Ling 566
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Passive Construction

Overview

- Passive

  - Arguments for lexicalist account

  - Details of our analysis

- Questions

- Ch 11 preview

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 by the door

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

  Cats chased by dogs usually get away.

  My cat was attacked.

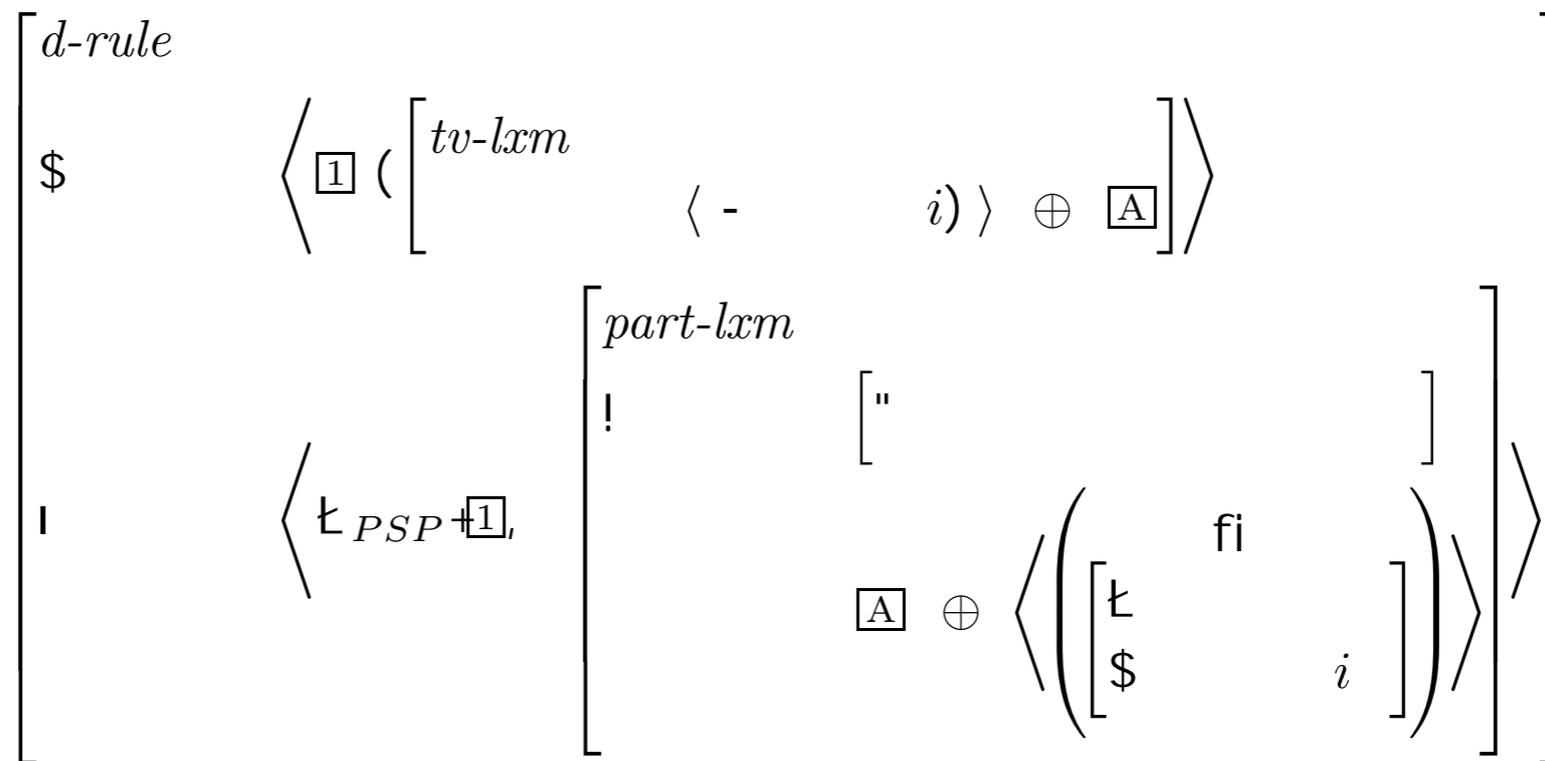# So a lexical analysis seems called for

- 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.

