



Ling 566

Nov 15, 2016

Raising, Control

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.

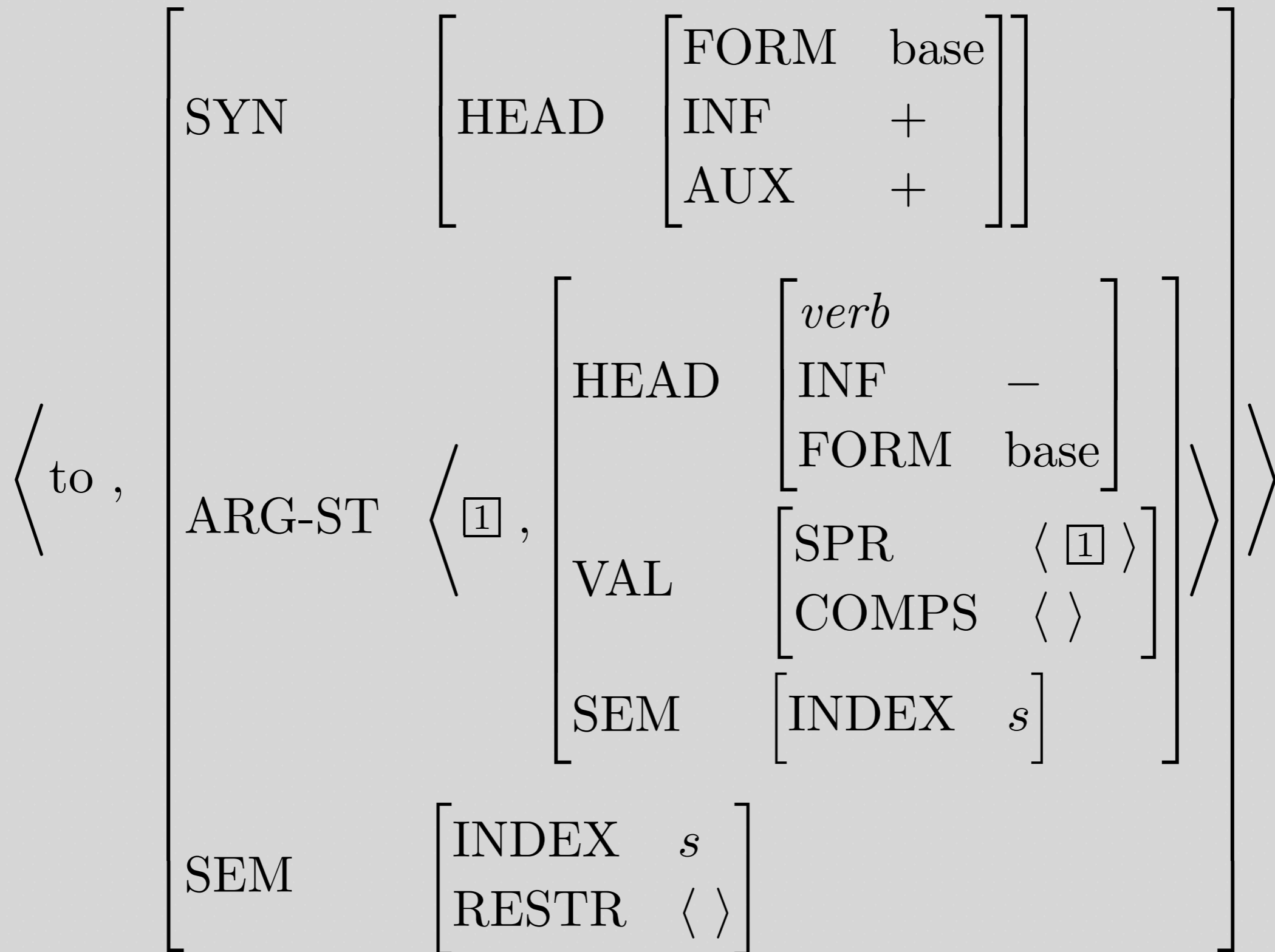
The Central Idea

- *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*

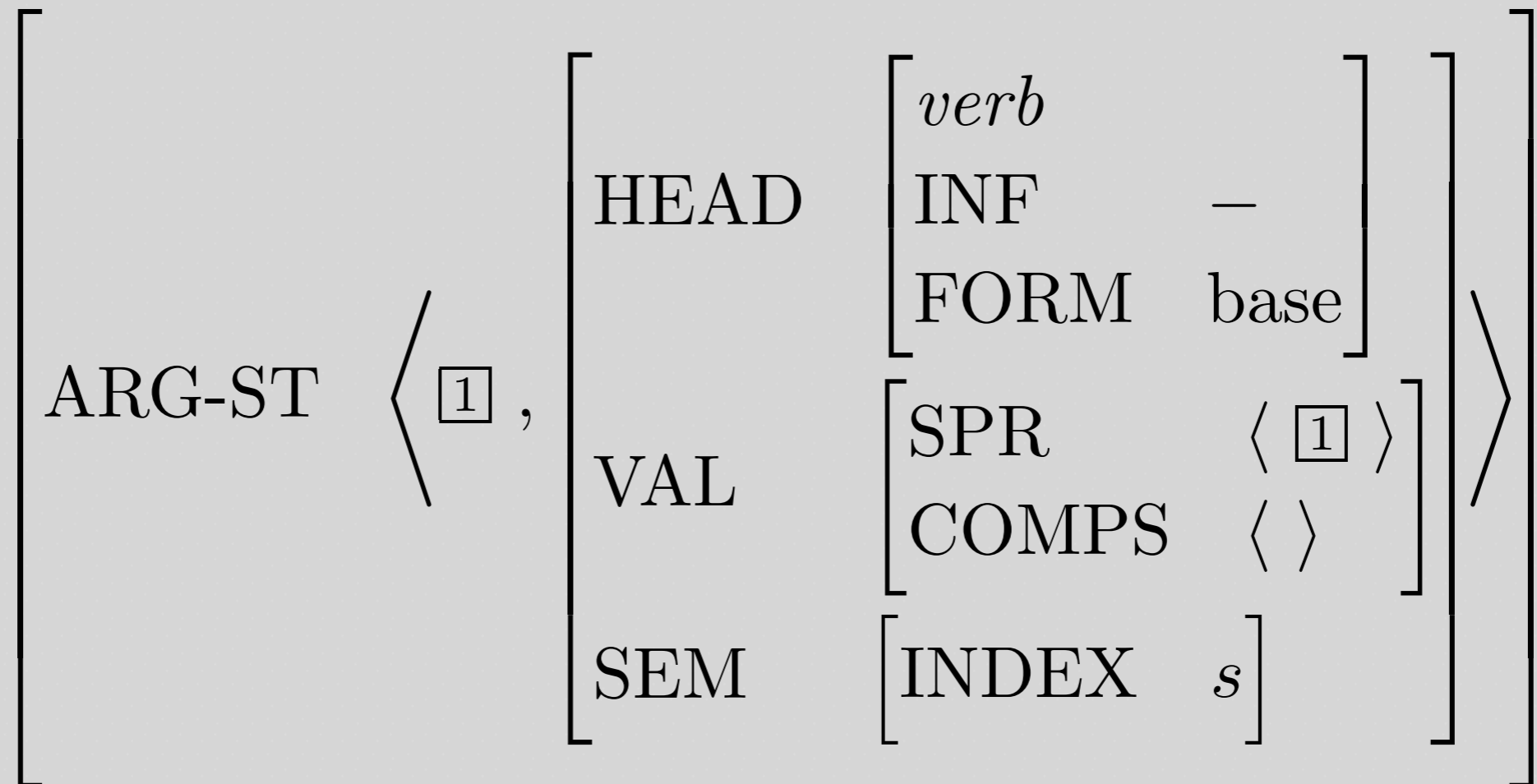


The Syntax of Infinitival *to*

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

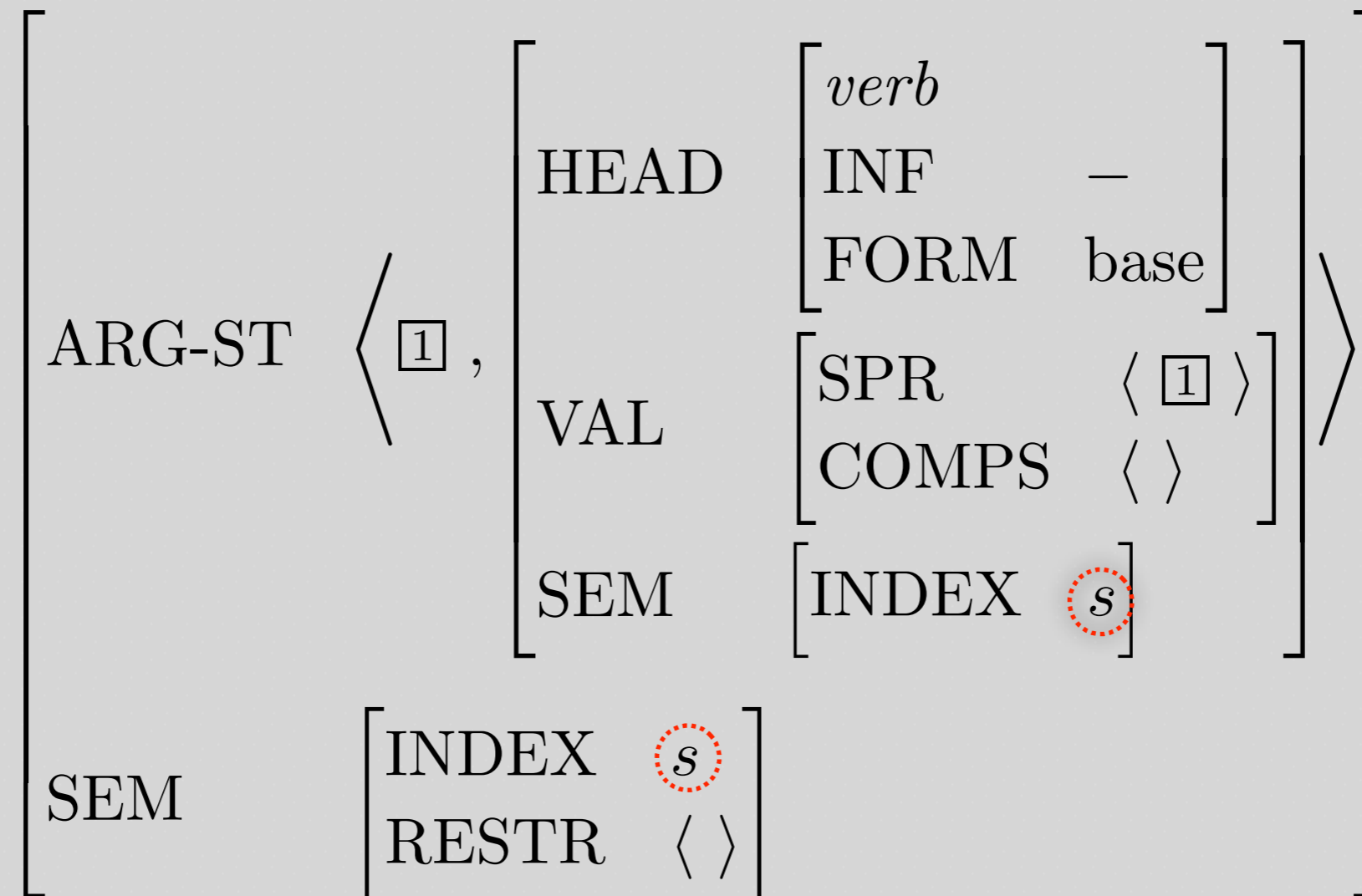
- This makes it a verb, because AUX is declared on *verb*
- [INF +] uniquely identifies the infinitival *to*
- Verbs select complements with different combinations of FORM and INF values, e.g.
 - complements of *condescend* are [FORM base] and [INF +]
 - complements of *should* are [FORM base] and [INF –]
 - 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*.

