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Passive Construction

Overview

- Passive

  - Arguments for lexicalist account

  - Details of our analysis

- Reading 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

$$
\begin{bmatrix}
\textit{d-rule} \\[6pt]
\text{INPUT} \quad \left\langle\; \boxed{1}\;,\; \begin{bmatrix} \textit{tv-lxm} \\ \text{ARG-ST} \quad \langle\; [\text{INDEX } i]\; \rangle \;\oplus\; \boxed{A} \end{bmatrix} \right\rangle \\[30pt]
\text{OUPUT} \quad \left\langle\; \text{F}_{PSP}(\boxed{1})\;,\; \begin{bmatrix} \textit{part-lxm} \\[6pt] \text{SYN} \qquad\quad \begin{bmatrix} \text{HEAD} \quad [\text{FORM} \quad \text{pass }] \end{bmatrix} \\[18pt] \text{ARG-ST} \quad \boxed{A} \;\oplus\; \left\langle \left(\begin{bmatrix} \qquad\qquad \text{PP} \\ \text{FORM} \quad \text{by} \\ \text{INDEX} \quad i \end{bmatrix} \right) \right\rangle \end{bmatrix} \right\rangle
\end{bmatrix}
$$

Questions About the Passive Rule

$$
\begin{bmatrix}
\textit{d-rule} \\[2pt]
\text{INPUT} \quad \left\langle \boxed{1}\;,\; \begin{bmatrix} \textit{tv-lxm} \\ \text{ARG-ST} \quad \langle\, [\text{INDEX } i]\, \rangle \;\oplus\; \boxed{A} \end{bmatrix} \right\rangle \\[10pt]
\text{OUPUT} \quad \left\langle \mathrm{F}_{PSP}(\boxed{1})\;,\; \begin{bmatrix} \textit{part-lxm} \\ \text{SYN} \qquad \begin{bmatrix} \text{HEAD} \quad [\text{FORM} \quad \text{pass}\,] \end{bmatrix} \\[8pt] \text{ARG-ST} \quad \boxed{A} \;\oplus\; \left\langle \begin{pmatrix} \text{PP} \\ \begin{bmatrix} \text{FORM} \quad \text{by} \\ \text{INDEX} \quad i \end{bmatrix} \end{pmatrix} \right\rangle \end{bmatrix} \right\rangle
\end{bmatrix}
$$

- 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

$$
\begin{bmatrix}
\textit{d-rule} \\[6pt]
\text{INPUT} \quad \left\langle \; \boxed{1} \;, \; \begin{bmatrix} \textit{tv-lxm} \\ \text{ARG-ST} \quad \langle \; [\text{INDEX } i] \; \rangle \; \oplus \; \boxed{A} \end{bmatrix} \right\rangle \\[20pt]
\text{OUPUT} \quad \left\langle \; \text{F}_{PSP}(\boxed{1}) \;, \; \begin{bmatrix} \textit{part-lxm} \\[4pt] \text{SYN} \quad\quad \begin{bmatrix} \text{HEAD} \quad [\text{FORM} \;\; \text{pass}] \end{bmatrix} \\[12pt] \text{ARG-ST} \quad \boxed{A} \; \oplus \; \left\langle \left(\begin{matrix} \text{PP} \\ \begin{bmatrix} \text{FORM} \quad \text{by} \\ \text{INDEX} \quad i \end{bmatrix} \end{matrix} \right) \right\rangle \end{bmatrix} \right\rangle
\end{bmatrix}
$$

