

Ling 566

Nov 8, 2006

Non-referential NPs, Expletives, and Extraposition

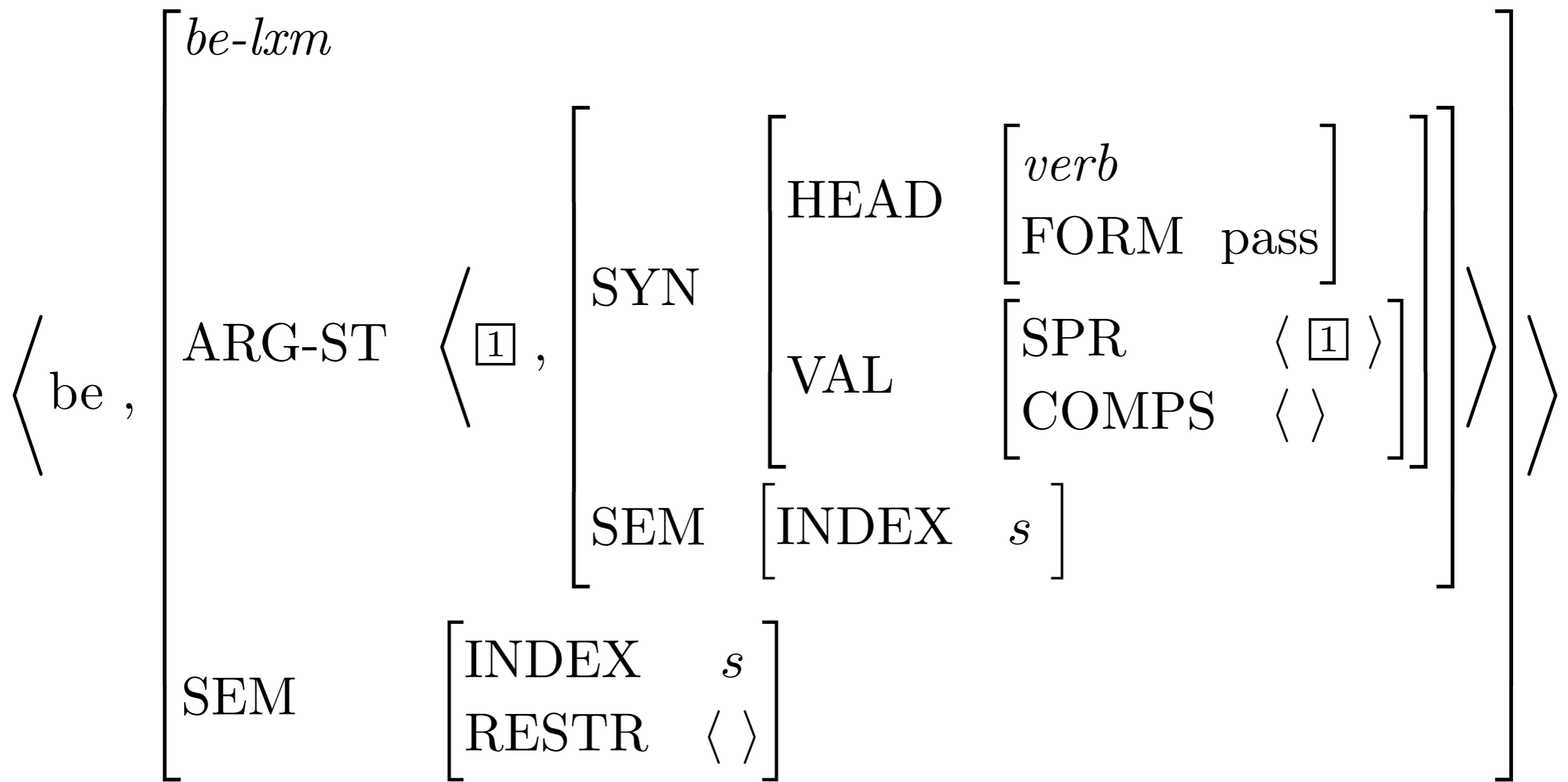
Overview

- Existentials
- Extraposition
- Idioms

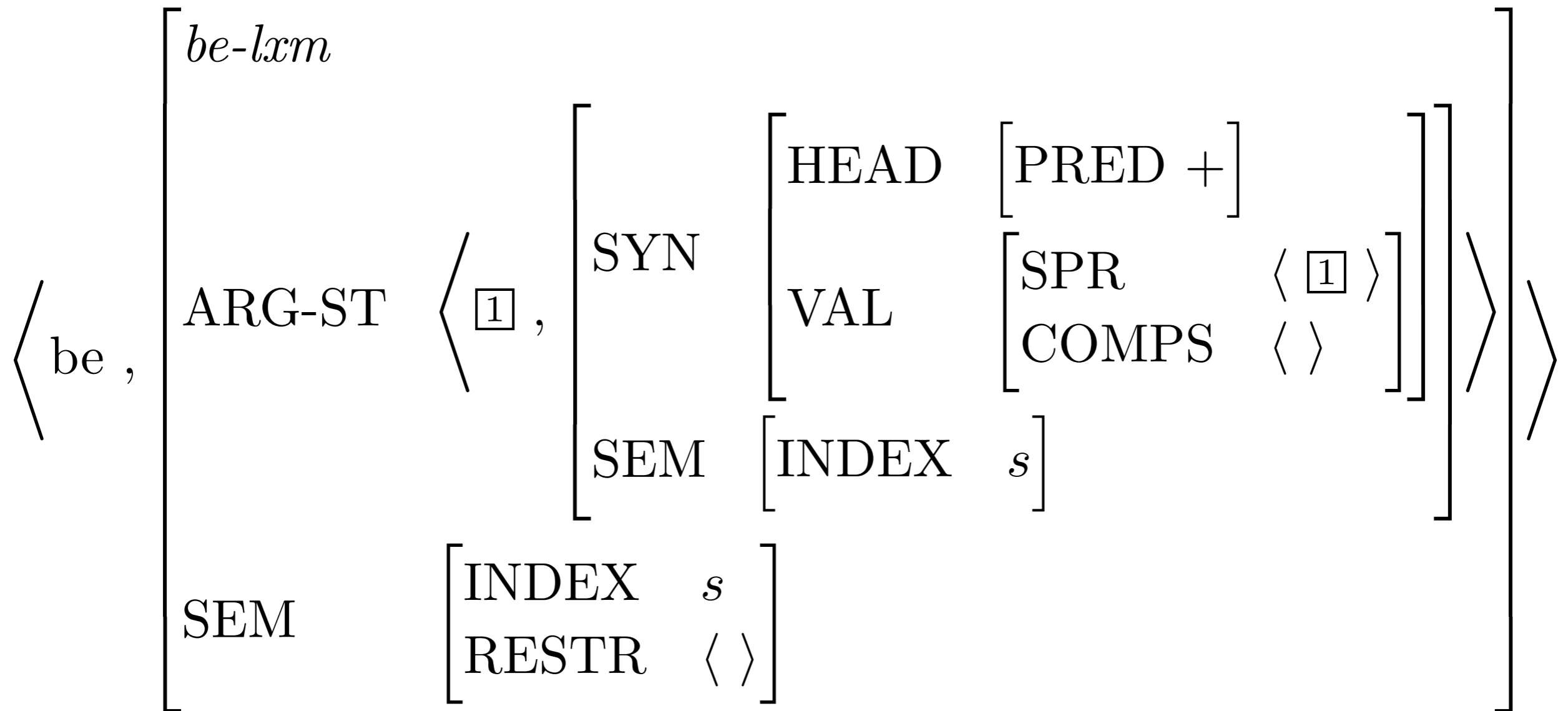
Where We Are, and Where We're Going

- Last time, we met the passive *be*.
- Passive *be* is just a special case -- that *be* generally introduces [PRED +] constituents (next slide).
