Ling 566
Nov 12, 2015

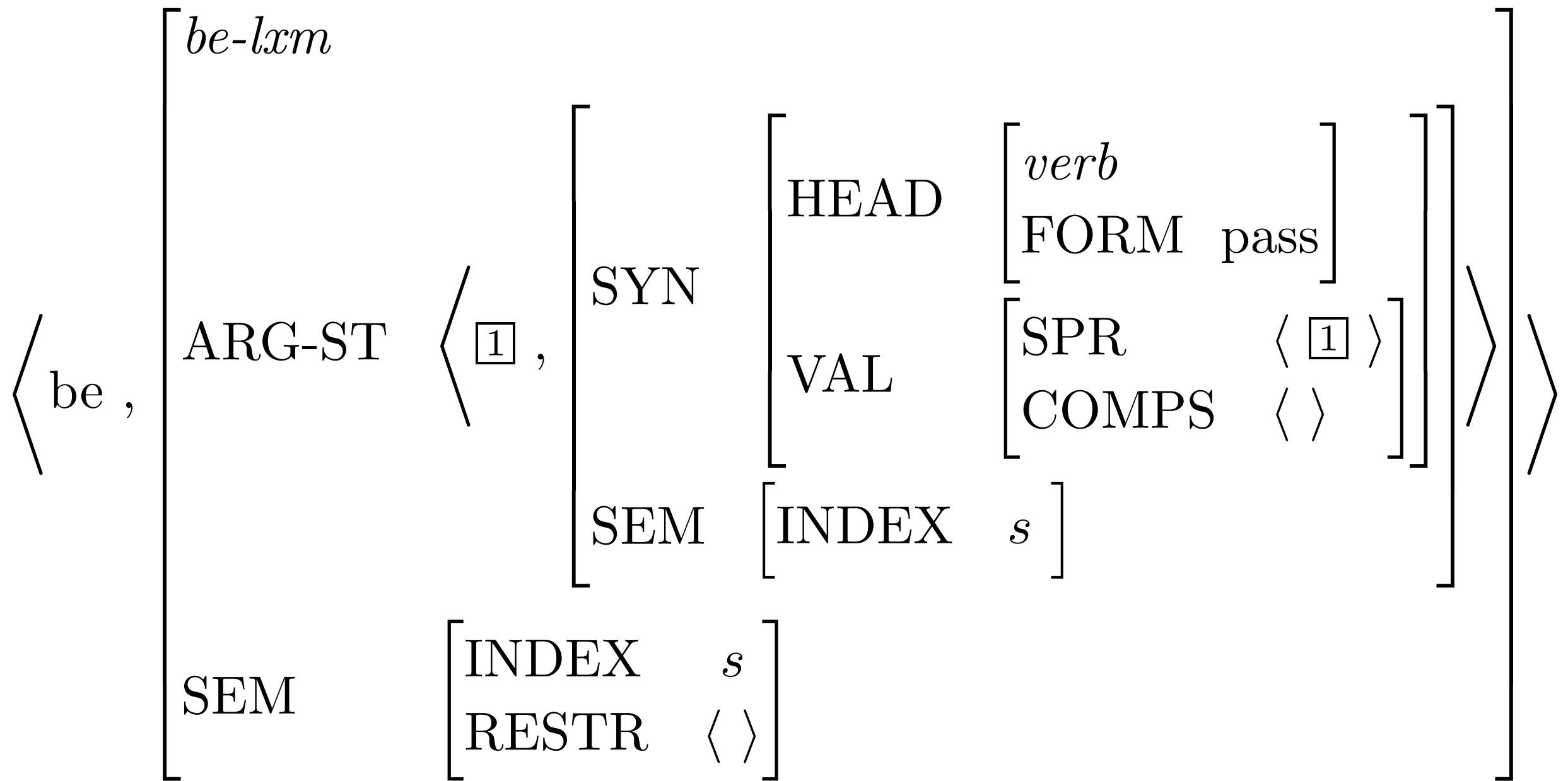Non-referential NPs, Expletives, and Extraposition

Overview

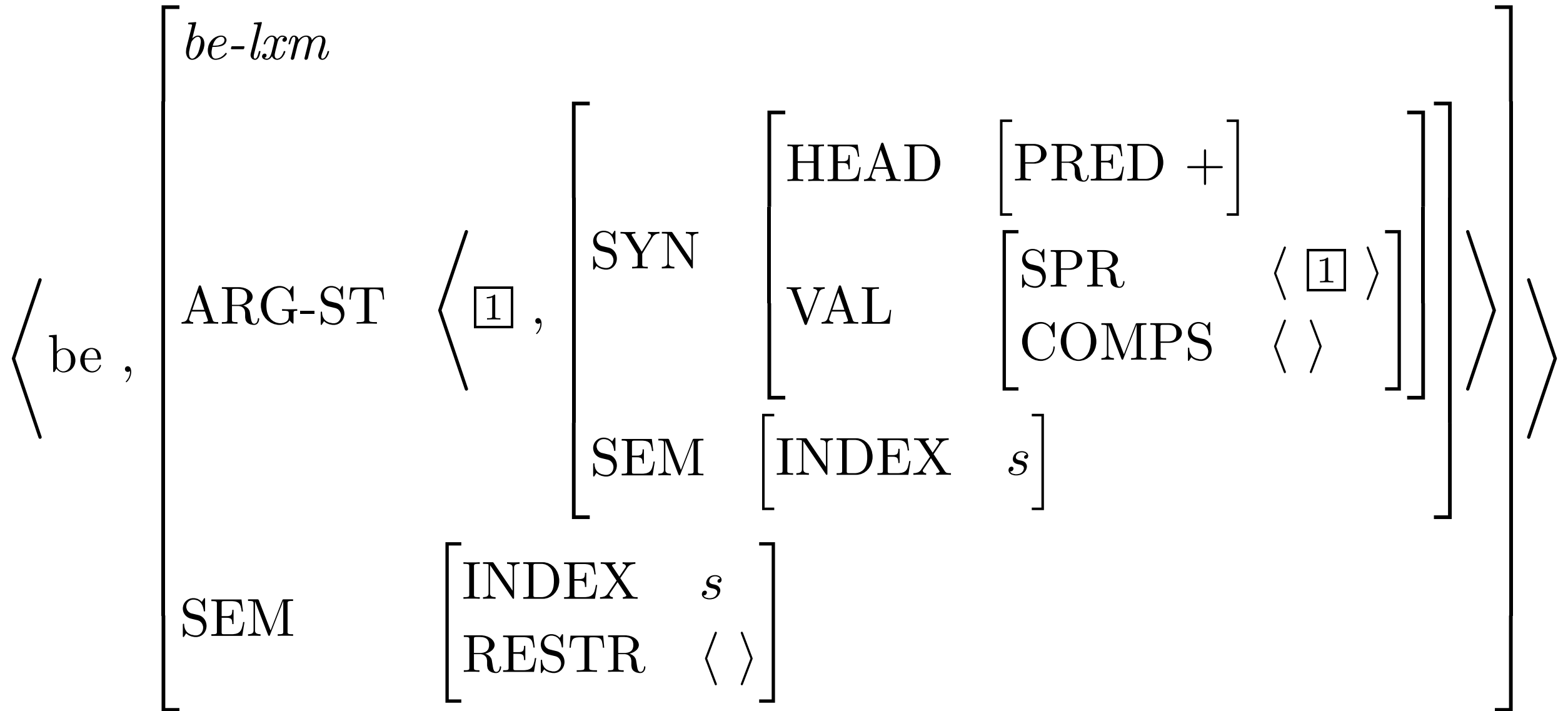- Existentials

- 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.
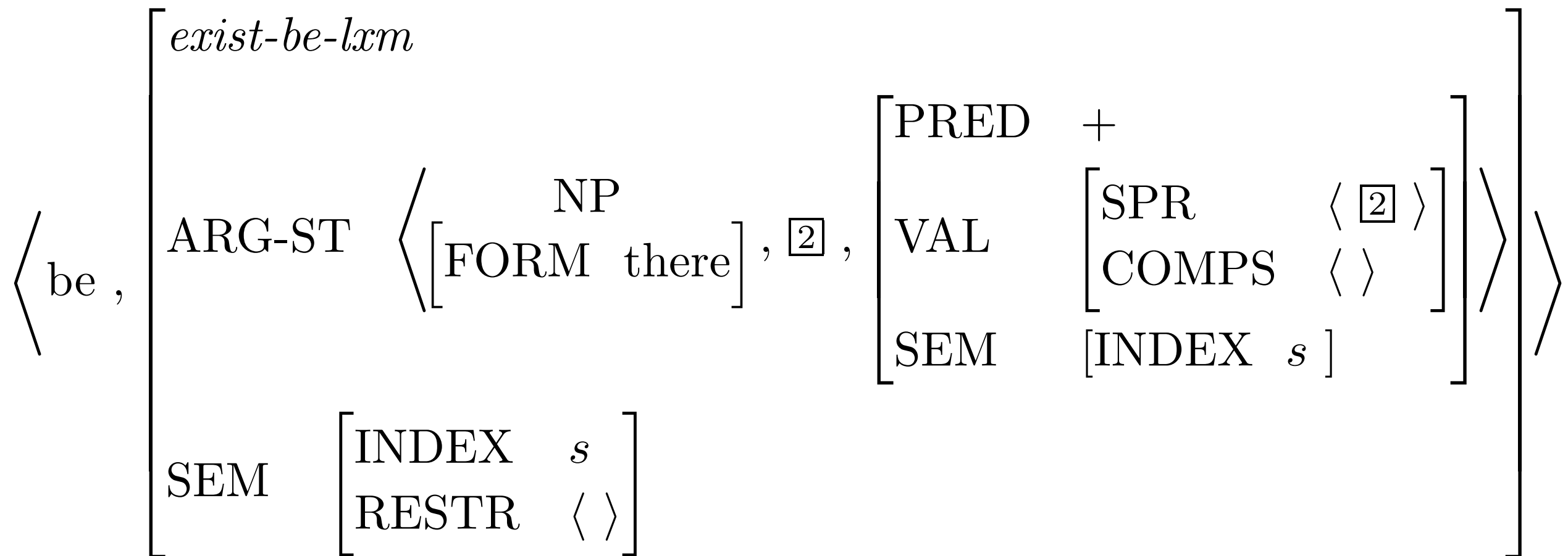
Chapter 10 entry for *be*