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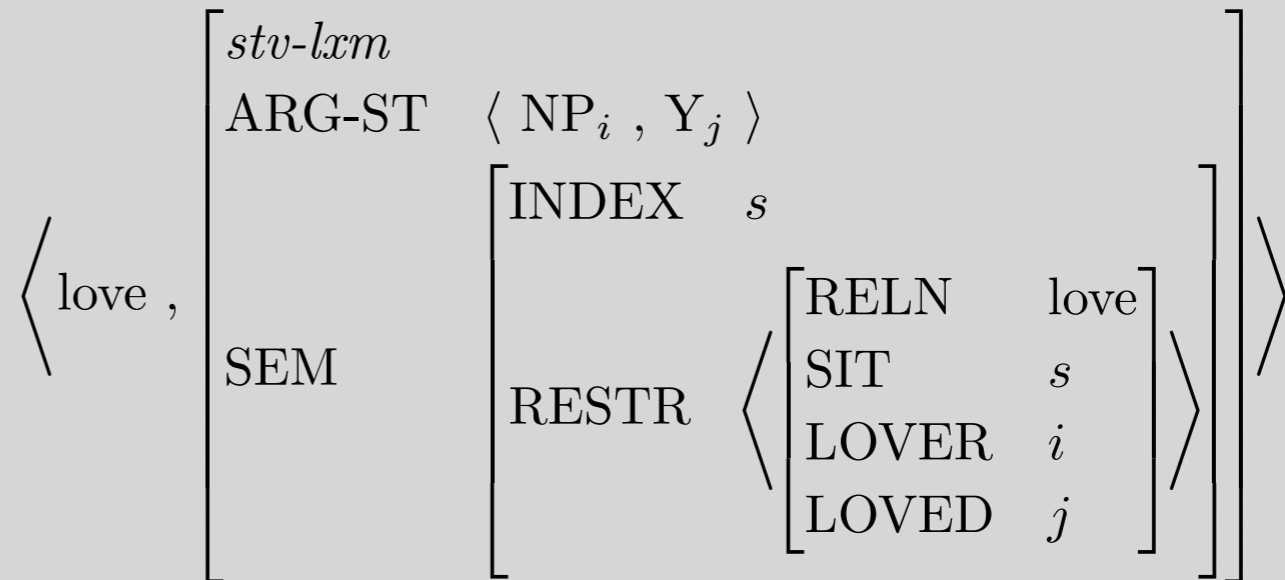
In der Küche   wird nicht getanzt.