- Today, we'll start with another *be*, which occurs in existential sentences starting with *there*, e.g. *There is a monster in Loch Ness*.
- Then we'll look at this use of *there*.
- Which will lead us to a more general examination of NPs that don't refer, including some uses of *it* and certain idiomatic uses of NPs.

Chapter 10 entry for *be*



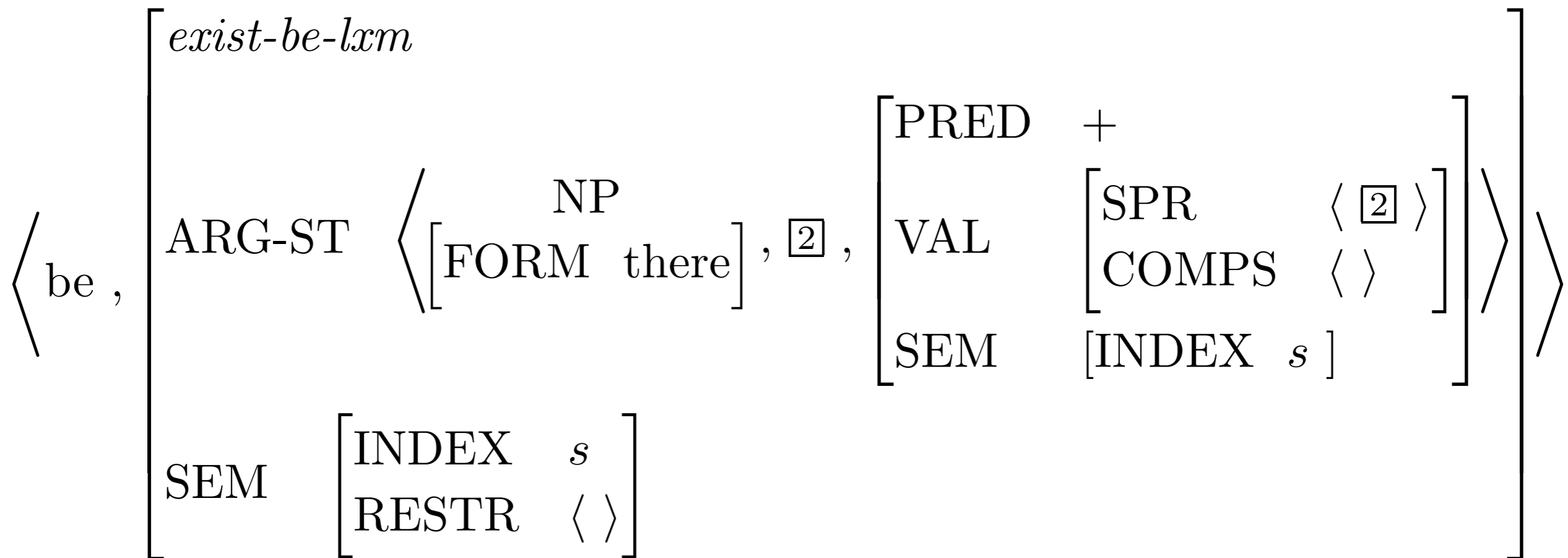
Copula (generalized)