The Passive Lexical Rule

$$
\begin{bmatrix}
\textit{d-rule} \\
\$ \quad \left\langle \boxed{1} \, \left(\begin{bmatrix} \textit{tv-lxm} \\ \\ \quad\quad \langle\ \text{-} \quad\quad i)\ \rangle \quad \oplus \quad \boxed{A} \end{bmatrix} \right. \right\rangle \\
\\
\rule{0pt}{12pt} \quad \left\langle \text{Ł}_{PSP} \text{+}\boxed{1}, \begin{bmatrix} \textit{part-lxm} \\ ! \quad\quad \begin{bmatrix} " \\ \\ \\ \boxed{A} \quad \oplus \quad \left\langle \left(\begin{bmatrix} \text{Ł} & \text{fi} \\ \$ & & i \end{bmatrix} \right) \right\rangle \end{bmatrix} \end{bmatrix} \right\rangle
\end{bmatrix}
$$

Questions About the Passive Rule

- 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

$$
\left[
\begin{array}{l}
\textit{d-rule} \\[2em]
\$ \qquad \left\langle \boxed{1}\ \left(\left[\begin{array}{l} \textit{tv-lxm} \\[1em] \qquad\qquad \langle\ \text{-} \qquad\quad i)\ \rangle \quad \oplus \quad \boxed{A} \end{array} \right] \right\rangle \\[4em]
| \qquad \left\langle \text{Ł}_{PSP} + \boxed{1},\ \left[\begin{array}{l} \textit{part-lxm} \\[1em] !\qquad\qquad\qquad \left[" \right. \\[2em] \qquad\qquad \boxed{A} \ \oplus\ \left\langle \left(\left[\begin{array}{ll} \text{Ł} & \text{fi} \\ \$ & i \end{array} \right] \right) \right\rangle \end{array} \right] \right\rangle
\end{array}
\right]
$$
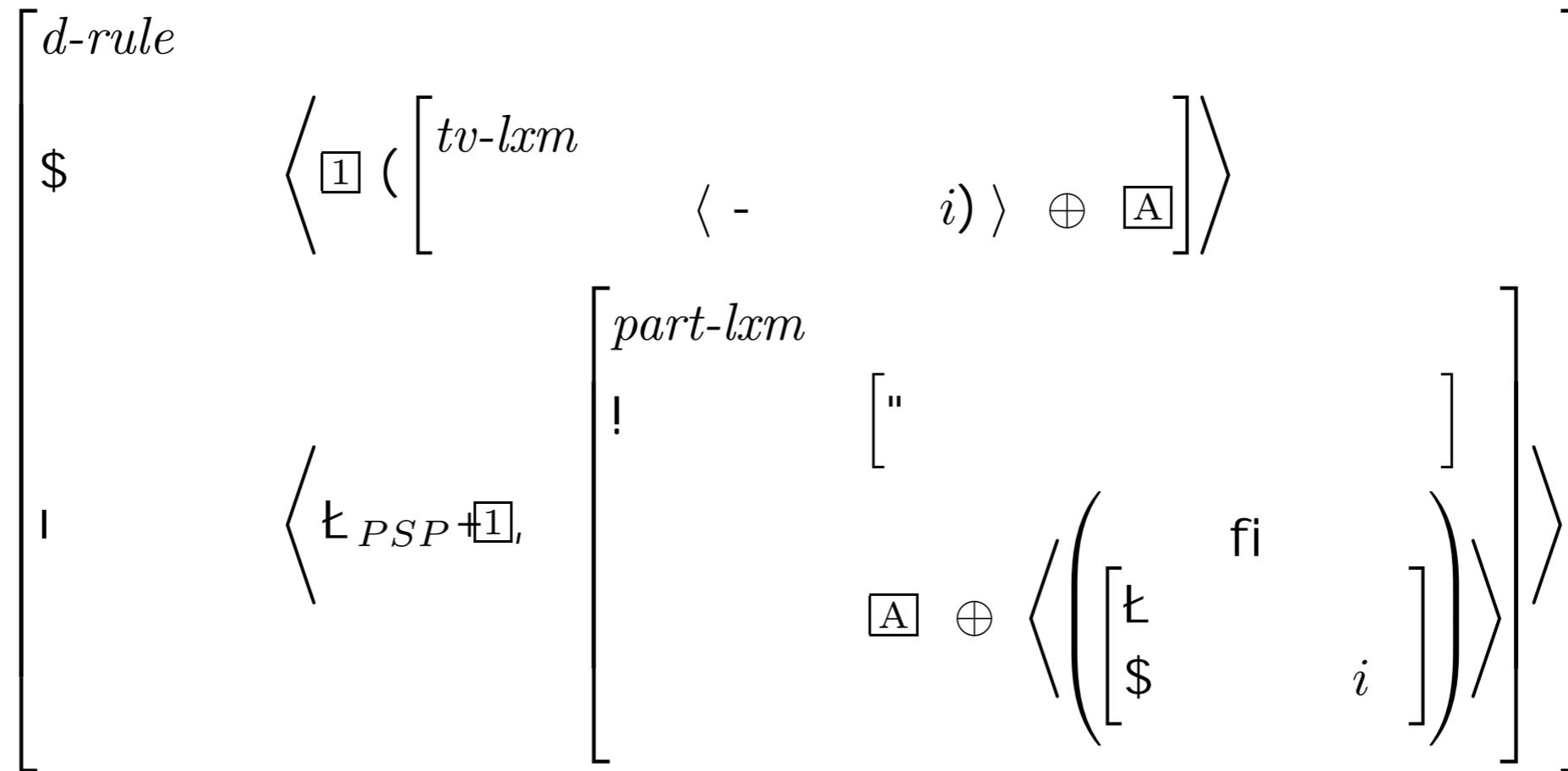
- What makes the object turn into the subject?
- Why is the type of the input *tv-lxm*?
- What would happen if it were just *verb-lxm*?