in the kitchen   is   not   danced
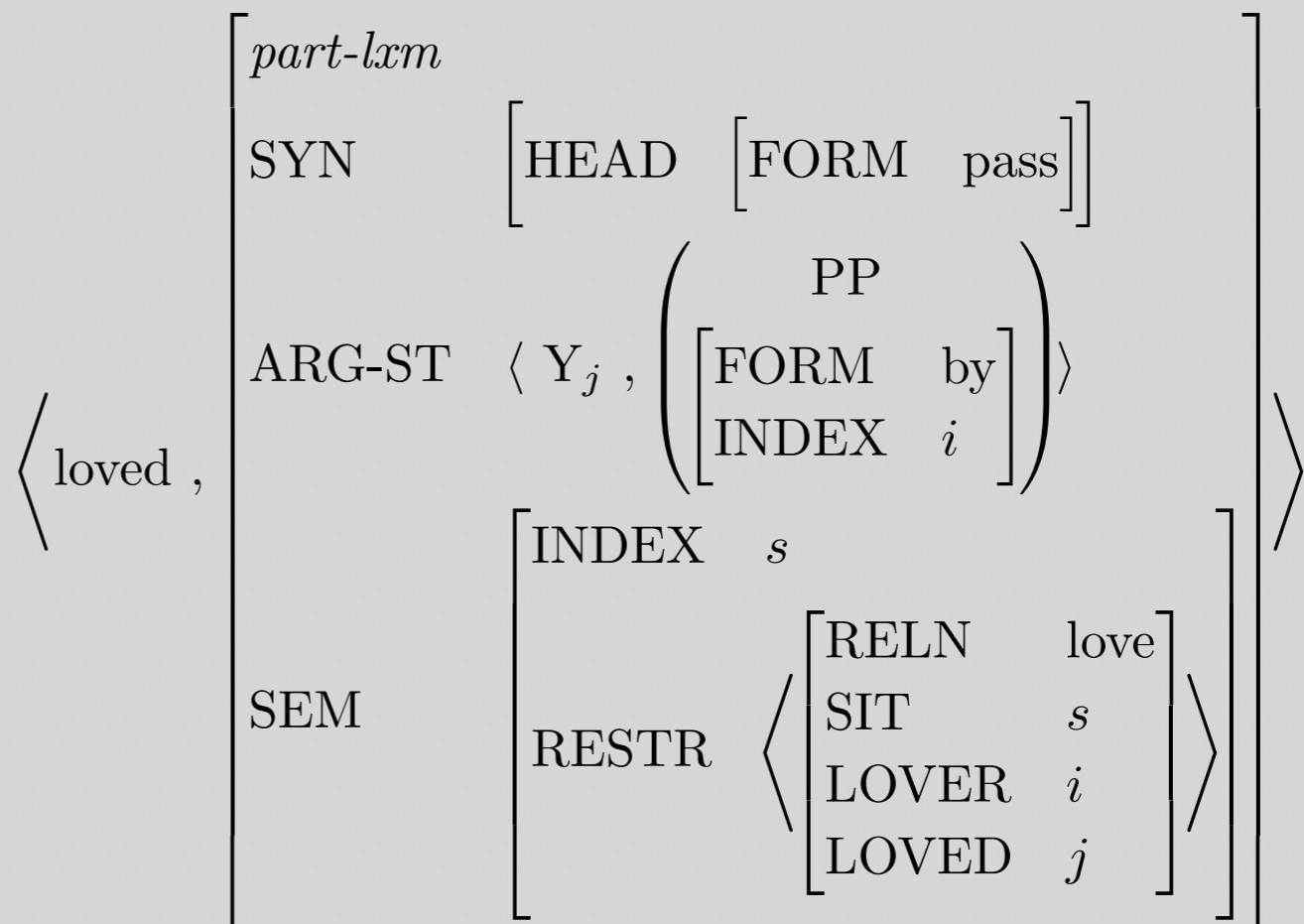 'There is no dancing in the kitchen.'

