



Ling 566
Nov 9, 2021
Passive Construction

Overview

- Midterm!
- Passive
 - Arguments for lexicalist account
 - Details of our analysis
- Reading Questions

The Passive in Transformational Grammar

- Passive was the paradigmatic transformation in early TG.
- Motivations
 - Near paraphrase of active/passive pairs.
 - Simplified statement of cooccurrence restrictions.
 - E.g. *devour* must be followed by an NP, *put* by NP-PP
 - Such restrictions refer to pre-transformational (“deep”) structure.
 - Intuition that active forms were more basic, in some sense.
- Its formulation was complex:
 - Promote object
 - Demote subject, inserting *by*
 - Insert appropriate form of *be*, changing main verb to a participle.

But transforming whole sentences is overkill

- Passive sentences look an awful lot like some actives:

The cat was chased by the dog VS

The cat was lying about the dog

- Passives occur without *be* and without the *by* phrase:

Cats chased by dogs usually get away.

My cat was attacked.

So a lexical analysis seems called for

- What really changes are the verb's form and its cooccurrence restrictions (that is, its valence).
- There are lexical exceptions
 - Negative:
 - Pat resembles Bo* but **Bo is resembled by Pat*
 - That look suits you* but **You are suited by that look*
 - Positive
 - Chris is rumored to be a spy* but
 - *They rumor Chris to be a spy*

We posit a lexical rule

- Why not just list passive participles individually?
 - To avoid redundancy
 - To capture productivity (for example?)
- We make it a derivational (lexeme-to-lexeme) rule.
Why?
 - Our constraints on lexeme-to-word rules wouldn't allow us to make Passive one.

W Newly coined verbs that the Passive Lexical Rule can apply to

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W When was the first fax machine invented?

1843

1880

1924

1948

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W When was the verb fax first attested, per the OED?

1869

1899

1949

1979

The Passive Lexical Rule

$$\left[\begin{array}{l}
 \text{INPUT} \\
 \text{OUTPUT}
 \end{array} \right.
 \begin{array}{l}
 \left\langle \boxed{1}, \left[\begin{array}{l}
 \text{tv-lxm} \\
 \text{ARG-ST} \langle [\text{INDEX } i] \rangle \oplus \boxed{A}
 \end{array} \right] \right\rangle \\
 \left\langle F_{PSP}(\boxed{1}), \left[\begin{array}{l}
 \text{part-lxm} \\
 \text{SYN} \quad \left[\text{HEAD} \quad [\text{FORM } \text{pass}] \right] \\
 \text{ARG-ST} \quad \boxed{A} \oplus \left\langle \left(\begin{array}{l}
 \text{PP} \\
 \left[\begin{array}{l}
 \text{FORM} \quad \text{by} \\
 \text{INDEX} \quad i
 \end{array} \right] \right) \right\rangle
 \end{array} \right] \right\rangle
 \end{array} \right.
 \end{array}
 \left. \right]$$

Questions About the Passive Rule

$$\left[\begin{array}{l}
 \text{INPUT} \left\langle \boxed{1}, \left[\begin{array}{l}
 \text{ARG-ST} \langle [\text{INDEX } i] \rangle \oplus \boxed{A} \\
 \text{tv-lxm}
 \end{array} \right] \right\rangle \\
 \text{OUTPUT} \left\langle F_{PSP}(\boxed{1}), \left[\begin{array}{l}
 \text{SYN} \left[\text{HEAD} \left[\text{FORM } \text{pass} \right] \right] \\
 \text{ARG-ST} \boxed{A} \oplus \left\langle \left(\begin{array}{l}
 \text{PP} \\
 \left[\begin{array}{l}
 \text{FORM } \text{by} \\
 \text{INDEX } i
 \end{array} \right] \right) \right\rangle
 \end{array} \right] \right\rangle
 \end{array} \right.
 \end{array}
 \right]$$

- Why is the morphological function F_{PSP} ?
- Why do we have a separate FORM value pass? Why not say the output is [FORM psp]?
- What kind of a PP is the *by*-phrase (that is, argument-marking or predicational)?

More Questions

$$\left[\begin{array}{l}
 \text{d-rule} \\
 \text{INPUT} \left\langle \boxed{1}, \left[\begin{array}{l}
 \text{tv-lxm} \\
 \text{ARG-ST} \langle [\text{INDEX } i] \rangle \oplus \boxed{A}
 \end{array} \right] \right\rangle \\
 \text{OUTPUT} \left\langle \text{F}_{PSP}(\boxed{1}), \left[\begin{array}{l}
 \text{part-lxm} \\
 \text{SYN} \quad \left[\text{HEAD} \quad [\text{FORM } \text{pass}] \right] \\
 \text{ARG-ST} \quad \boxed{A} \oplus \left\langle \left(\begin{array}{l}
 \text{PP} \\
 \left[\begin{array}{l}
 \text{FORM} \quad \text{by} \\
 \text{INDEX} \quad i
 \end{array} \right] \right) \right\rangle
 \end{array} \right] \right\rangle
 \end{array} \right]
 \end{array} \right]$$

- What makes the object turn into the subject?
- Why is the type of the input *tv-lxm*?
- What would happen if it were just *verb-lxm*?

Intransitives have passives in German

In der Küche wird nicht getanzt.