$$
\left\langle \text{be} ,
\begin{bmatrix}
\textit{be-lxm} \\[4pt]
\text{ARG-ST} \quad
\left\langle \boxed{1} ,
\begin{bmatrix}
\text{SYN}
\begin{bmatrix}
\text{HEAD}
\begin{bmatrix}
\textit{verb} \\
\text{FORM} \quad \text{pass}
\end{bmatrix} \\[6pt]
\text{VAL}
\begin{bmatrix}
\text{SPR} \quad \langle \boxed{1} \rangle \\
\text{COMPS} \quad \langle \; \rangle
\end{bmatrix}
\end{bmatrix} \\[6pt]
\text{SEM} \quad \begin{bmatrix} \text{INDEX} \quad s \end{bmatrix}
\end{bmatrix}
\right\rangle \\[8pt]
\text{SEM} \quad
\begin{bmatrix}
\text{INDEX} \quad s \\
\text{RESTR} \quad \langle \; \rangle
\end{bmatrix}
\end{bmatrix}
\right\rangle
$$

Copula (generalized)

$$
\left\langle\, \text{be}\,,\
\begin{bmatrix}
\textit{be-lxm} \\[4pt]
\text{ARG-ST} \ \left\langle\, \boxed{1}\,,\
\begin{bmatrix}
\text{SYN}
\begin{bmatrix}
\text{HEAD} \ \begin{bmatrix} \text{PRED} + \end{bmatrix} \\[6pt]
\text{VAL} \ \begin{bmatrix} \text{SPR} & \langle\, \boxed{1}\, \rangle \\ \text{COMPS} & \langle\, \rangle \end{bmatrix}
\end{bmatrix} \\[10pt]
\text{SEM} \ \begin{bmatrix} \text{INDEX} \ s \end{bmatrix}
\end{bmatrix} \,\right\rangle \\[20pt]
\text{SEM} \ \begin{bmatrix} \text{INDEX} & s \\ \text{RESTR} & \langle\, \rangle \end{bmatrix}
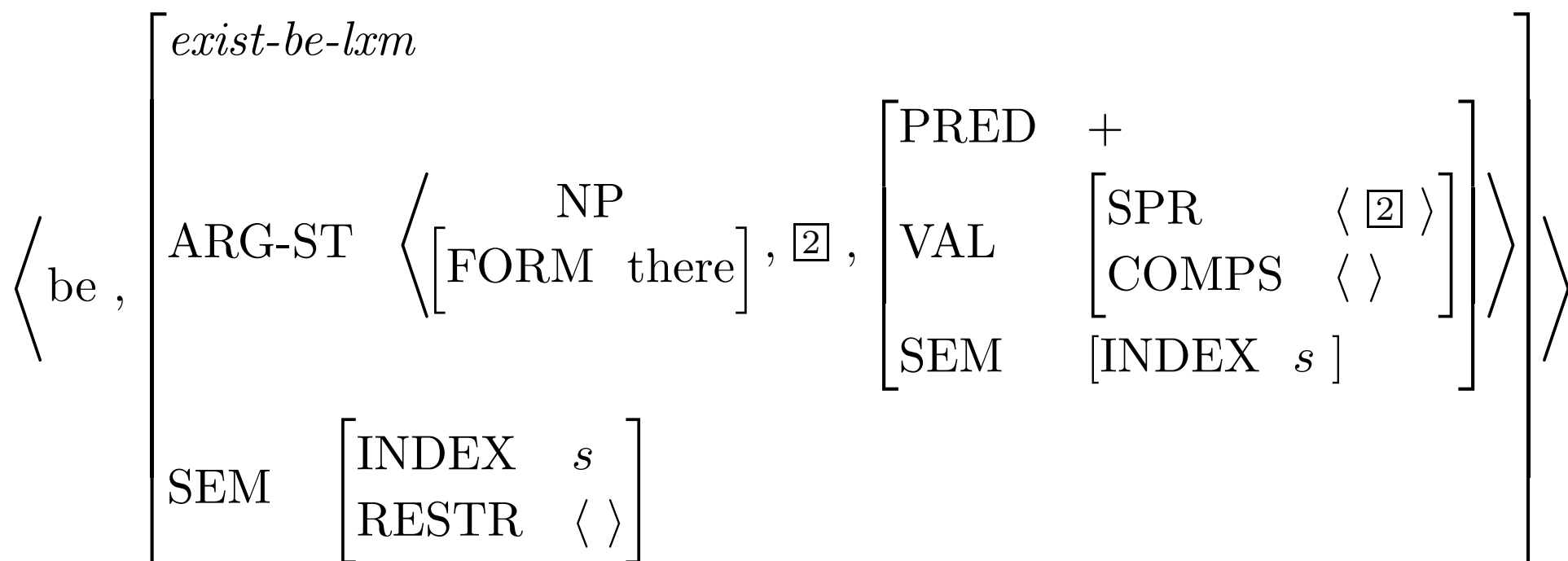\end{bmatrix}
\,\right\rangle
$$

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*

$$
\left\langle \text{be} , \begin{bmatrix} \textit{exist-be-lxm} \\[4pt] \text{ARG-ST} & \left\langle \begin{bmatrix} \text{NP} \\ \text{FORM} & \text{there} \end{bmatrix}, \boxed{2}, \begin{bmatrix} \text{PRED} & + \\[4pt] \text{VAL} & \begin{bmatrix} \text{SPR} & \langle\, \boxed{2}\, \rangle \\ \text{COMPS} & \langle\,\rangle \end{bmatrix} \\[4pt] \text{SEM} & [\text{INDEX} \ s\,] \end{bmatrix} \right\rangle \\[10pt] \text{SEM} & \begin{bmatrix} \text{INDEX} & s \\ \text{RESTR} & \langle\,\rangle \end{bmatrix} \end{bmatrix} \right\rangle
$$

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?

$$
\left\langle \text{be}\,, \begin{bmatrix} \textit{exist-be-lxm} \\[4pt] \text{ARG-ST} \quad \left\langle \begin{bmatrix} \text{NP} \\ \text{FORM} \quad \text{there} \end{bmatrix},\; \boxed{2}\,,\; \begin{bmatrix} \text{PRED} \quad + \\[4pt] \text{VAL} \quad \begin{bmatrix} \text{SPR} \quad \langle\,\boxed{2}\,\rangle \\ \text{COMPS} \quad \langle\,\rangle \end{bmatrix} \\[6pt] \text{SEM} \quad [\text{INDEX} \;\; s\,] \end{bmatrix} \right\rangle \\[10pt] \text{SEM} \quad \begin{bmatrix} \text{INDEX} \quad s \\ \text{RESTR} \quad \langle\,\rangle \end{bmatrix} \end{bmatrix} \right\rangle
$$

The Entry for Existential *there*

$$\left\langle \text{there} \, , \, \begin{bmatrix} \textit{pron-lxm} \\[2ex] \text{SYN} & \begin{bmatrix} \text{HEAD} & \begin{bmatrix} \text{FORM} & \text{there} \\ \text{AGR} & \begin{bmatrix} \text{PER} & \text{3rd} \end{bmatrix} \end{bmatrix} \end{bmatrix} \\[4ex] \text{SEM} & \begin{bmatrix} \text{MODE} & \text{none} \\ \text{INDEX} & \text{none} \\ \text{RESTR} & \langle \; \rangle \end{bmatrix} \end{bmatrix} \right\rangle$$

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?

$$
\left\langle \text{there} , \begin{bmatrix} \textit{pron-lxm} \\ \\ \text{SYN} \quad \begin{bmatrix} \text{HEAD} \quad \begin{bmatrix} \text{FORM} & \text{there} \\ \text{AGR} & \begin{bmatrix} \text{PER} & \text{3rd} \end{bmatrix} \end{bmatrix} \end{bmatrix} \\ \\ \text{SEM} \quad \begin{bmatrix} \text{MODE} & \text{none} \\ \text{INDEX} & \text{none} \\ \text{RESTR} & \langle \, \rangle \end{bmatrix} \end{bmatrix} \right\rangle
$$