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...

$$
\left\langle \text{loved} , \begin{bmatrix} \textit{part-lxm} \\[4pt] \text{SYN} \quad \begin{bmatrix} \text{HEAD} \quad \begin{bmatrix} \textit{verb} \\ \text{FORM} \quad \text{pass} \end{bmatrix} \end{bmatrix} \\[10pt] \text{ARG-ST} \quad \left\langle \text{NP}_j , \begin{pmatrix} \text{PP} \\ \begin{bmatrix} \text{FORM} \quad \text{by} \\ \text{INDEX} \quad i \end{bmatrix} \end{pmatrix} \right\rangle \\[10pt] \text{SEM} \quad \begin{bmatrix} \text{MODE} \quad \text{prop} \\ \text{INDEX} \quad s \\[4pt] \text{RESTR} \quad \left\langle \begin{bmatrix} \text{RELN} \quad \text{love} \\ \text{SIT} \quad s \\ \text{LOVER} \quad i \\ \text{LOVED} \quad j \end{bmatrix} \right\rangle \end{bmatrix} \end{bmatrix} \right\rangle
$$

The *be* that Occurs with Most Passives

$$
\left\langle \text{be} \, , \;
\begin{bmatrix}
\textit{be-lxm} \\[6pt]
\text{ARG-ST} \quad
\left\langle \; \boxed{1} \, , \;
\begin{bmatrix}
\text{SYN} \quad
\begin{bmatrix}
\text{HEAD} \quad
\begin{bmatrix}
\textit{verb} \\
\text{FORM} \quad \text{pass}
\end{bmatrix} \\[10pt]
\text{VAL} \quad
\begin{bmatrix}
\text{SPR} \quad \langle \, \boxed{1} \, \rangle \\
\text{COMPS} \quad \langle \, \rangle
\end{bmatrix}
\end{bmatrix} \\[24pt]
\text{SEM} \quad
\begin{bmatrix}
\text{INDEX} \quad s
\end{bmatrix}
\end{bmatrix}
\; \right\rangle \\[30pt]
\text{SEM} \quad
\begin{bmatrix}
\text{INDEX} \quad s \\
\text{RESTR} \quad \langle \, \rangle
\end{bmatrix}
\end{bmatrix}
\right\rangle
$$
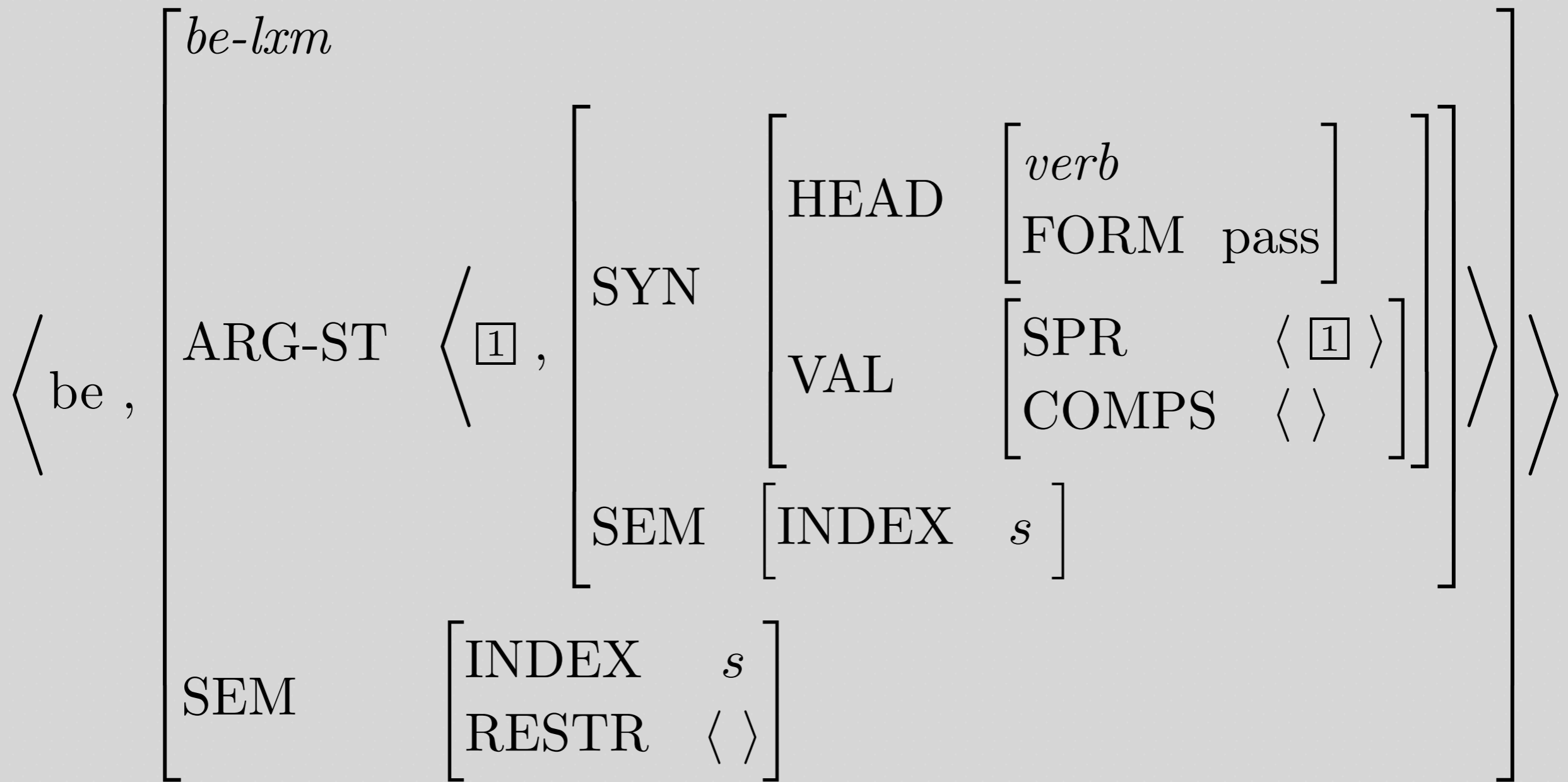
Questions About the Entry for *be*