Intransitives have passives in German

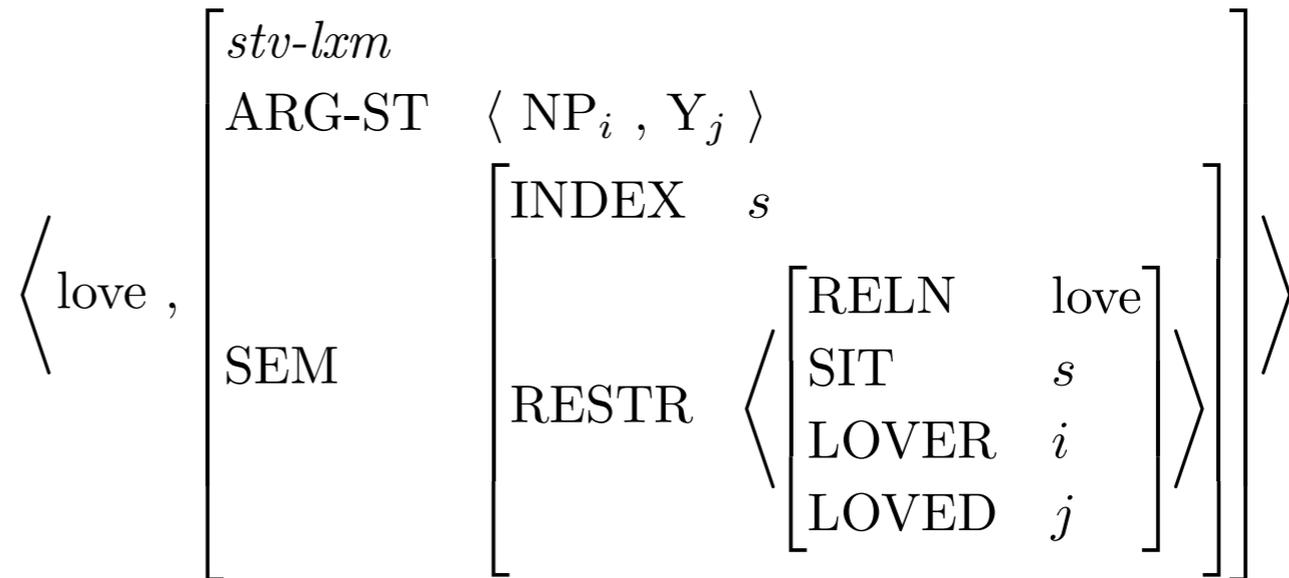*In der Küche wird nicht getanzt.*
in the kitchen   is   not   danced
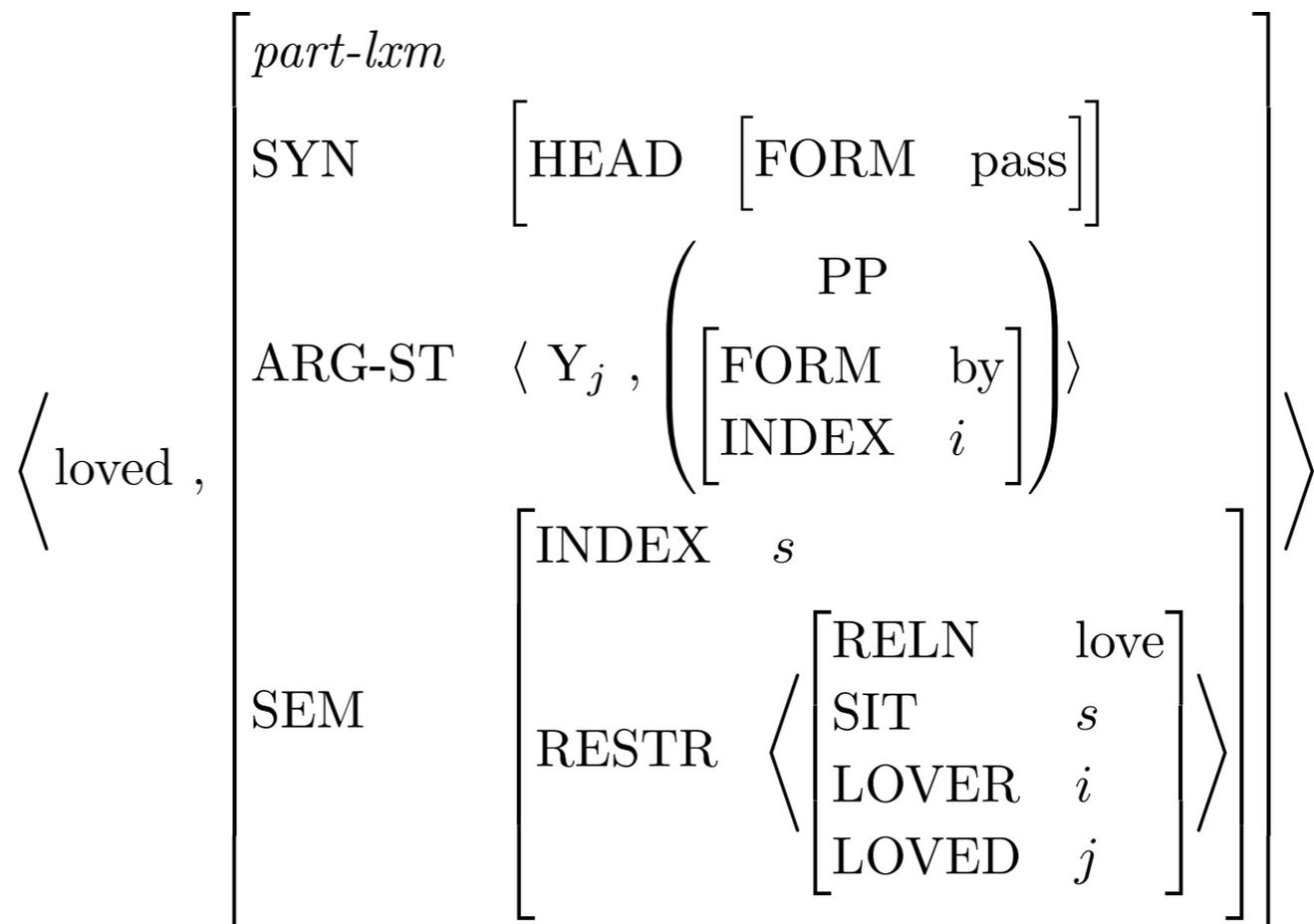 'There is no dancing in the kitchen.'