Other NPs that don't seem to refer

- *It sucks that the Rockies 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*

$$
\left\langle \text{it,} \begin{bmatrix} \textit{pron-lxm} \\ \\ \text{SYN} & \begin{bmatrix} \text{HEAD} & \begin{bmatrix} \text{FORM} & \text{it} \\ \text{AGR} & \textit{3sing} \end{bmatrix} \end{bmatrix} \\ \\ \text{SEM} & \begin{bmatrix} \text{MODE} & \text{none} \\ \text{INDEX} & \text{none} \\ \text{RESTR} & \langle\,\rangle \end{bmatrix} \end{bmatrix} \right\rangle
$$

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*?

$$
\left\langle \text{it,} \begin{bmatrix} \textit{pron-lxm} \\[2ex] \text{SYN} \quad \begin{bmatrix} \text{HEAD} \quad \begin{bmatrix} \text{FORM} & \text{it} \\ \text{AGR} & \textit{3sing} \end{bmatrix} \end{bmatrix} \\[4ex] \text{SEM} \quad \begin{bmatrix} \text{MODE} & \text{none} \\ \text{INDEX} & \text{none} \\ \text{RESTR} & \langle \ \rangle \end{bmatrix} \end{bmatrix} \right\rangle
$$
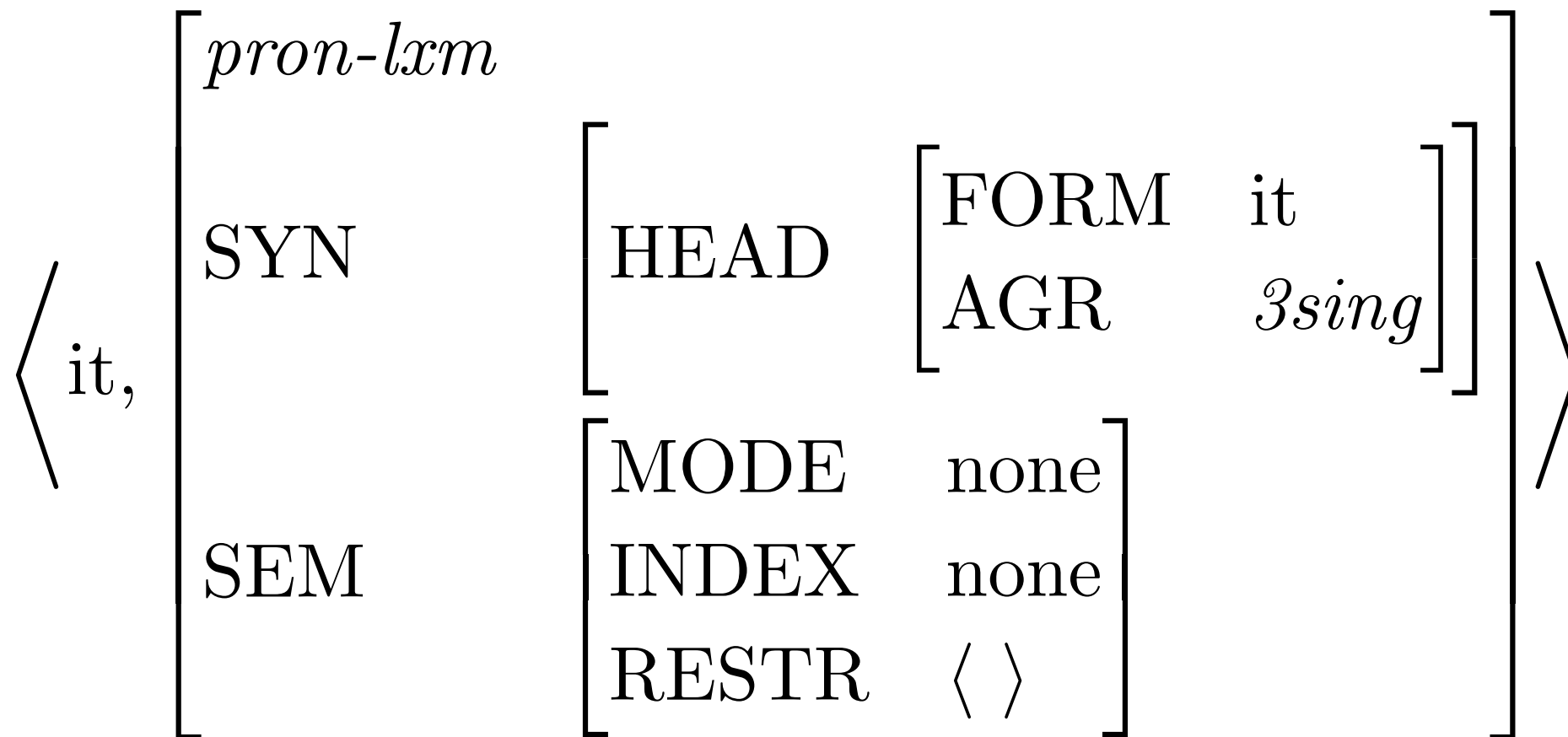
A New Type of Lexeme: Complementizers

$$
\textit{comp-lxm} : \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{HEAD} & \begin{bmatrix} \textit{comp} \\ \text{AGR} & \textit{3sing} \end{bmatrix} \\ \text{VAL} & \begin{bmatrix} \text{SPR} & \langle\ \rangle \end{bmatrix} \end{bmatrix} \\ \text{ARG-ST} & \left\langle \begin{array}{c} \text{S} \\ \begin{bmatrix} \text{INDEX} & s \end{bmatrix} \end{array} \right\rangle \\ \text{SEM} & \begin{bmatrix} \text{INDEX} & s \\ \text{RESTR} & \langle\ \rangle \end{bmatrix} \end{bmatrix}
$$

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?

$$
\textit{comp-lxm} : \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{HEAD} & \begin{bmatrix} comp \\ \text{AGR} & \textit{3sing} \end{bmatrix} \\ \text{VAL} & \begin{bmatrix} \text{SPR} & \langle \, \rangle \end{bmatrix} \end{bmatrix} \\ \text{ARG-ST} & \left\langle \begin{matrix} \text{S} \\ \begin{bmatrix} \text{INDEX} & s \end{bmatrix} \end{matrix} \right\rangle \\ \text{SEM} & \begin{bmatrix} \text{INDEX} & s \\ \text{RESTR} & \langle \, \rangle \end{bmatrix} \end{bmatrix}
$$