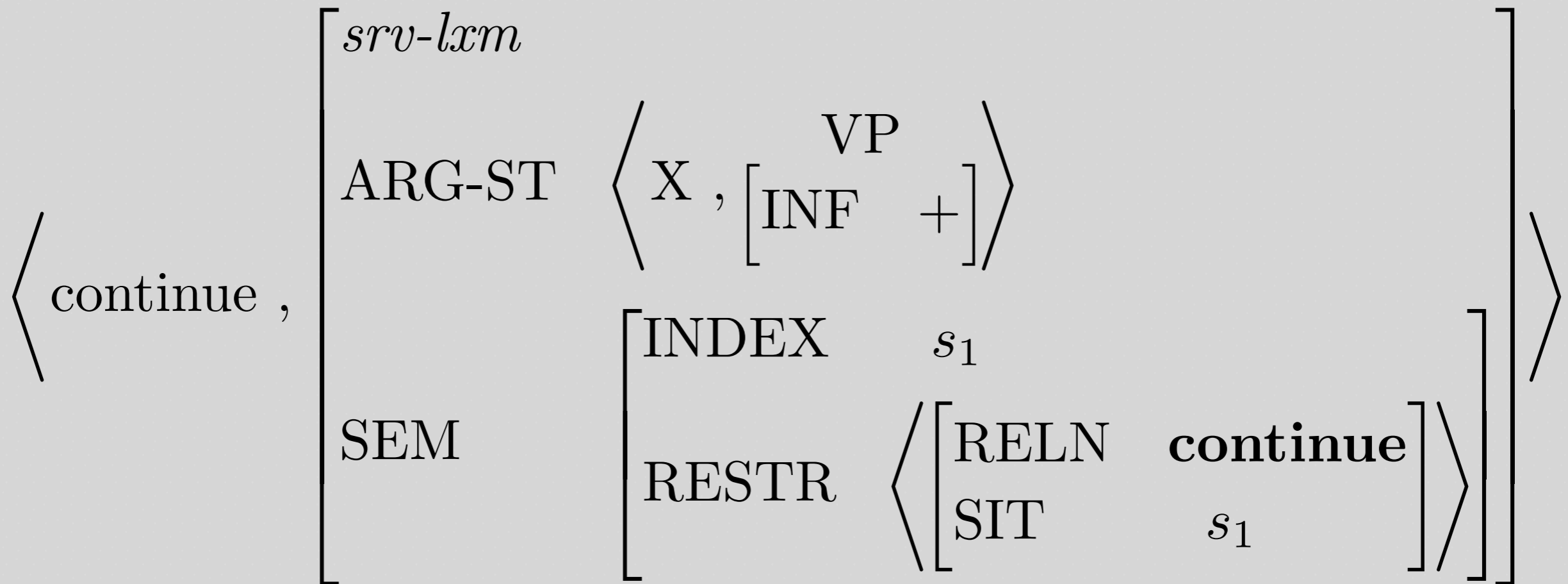
A New Type, for Verbs like *continue*

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*

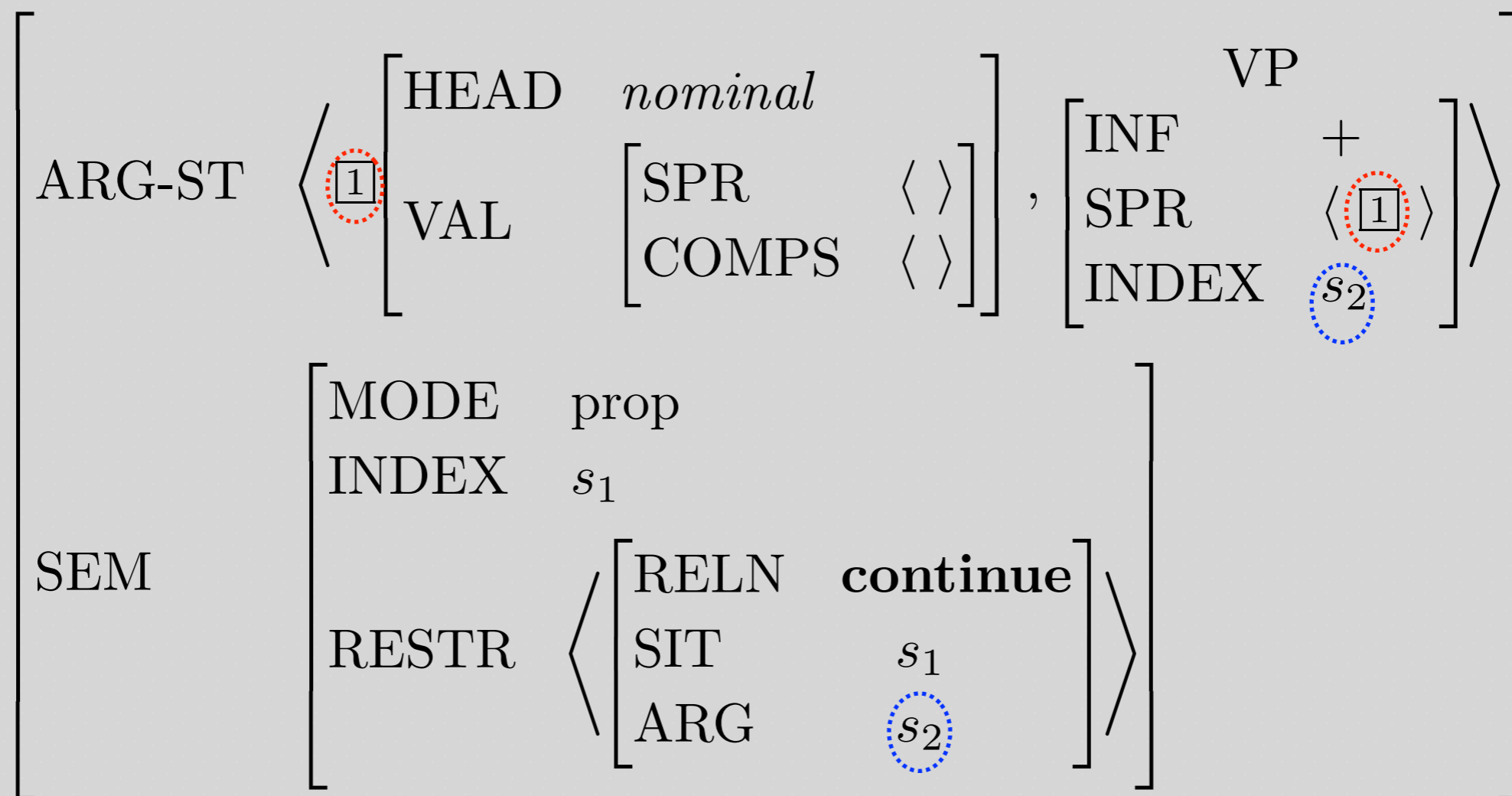


Entry for *continue*, with Inherited Information

<i>srv-lxm</i>			
SYN	HEAD	$\left[\begin{array}{l} \text{verb} \\ \text{PRED} \quad - \\ \text{INF} \quad - \\ \text{AGR} \quad \boxed{2} \end{array} \right]$	
	VAL	$\left[\text{SPR} \quad \langle [\text{AGR} \quad \boxed{2}] \rangle \right]$	
$\langle \text{continue} ,$	ARG-ST	$\langle \boxed{1} \left[\begin{array}{l} \text{HEAD} \quad \textit{nominal} \\ \text{VAL} \quad \left[\begin{array}{l} \text{SPR} \quad \langle \rangle \\ \text{COMPS} \quad \langle \rangle \end{array} \right] \end{array} \right] ,$	$\left[\begin{array}{l} \text{VP} \\ \text{INF} \quad + \\ \text{SPR} \quad \langle \boxed{1} \rangle \\ \text{INDEX} \quad s_2 \end{array} \right]$
	SEM	$\left[\begin{array}{l} \text{MODE} \quad \textit{prop} \\ \text{INDEX} \quad s_1 \\ \text{RESTR} \quad \left\langle \left[\begin{array}{l} \text{RELN} \quad \mathbf{continue} \\ \text{SIT} \quad s_1 \\ \text{ARG} \quad s_2 \end{array} \right] \right\rangle \end{array} \right]$	

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.



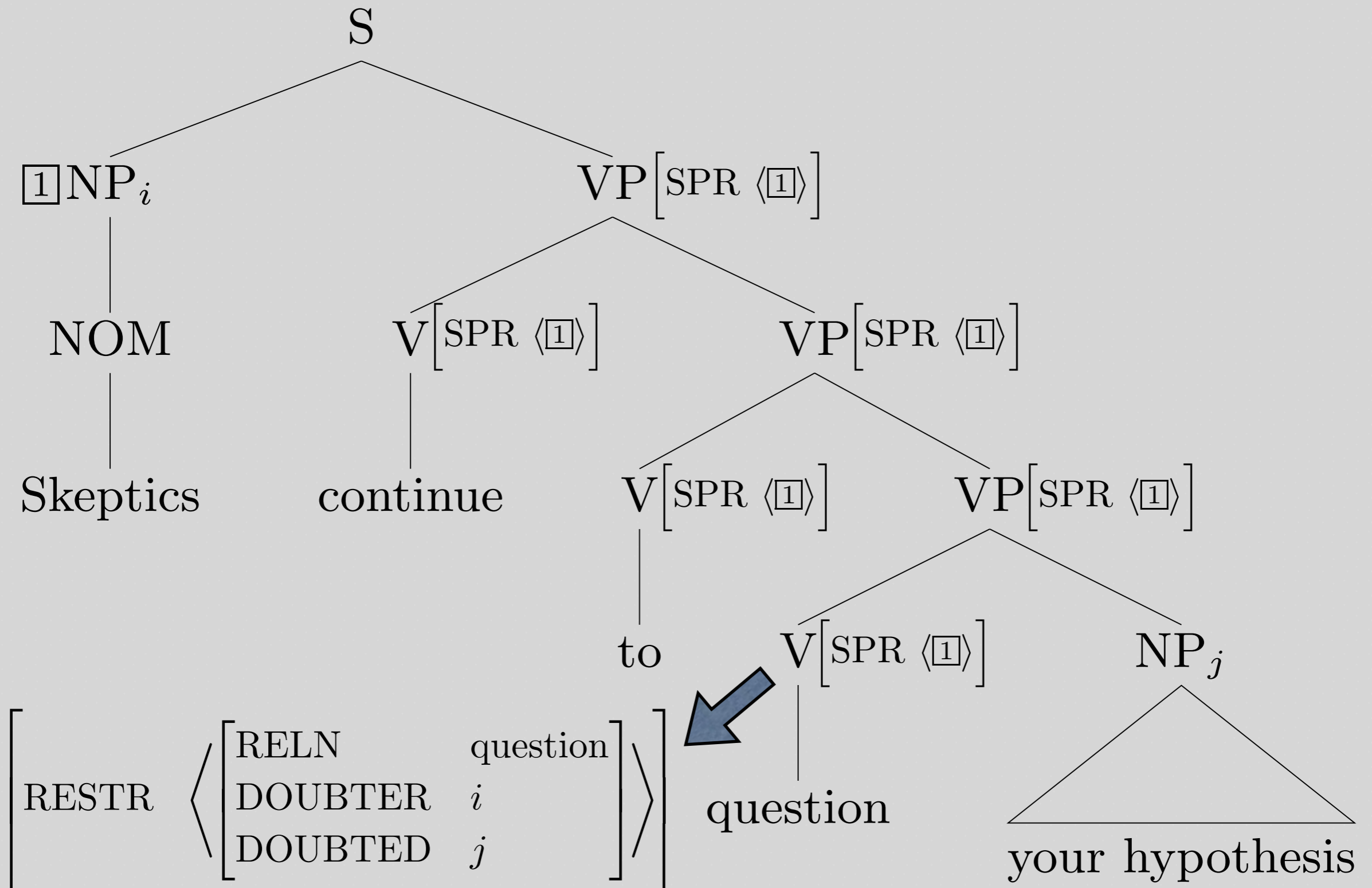
Hence, constraints on the subjects of SRVs are imposed by their complements

- 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:

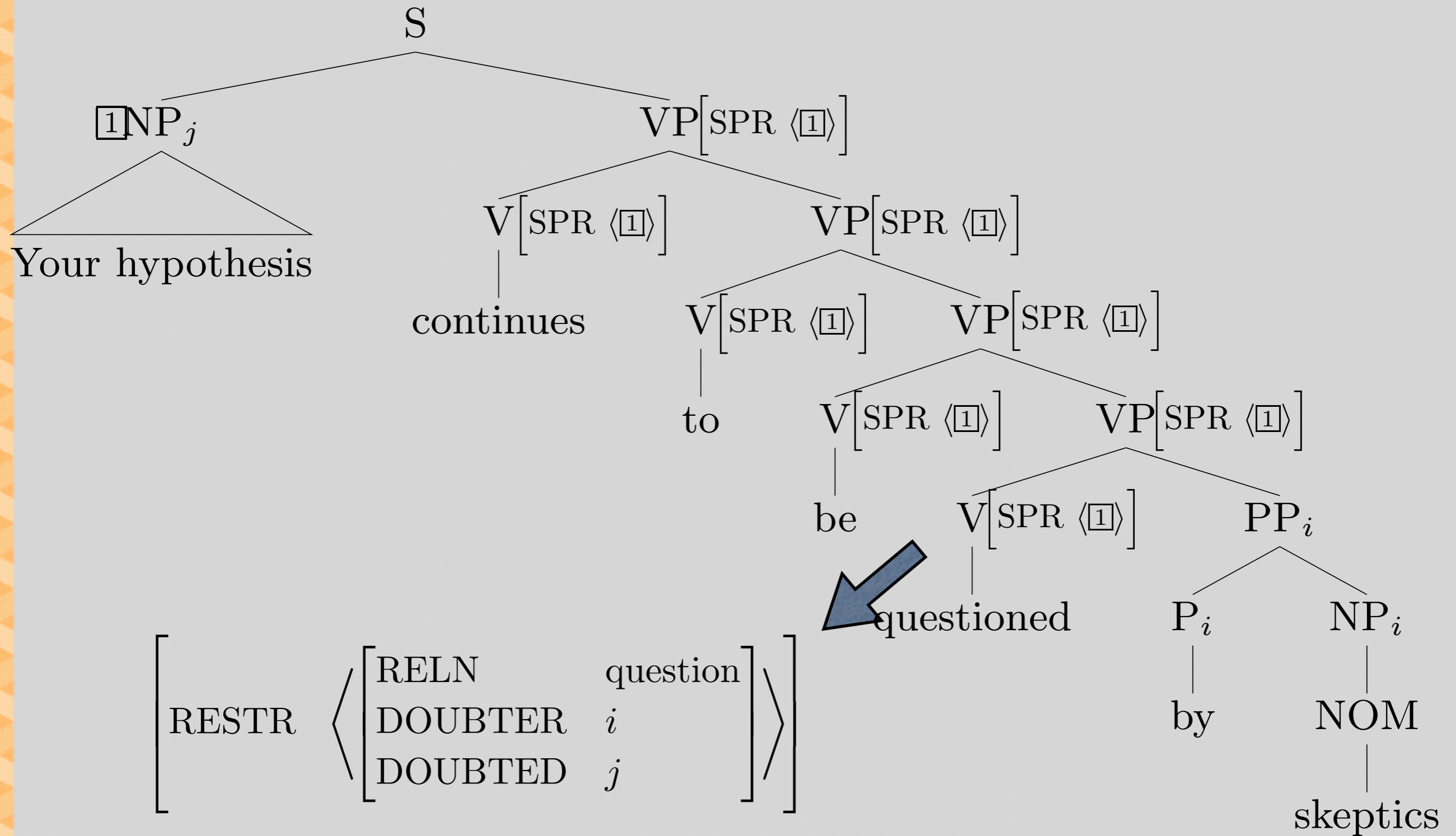
Skeptics continue to question your hypothesis ~

Your hypothesis continues to be questioned by skeptics

Continue with active complement



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

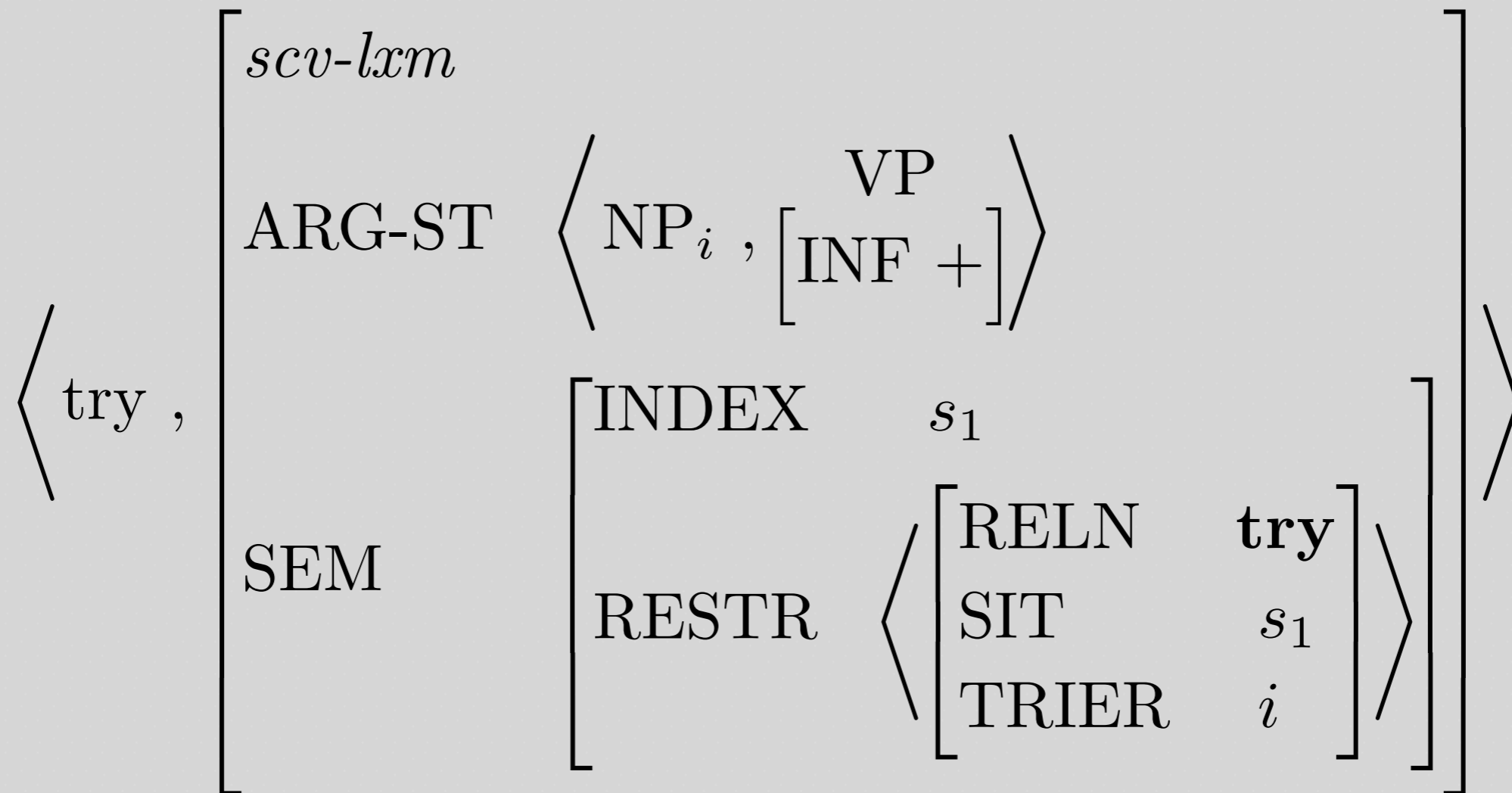
A New Type

Subject-Control Verb Lexeme (scv-lxm):

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

- 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 (NP_i) plays a semantic role with respect to the verb, namely the “TRIER”

Entry for *try*, with Inherited Information

	<i>scv-lxm</i>	
SYN	HEAD	$\begin{bmatrix} \textit{verb} \\ \text{PRED} & - \\ \text{INF} & - \\ \text{AGR} & \boxed{1} \end{bmatrix}$
	VAL	$\left[\text{SPR} \left\langle \left[\text{AGR} \boxed{1} \right] \right\rangle \right]$
ARG-ST		VP
	$\left\langle \text{NP}_i, \begin{bmatrix} \text{INF} & + \\ \text{SPR} & \langle \text{NP}_i \rangle \\ \text{SEM} & \left[\text{INDEX} \quad s_2 \right] \end{bmatrix} \right\rangle$	
SEM	INDEX	s_1
	MODE	prop
	RESTR	$\left\langle \begin{bmatrix} \text{RELN} & \textit{try} \\ \text{SIT} & s_1 \\ \text{TRIER} & i \\ \text{ARG} & s_2 \end{bmatrix} \right\rangle$