Existentials

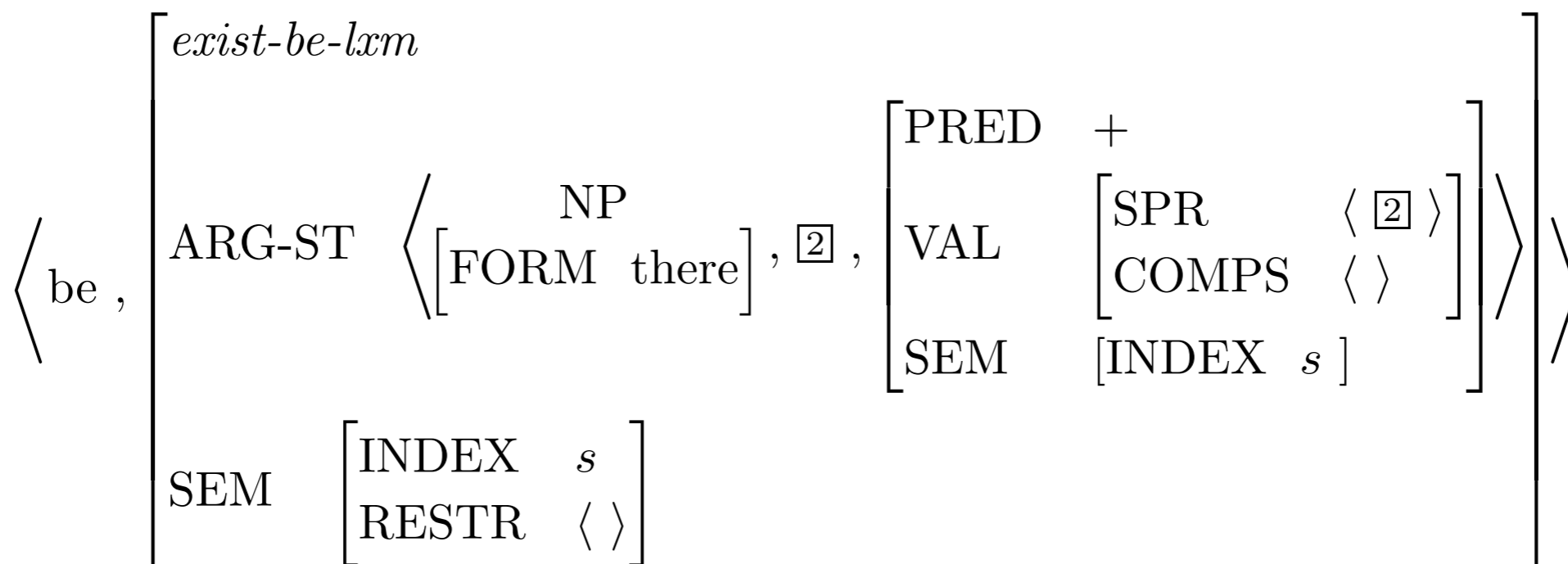
- The *be* in *There is a page missing* cannot be the same *be* that occurs in sentences like *Pat is tall* or *A cat was chased by a dog*. Why not?
- So we need a separate lexical entry for this *be*, stipulating:
 - Its SPR must be *there*
 - It takes two complements, the first an NP and the second an AP, PP, or (certain kind of) VP.
 - The semantics should capture the relation between, e.g. *There is a page missing* and *A page is missing*.

Lexical Entry for the Existential *be*



Questions About the Existential *be*

- What type of constituent is the third argument?
- Why is the third argument [PRED +]?
- Why is the second argument tagged as identical to the SPR of the third argument?
- What is the contribution of this *be* to the semantics of the sentences it occurs in?
- Can all [PRED +] predicates appear as the third argument in existentials?
- How do we rule out **There was a greyhound a good runner*?



The Entry for Existential *there*

\langle there ,	$\left[\begin{array}{l} \text{pron-lxm} \\ \text{SYN} \end{array} \right]$	$\left[\begin{array}{l} \text{HEAD} \left[\begin{array}{l} \text{FORM} \text{ there} \\ \text{AGR} \left[\text{PER} \text{ 3rd} \right] \end{array} \right] \end{array} \right]$	\rangle
	$\left[\begin{array}{l} \text{SEM} \\ \text{MODE none} \\ \text{INDEX none} \\ \text{RESTR} \langle \rangle \end{array} \right]$		

Questions About Existential *there*

- Why do we call it a pronoun?
- Why don't we give it a value for NUM?
- What does this entry claim is *there*'s contribution to the semantics of the sentences it appears in?
Is this a correct claim?

⟨	there ,	<i>pron-lxm</i>	[	HEAD	[	FORM	there]]	⟩
		AGR			[	PER	3rd]		
[	SEM	MODE	none	]	[	INDEX	none]]	⟩
		RESTR	⟨ ⟩]						

Other NPs that don't seem to refer

- *It sucks that the Giants lost the series.*
- *It is raining.*
- *Andy took **advantage** of the opportunity.*
- *Lou kicked **the bucket**.*

What we need to deal with examples like *It follows that you are wrong*

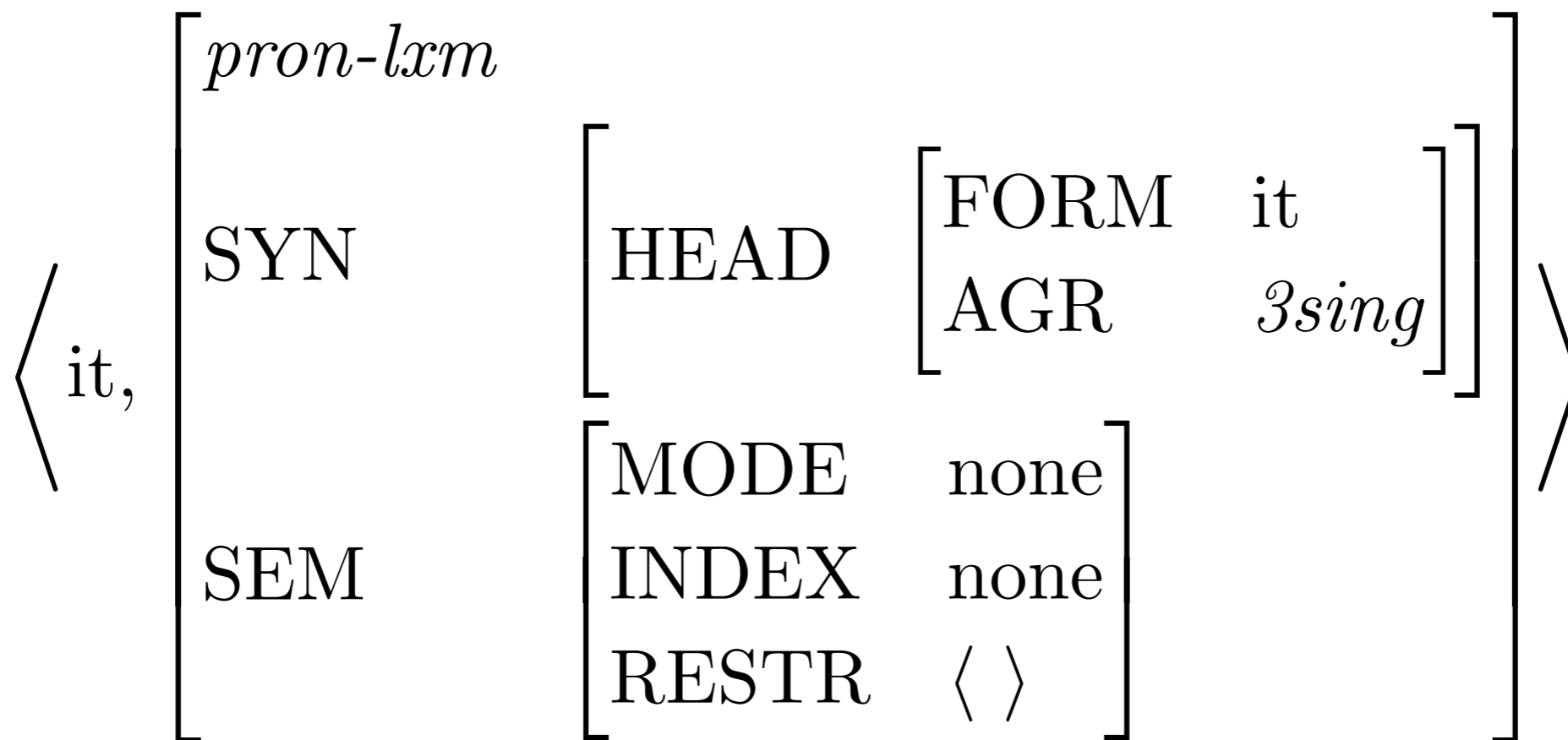
- A lexical entry for this dummy *it*
- An analysis of this use of *that*
- Entries for verbs that take clausal subjects
(as in *That you are wrong follows*)
- A rule to account for the relationship
between pairs like *That you are wrong
follows* and *It follows that you are wrong*