The Type *comp*

pos

$$\begin{bmatrix} \text{FORM, PRED} \end{bmatrix}$$

agr-pos

$$\begin{bmatrix} \text{AGR} \end{bmatrix}$$

adj   *prep*   *adv*   *conj*

verb

$$\begin{bmatrix} \text{AUX} \end{bmatrix}$$

nominal

$$\begin{bmatrix} \text{CASE} \end{bmatrix}$$

det

$$\begin{bmatrix} \text{COUNT} \end{bmatrix}$$

noun   *comp*

$$\begin{bmatrix} \text{FORM} & \text{cform} \end{bmatrix}$$
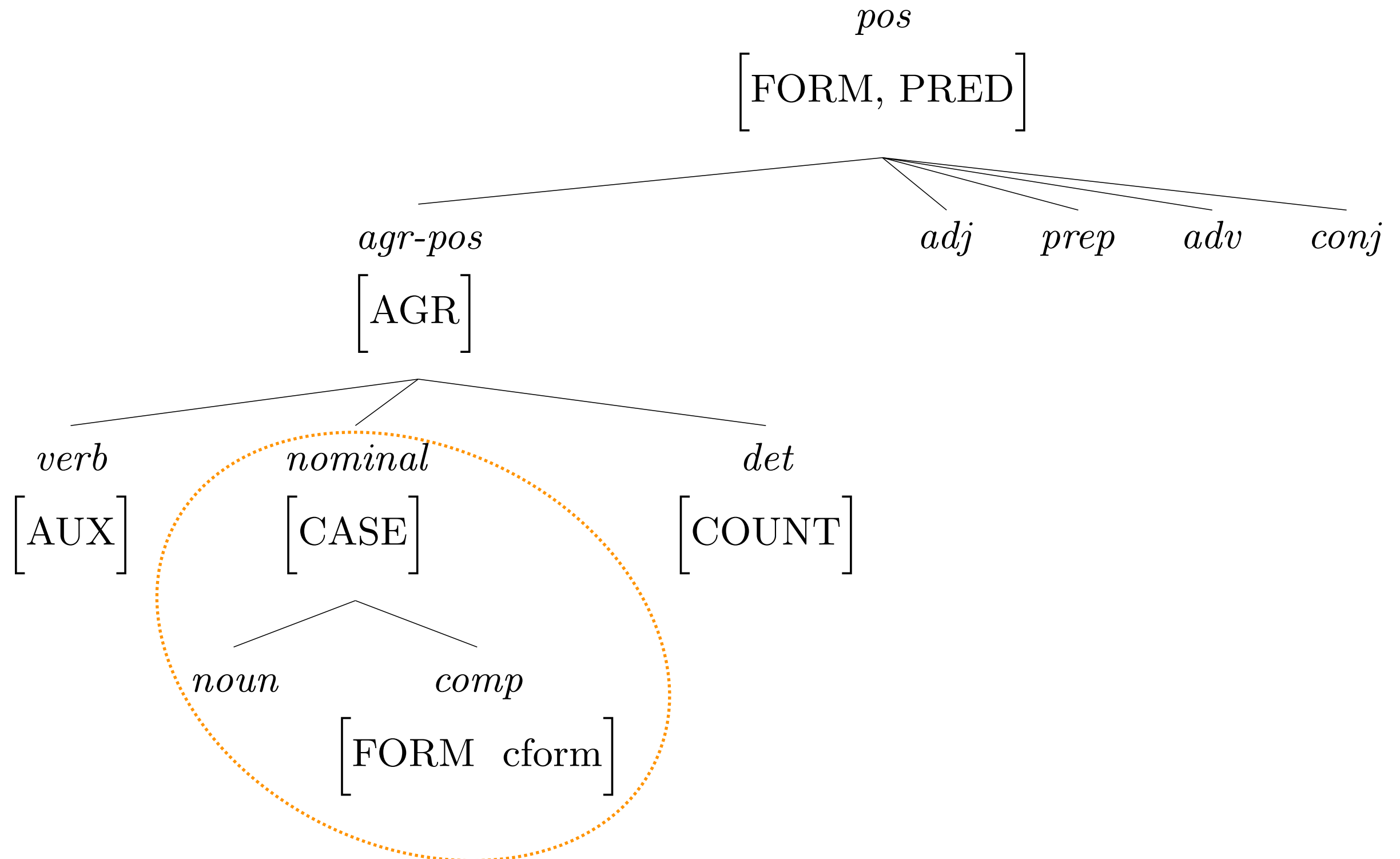
The Lexical Entry for Complementizer *that*

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

…and with inherited information filled in

$$
\left\langle \text{that} \, , \quad
\begin{bmatrix}
\textit{comp-lxm} \\[2pt]
\text{SYN} \quad
\begin{bmatrix}
\text{HEAD} \quad
\begin{bmatrix}
\textit{comp} \\
\text{FORM} \quad \text{cform} \\
\text{AGR} \quad \textit{3sing}
\end{bmatrix} \\[6pt]
\text{VAL} \quad
\begin{bmatrix}
\text{SPR} \quad \langle\,\rangle
\end{bmatrix}
\end{bmatrix} \\[12pt]
\text{ARG-ST} \quad
\left\langle
\begin{matrix}
\text{S} \\
\begin{bmatrix}
\text{FORM} \quad \text{fin} \\
\text{INDEX} \quad s
\end{bmatrix}
\end{matrix}
\right\rangle \\[12pt]
\text{SEM} \quad
\begin{bmatrix}
\text{MODE} \quad \text{prop} \\
\text{INDEX} \quad s \\
\text{RESTR} \quad \langle\,\rangle
\end{bmatrix}
\end{bmatrix}
\right\rangle
$$
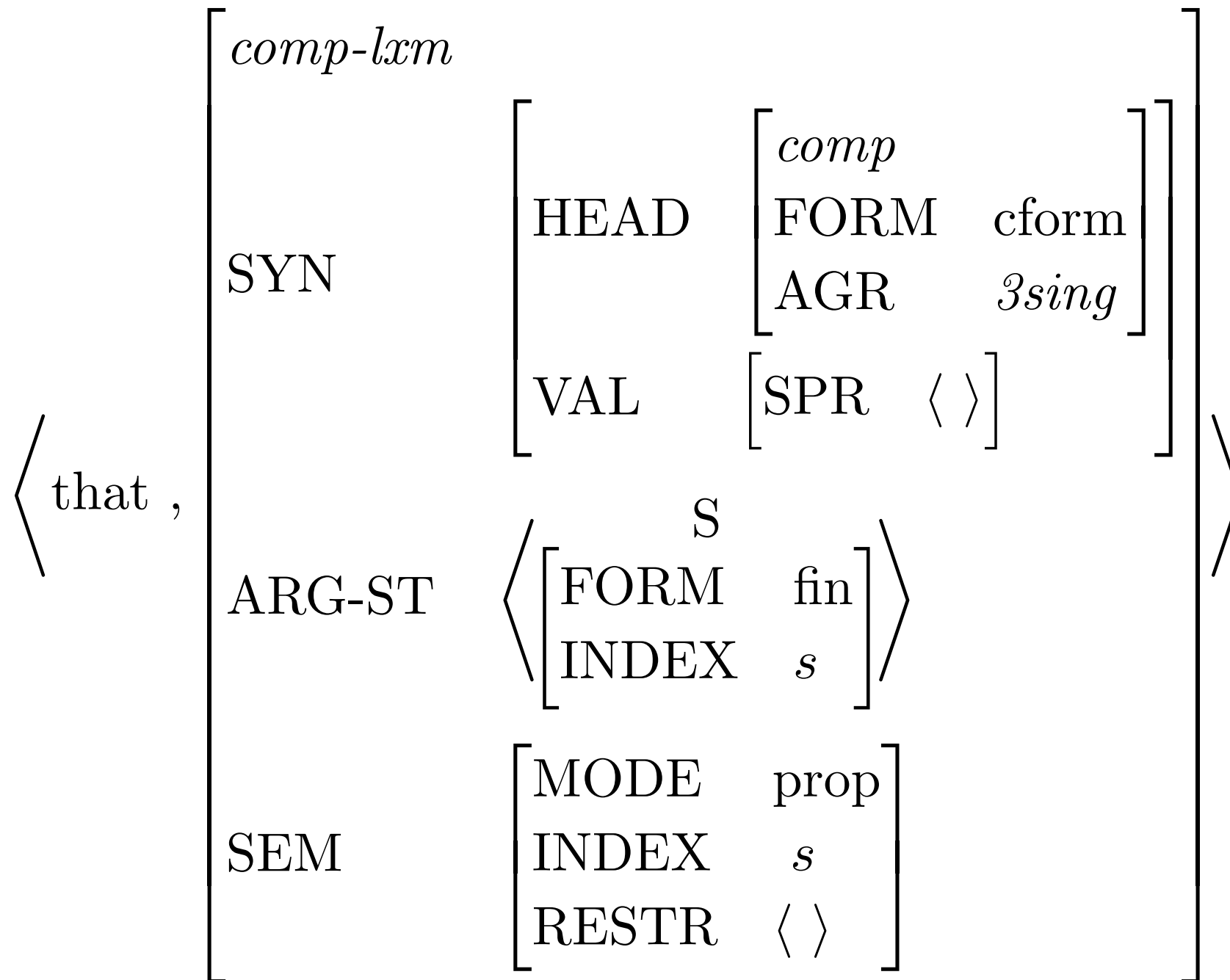
Question: Where did [FORM cform] come from?

Structure of a Complementizer Phrase

CP

$$\begin{bmatrix} \text{HEAD} & \boxed{2} \\ \text{VAL} & \begin{bmatrix} \text{SPR} & \langle \, \rangle \\ \text{COMPS} & \langle \, \rangle \end{bmatrix} \end{bmatrix}$$

C

$$\begin{bmatrix} \textit{word} \\ \text{HEAD} & \boxed{2} \begin{bmatrix} \textit{comp} \\ \text{FORM} & \text{cform} \end{bmatrix} \\ \text{VAL} & \begin{bmatrix} \text{SPR} & \langle \, \rangle \\ \text{COMPS} & \langle \, \boxed{1} \, \rangle \end{bmatrix} \end{bmatrix}$$