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*.
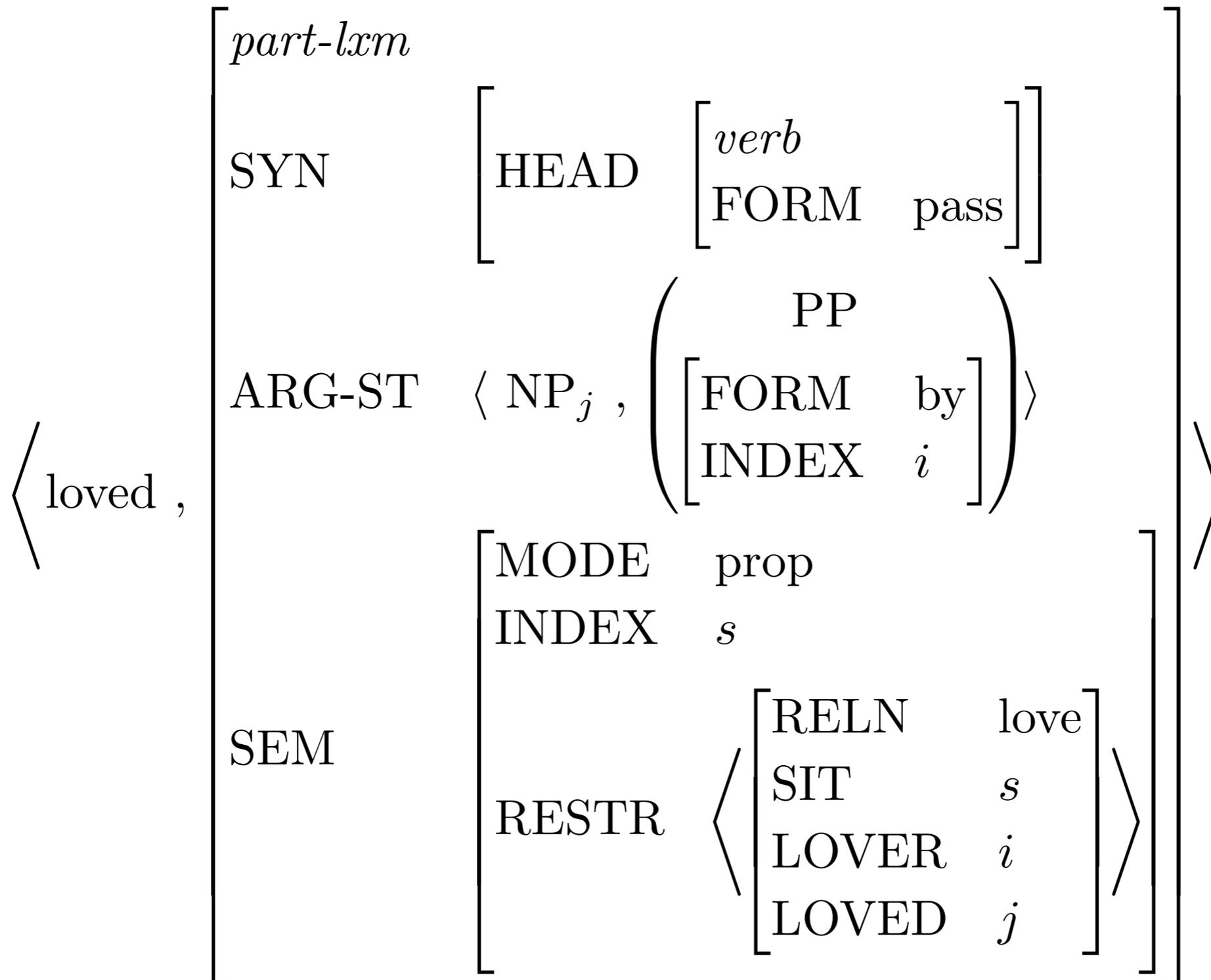
Passive Input & Output