The Entry for Dummy *it*

\langle <i>it,</i> \rangle	<i>pron-lxm</i>		
	SYN	HEAD	$\left[\begin{array}{l} \text{FORM } it \\ \text{AGR } 3sing \end{array} \right]$
SEM	MODE	none	
	INDEX	none	
	RESTR	$\langle \rangle$	

Questions About Dummy *it*

- How does it differ from the entry for dummy *there*? Why do they differ in this way?
- Is this the only entry for *it*?



A New Type of Lexeme: Complementizers

comp-lxm :

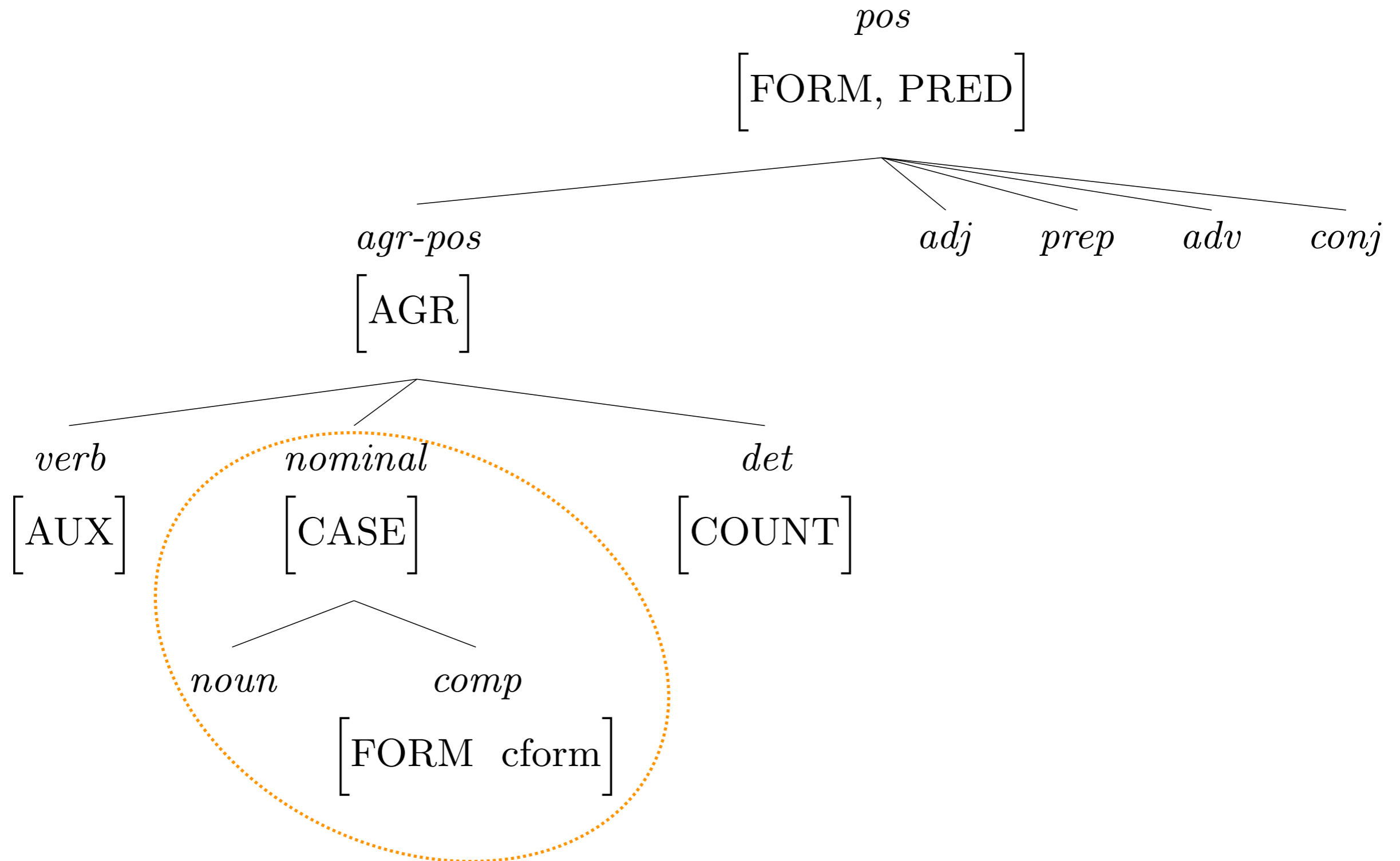
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INDEX	<i>s</i>										
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Questions About the Type *comp-lxm*

- Why does it stipulate values for both SPR and ARG-ST?
- Why is its INDEX value the same as its argument's?
- What is its semantic contribution?

$$\text{comp-lxm} : \left[\begin{array}{l} \text{SYN} \\ \text{ARG-ST} \\ \text{SEM} \end{array} \left[\begin{array}{l} \text{HEAD} \left[\begin{array}{l} \text{comp} \\ \text{AGR} \quad 3sing \end{array} \right] \\ \text{VAL} \left[\begin{array}{l} \text{SPR} \quad \langle \rangle \end{array} \right] \\ \text{INDEX} \quad s \\ \text{RESTR} \quad \langle \rangle \end{array} \right] \right]$$

