

A decorative border in the top-left corner of the slide, composed of a grid of small, 3D-looking orange cubes or diamonds.

Ling 566

Nov 5, 2024

Passive Construction

Don't forget to vote!

- WA allows same day voter registration
- <https://cele.uw.edu/students/huskies-vote/register-to-vote/>

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.

Newly coined verbs that the Passive Lexical Rule can apply to



Nobody has responded yet.

Hang tight! Responses are coming in.

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



1869

0

1899

0

1949

0

1979

0

When was the first fax machine invented?



1843

0

1880

0

1924

0

1948

0

The Passive Lexical Rule

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

Questions About the Passive Rule

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

- 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

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

- 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*?
- Why is this a *d-rule*?

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

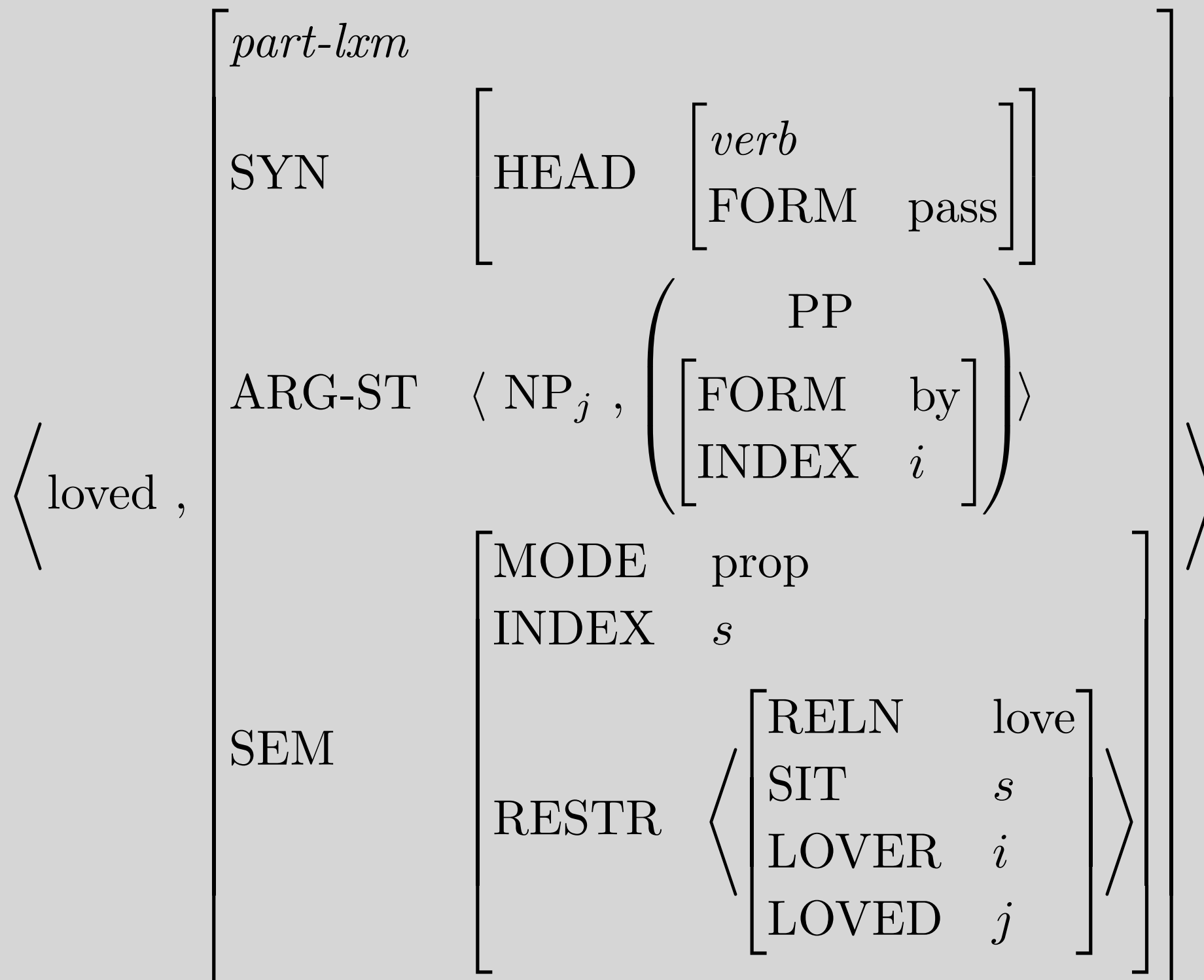
If you have one of these....