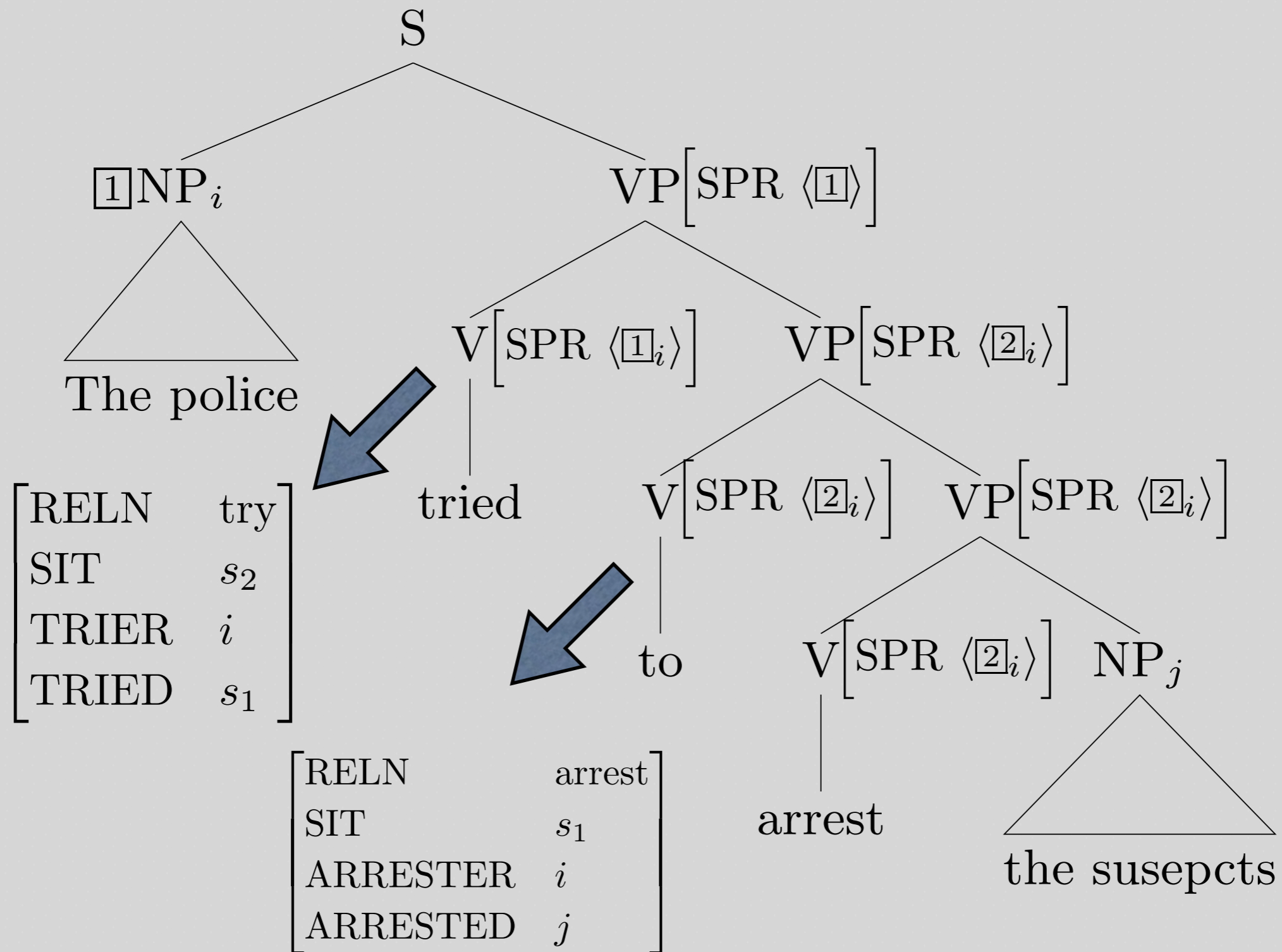
Things to Note:

- 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*

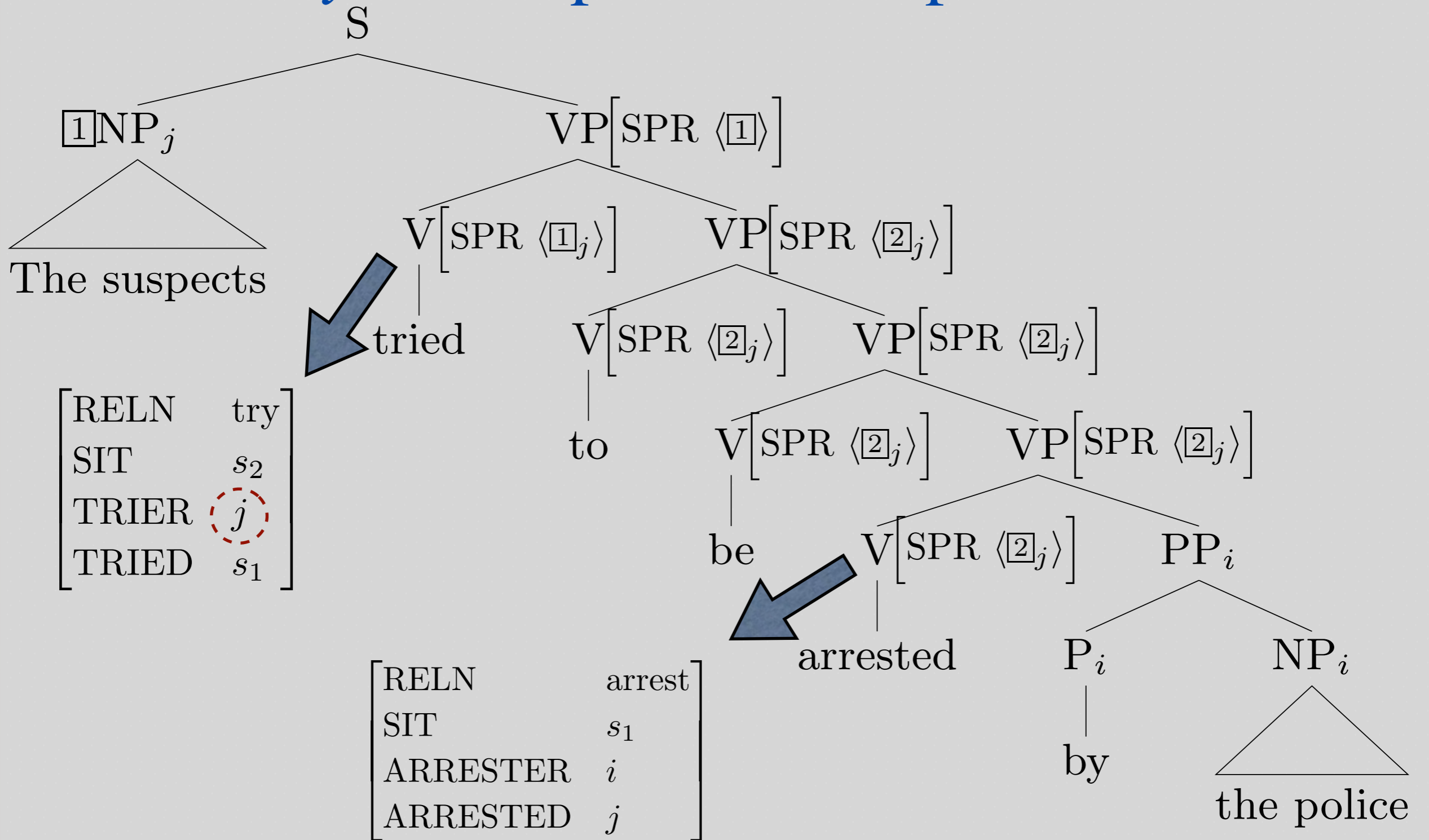
Questions

- 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?

