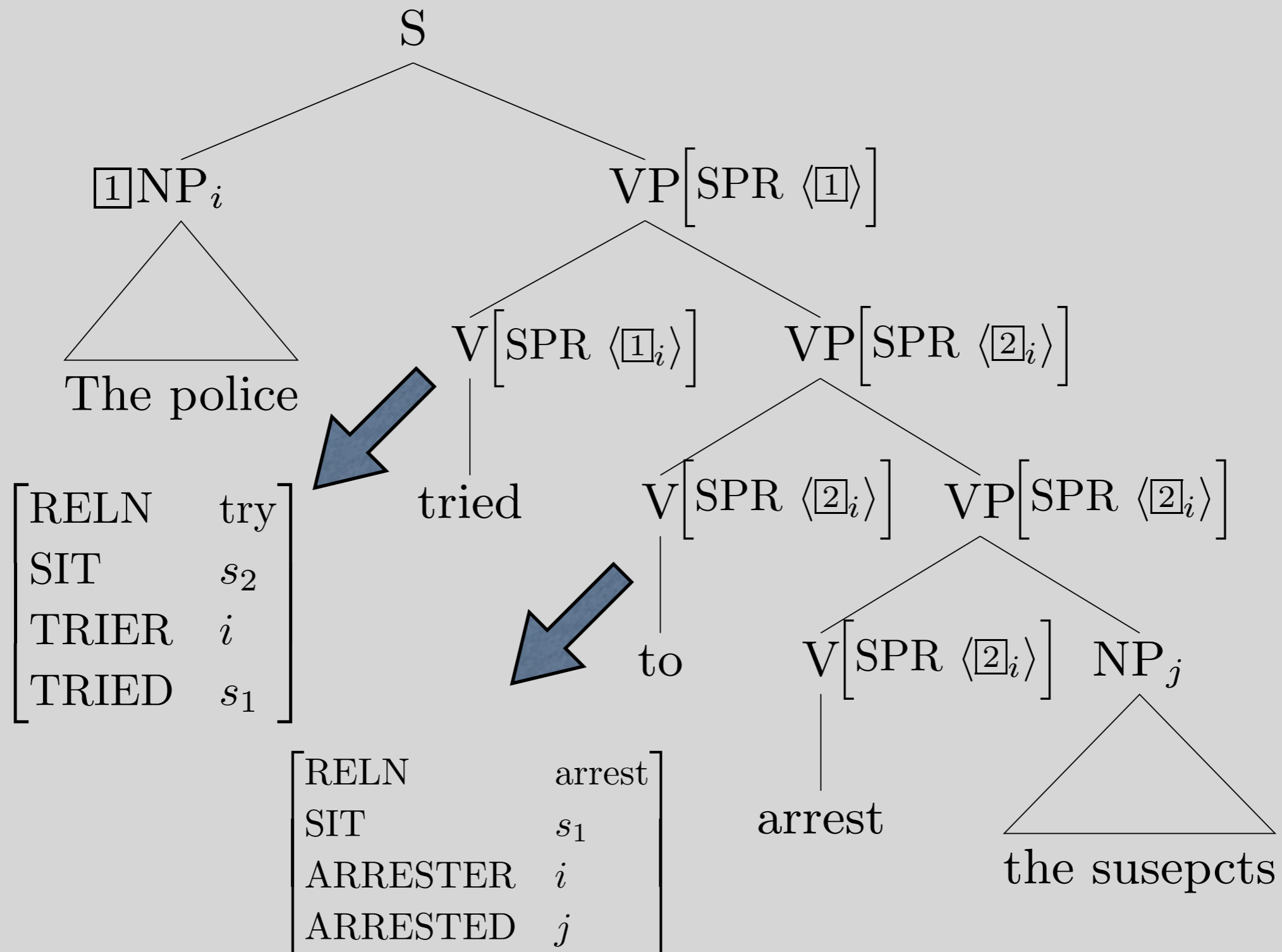
- The first argument has an index
- The first argument is coindexed with the SPR of the second argument
- Both the first and second arguments play semantic roles in the ‘try’ relation
- Very little had to be stipulated in the entry for *try*