$\boxed{1}$ S

that

the Giants lost
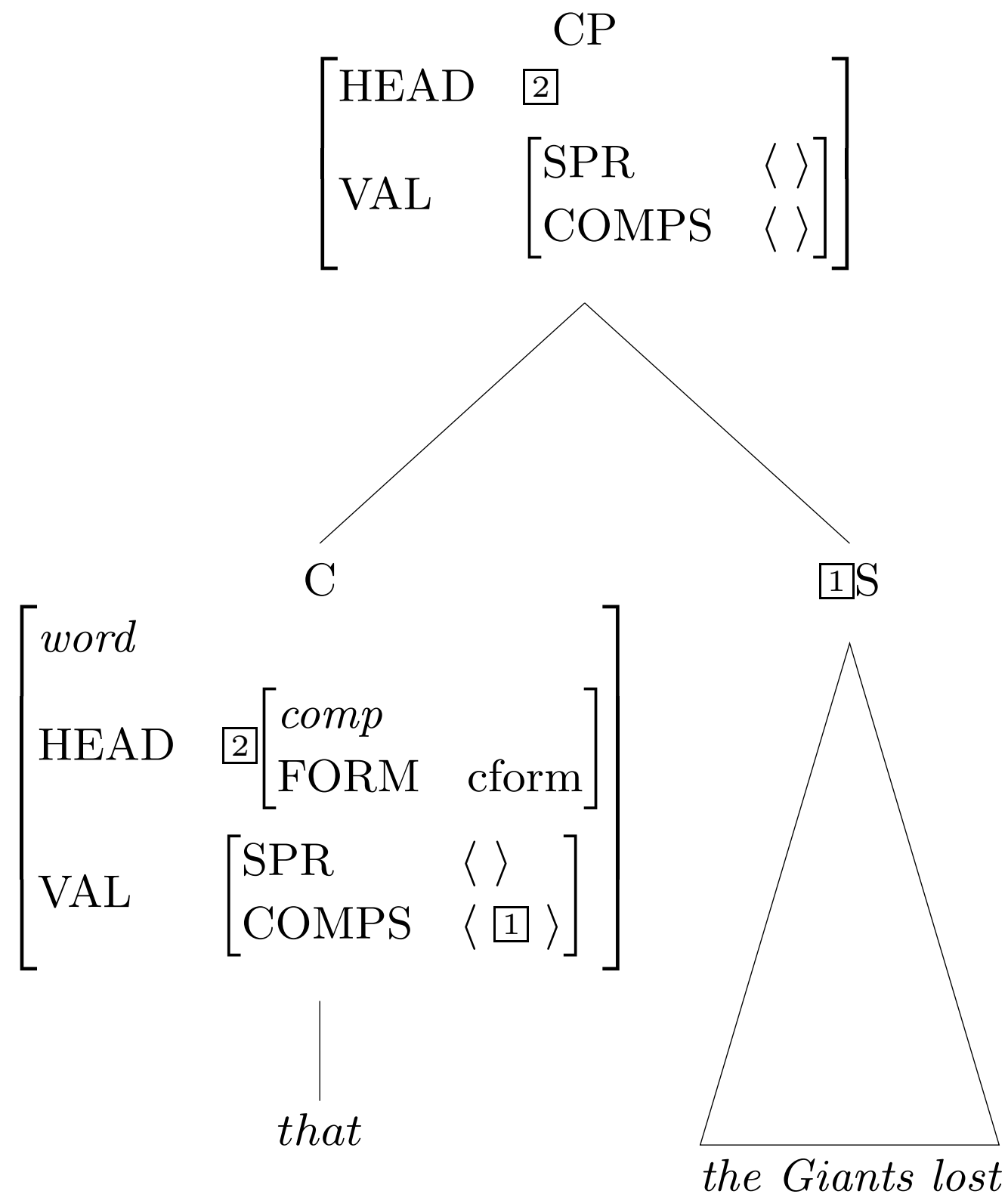
Sample Verb with a CP Subject

$$
\left\langle \text{matter} , \begin{bmatrix} \textit{siv-lxm} \\ \text{ARG-ST} \quad \left\langle \begin{bmatrix} \text{SEM [INDEX} \quad \boxed{1}] \end{bmatrix} \right\rangle \\ \\ \text{SEM} \quad \begin{bmatrix} \text{INDEX} \quad s \\ \\ \text{RESTR} \quad \left\langle \begin{bmatrix} \text{RELN} & \textbf{matter} \\ \text{SIT} & s \\ \text{MATTERING} & \boxed{1} \end{bmatrix} \right\rangle \end{bmatrix} \end{bmatrix} \right\rangle
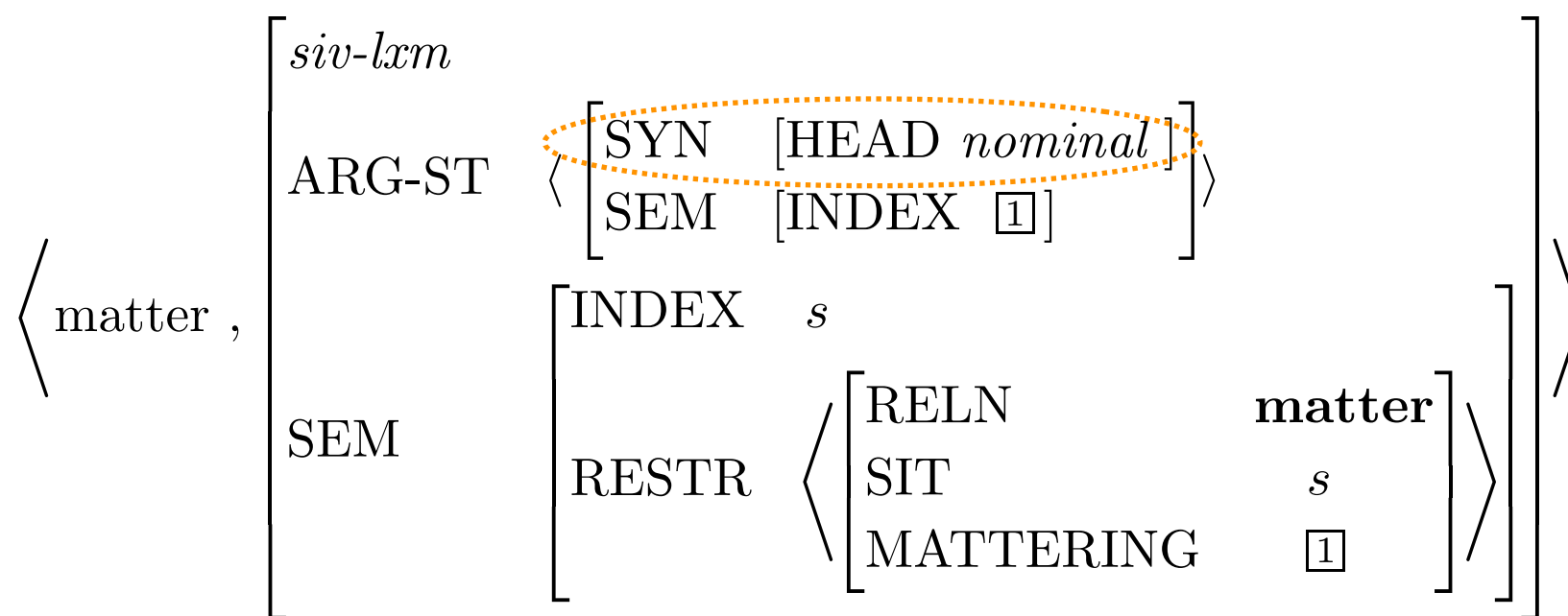$$
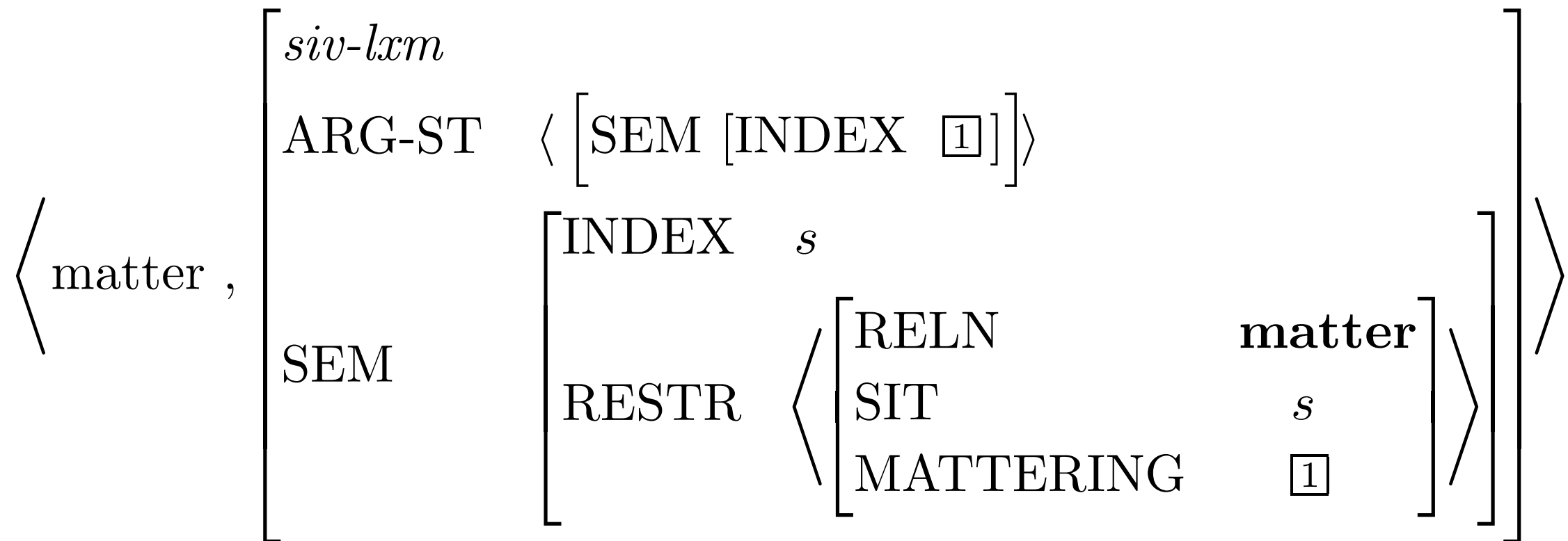
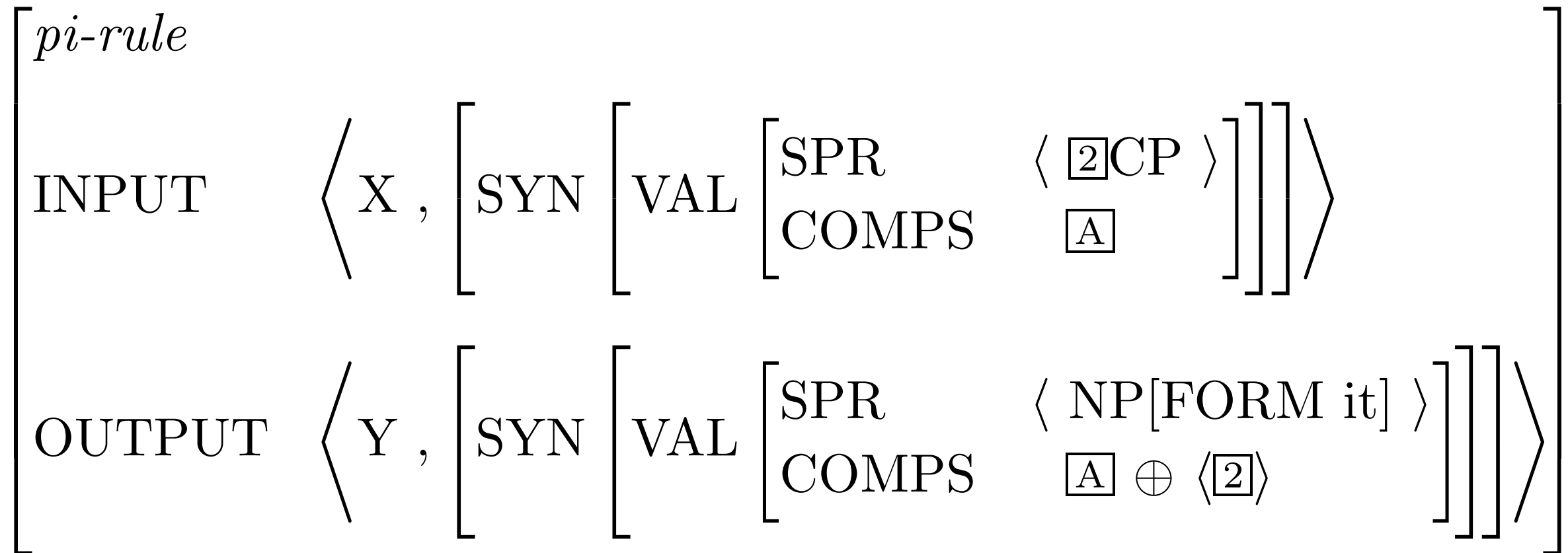Note: the only constraint on the first argument is semantic