If you have one of
these....

$$\left\langle \text{love} , \begin{bmatrix} \textit{stv-lxm} \\ \text{ARG-ST} & \langle \text{NP}_i , \text{Y}_j \rangle \\ \text{SEM} & \begin{bmatrix} \text{INDEX} & s \\ \text{RESTR} & \left\langle \begin{bmatrix} \text{RELN} & \text{love} \\ \text{SIT} & s \\ \text{LOVER} & i \\ \text{LOVED} & j \end{bmatrix} \right\rangle \end{bmatrix} \end{bmatrix} \right\rangle$$

Then you also get
one of these....

$$\left\langle \text{loved} , \begin{bmatrix} \textit{part-lxm} \\ \text{SYN} & \begin{bmatrix} \text{HEAD} & \begin{bmatrix} \text{FORM} & \text{pass} \end{bmatrix} \end{bmatrix} \\ \text{ARG-ST} & \left\langle \text{Y}_j , \begin{pmatrix} \text{PP} \\ \begin{bmatrix} \text{FORM} & \text{by} \\ \text{INDEX} & i \end{bmatrix} \end{pmatrix} \right\rangle \\ \text{SEM} & \begin{bmatrix} \text{INDEX} & s \\ \text{RESTR} & \left\langle \begin{bmatrix} \text{RELN} & \text{love} \\ \text{SIT} & s \\ \text{LOVER} & i \\ \text{LOVED} & j \end{bmatrix} \right\rangle \end{bmatrix} \end{bmatrix} \right\rangle$$

Actually...

$$
\left\langle \text{loved} , \begin{bmatrix} \textit{part-lxm} \\ \\ \text{SYN} & \begin{bmatrix} \text{HEAD} & \begin{bmatrix} \textit{verb} \\ \text{FORM} & \text{pass} \end{bmatrix} \end{bmatrix} \\ \\ \text{ARG-ST} & \left\langle \text{NP}_j , \begin{pmatrix} \text{PP} \\ \begin{bmatrix} \text{FORM} & \text{by} \\ \text{INDEX} & i \end{bmatrix} \end{pmatrix} \right\rangle \\ \\ \text{SEM} & \begin{bmatrix} \text{MODE} & \text{prop} \\ \text{INDEX} & s \\ \text{RESTR} & \left\langle \begin{bmatrix} \text{RELN} & \text{love} \\ \text{SIT} & s \\ \text{LOVER} & i \\ \text{LOVED} & j \end{bmatrix} \right\rangle \end{bmatrix} \end{bmatrix} \right\rangle
$$