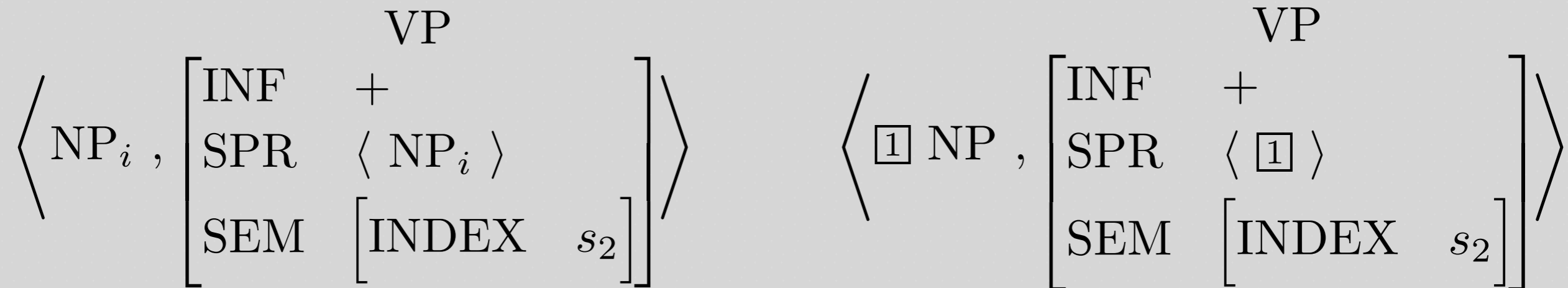
Try with an active complement



Try with a passive complement



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



CONTROL

RAISING

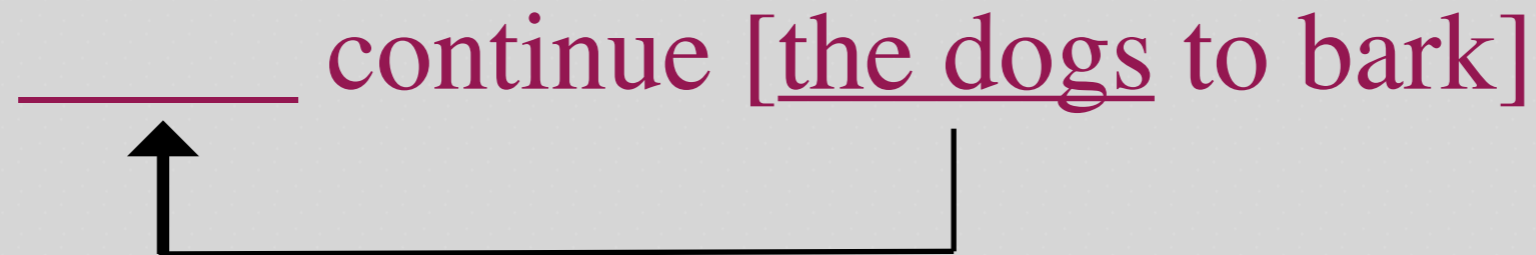
Which is which?

Why?

Raising & Control in Transformational Grammar

- Raising

_____ continue [the dogs to bark]



- Control

[the dogs]_i try [NP_i 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)

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

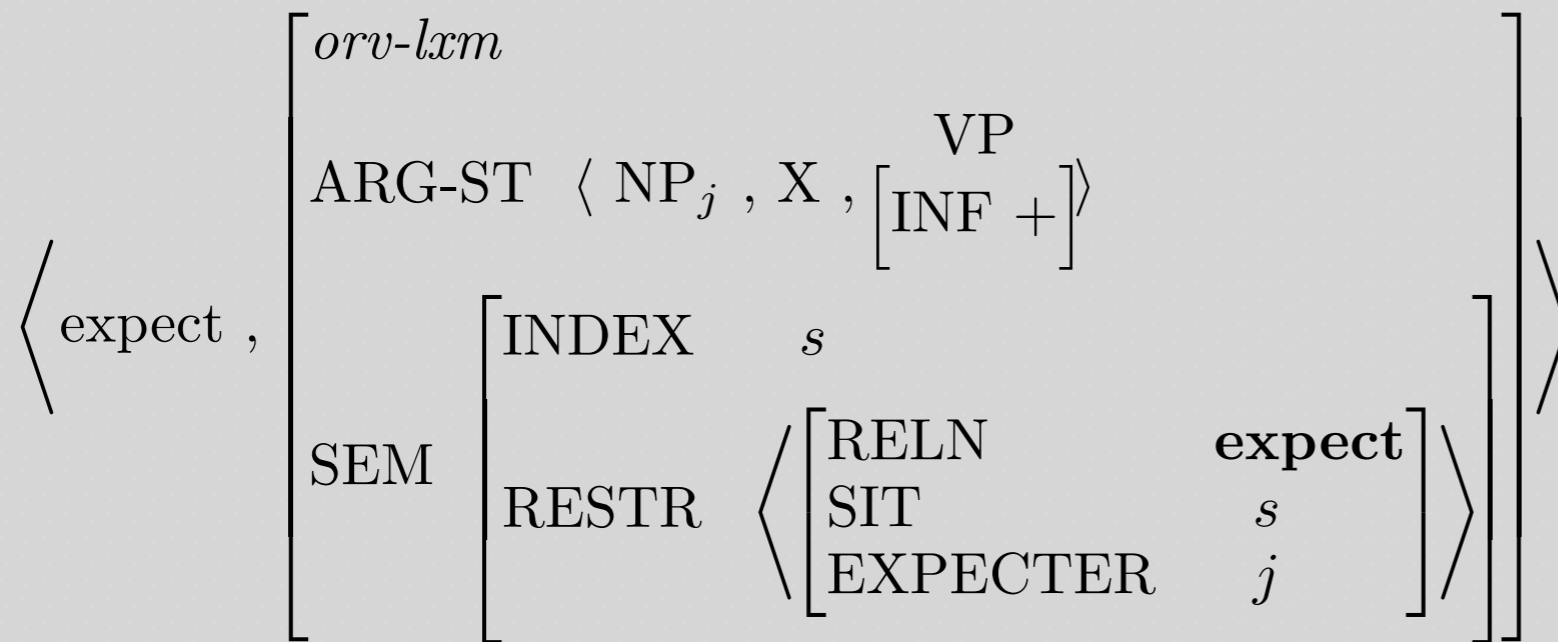
- The formal distinction is again between tagging and coindexing

Object-Control Verb Lexeme (ocv-lxm)