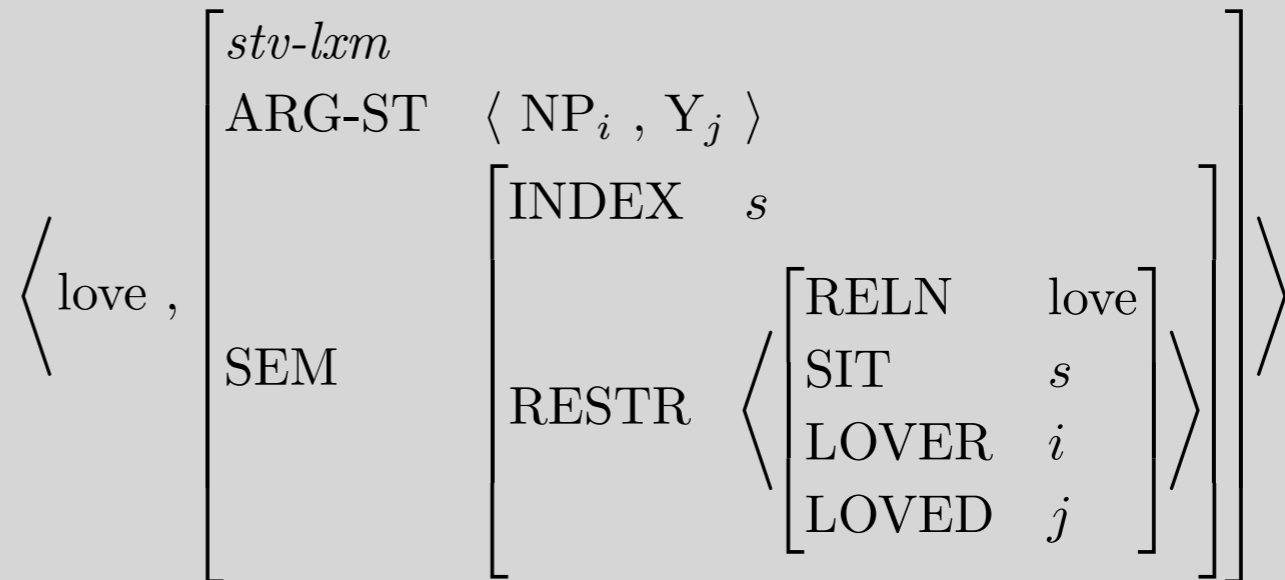
in the kitchen is not danced

‘There is no dancing in the kitchen.’

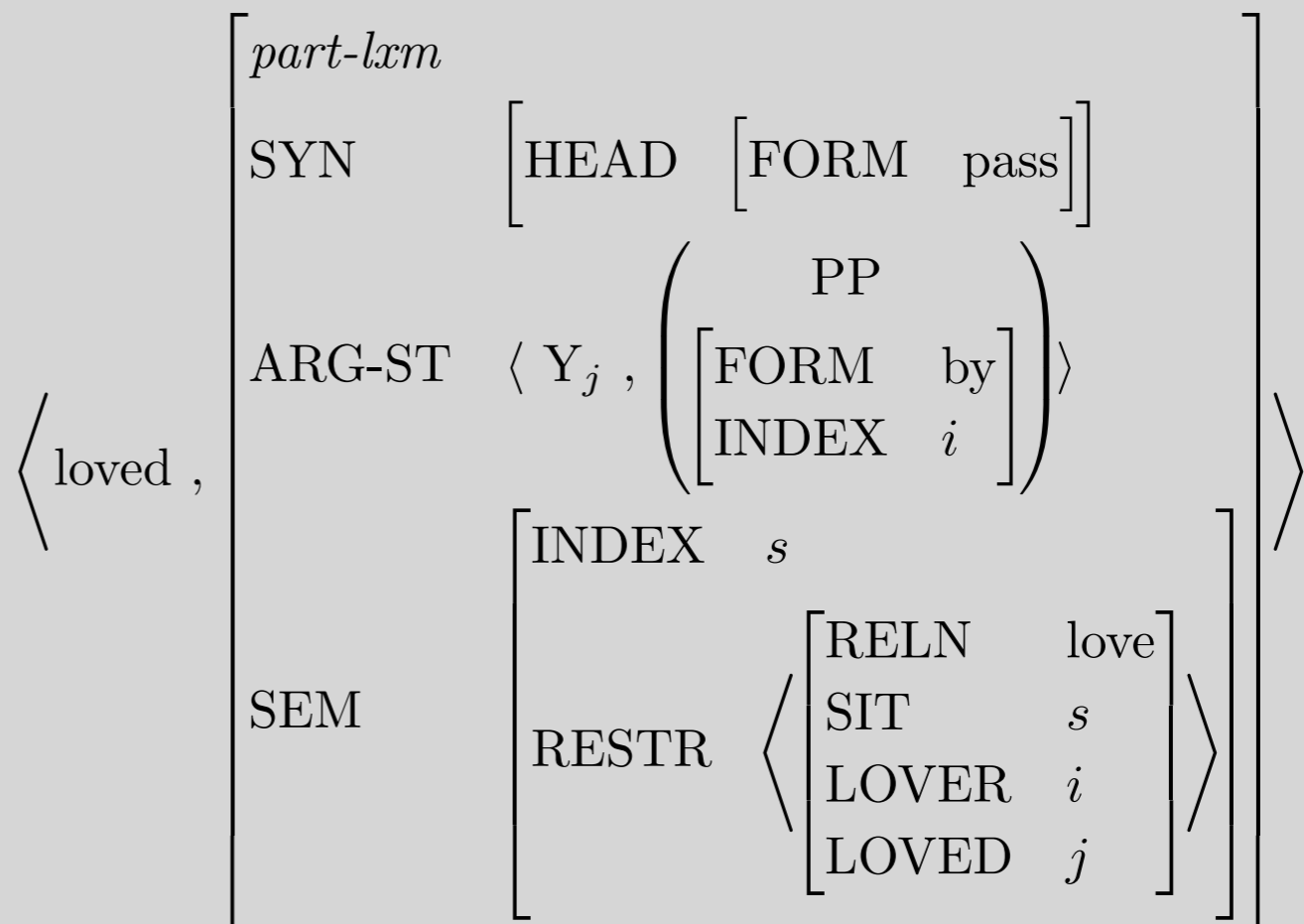
NB: The exact analysis for such examples is debatable, but German, like many other languages, allows passives of intransitives, as would be allowed by our analysis if the input type in the Passive LR is *verb-lxm*.