# Questions

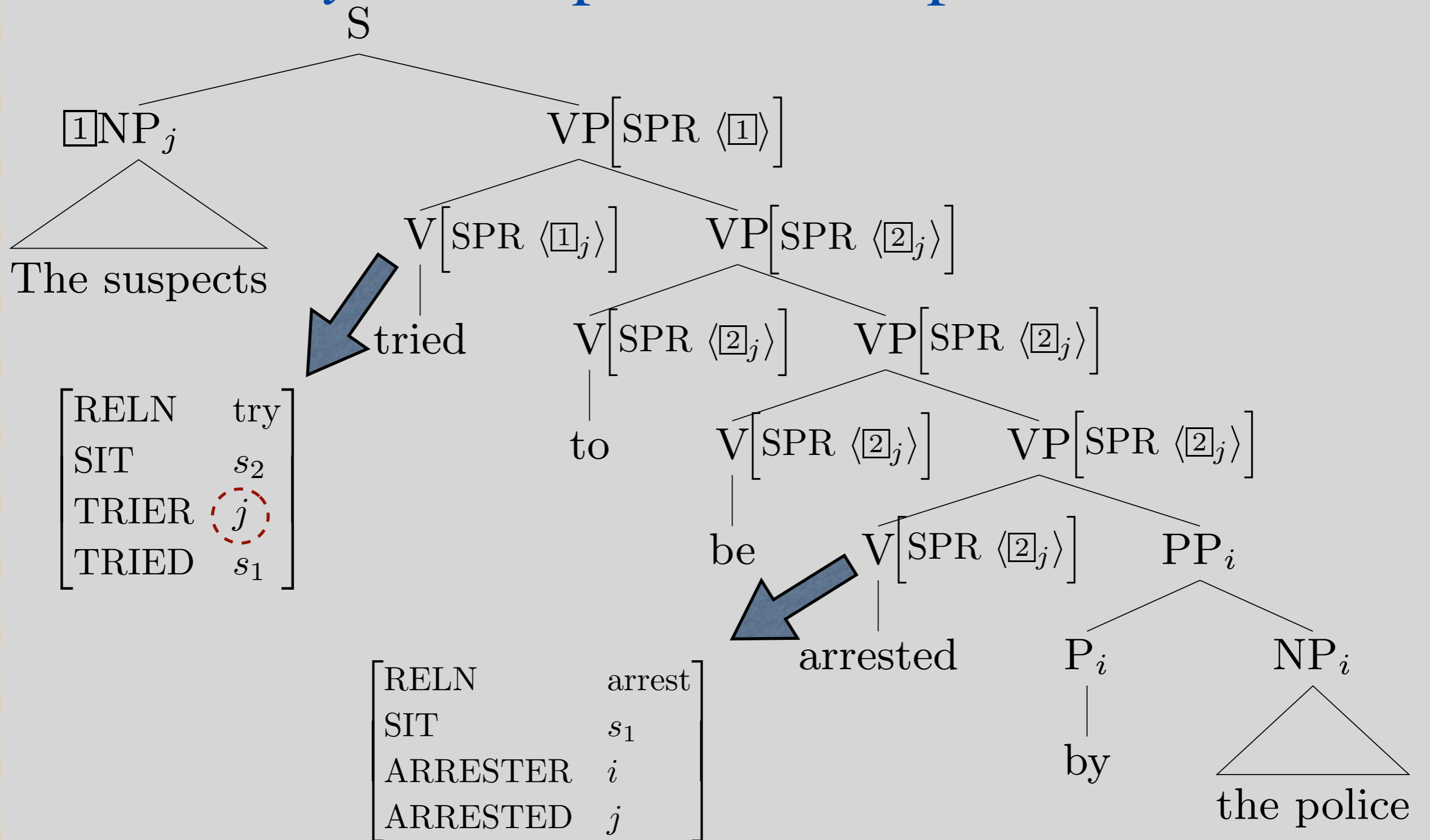
- What rules out dummies and idiom chunks as subjects of *try*?
- What accounts for the semantic non-equivalence of pairs like the following?  
*Reporters tried to interview the candidate*  
*The candidate tried to be interviewed by reporters*
- Why does *continue* behave differently in these respects?