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

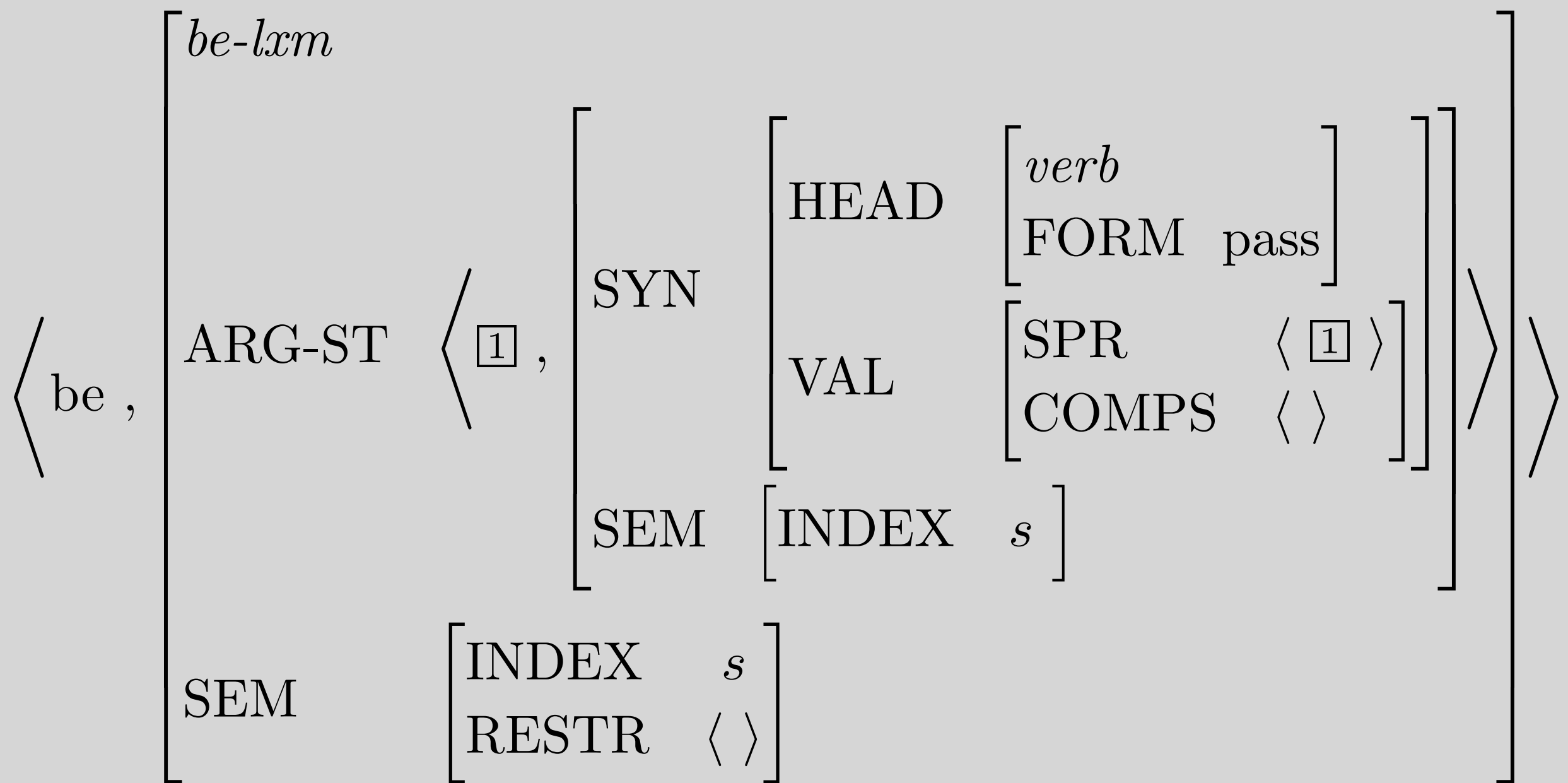
Then you also get one of these....