Passive Input & Output

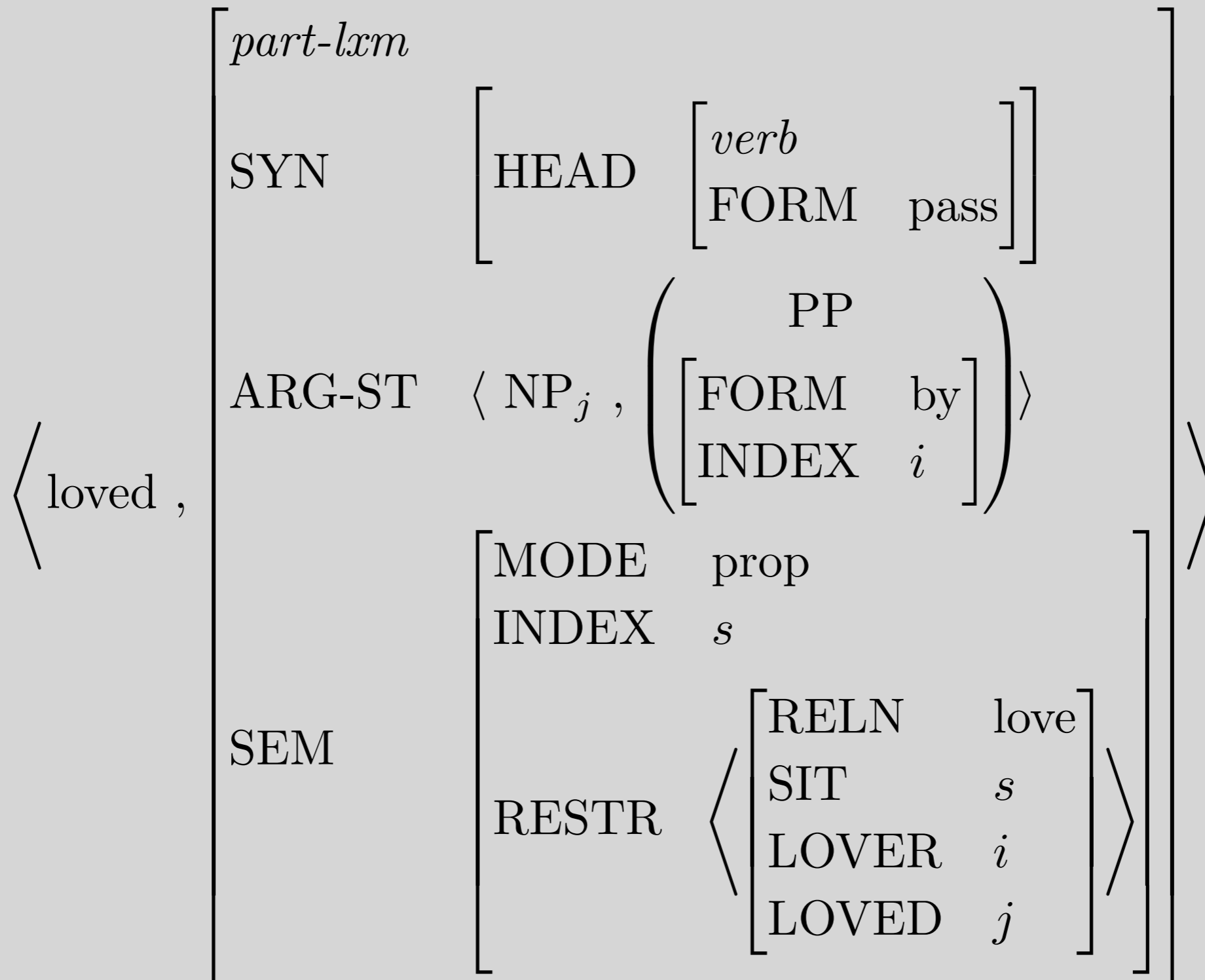
If you have one of these....



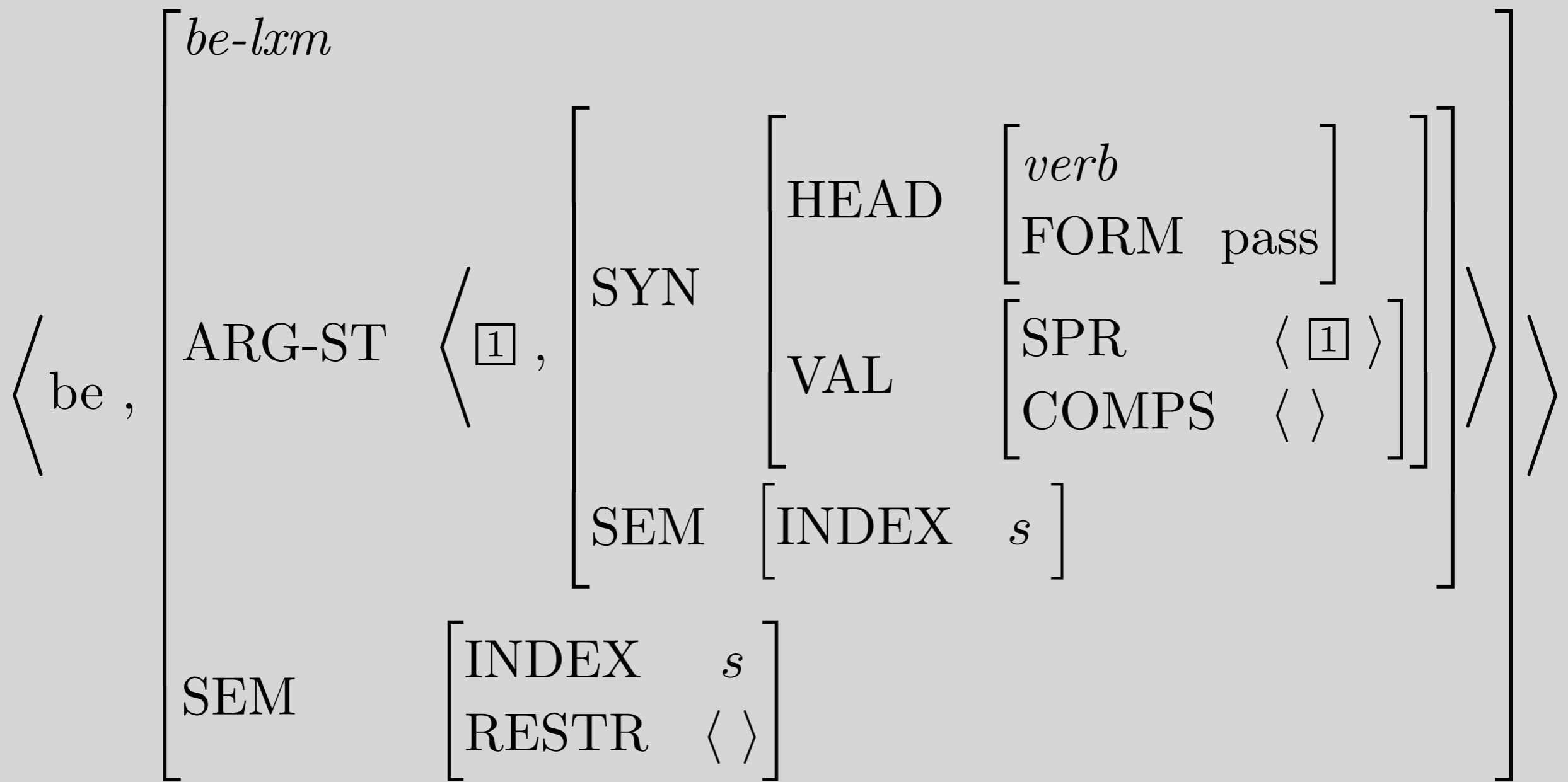
Then you also get one of these....