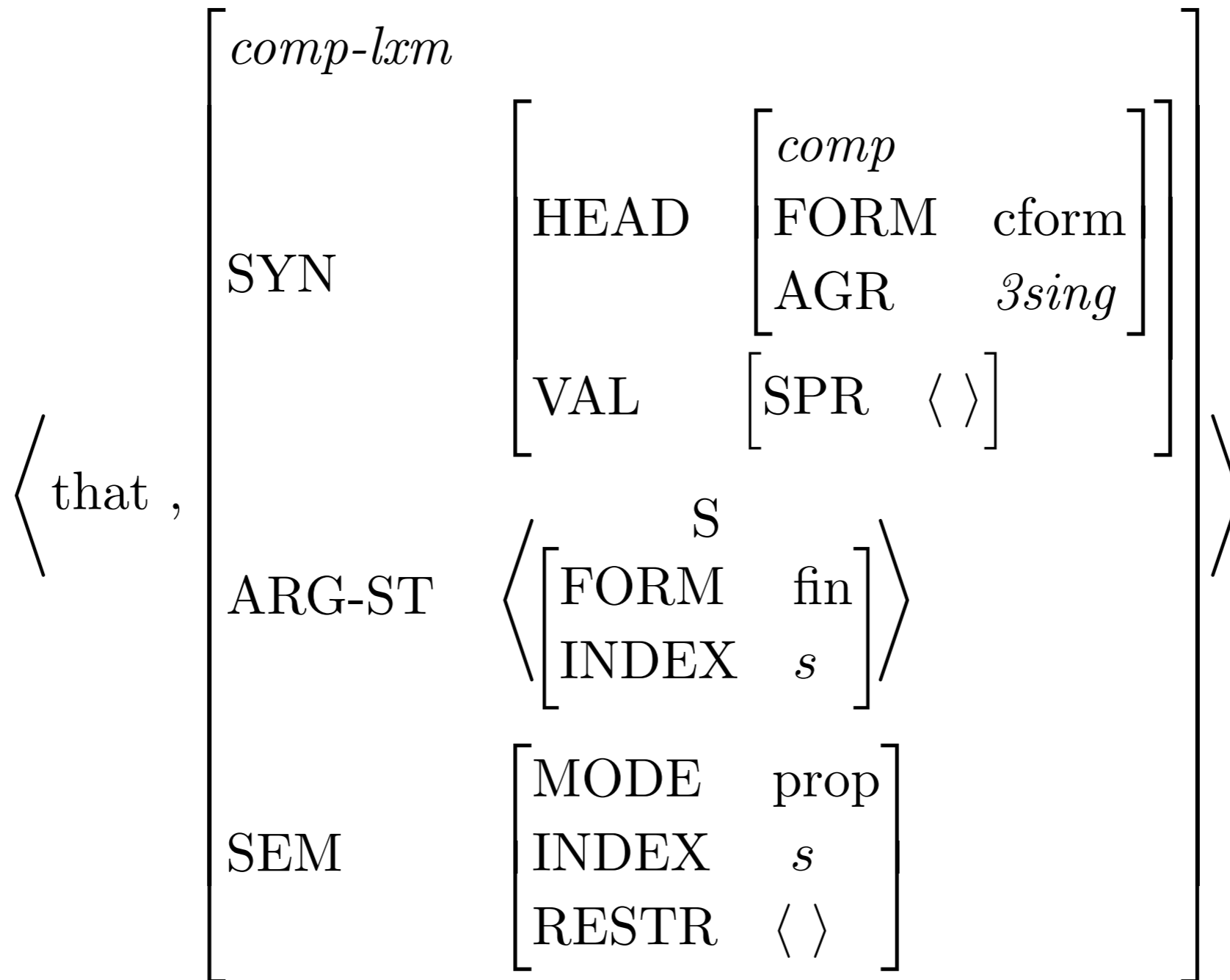
The Type *comp*



The Lexical Entry for Complementizer *that*

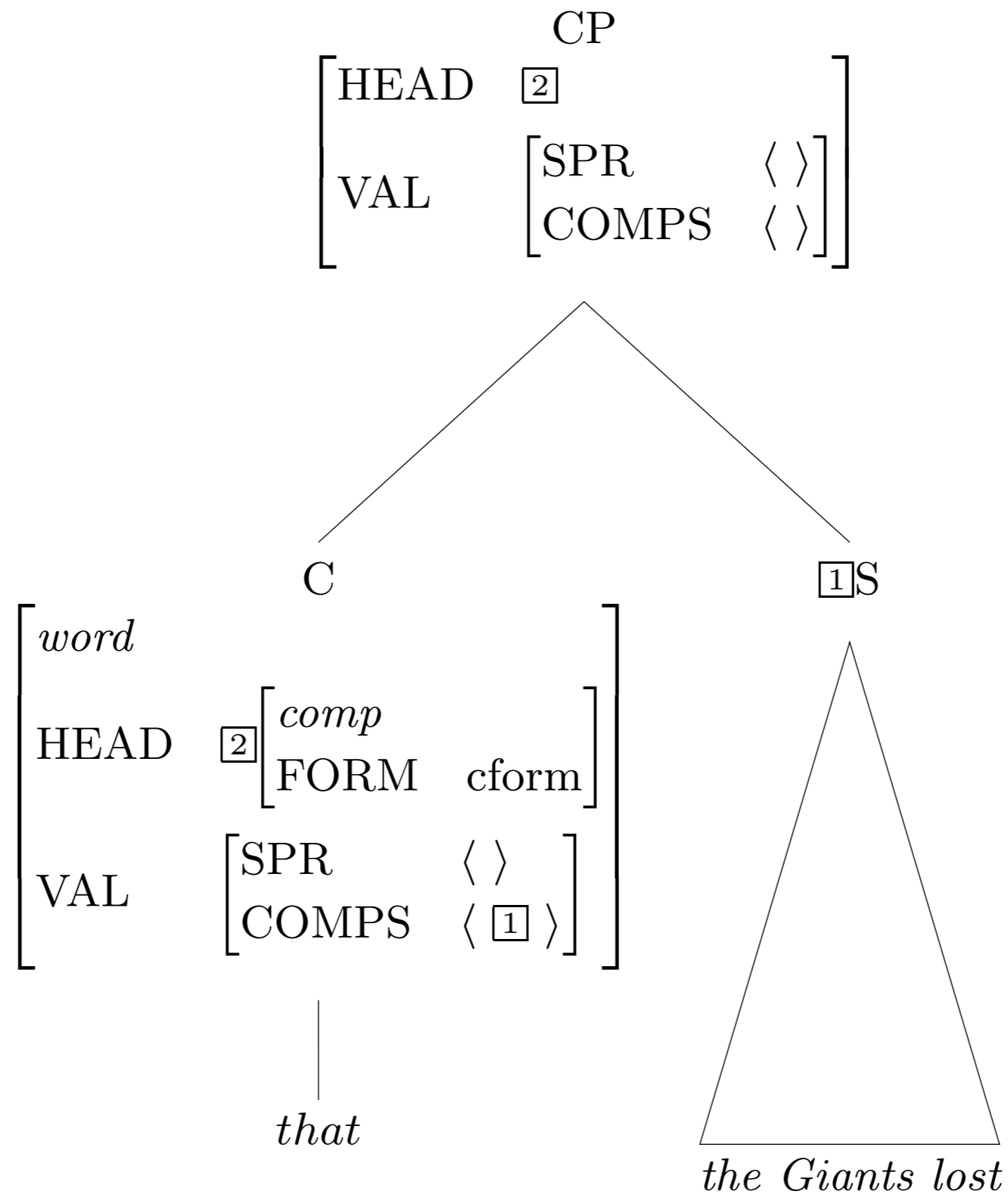
$$\left\langle \text{that} , \begin{bmatrix} \textit{comp-lxm} \\ \text{ARG-ST} \left\langle \begin{bmatrix} \text{FORM fin} \end{bmatrix} \right\rangle \\ \text{SEM} \left[\begin{bmatrix} \text{MODE prop} \end{bmatrix} \right] \end{bmatrix} \right\rangle$$