$$\left\langle \text{loved} , \left[\begin{array}{l} \text{part-lxm} \\ \text{SYN} \quad \left[\text{HEAD} \quad \left[\text{FORM} \quad \text{pass} \right] \right] \\ \text{ARG-ST} \quad \langle \text{Y}_j , \left(\begin{array}{c} \text{PP} \\ \left[\begin{array}{ll} \text{FORM} & \text{by} \\ \text{INDEX} & i \end{array} \right] \end{array} \right) \rangle \\ \text{SEM} \quad \left[\begin{array}{l} \text{INDEX} \quad s \\ \text{RESTR} \quad \left\langle \left[\begin{array}{ll} \text{RELN} & \text{love} \\ \text{SIT} & s \\ \text{LOVER} & i \\ \text{LOVED} & j \end{array} \right] \right\rangle \end{array} \right] \end{array} \right] \right\rangle$$

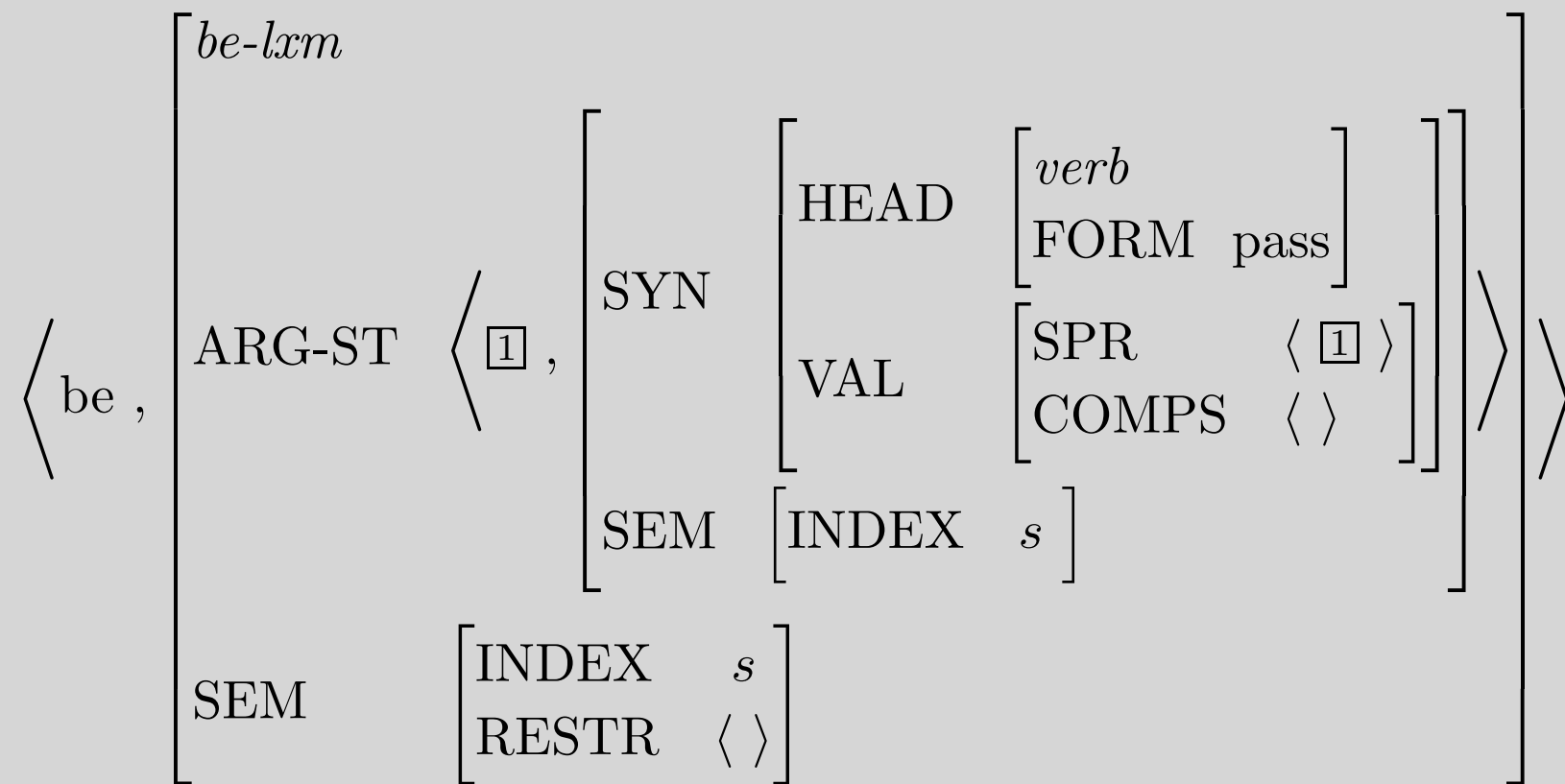
In a bit more detail...