The *be* that Occurs with Most Passives

$$
\left\langle \text{be} , \begin{bmatrix} \textit{be-lxm} \\[4pt] \text{ARG-ST} \quad \left\langle \boxed{1} , \begin{bmatrix} \text{SYN} \begin{bmatrix} \text{HEAD} \begin{bmatrix} \textit{verb} \\ \text{FORM} \quad \text{pass} \end{bmatrix} \\[8pt] \text{VAL} \begin{bmatrix} \text{SPR} \quad \langle \boxed{1} \rangle \\ \text{COMPS} \quad \langle \, \rangle \end{bmatrix} \end{bmatrix} \\[16pt] \text{SEM} \begin{bmatrix} \text{INDEX} \quad s \end{bmatrix} \end{bmatrix} \right\rangle \\[20pt] \text{SEM} \begin{bmatrix} \text{INDEX} \quad s \\ \text{RESTR} \quad \langle \, \rangle \end{bmatrix} \end{bmatrix} \right\rangle
$$
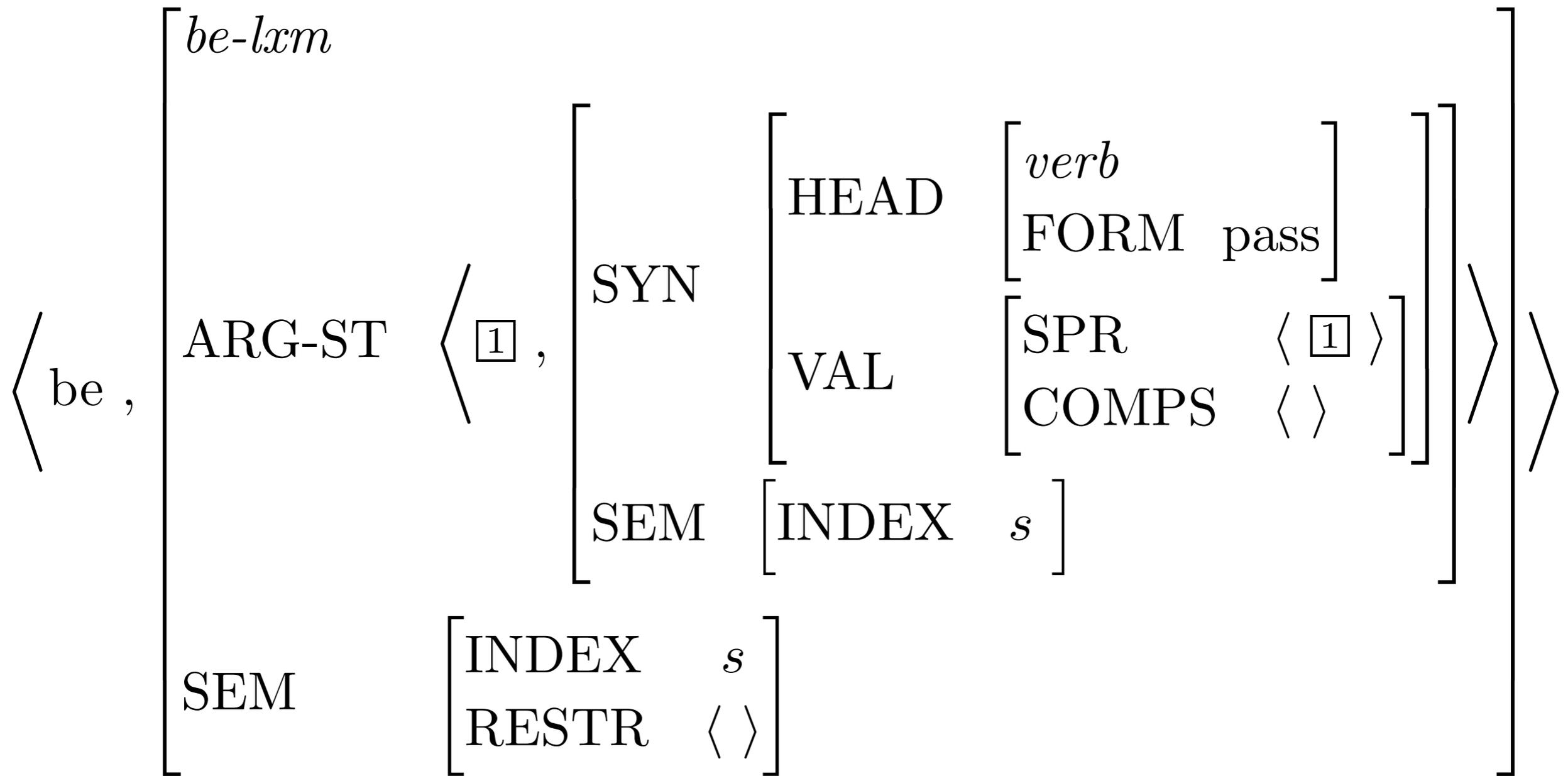
Questions About the Entry for *be*