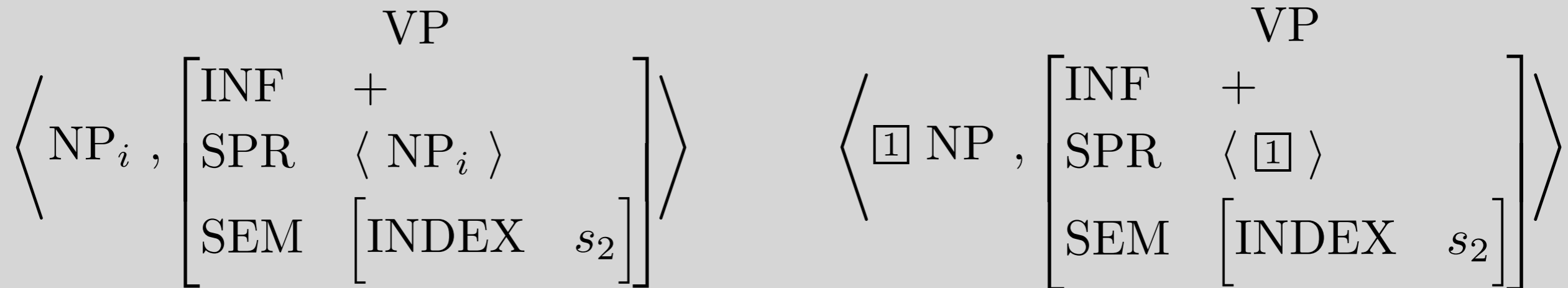
# Try with an active complement



# Try with a passive complement



# The main formal difference between raising and control verbs is in ARG-ST



CONTROL

RAISING

Which is which?

Why?

# Raising & Control in Transformational Grammar

- Raising



- Control

[the dogs]<sub>i</sub> try [NP<sub>i</sub> to bark]

- In early TG, the NP got deleted.
- In more recent TG, it's a silent pronoun.

# We make another raising/control distinction

## *Object-Raising Verb Lexeme (orv-lxm)*

$$\left[ \begin{array}{l} \text{ARG-ST} \left\langle \text{NP}, \boxed{1}, \left[ \begin{array}{l} \text{SPR} \quad \langle \boxed{1} \rangle \\ \text{COMPS} \quad \langle \rangle \\ \text{INDEX} \quad s_2 \end{array} \right] \right\rangle \\ \text{SEM} \quad \left[ \text{RESTR} \left\langle [\text{ARG} \quad s_2] \right\rangle \right] \end{array} \right]$$

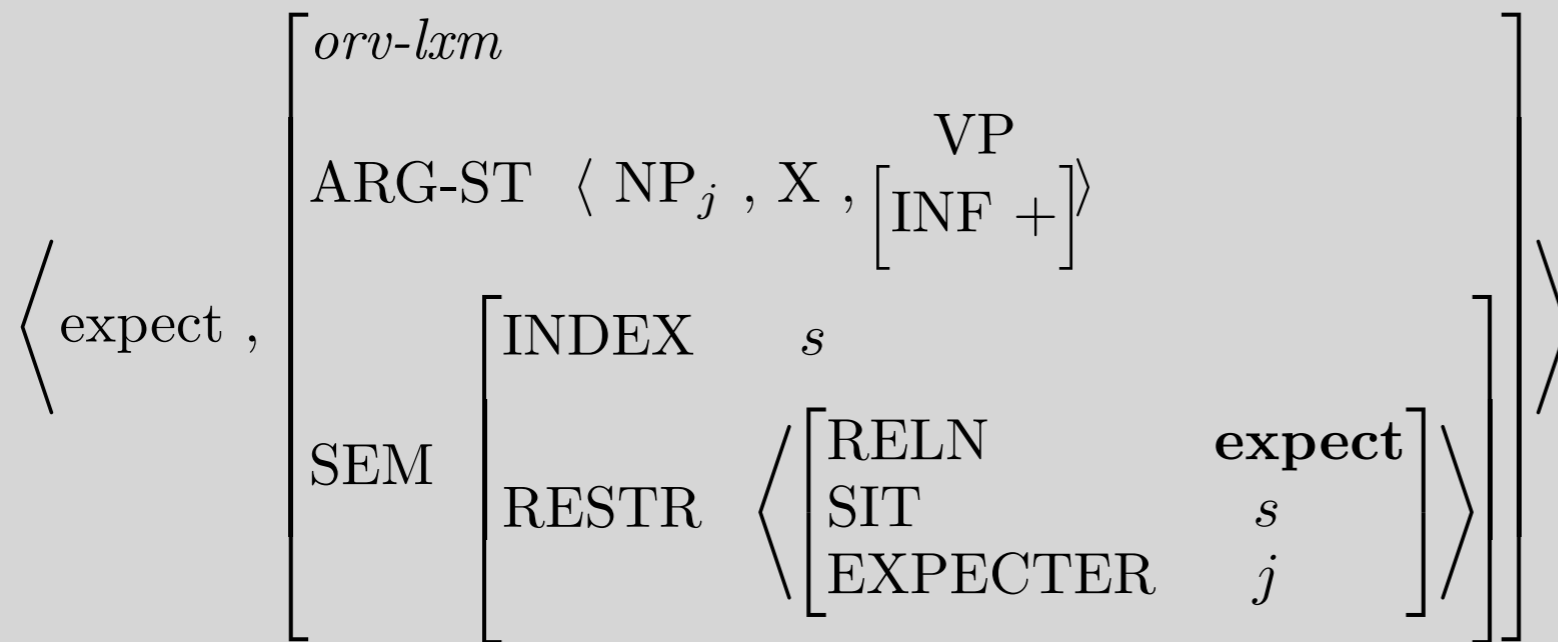
- The formal distinction is again between tagging and coindexing