...and with inherited information filled in

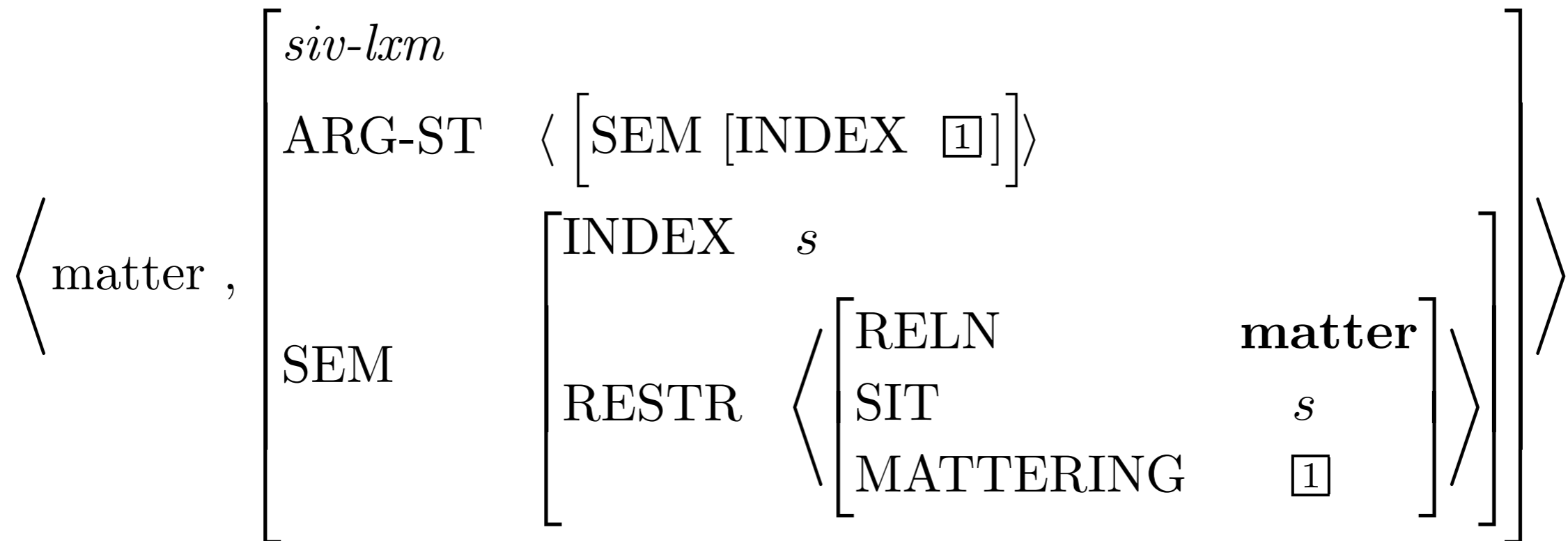


Question: Where did [FORM cform] come from?