$$
\left\langle \text{be} , \begin{bmatrix} \textit{be-lxm} \\[4pt] \text{ARG-ST} \quad \left\langle \boxed{1} , \begin{bmatrix} \text{SYN} & \begin{bmatrix} \text{HEAD} & \begin{bmatrix} \textit{verb} \\ \text{FORM} \quad \text{pass} \end{bmatrix} \\[10pt] \text{VAL} & \begin{bmatrix} \text{SPR} & \langle \boxed{1} \rangle \\ \text{COMPS} & \langle \; \rangle \end{bmatrix} \end{bmatrix} \\[10pt] \text{SEM} & \begin{bmatrix} \text{INDEX} & s \end{bmatrix} \end{bmatrix} \right\rangle \\[14pt] \text{SEM} \quad \begin{bmatrix} \text{INDEX} & s \\ \text{RESTR} & \langle \; \rangle \end{bmatrix} \end{bmatrix} \right\rangle
$$
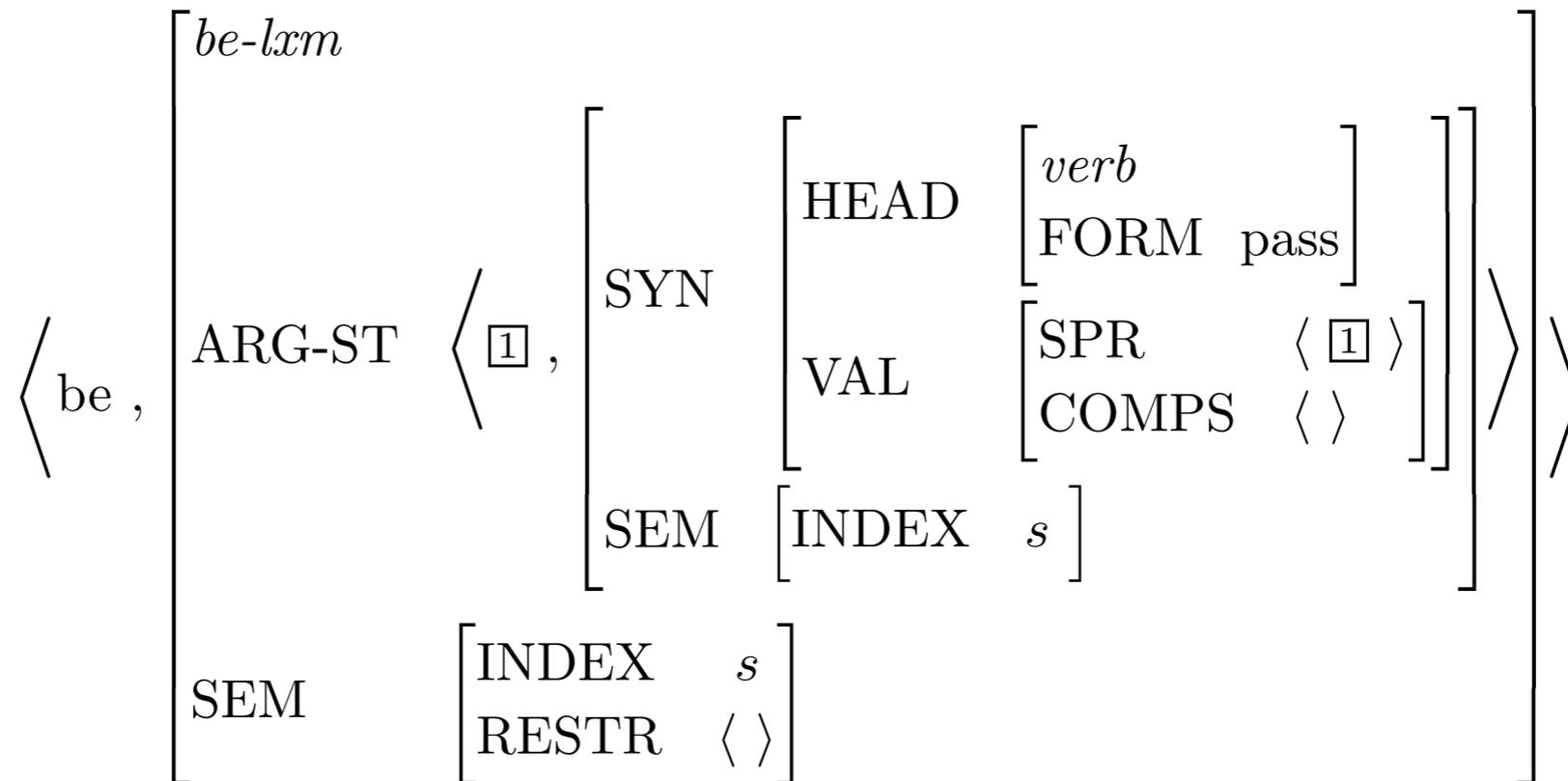
- Why doesn't it include valence features?
- What is the category of its complement (i.e. its 2$^{\text{nd}}$ argument)?
- What is its contribution to the semantics of the sentences it appears in?
- Why is the first argument tagged as identical to the second argument's SPR value?

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?