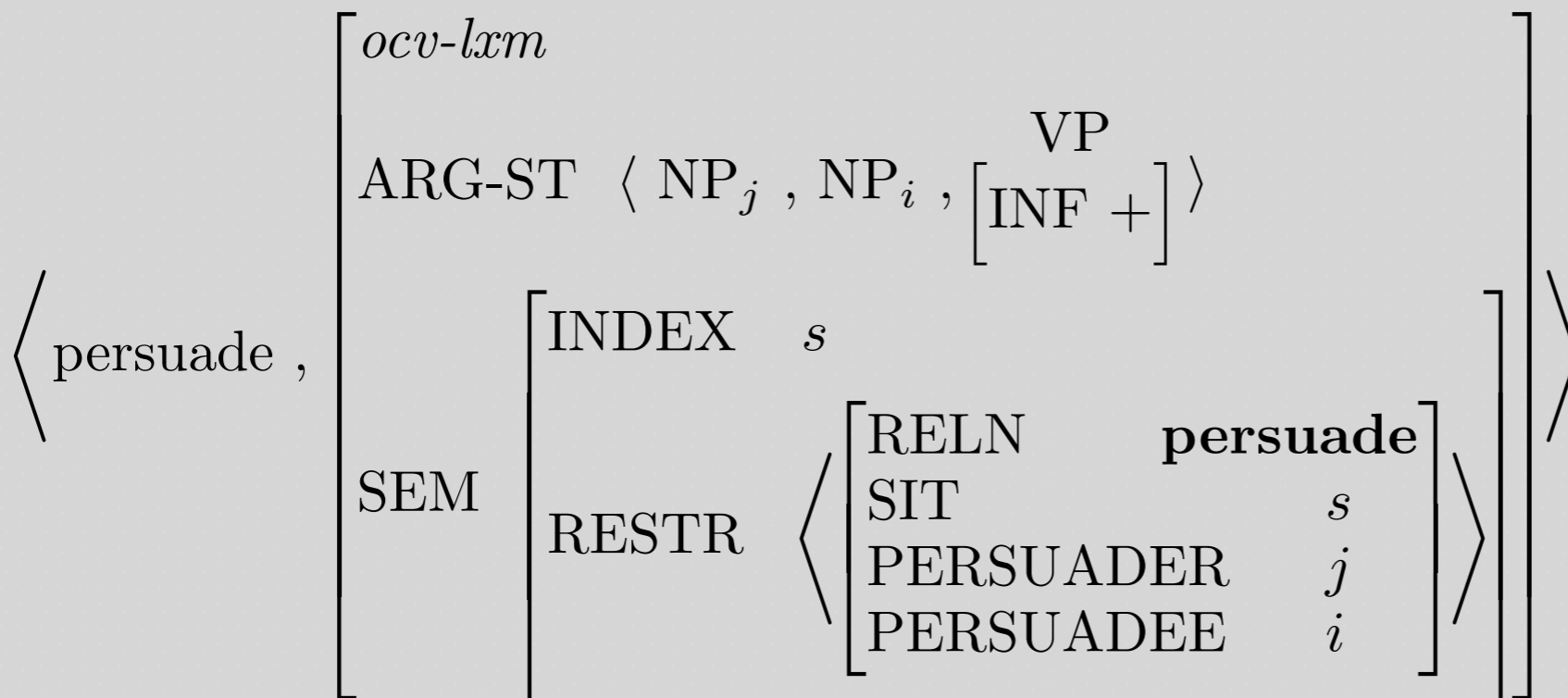
$$\left[\begin{array}{l} \text{ARG-ST} \left\langle \text{NP}, \text{NP}_i, \left[\begin{array}{l} \text{SPR} \quad \langle \text{NP}_i \rangle \\ \text{COMPS} \quad \langle \rangle \\ \text{INDEX} \quad s_2 \end{array} \right] \right\rangle \\ \text{SEM} \quad \left[\text{RESTR} \left\langle [\text{ARG}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

- 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

Overview

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- (Subject) raising verbs
- (Subject) control verbs
- Raising/control in TG
- Object raising and object control
- Reading questions

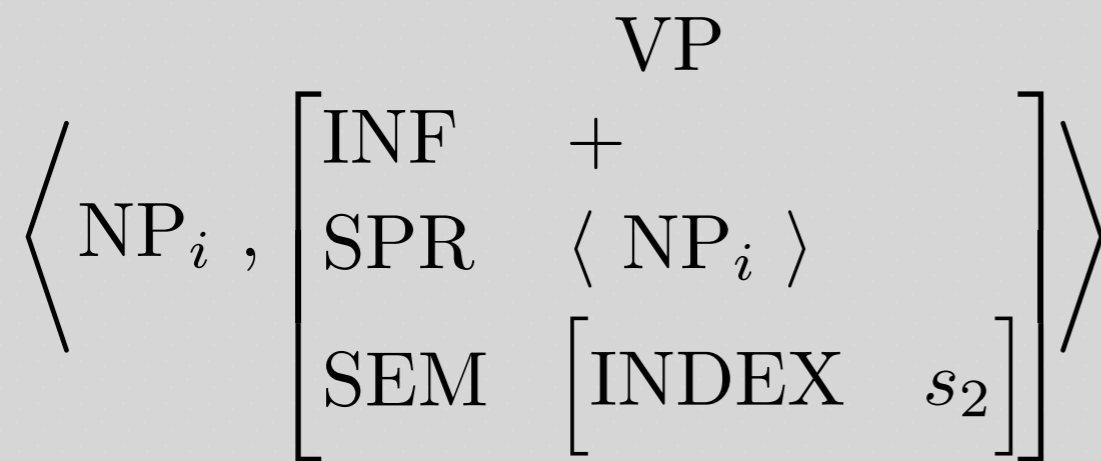
Reading Questions

- Why is INF a HEAD feature?
- Is there any reason why we create a new feature called INF to handle infinitive?
Could we have created a lexical rule that takes verbs FORM base and transform them into FORM inf where the V "to" selects for verbs FORM inf?

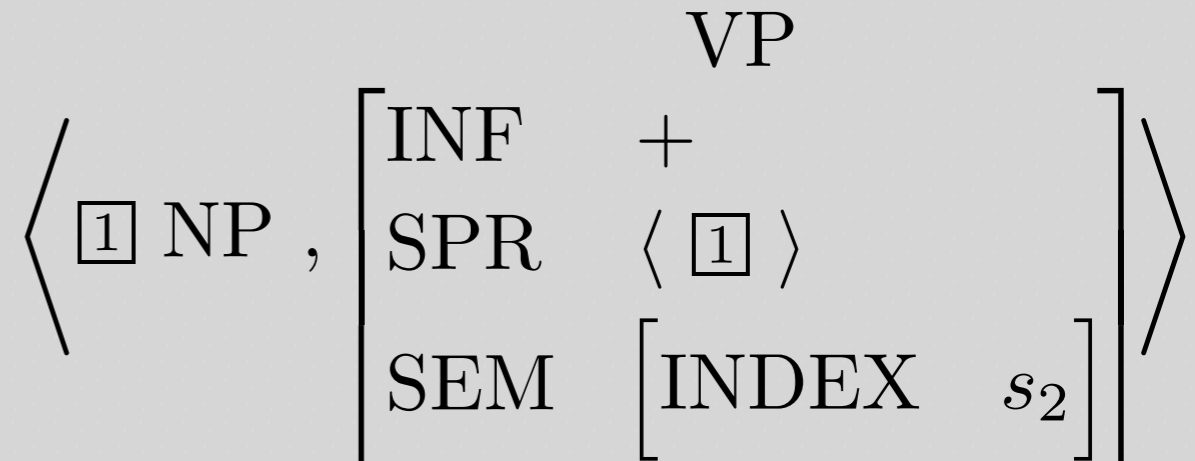
Reading Questions

- It seems to me that in the definitions of `srv-lxm` in (13) and `scv-lxm` in (22), we don't capture the fundamental difference between the two types, namely, that the specifier of `scv-lxm` plays some role in some predication in its `RESTR` list, while for `srv-lxm` the specifier does not play a role in the verb's `RESTR` list. Should this distinction be captured by the definition? Do we not express this distinction because our formal language for describing constraints doesn't have a mechanism for saying "This index has to be in some role, any role, in one of the predications in the `RESTR` list"?