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.

$$
\left\langle \text{matter} , \begin{bmatrix} \textit{siv-lxm} \\[2pt] \text{ARG-ST} \quad \left\langle \begin{bmatrix} \text{SYN} \quad [\text{HEAD } \textit{nominal}] \\ \text{SEM} \quad [\text{INDEX } \boxed{1}] \end{bmatrix} \right\rangle \\[10pt] \text{SEM} \quad \begin{bmatrix} \text{INDEX} \quad s \\[4pt] \text{RESTR} \quad \left\langle \begin{bmatrix} \text{RELN} & \textbf{matter} \\ \text{SIT} & s \\ \text{MATTERING} & \boxed{1} \end{bmatrix} \right\rangle \end{bmatrix} \end{bmatrix} \right\rangle
$$

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

The Extraposition Lexical Rule

$$
\begin{bmatrix}
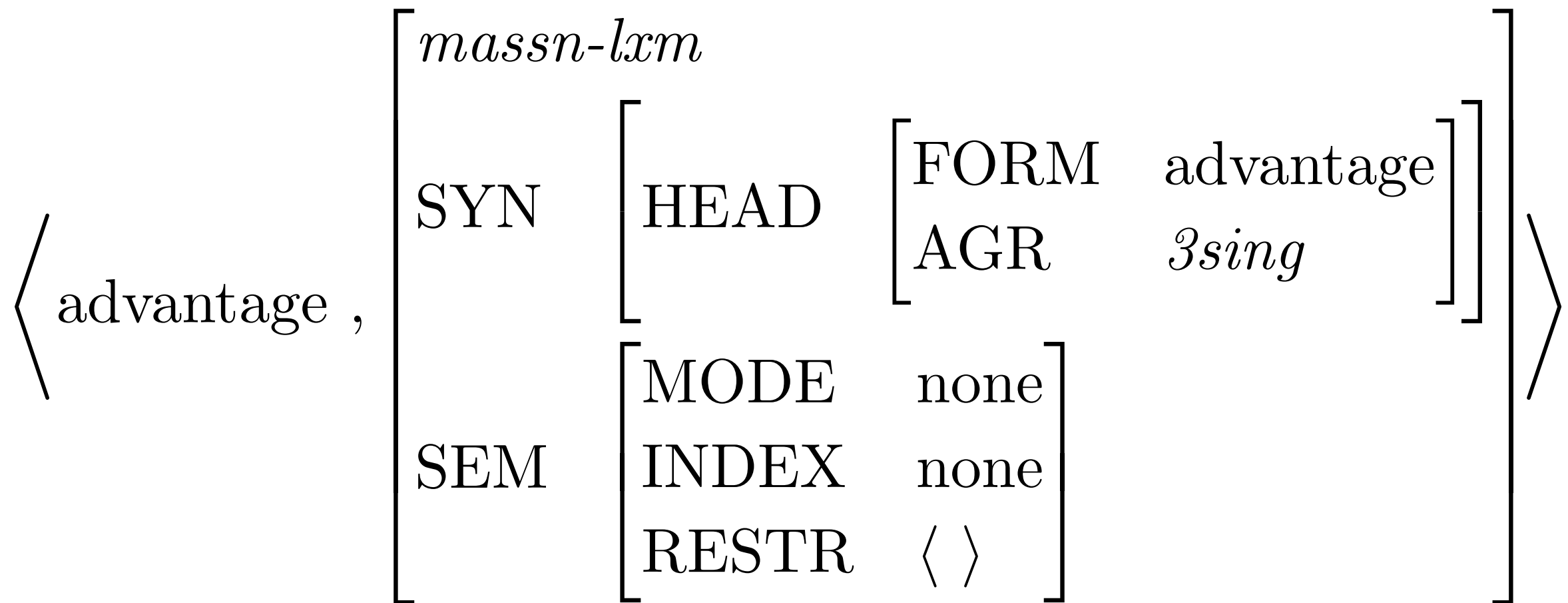\textit{pi-rule} \\[4pt]
\text{INPUT} \quad \left\langle \text{X}, \begin{bmatrix} \text{SYN} \begin{bmatrix} \text{VAL} \begin{bmatrix} \text{SPR} & \langle\; \boxed{2}\text{CP} \;\rangle \\ \text{COMPS} & \boxed{A} \end{bmatrix} \end{bmatrix} \end{bmatrix} \right\rangle \\[20pt]
\text{OUTPUT} \quad \left\langle \text{Y}, \begin{bmatrix} \text{SYN} \begin{bmatrix} \text{VAL} \begin{bmatrix} \text{SPR} & \langle\; \text{NP[FORM it]} \;\rangle \\ \text{COMPS} & \boxed{A} \oplus \langle \boxed{2} \rangle \end{bmatrix} \end{bmatrix} \end{bmatrix} \right\rangle
\end{bmatrix}
$$

- Why is the type *pi-rule*?

- Why doesn't it say anything about the semantics?

- Why is the COMPS value $\boxed{A}$, not < >?