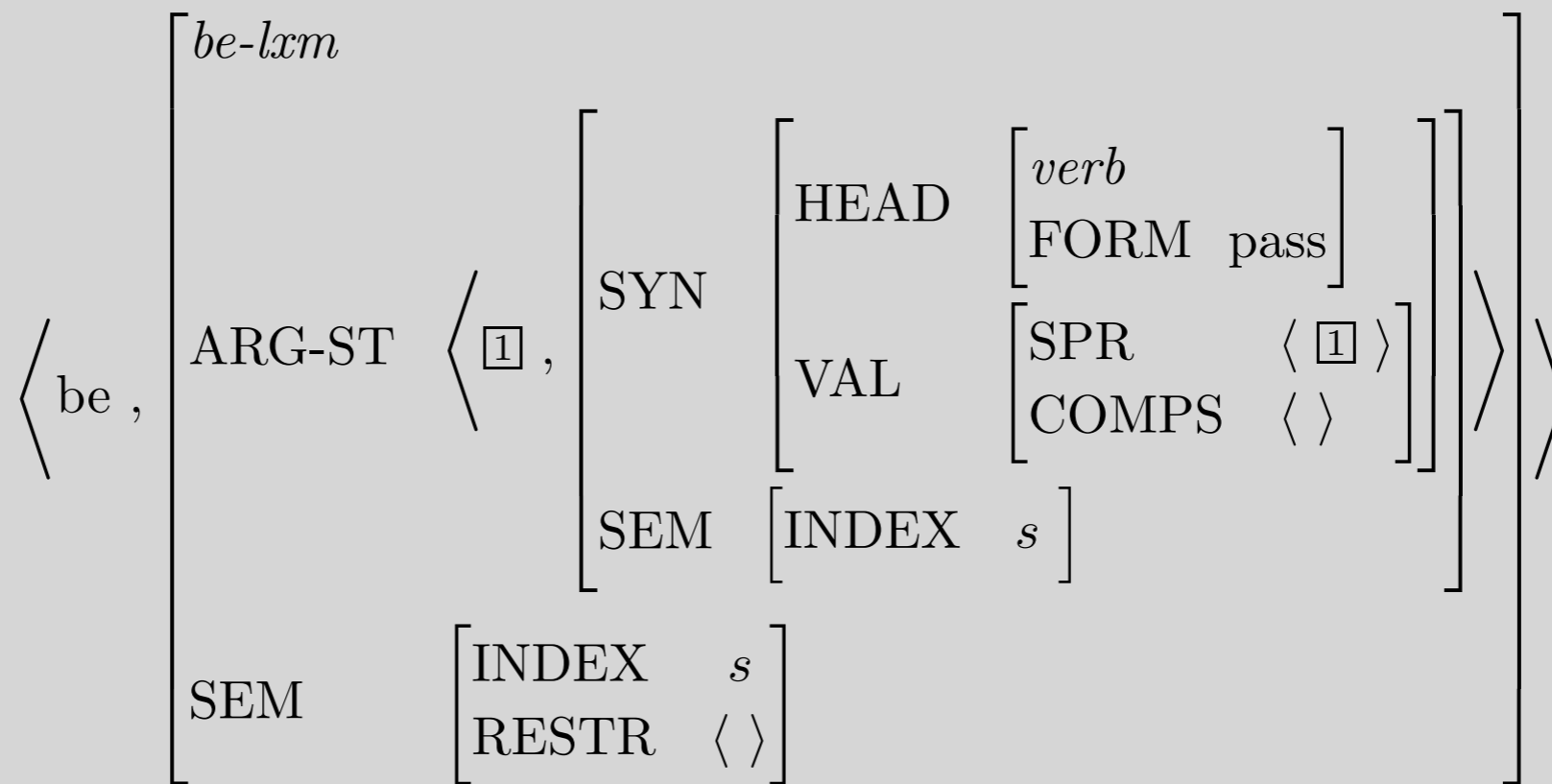
In a bit more detail...



The *be* that Occurs with Most Passives



Questions About the Entry for *be*



- Why doesn't it include valence features?
- What is the category of its complement (i.e. its 2nd argument)?
- What is its contribution to the semantics of the sentences it appears in?
- Why is the first argument tagged as identical to the second argument's SPR value?