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

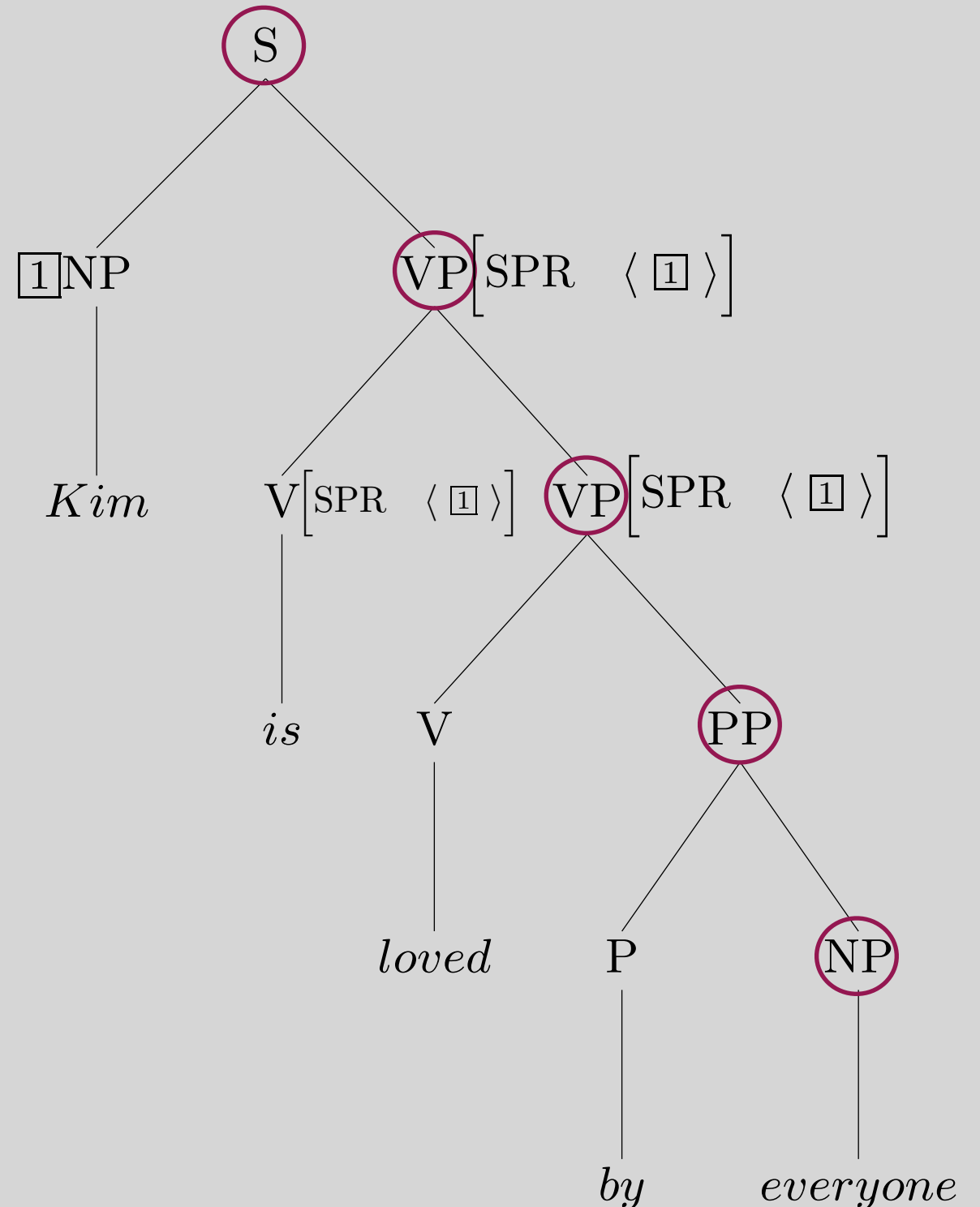
Which rule licenses each node?