Extraposition with Verbs whose COMPS Lists are Nonempty
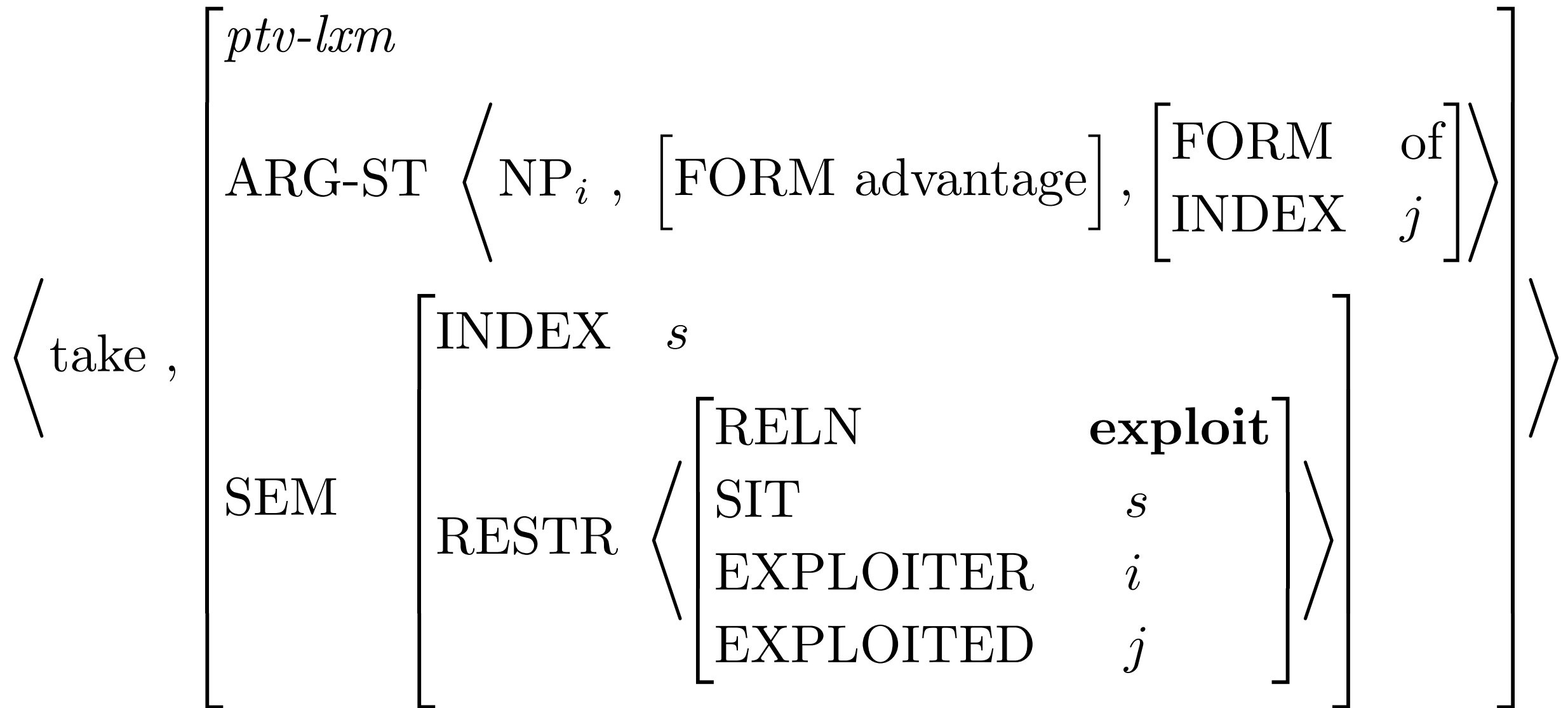
- *It worries <u>me</u> that war is imminent.*

- *It occurred <u>to Pat</u> that Chris knew the answer.*

- *It endeared <u>you</u> <u>to Andy</u> that you wore a funny hat.*

Another Nonreferential Noun

$$
\left\langle \text{advantage} \ , \ \begin{bmatrix} \textit{massn-lxm} \\[4pt] \text{SYN} \quad \begin{bmatrix} \text{HEAD} \quad \begin{bmatrix} \text{FORM} & \text{advantage} \\ \text{AGR} & \textit{3sing} \end{bmatrix} \end{bmatrix} \\[12pt] \text{SEM} \quad \begin{bmatrix} \text{MODE} & \text{none} \\ \text{INDEX} & \text{none} \\ \text{RESTR} & \langle \ \rangle \end{bmatrix} \end{bmatrix} \right\rangle
$$

The Verb that Selects *advantage*

$$
\left\langle \text{take} ,\ \begin{bmatrix} \textit{ptv-lxm} \\[2mm] \text{ARG-ST} \ \left\langle \text{NP}_i ,\ \begin{bmatrix} \text{FORM advantage} \end{bmatrix} ,\ \begin{bmatrix} \text{FORM} & \text{of} \\ \text{INDEX} & j \end{bmatrix} \right\rangle \\[4mm] \text{SEM} \ \begin{bmatrix} \text{INDEX} \quad s \\[2mm] \text{RESTR} \ \left\langle \begin{bmatrix} \text{RELN} & \textbf{exploit} \\ \text{SIT} & s \\ \text{EXPLOITER} & i \\ \text{EXPLOITED} & j \end{bmatrix} \right\rangle \end{bmatrix} \end{bmatrix} \right\rangle
$$

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.

- Why not?

Overview

- Existentials (*there*, *be*)

- Extraposition (*that*, *it*, *LR*)

- Idioms

Reading Questions

- Although there appears at the beginning of the sentence, it seems to me, that it is just a placeholder. Looking at sentences like 'There is a student' and 'There are many students', the subject of the existential 'be' is the 'complement'. How is this accounted in the rule?

- The top of Page 337 describes the lexical entry for the existential "there". I am seeing three things in the lexical entry. NP [FORM there], [2], and PRED+, VAL[SPR <[2]>, COMPS <>]]. What I didn't understand was what this [2] is for. Is that the verb "be" there?

Lexical Entry for the Existential *be*

$$
\left\langle \text{be} \,,\,
\begin{bmatrix}
\textit{exist-be-lxm} \\[2ex]
\text{ARG-ST} \quad
\left\langle
\begin{bmatrix} \text{NP} \\ \text{FORM} \quad \text{there} \end{bmatrix} ,\; \boxed{2} \,,\;
\begin{bmatrix}
\text{PRED} \quad + \\[1ex]
\text{VAL} \quad
\begin{bmatrix}
\text{SPR} \quad \langle\, \boxed{2} \,\rangle \\
\text{COMPS} \quad \langle\,\rangle
\end{bmatrix} \\[2ex]
\text{SEM} \quad [\text{INDEX} \quad s\,]
\end{bmatrix}
\right\rangle \\[3ex]
\text{SEM} \quad
\begin{bmatrix}
\text{INDEX} \quad s \\
\text{RESTR} \quad \langle\,\rangle
\end{bmatrix}
\end{bmatrix}
\right\rangle
$$
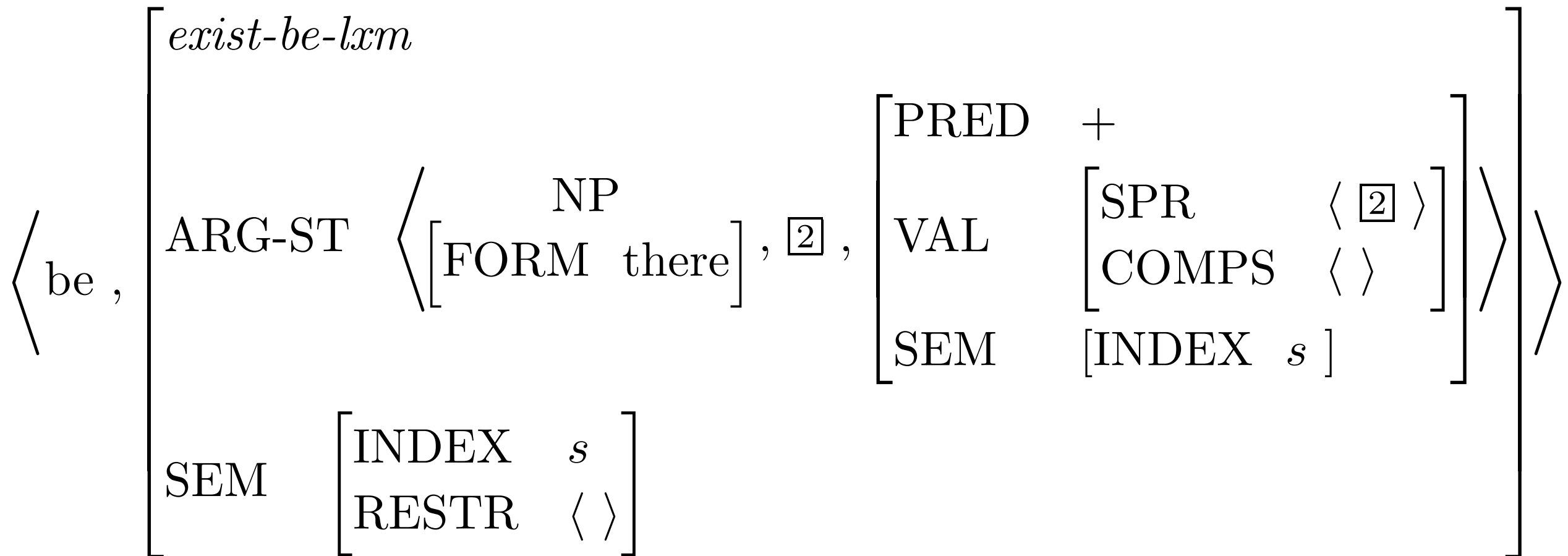
Reading Questions

- I was thinking of an example sentence such as "there is water". There is less info than textbook examples, such as "There is a seat available", but how would "there is water" be fit into the lexical entry described in page 337 (11)? In "there is water" example, there is less number of words, and clearly go under ARG-ST for exist-be-lxm. So I wondered how could these fit in to the lexical entry, especially when ARG-ST exceeds the number of words given in a sentence.

Reading Questions

- I'm a little confused why PRED had to be introduced because, for example, a passive VP and the complement of existential be both follow forms of be, but in this grammar those two different be's come from different lexemes. Isn't it just a coincidence in English that these two different grammatical functions are both represented with the verb be?