$$
\left\langle \text{be} ,
\begin{bmatrix}
\textit{be-lxm} \\[4pt]
\text{ARG-ST} \quad \left\langle \boxed{1} ,
\begin{bmatrix}
\text{SYN} &
\begin{bmatrix}
\text{HEAD} &
\begin{bmatrix}
\textit{verb} \\
\text{FORM} \quad \text{pass}
\end{bmatrix} \\[8pt]
\text{VAL} &
\begin{bmatrix}
\text{SPR} & \langle \boxed{1} \rangle \\
\text{COMPS} & \langle\ \rangle
\end{bmatrix}
\end{bmatrix} \\[12pt]
\text{SEM} &
\begin{bmatrix}
\text{INDEX} & s
\end{bmatrix}
\end{bmatrix}
\right\rangle \\[16pt]
\text{SEM} \quad
\begin{bmatrix}
\text{INDEX} & s \\
\text{RESTR} & \langle\ \rangle
\end{bmatrix}
\end{bmatrix}
\right\rangle
$$
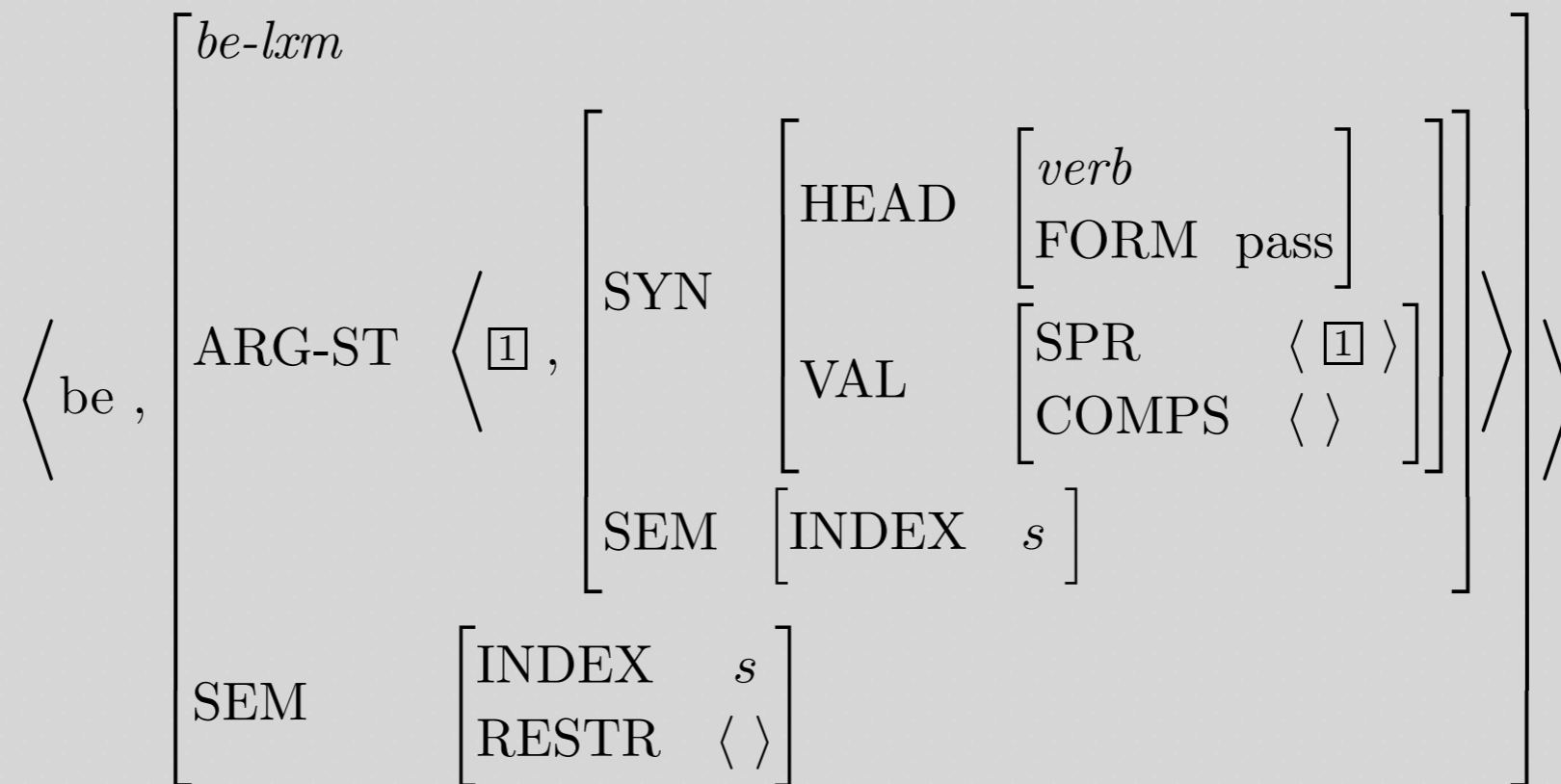
- Why doesn't it include valence features?
- What is the category of its complement (i.e. its 2nd argument)?
- What is its contribution to the semantics of the sentences it appears in?
- Why is the first argument tagged as identical to the second argument's SPR value?
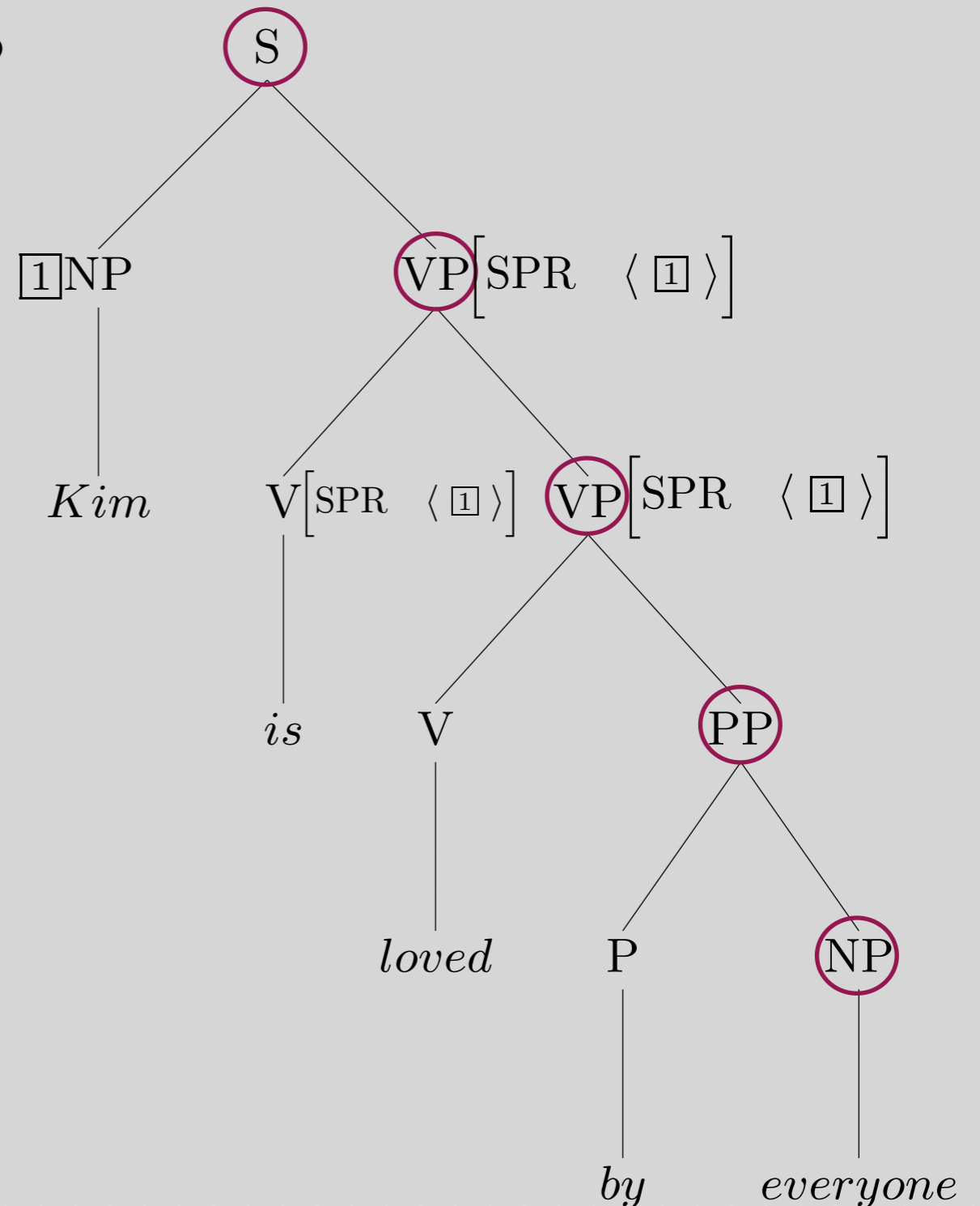
Passive tree