Passive tree

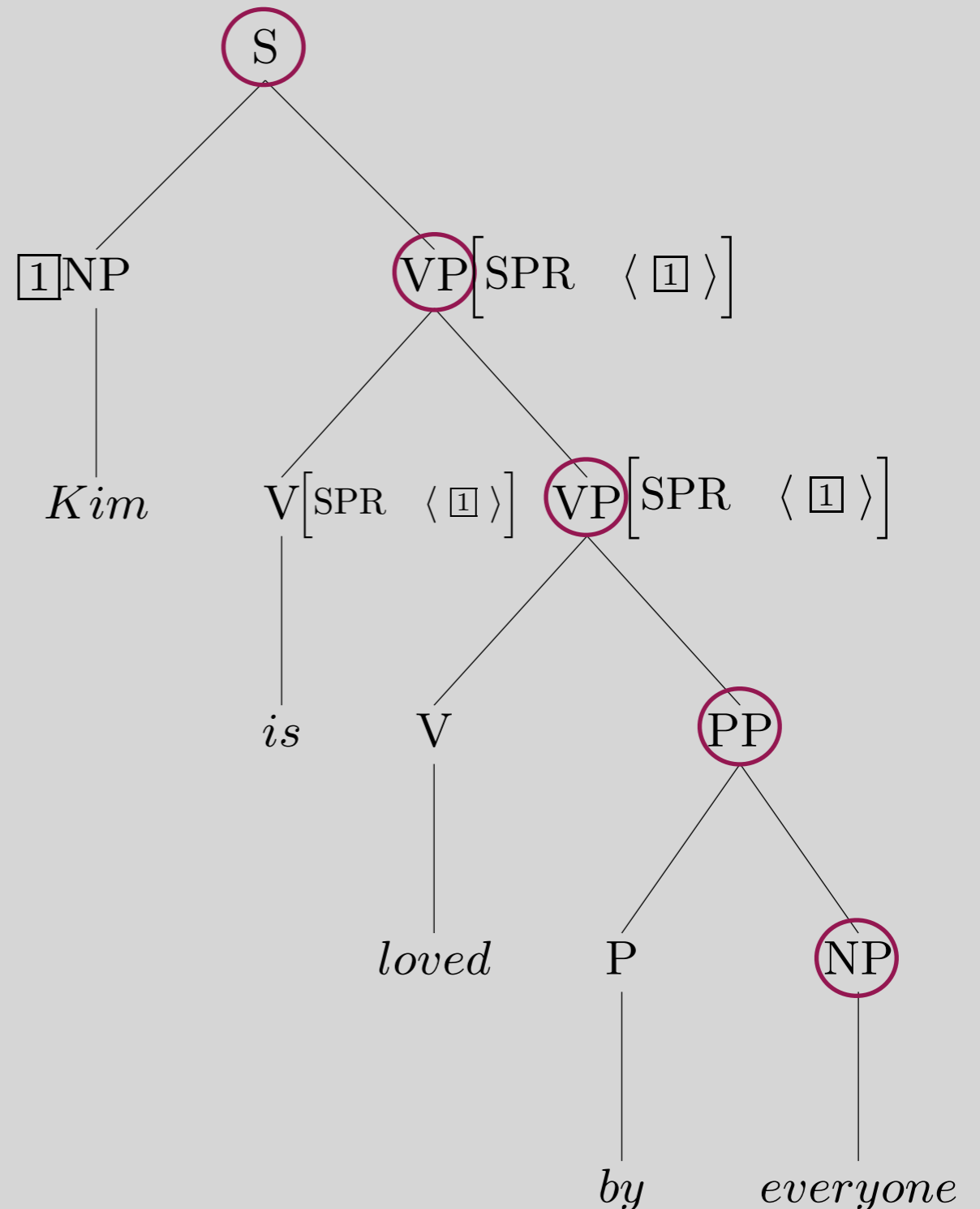
Which rule licenses each node?

What is the SPR value of the upper VP?

What is the SPR value of the lower VP?

What is the SPR value of *is*?

Any questions?



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W The verb **be** just does away with the **SPR** of its complement and I think that's:

Sneaky!

Unfair! The verb needed that SPR!

Confusing! How can a requirement just go away?

Subtle! I can see it works, but it's still surprising

Elegant!

More Questions

- Why do we get
They are noticed by everyone
and not
**Them are noticed by everyone?*
- Why don't we get
**They is noticed by everyone?*
- What would facts like these entail for a transformational analysis?

Overview

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Reading Questions

- How would the Passive Lexical Rule handle verbs that do not have passive forms? E.g. beware, belong

Reading Questions

- It's unclear to me what these examples are supposed to illustrate:
 - (21)a. The cat was bitten by the dog.
 - b.*The cat were bitten by the dog.
- It seems very obvious to me that the cat is the subject of was. Why would the cat being the subject of was prevent it from also being the subject of bitten? Am I misunderstanding the point of these examples?

Reading Questions

- On page 320, it says that "be" in passive constructions is of type *be-lxm*. Is that going to be the same lexeme type for other verbs in passive constructions, such as "get", which carries alternative additional meaning than "be" (end of action rather than a state)?