-

Reading Questions

- Could we replace the entry for existential be in (11) with a lexical rule that could take be in (5) as input and output (11)? Or is this just not done because the rule wouldn't apply to anything else, so we might as well just write the entry directly?

- Is there any avm feature that states a closely related LE exists? What about homonyms or words that have highly context-sensitive meanings (not necessarily in english.). It just seems like it would be inconvenient and hard to understand if the solution was to create something like be-lxm and exist-be-lxm everytime.

Reading Questions

- In 11.4, we are given a pairs of sentences exhibiting systematic alternation. Are these alternations considered productive because we can replace the verbs to make new pairs of utterances? Are there any systematic alternations that would not be considered productive?

Reading Questions

- I couldn't help thinking about what happens with the existential there when using an alternation of the be-verb and there to form a question:

    There is a gas station nearby.
    Is there a gas station nearby?
    Is a gas station nearby?

- Is this the same *there*? It doesn't seem to contribute semantically (in fact, we can remove it in this case).

Reading Questions

- Predicative NPs are problematic with the verb be. We know that be identifies its SPR with the SPR of its complement; the footnote on page 335 says, "since NPs normally have empty SPR values, our account is incomplete." The book mentions a non-branching phrase structure rule as one solution, with a NOM mother and NP daughter, but doesn't go into detail. How is this issue handled in a working grammar?

Reading Questions

- Previously in the grammar, FORM values were finite. There was a limited number of FORM values, specific to parts of speech or specific to the closed set of prepositions. Now, with idioms, it looks like there's an infinite number of FORM values, as new idioms can be developed over time. Is this aspect of FORM values going to change, or will they be an infinite set?

- If idioms are handled/treated as individual lexical entries such as (51) in page 349 then how many entries currently exist and how scalable is this approach as new idioms emerge?

Reading Questions

- Is the interpretation of idioms within our grammar restricted to just phrasal idioms, or would it extend to idioms that are in themselves complete sentences. Or would those sentences simply be interpreted with their normal meanings? For example, "A picture paints a thousand words" doesn't actually mean that a literal picture is painting out one thousand words - but it's the phrase as a whole that provides the idiomatic meaning, much like "kick the bucket". And like "kick the bucket", I'm not sure it works in the passive form. Does this mean that we'd have an entire lexical entry for the <a, picture, paints, a, thousand, words>?

Reading Questions

- Idioms are already correct syntactically, they just need semantic tweaking. So why do we change their syntactic definition? A certain generalization that could work is introducing a new type of rule; sem-rule, which takes a phrase and outputs a phrase without changing the syntactic value at all, it just looks for RESTR<i,kick,bucket> and changes it to RESTR<i,die>.. the nice thing about this is that it works with all idioms no matter how their syntactic structure is, it doesn't change their syntactic structure, so whatever works in the grammar still works, and it even works on the pragmatic level (for instance introducing implied meanings from certain semantic structures).

Reading Questions

- I found the way Chapter 11 handles idioms very unsatisfying. It seems strange to assign the semantic features to part of the idiom and treat the others as totally empty. Calling the FORM of the empty items something very specific (e.g. 'tabs' or 'advantage') seems a bit pointless as well. It seems that idioms function at a phrasal level, rather than a lexical level. What other ways of handling idioms exist?

- How would we insert close as in "Keep close tabs on" given our current analysis of keep tabs on, would we have analyze it as another argument of keep?
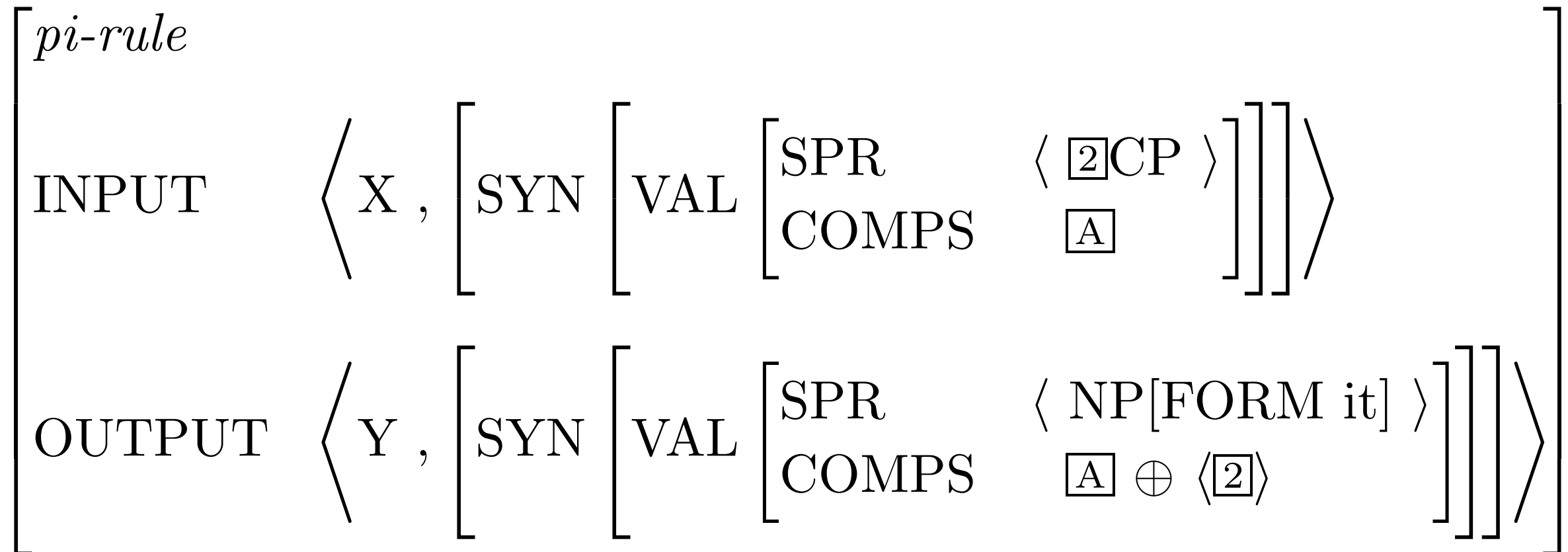
Reading Questions

- How do we get inflection on the right part of a MWE and avoid something like "Kick the bucketed"?

- We only examined idioms that have verbs in them in this chapter, but I wonder about idioms that don't have verbs like "all ears" or "by the seat of my pants". Would these generally just have a single lexical entry showing their semantic value similar to "kick the bucket" in the text?

Reading Questions

- Is it possible to use a nonreferential it in sentences without extraposition? Does the it in "it is raining" qualify as nonreferential, or is there a hidden/ understood subject?

- What is the significance of X changing to Y in the Extraposition Lexical Rule? Is this just a way of saying, the word that takes the CP complement is becoming a different word?

The Extraposition Lexical Rule

$$
\begin{bmatrix}
\textit{pi-rule} \\[4pt]
\text{INPUT} \quad \left\langle X,\ \begin{bmatrix} \text{SYN} \begin{bmatrix} \text{VAL} \begin{bmatrix} \text{SPR} & \langle\ \boxed{2}\text{CP}\ \rangle \\ \text{COMPS} & \boxed{A} \end{bmatrix} \end{bmatrix} \end{bmatrix} \right\rangle \\[20pt]
\text{OUTPUT} \quad \left\langle Y,\ \begin{bmatrix} \text{SYN} \begin{bmatrix} \text{VAL} \begin{bmatrix} \text{SPR} & \langle\ \text{NP[FORM it]}\ \rangle \\ \text{COMPS} & \boxed{A}\ \oplus\ \langle\boxed{2}\rangle \end{bmatrix} \end{bmatrix} \end{bmatrix} \right\rangle
\end{bmatrix}
$$

- Why is the type *pi-rule*?

- Why doesn't it say anything about the semantics?

- Why is the COMPS value $\boxed{A}$, not $< \quad >$?

Reading Questions

- Can which be treated as a complementizer the same as that?

- Is there anything else that motivates making complementizers nom types besides them being taken as complements by transitive verbs and being taken as specifiers by verbs? Is this instance of *that* a complementizer, and if so, how would it fit as a nom type?

    The sentence that I saw was complete.

Reading Questions

- How to account for the following?

  That you would say those things hurts terribly.

  It hurts terribly that you would say those things.

  It hurts that you would say those things terribly.

  *It mattered really that the Giants had lost.

Reading Questions

- When would it be useful to use a pi-rule? What functional role do they have in the grammar beyond the surface change in the syntax?

- You mention the difference in the formulation of the Extraposition Lexical Rule compared to the Passive Lexical Rule(p. 346): The Extraposition Lexical Rule's features are listed on SPR and COMPS as opposed to the ARG-ST. Does this have any theoretical motivation or is this a notational difference?

- The pi-rule inherits the defeasibility identity constraint on SEM from the l-rule. When would the SEM value not be the same?

Reading Questions

- My question is of a more broad nature, but arises from the examples in Extraposition on page 338-339. In reading these examples, I would have said that all the (a) sentences are ungrammatical. They don't even sound borderline correct to me... So what is the standard? The majority? The sense of grammaticality of the grammar developer?