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?

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

- Reading Questions

Reading Questions

- Why does *be* need a special lexeme (*be-lxm*)?

- Why don't the non-*be* verbs in (20) get their own lexeme-types?

(20) a. The cat got bitten (by the dog).
    b. Liked by many people but respected by few, Jean will have to run an aggressive reelection campaign.
    c. Anyone handed a note will be watched closely.

- Why make be the head in be + passive VP?

Reading Questions

- Why is there no RESTR values in the Passive Lexical Rule? Does the underspecification mean they don't change?

- Why is the output of the Passive LR not a *word*?

- With all the various rules one can apply to a lexeme/word, does it make a difference when the Passive Lexical rule is applied?

Reading Questions

- Constant Lexeme LR: Where it says that it changes the type of the second member of the lexical sequence to word, what second member?

- How would passive work in a language like French where the participle agrees with the subject?   Is the passive participle still verby in that case?

- How does the French situation motivate the use of d-rule for passive?

Reading Questions

- Why doesn't the Passive LR talk about CASE on the ARG-ST elements? Aren't we changing something from accusative to nominative?

- P.316 "Our passive rule achieves the desired effect by leaving the subject of the passive word unspecified for CASE" and "whatever case requirements the grammatical context imposes will determine the CASE value of a passive's verb subject".

  - *Him/*He being arrested upset many people*

  - *With him/*he arrested, it was harder to continue*

Reading Questions

- If a passive VP's SPR is satisfied just by coindexing it with the SPR of be (and therefore an actual NP in the sentence), does that mean we could theoretically satisfy any argument by just coindexing it with an NP somewhere else in the sentence?

- How do we rule out *Was Chris handed a note by Pat.* ?

Reading Questions

- I missed the part where a VP could consist of V VP. I remember back when VP -> NP VP or VP, but for passive, I see V VP. Page 326 says that it's licensed by feat-struc (25) on 322 (for *was*), but I guess I just don't understand how the feat-struc can license it without my remembering the rule that licenses the word. When I reviewed chapter 9, I saw that VP is simply a phrase that has head verb and takes a SPR. Is that really the ONLY requirement that we are worried about now? I feel like that would overgenerate.

Reading Questions

- What's the evidence against treating PP[by] as a modifier of the passive VP rather than an optional argument?

- It seems like in the analysis of passive forms in this chapter, we always put the PP[FORM by] at the end of sentence. How do we get both of:

  - *The email was sent to Mary by Jim.*

  - *The email was sent by Jim to Mary.*

Reading Questions

- How could we handle pseudo-passives?

  - *Kim can be relied on to arrive on time.*