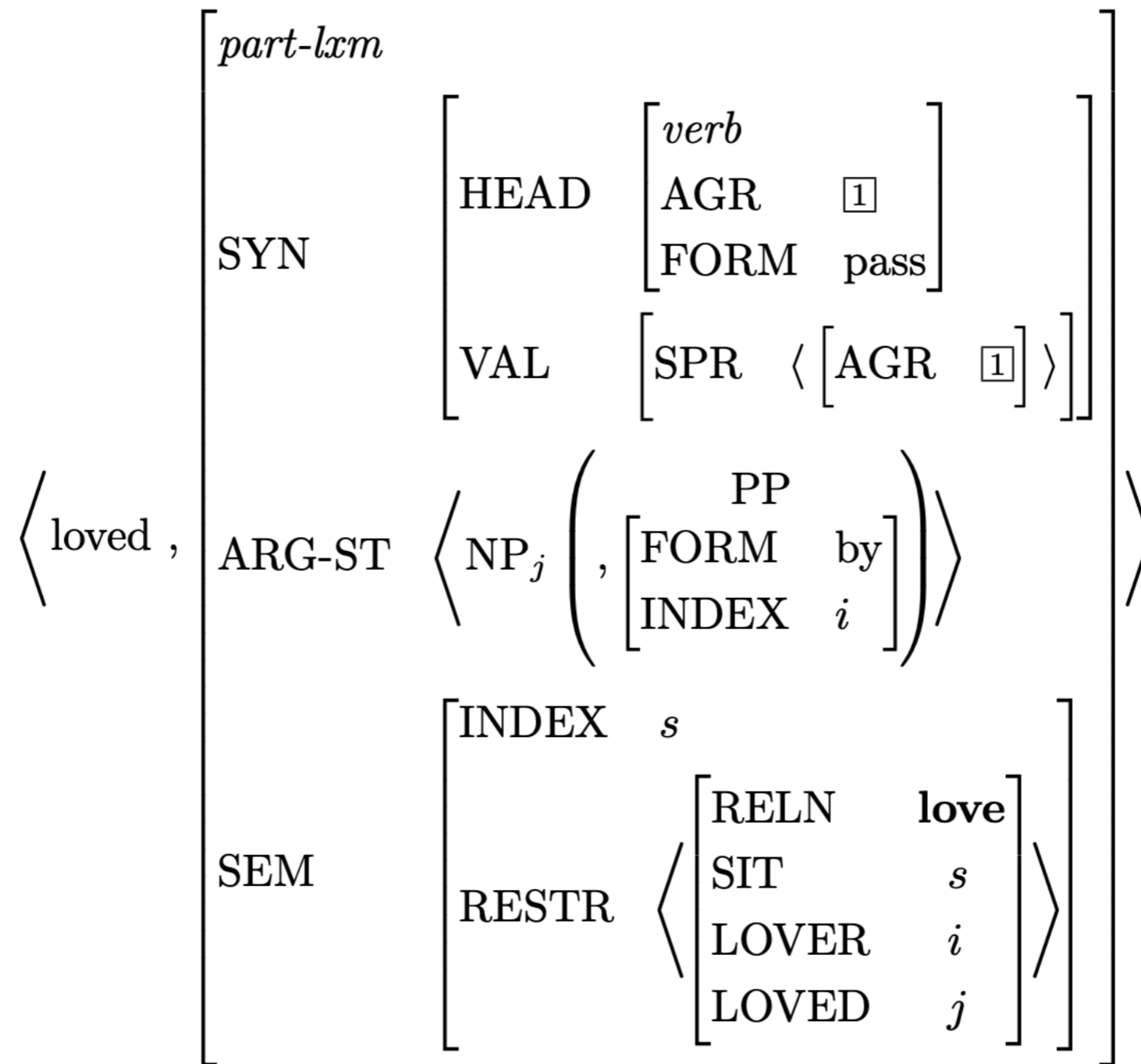
Reading Questions

- According to the footnote on p.313, that the Passive Lexical Rule should be a d-rule is also supported by the passivization rule in French since any passive participle has four inflected forms. I am a bit confused by this argument. Does it mean that for the passivization rule in French, the INPUT and OUTPUT cannot agree in SYN since they could differ in number and gender?