Structure of a Complementizer Phrase



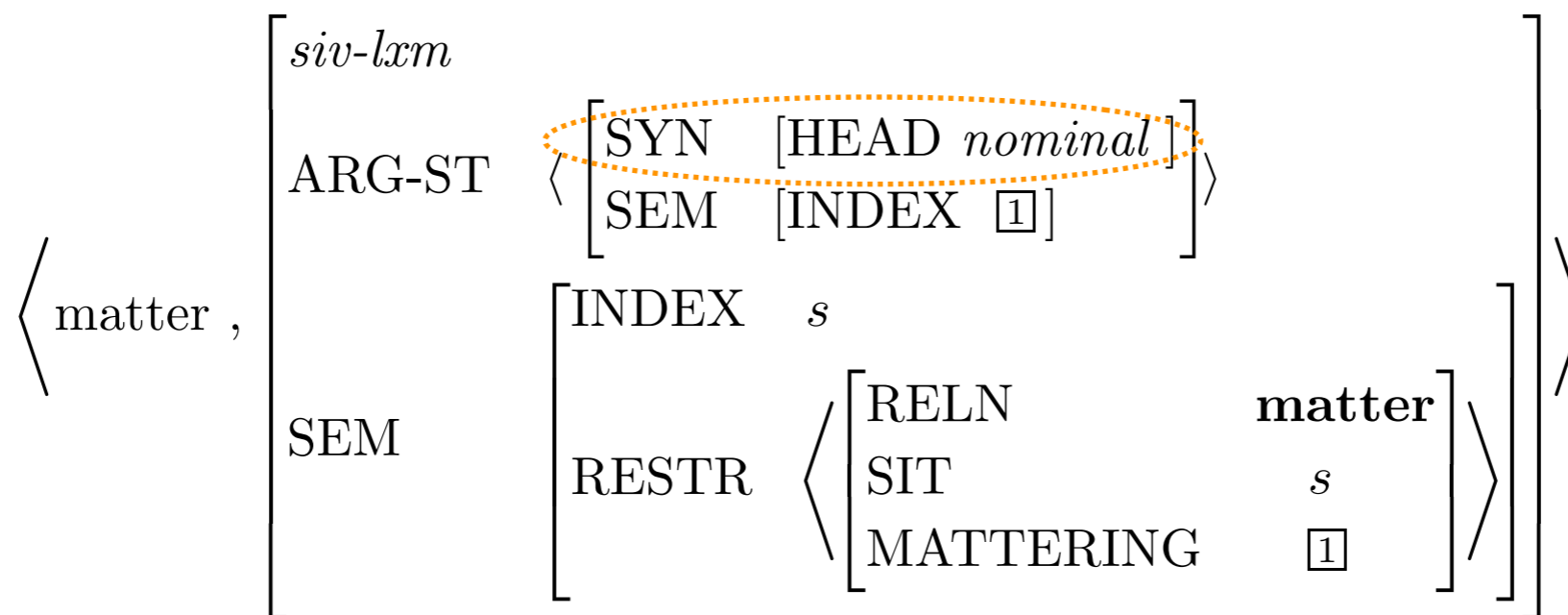
Sample Verb with a CP Subject



Note: the only constraint on the first argument is semantic

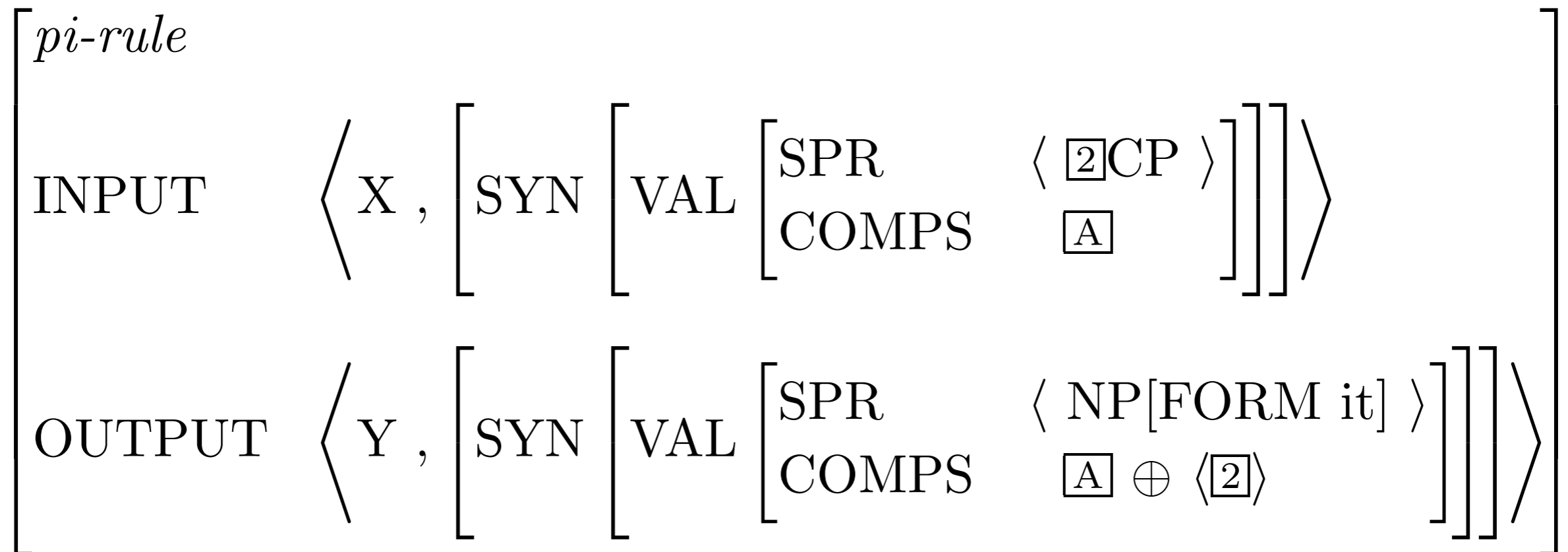
A Problem

- We constrained the subject of *matter* only semantically. However...
 - CP and S are semantically identical, but we get:
That Bush won matters vs. **Bush won matters*
 - Argument-marking PPs are semantically identical to their object NPs, but we get:
The election mattered vs. **Of the election mattered*
- So we need to add a syntactic constraint.



- S and PP subjects are generally impossible, so this constraint should probably be on *verb-lxm*.