S

$\boxed{1}$ NP

VP $\left[\text{SPR} \quad \langle \boxed{1} \rangle \right]$

Kim

V $\left[\text{SPR} \quad \langle \boxed{1} \rangle \right]$

VP $\left[\text{SPR} \quad \langle \boxed{1} \rangle \right]$

is

V

PP

loved

P

NP

by
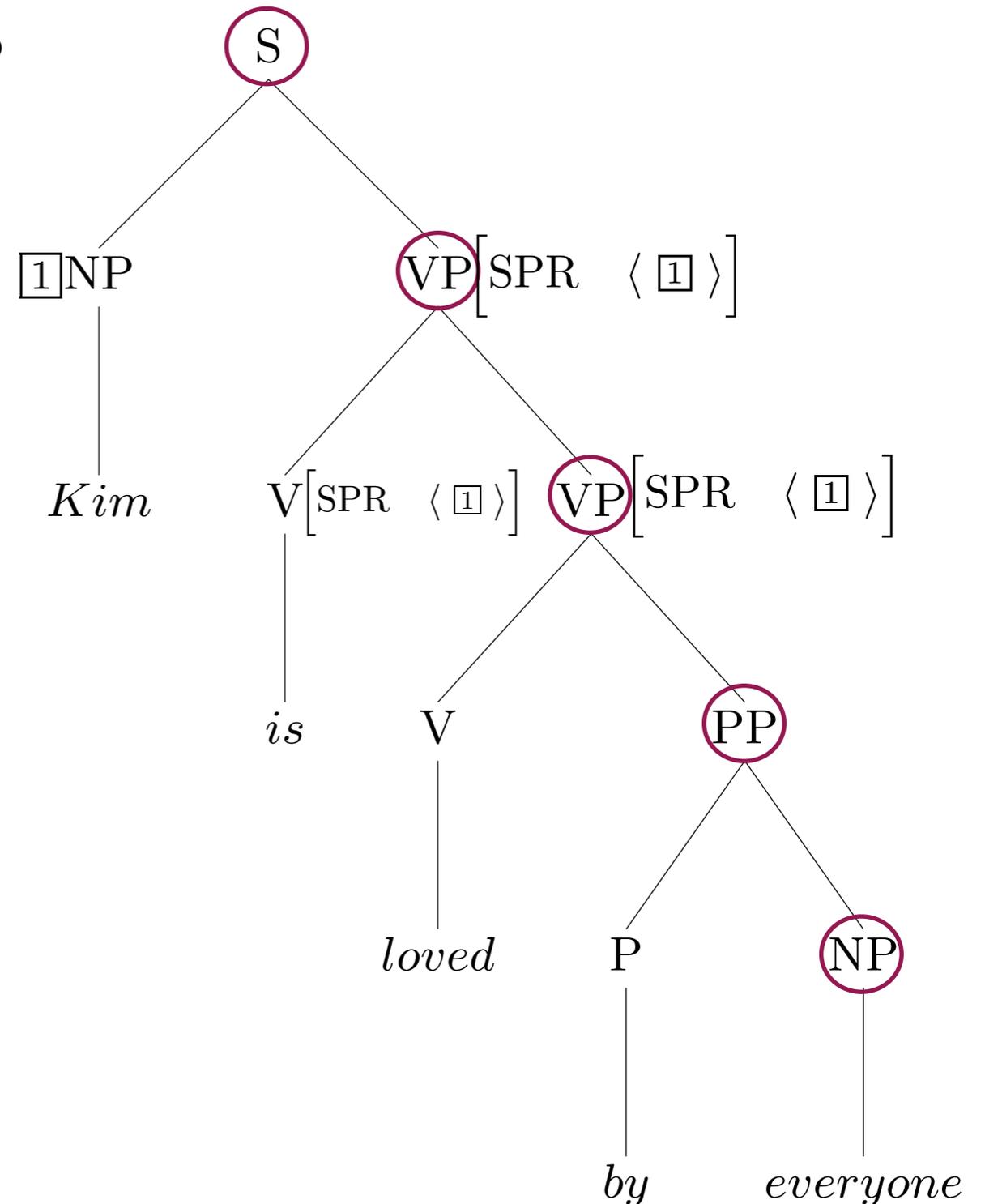
everyone

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

- Passive

  - Arguments for lexicalist account

  - Details of our analysis

- Questions

- Reading Questions

Reading Questions

- Is the only thing preventing a passive verb from combining with the subject without a helper like a form of "be" because the FORM would not be fin and it wouldn't be a valid S, or is there something else preventing that tree from existing (even as a subtree)?

Reading Questions

- Previously, lex entries specified SPR and COMPS, and the ARG-ST was a derivative based on the ARP that doesn't really exist as its own thing but rather is an amalgamation that makes writing some rules easier. But now there are rules treating ARG-ST as the primary and messing with it and expecting those changes to reflect back on the SPR and COMPS rather than the other way around. Which is primary and why?

Reading Questions

- What sorts of things would need to change to make the rule applicable to other languages that have some form of passive voice (French, for example)?

- How is coordination of passive verb phrases handled?

Reading Questions

- Aren't we generating *You are loved by I*?

- The book (p.314) shows how to derive the ARG-ST <NPj PP[to],PP[by]>, how would we generate the alternate order <NPj PP[by],PP[to]>?

  - *A letter was faxed by Kim to Sandy.*

- How do we get *The cat is being bitten by the dog?*