## *Object-Control Verb Lexeme (ocv-lxm)*

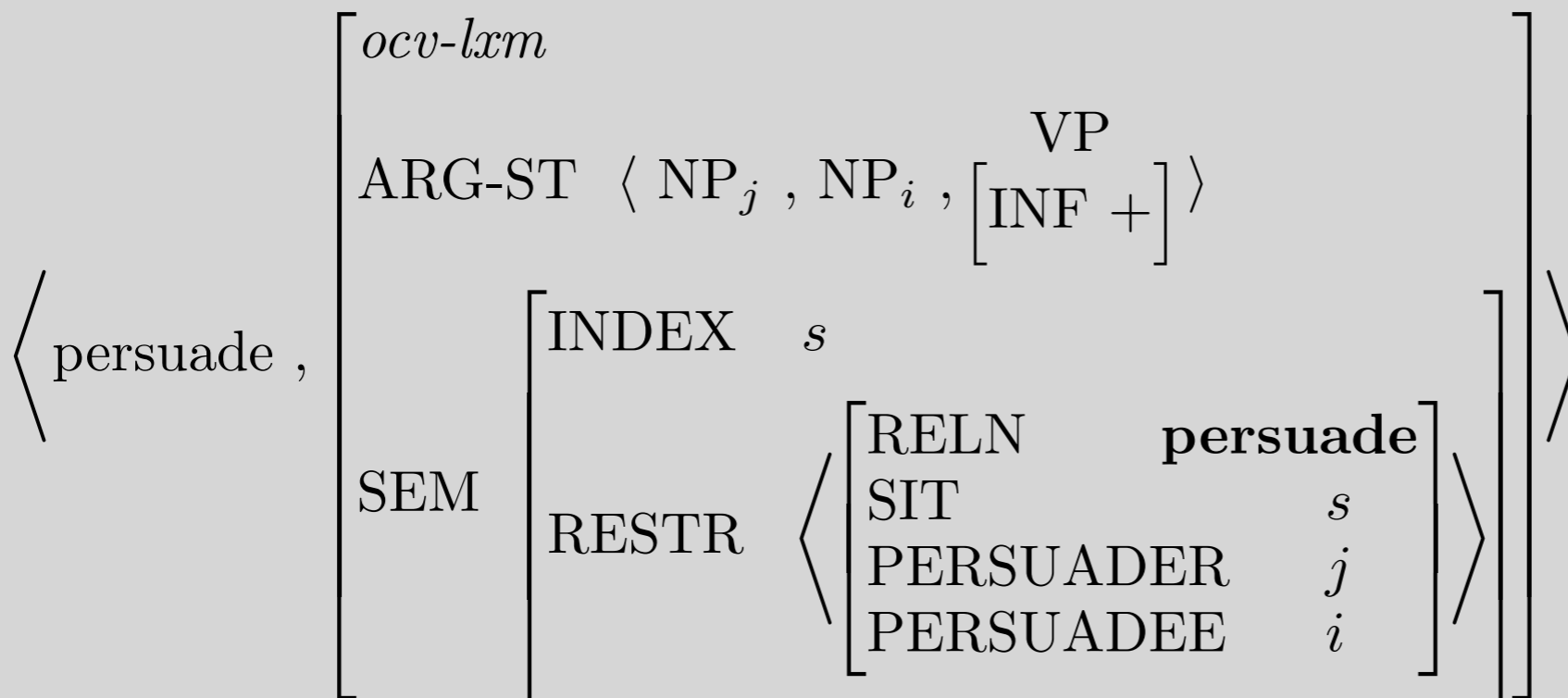
$$\left[ \begin{array}{l} \text{ARG-ST} \left\langle \text{NP}, \text{NP}_i, \left[ \begin{array}{l} \text{SPR} \quad \langle \text{NP}_i \rangle \\ \text{COMPS} \quad \langle \rangle \\ \text{INDEX} \quad s_2 \end{array} \right] \right\rangle \\ \text{SEM} \quad \left[ \text{RESTR} \left\langle [\text{ARG} \quad s_2] \right\rangle \right] \end{array} \right]$$