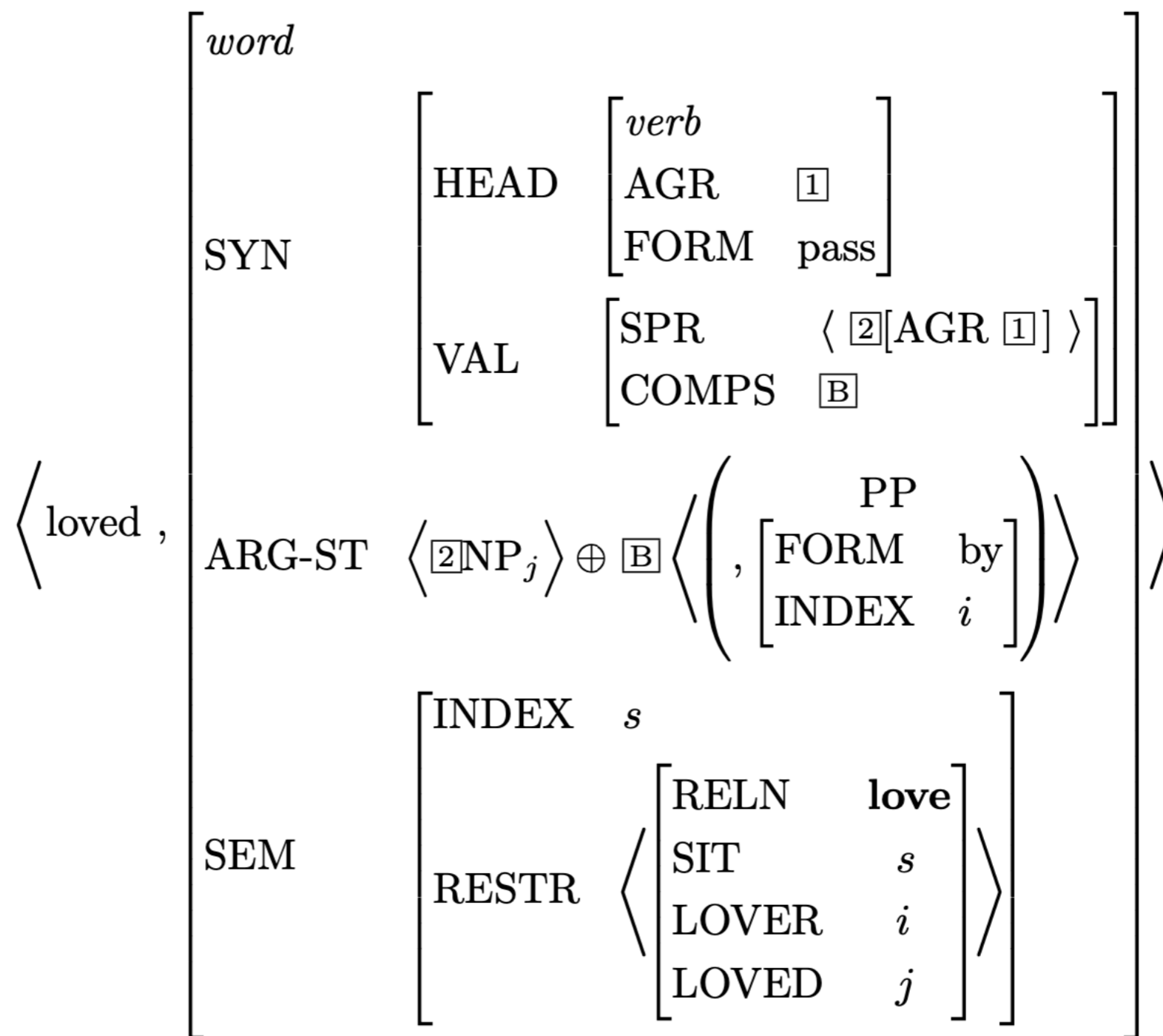
Reading Questions

- I don't really understand what's going on when we apply the constant lexeme lexical rule (for instance going from (18) to (19)). Could we go over that in detail?

(18)



(19)



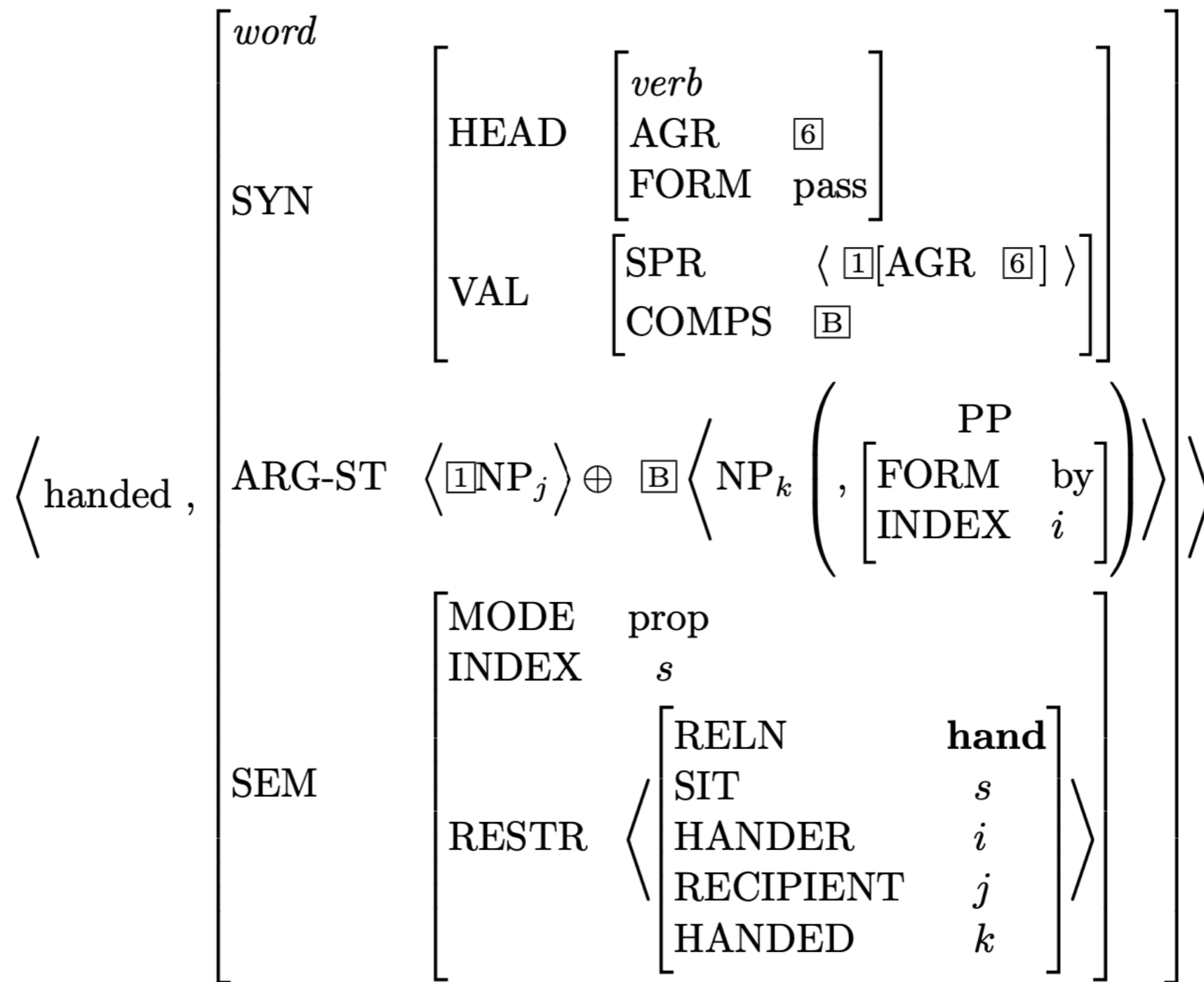
Reading Questions

- I'm still unsure about the differences between "lexical entry" and "lexical sequence." (23) is the lexical entry for the passive be and (25) is said to be a family of lexical sequences. Does a lexical sequence have more features specified than a lexical entry? Is a family of lexical sequences less specified than a particular lexical sequence?

Reading Questions

- The difference between (29) and (30) on page 324: 'Lexical sequences like (29) form the basis for word structures like (30), where the optionality of the PP is resolved, and the Case Constraint and the Binding Theory come into play'.