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



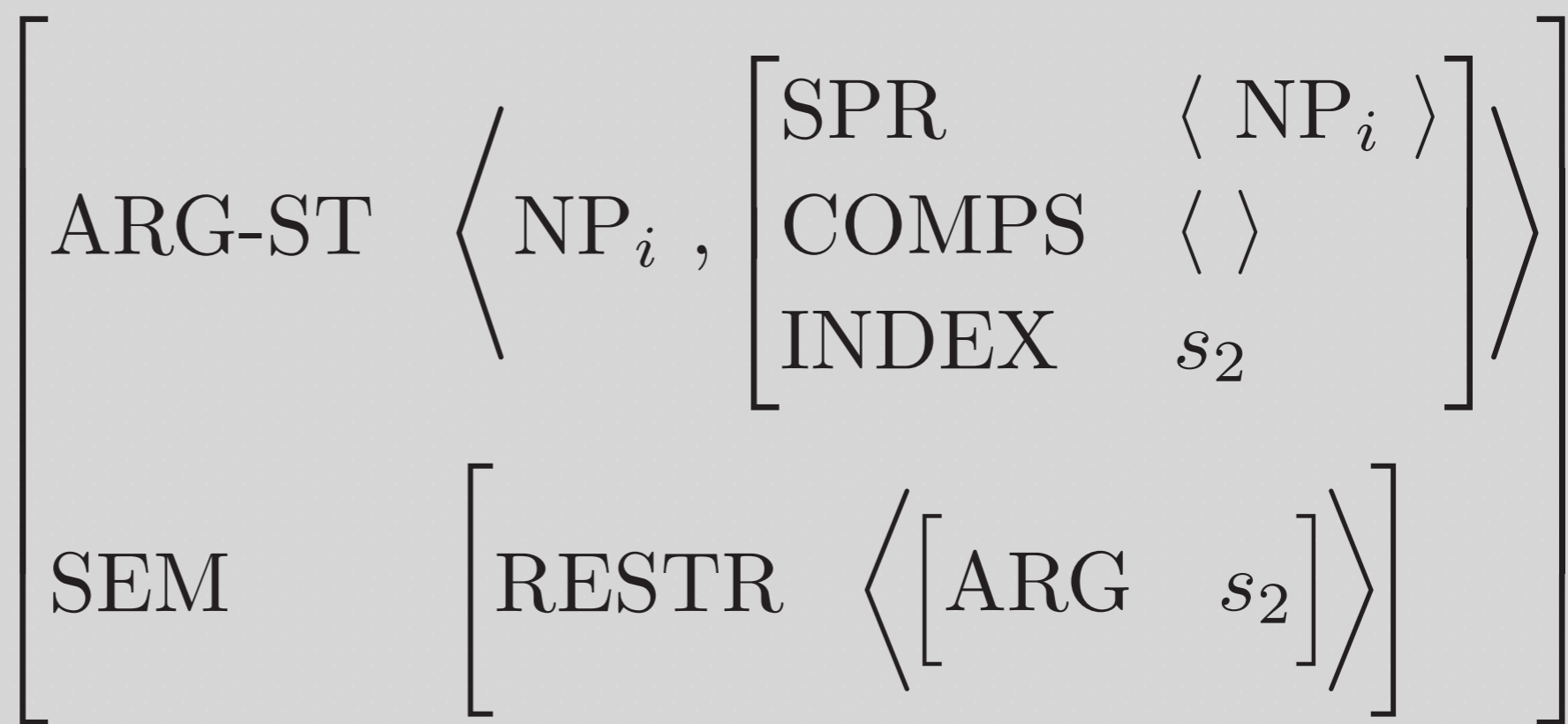
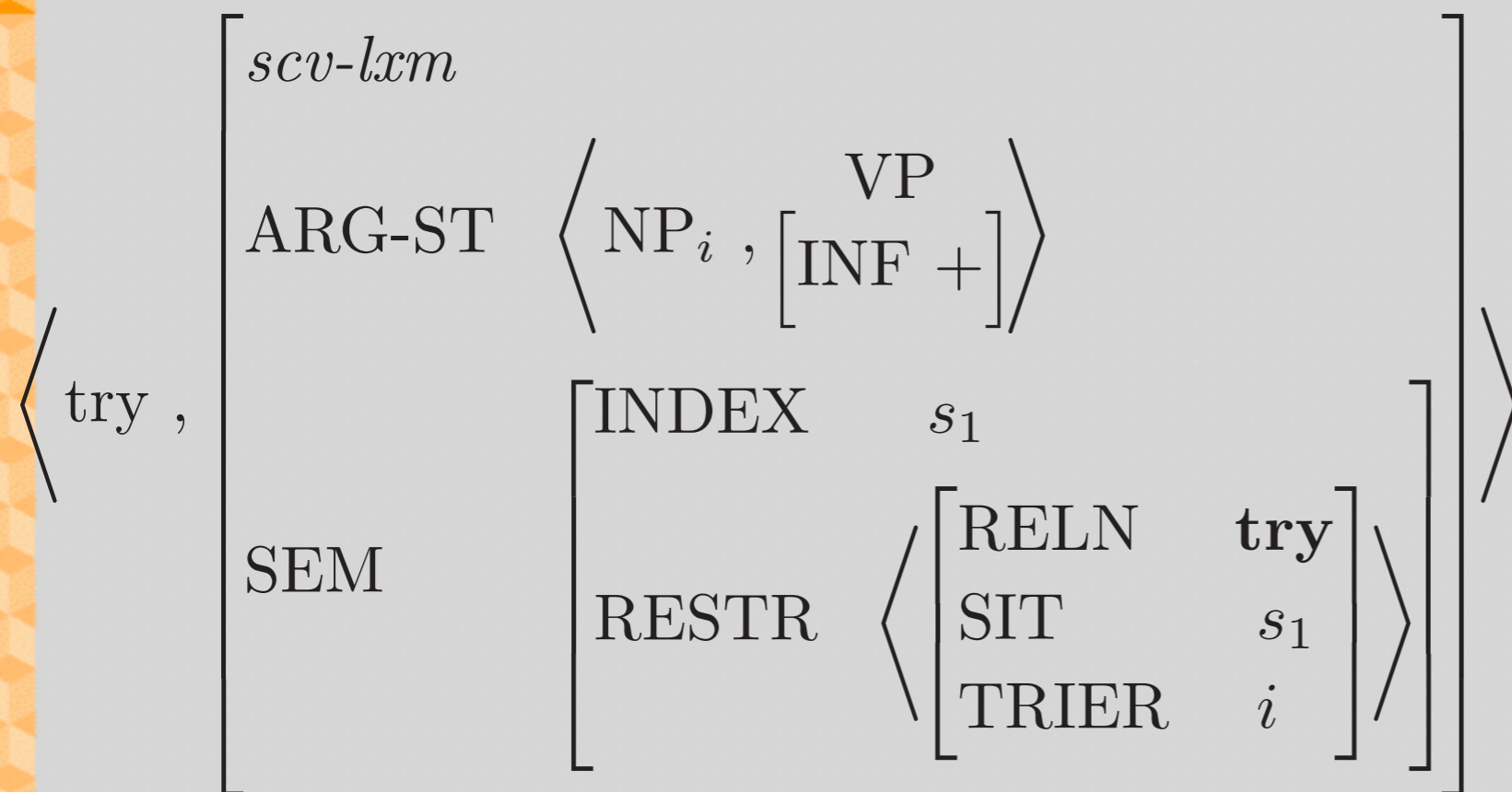
CONTROL



RAISING

Reading Questions

- Why doesn't the RESTR value in (22) on p. 372 have any more info? The lexical entry for try shows TRIER on the RESTR and we agreed that it was typical of verbs of this type, so why isn't it in the lexical type?
- Why didn't we include ARG in the RESTR predications in (38) on p. 378? They're there in (41) and (42) a few pages later.



Reading Questions

- Is the difference between identifying things with a tag vs an index that with an index you're only showing they have the same semantic meaning, whereas with a tag you're also passing along the valence, form, etc requirements?
- So we have subject raising verbs and subject control verbs, but is there a general word for the "normal" verbs like *throw*, *bite* and *chew*? Are they called transitive verbs or is there a different word for all the verbs that would derive from *tv-lxm*?

Reading Questions

- Is there anything to prevent the last item on the ARG-ST of subject or object raising verbs from being a NOM rather than a VP?
- Verbs like *try* and *continue* can also take VP complements that are gerund-y, as in, *I tried/continued typing this question using only my thumbs*. Do these instances of *try* and *continue* need totally different lexical entries from the raising & control ones? Are the *-ing* VPs in there actually 'nominal' and not really verby?

Reading Questions

- Can a given verb may belong to different subclasses of *verb-lxm*, depending on the sentence? Ex. *I expect compensation* vs *I expect you to be on time*.
- Is there a reason why the VP arguments are specified as [INF +] in the lexical entries for *expect* and *persuade* as opposed to in *orv-lxm* and *ocv-lxm*? Do we have a different lexical entry for the *expect* in *I expect that it will be done*?

Reading Questions

- What's the relationship between:
 - *I expected Leslie to be aggressive*
 - *I expected that Leslie (would) be aggressive*

Reading Questions

- Would we treat the *to* in a sentence like, *I am going to eat at 5* as an infinitival *to* or would we interpret *going to* as having the same function as a future marker like *will*? It seems to me that the meaning would be the same with either interpretation, but would *going* be like any other verb (*try, dare, continue, etc.*) that could precede *to*, or is this an odd case since the *to* can't be eliminated (like it can be in (2) and (3) on page 362).

Reading Questions

- Crosslinguistically, is there any correlation between the meaning of a verb/adjective and whether its raising or controlling? Do verbs that mean things similar to *continue*, for example, in other languages, tend to be subject-raising?
- I guess we have reached the point where we can analyze sentences like *To be or not to be, that is the question*. Have we?

Reading Questions

- Are there other examples of raising verbs?