- This time it's the **second** argument and the SPR of the **third** argument.

# Example *orv-lxm* and *ocv-lxm* Entries



- Note that the ‘persuade’ relation has three arguments, but the ‘expect’ relation has only two



- And the object’s INDEX plays a role in the ‘persuade’ relation, but not in the ‘expect’ relation

# Ch 12 Prob 4

- Construct examples of each of the following four types which show a contrast between *expect* and *persuade*:
    - Ex with dummy *there*
    - Ex with dummy *it*
    - Ex with idiom *chunks*
    - Ex of relevant active/passive pairs
- Breakout rooms!

# Overview

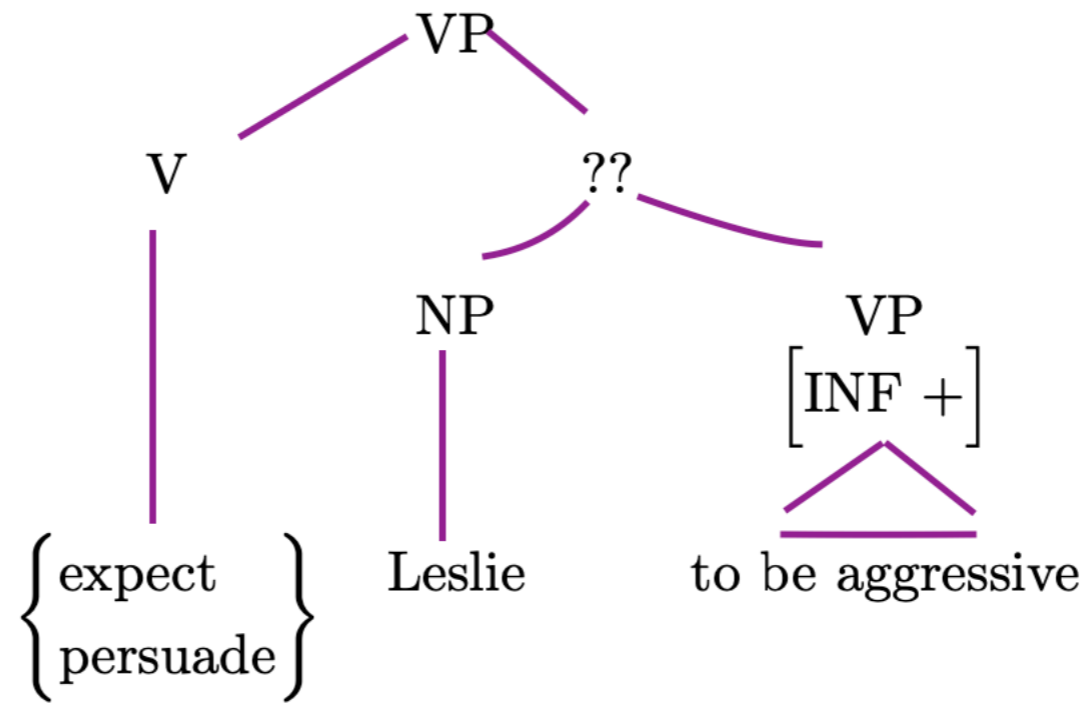
- Intro to topic
- Infinitival *to*
- (Subject) raising verbs
- (Subject) control verbs
- Raising/control in TG
- Object raising and object control
- Reading questions



# Reading Questions

- In the section on object raising and object control verbs, two potential analyses are proposed for the types of complements they can take: (1) a single complement that is some type of phrase that contains an NP and VP, or (2) two separate NP and VP complements. Then there is an explanation of why only (2) works with our analysis of the passive construction, but I didn't quite follow this explanation. Why is only (2) compatible with how we analyze passive?