(29)



(30)

<i>word</i>	
SYN	$\left[\begin{array}{l} \text{HEAD} \left[\begin{array}{l} \textit{verb} \\ \text{AGR} \quad \boxed{6} \\ \text{FORM} \quad \textit{pass} \end{array} \right] \\ \text{VAL} \left[\begin{array}{l} \text{SPR} \quad \langle \boxed{1}[\text{AGR} \quad \boxed{6}] \rangle \\ \text{COMPS} \quad \langle \boxed{2}, \boxed{3} \rangle \end{array} \right] \end{array} \right]$
ARG-ST	$\left\langle \boxed{1}\text{NP}_j, \boxed{2}\text{NP}_k[\textit{acc}], \left[\begin{array}{l} \boxed{3}\text{PP} \\ \text{FORM} \quad \textit{by} \\ \text{INDEX} \quad i \end{array} \right] \right\rangle$
SEM	$\left[\begin{array}{l} \text{MODE} \quad \textit{prop} \\ \text{INDEX} \quad s \\ \text{RESTR} \left\langle \begin{array}{l} \text{RELN} \quad \textbf{hand} \\ \text{SIT} \quad s \\ \text{HANDER} \quad i \\ \text{RECIPIENT} \quad j \\ \text{HANDED} \quad k \end{array} \right\rangle \end{array} \right]$

handed

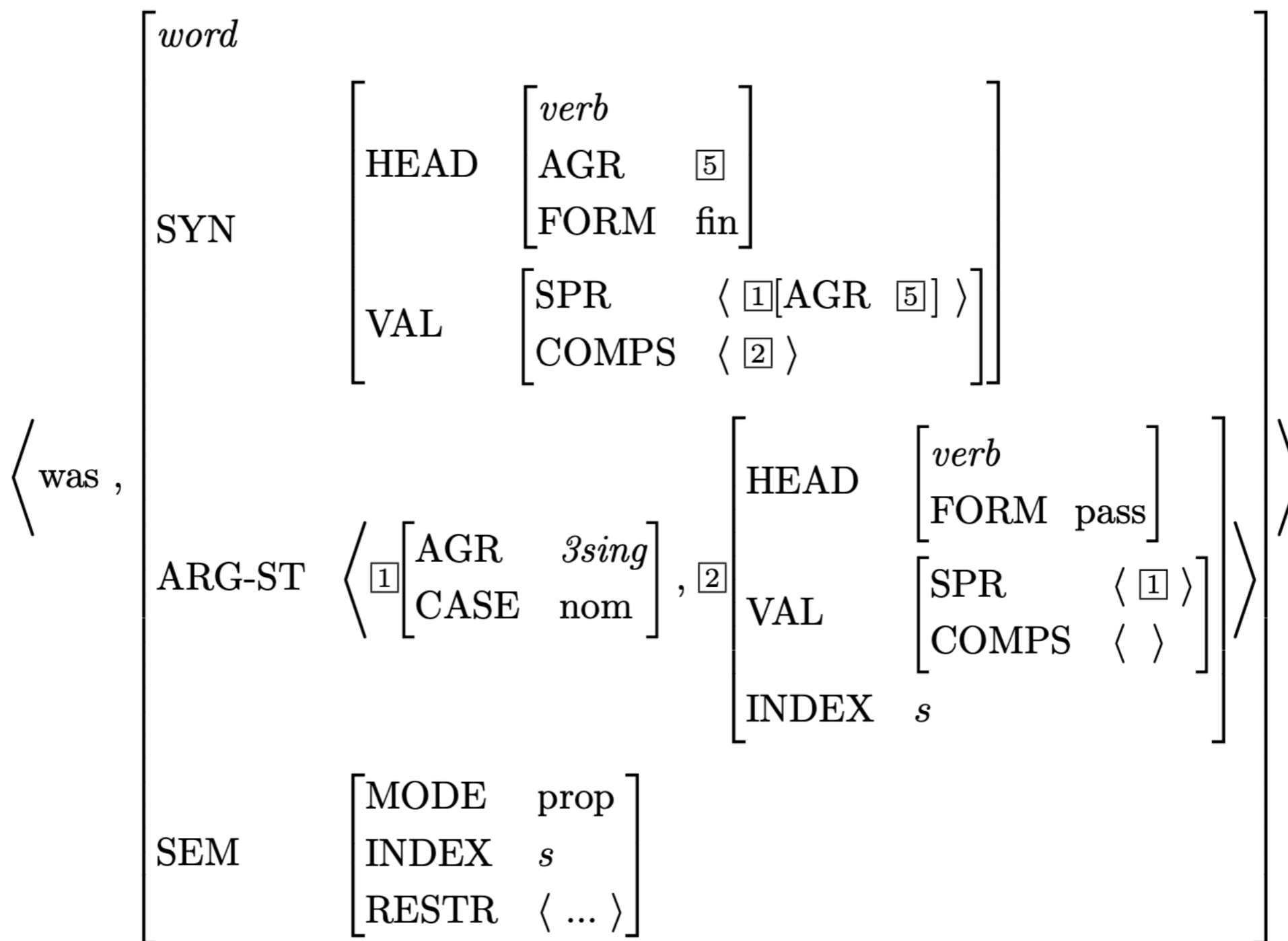
Reading Questions

- I can see that the ARG-ST has been reformatted here, but what is it that resolves the PP optionality? Isn't it always optional regardless of the verb? Also why the change in symbols from \oplus in (29) to a comma in (30) - isn't the end result the same? Finally, since the end result (except the PP optionality) is essentially the same, how does this then link (30) to Binding Theory (in a way that (29) doesn't)?

Reading Questions

- Regarding (25), I was also a little confused by the 3sing value in the SPR feature, but I was wondering if it's because it says on the previous page that "In this phrase structure (referring to (24)), the word was is part of a family of lexical sequences constrained as shown in (25):". Can I interpret this as there's a different lexical sequence for was which takes 1sing SPR?

(25)



Reading Questions

- What is the motivation of marking the inflected forms of verbs and the preposition of a PP as a shared feature, FORM? Why don't we just use another head feature (say, PREP) to mark the latter and make the possible values of FORM less mixed?

Reading Questions

- "Since the set of prepositions in English is a relatively small, closed set, we might (in the limiting case) have a separate value of FORM for each preposition." (p.316) If the FORM value of a preposition only stores information about what preposition a PP can be headed by, why is it relevant that English has a small, closed set of prepositions? What difference would it make if English had 100 prepositions instead?

Reading Questions

- Do our new FORM values for prepositions mean we can't coordinate them? It feels like we should be able to - e.g. "I'll see you in class and at the Treehouse meeting."