The Extraposition Lexical Rule

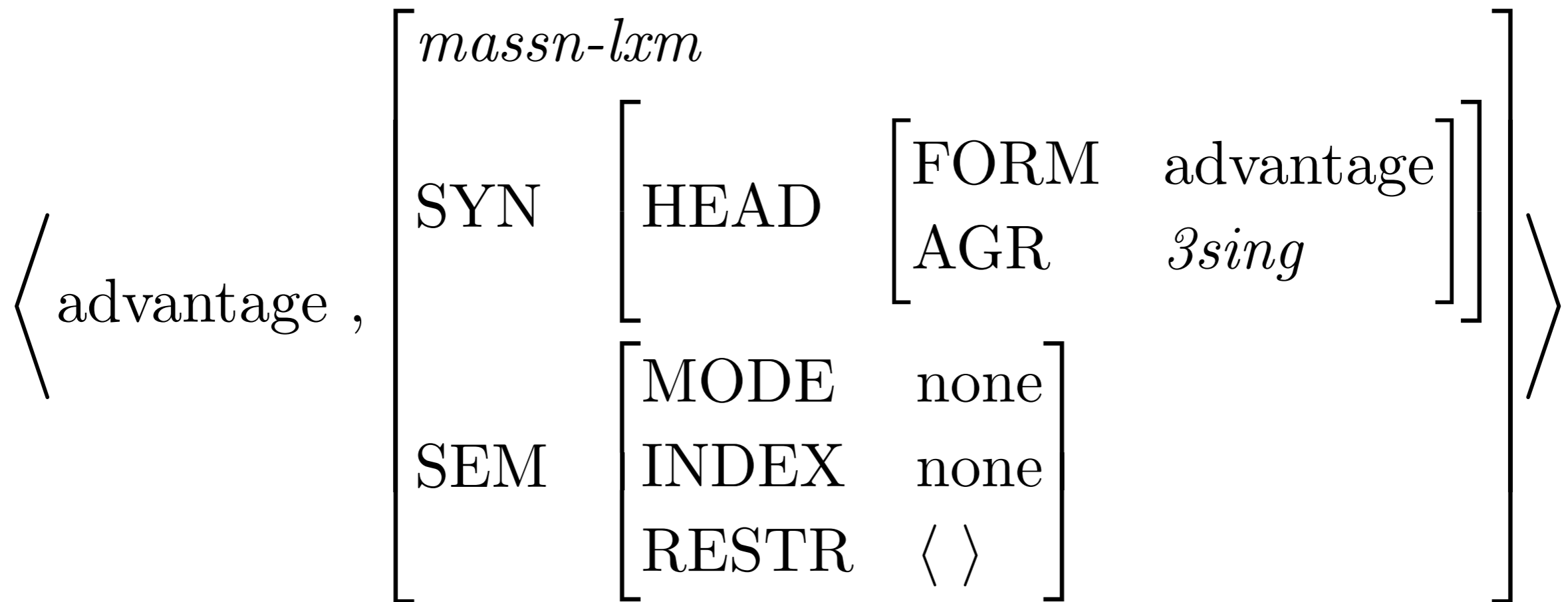


- Why is the type *pi-rule*?
- Why doesn't it say anything about the semantics?
- Why is the COMPS value \boxed{A} , not $\langle \ \ \rangle$?

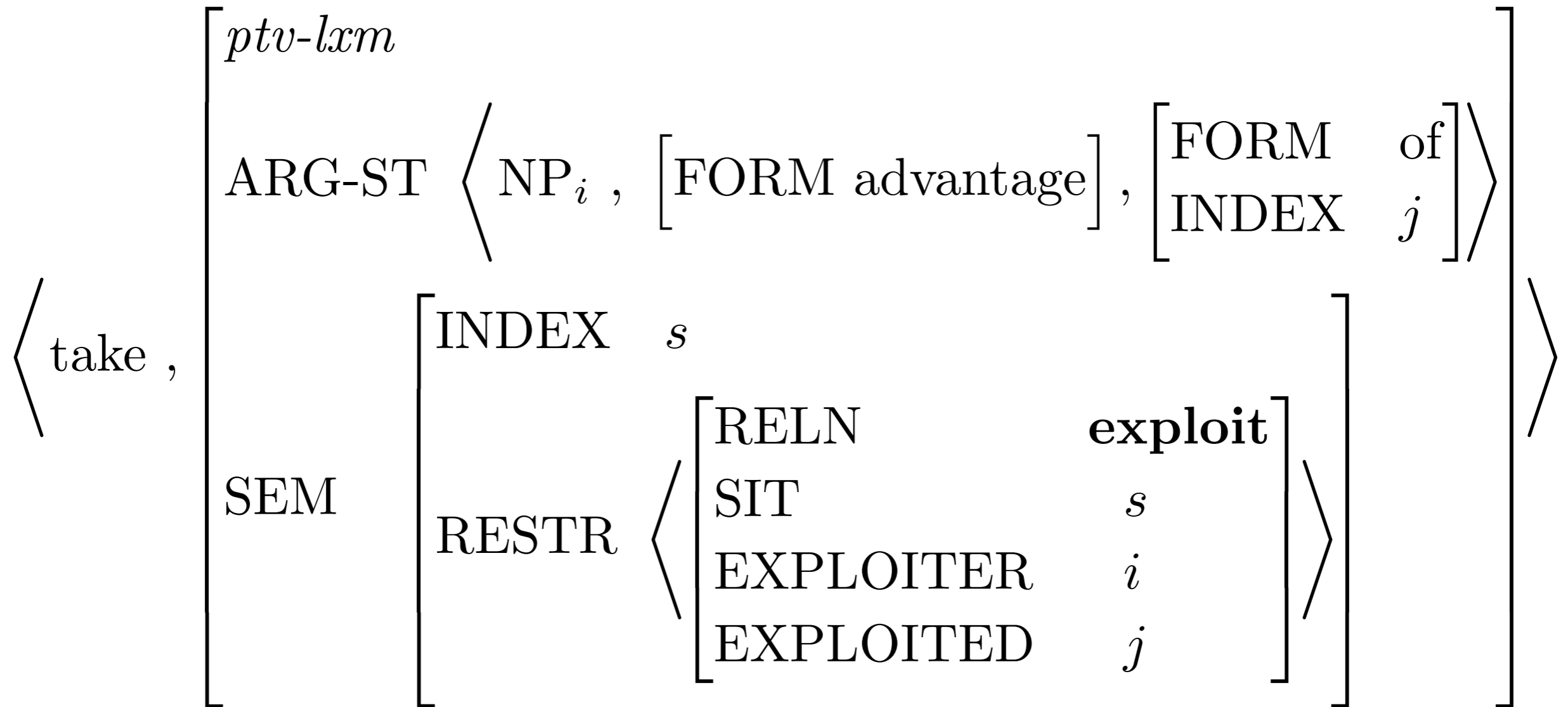
Extraposition with Verbs whose COMPS Lists are Nonempty

- *It worries me that war is imminent.*
- *It occurred to Pat that Chris knew the answer.*
- *It endeared you to Andy that you wore a funny hat.*

Another Nonreferential Noun



The Verb that Selects *advantage*



Our analyses of idioms and passives interact...

- We generate
Advantage was taken of the situation by many people.
Tabs are kept on foreign students.
- But not:
Many people were taken advantage of.
- That would require another lexical entry, in which *take advantage of* is a transitive verb (with spaces in its written form).

Overview

- Existentials (*there, be*)
- Extraposition (*that, it, LR*)
- Idioms