(35)



# Reading Questions

- An additional example of a verb that often goes with infinitives is *need* as in *I need to go*, *I need him to go*, *I need to work to eat*. The first example (if I'm understanding correctly) mirrors *try* or an scv-lxm, the second mirrors a orv-lxm like *expect*., and the third falls into another category. What category of these new lexemes does *need* fall into if it overlaps with a few different categories?
- How can we differentiate xx-raising/control lexemes? If we always have to analyze lexemes and categorize them one by one, is it possible for a lexeme to be both xx-raising and xx-control depending on the context?

# Reading Questions

- Could we have combined the `srv-lxm` and `scv-lxm` into one lexeme type and have it optionally leave on member on its `ARG-ST` semantically unassigned?
- Would it be useful to us to encode the similarity between `srv/orv` and `scv/ocv` into our type hierarchy? Would we need multiple inheritance to do this?

# Reading Questions

- Is there any advantage to separating `srv-lxm` and `scv-lxm` into two different types? It seems like you could just combine them into one type that looks exactly like `srv-lxm`, and just have control verbs also specify matching indices in their lexeme entries.
- I am curious why `scv-lxm` cannot be seen as a subtype of `srv-lxm` since they share so much in common except the additional requirement that the `SPR` needs to be `NP_i`.

# Reading Questions

- I think there is a difference between the way that indices are used in lexemes and the way that they are used in fully realized word structures and trees, but I'm not completely sure how to articulate it. Based on what 12.4 says, it seems like indices are used in lexemes to indicate that an element in an ARG-ST must be able to be indexed (ie, can't be nonreferential) in addition to showing how syntactic elements are associated with semantic roles in the lexeme's RESTR list. On the other hand, it seems like indices in fully realized structures have an additional purpose, which is to specify how the actual elements in the tree relate to each other. Is this the right way to think about this?

# Reading Questions

- In this chapter, we see more instances of unrealized (?) specifiers (like the specifier of to go in example 40) and specifiers that are present in the tree without the application of the Head-Specifier Rule (Sandy in example 39). Both of these scenarios seem problematic. Why are they not problematic?
- In (26) on page 375, where we just make sure that the NP in the SPR of the VP is coindexed with Lee, we don't tag it. I think that is to highlight the difference between just making things coindex vs subject-sharing, that is discussed on the previous page. But does this mean that that VP's SPR value is unsatisfied? How can that be?

# Reading Questions

- Is there a pretty specific (thought) process syntacticians adopt when deciding on the types of certain lexemes? It amazes me how 's got treated as a determiner, that as a complementizer, and the infinitival to as a verb (why not a noun, for instance). Is there a bigger picture/formula or is it just generally looking at the position, the environment, etc. through trial and error until it's figured out?



# Reading Questions

- The current lexical entry for 'to' requires two verbs, in a V to V format. What about situations where only one verb is necessary, such as 'to err is human'. Is this a different type of 'to' being used here?

# Reading Questions

- What will happen to the grammar if we have parallel `to ...`, eg. She writes to record her thoughts, to educate, and to inspire. I know that it may be more correct to say `she writes to record her thoughts, educate, and inspire`, but it also gives more emphasis on the purpose of the act of writing if we have the parallel `to`s.
- I am curious whether or not scv-lxm can be converted to imperative form, so sentences like "Try to find me" can be grammatical, which I do not think is grammatical under the current scv-lxm due to lack of SPR.

# Reading Questions

- For examples like 'It continues to bother me that Chris lied', we say that 'it' is nonreferential but isn't 'it' referencing the phrase 'that Chris lied'? It feels like this would allow for *srv-lxm* to have a subject role in its *RESTR* values. The differences between *srv-lxm*'s and *scv-lxm*'s seem to indicate why this doesn't hold, but I can't quite put my finger on exactly why.

# Reading Questions

- I am wondering how should we treat VP phrase such as "look forward to"? Should we treat it as a verb-like lexical sequence? Since the verb following "look forward to" must be of [FORM prp], should we create a new verb lexeme type?