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?



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



Sneaky!

0

Unfair! The verb needed that SPR!

0

Confusing! How can a requirement just go away?

0

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

0

Elegant!

0

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
- Ch 9 leftover Reading Questions

RQs: d-rule, const-lxm

- Why can't the Passive Lexical Rule be an i-rule?
- Why does it become a const-lxm rather than verb-lxm? Does this happen to all inflected verb forms?

RQs: Lex entry v. lex sequence

- On page 319, it says that we "need to provide an analysis of the relevant lexical entry for be that links its occurrence to the presence of a passive participle." Why a lexical entry and not a lexical sequence? Aren't we dealing with specific forms of be that only come to be in lexical sequences?

RQs: ARP

- Pages 317 - 318 show how the lexeme love is turned into a part-lxm loved then into the word loved. But I don't quite get the illustration in the feature structure of part-lxm loved, specifically, in the ARG-ST, why it is slightly different from the Passive Lexical Rule stated in p. 313?

(18)

$$\left\langle \text{loved} , \left[\begin{array}{l} \text{part-}lxm \\ \text{SYN} \left[\begin{array}{l} \text{HEAD} \left[\begin{array}{l} verb \\ \text{AGR} \quad \boxed{1} \\ \text{FORM} \quad \text{pass} \end{array} \right] \\ \text{VAL} \left[\text{SPR} \quad \langle \left[\text{AGR} \quad \boxed{1} \right] \rangle \end{array} \right] \\ \text{ARG-ST} \left\langle \text{NP}_j \left(, \left[\begin{array}{l} \text{PP} \\ \text{FORM} \quad \text{by} \\ \text{INDEX} \quad i \end{array} \right] \right) \right\rangle \\ \text{SEM} \left[\begin{array}{l} \text{INDEX} \quad s \\ \text{RESTR} \left\langle \begin{array}{l} \text{RELN} \quad \text{love} \\ \text{SIT} \quad s \\ \text{LOVER} \quad i \\ \text{LOVED} \quad j \end{array} \right\rangle \end{array} \right] \end{array} \right] \right\rangle$$

(19)

$$\left\langle \text{loved} , \left[\begin{array}{l} \text{word} \\ \text{SYN} \left[\begin{array}{l} \text{HEAD} \left[\begin{array}{l} \text{verb} \\ \text{AGR} \quad \boxed{1} \\ \text{FORM} \quad \text{pass} \end{array} \right] \\ \text{VAL} \left[\begin{array}{l} \text{SPR} \quad \langle \boxed{2}[\text{AGR} \quad \boxed{1}] \rangle \\ \text{COMPS} \quad \boxed{B} \end{array} \right] \end{array} \right] \\ \text{ARG-ST} \quad \langle \boxed{2} \text{NP}_j \rangle \oplus \boxed{B} \left\langle \left(\begin{array}{c} \text{PP} \\ , \left[\begin{array}{l} \text{FORM} \quad \text{by} \\ \text{INDEX} \quad i \end{array} \right] \end{array} \right) \right\rangle \\ \text{SEM} \left[\begin{array}{l} \text{INDEX} \quad s \\ \text{RESTR} \left\langle \begin{array}{l} \text{RELN} \quad \text{love} \\ \text{SIT} \quad s \\ \text{LOVER} \quad i \\ \text{LOVED} \quad j \end{array} \right\rangle \end{array} \right] \end{array} \right] \right\rangle$$

RQs: Dropped arguments

- P318 (18) has an optional PP[by] with an index i. If this PP is not mentioned, then do we also skip [LOVER i]? Also in (28) P323.

RQs: CASE

- I'm still a little confused about the case assignment of the passive subject - in (14), how does "being" license an accusative case to "him" in "Him being arrested by the police upset many people"? Does the gerund form "being" specifically select for a [CASE acc] subject?

RQs: Passive without be

- How do the passive sentences in (20) that don't contain "be" work? Does some part of each sentence in (20) also select passive VPs as complements? I was thinking "got" in 20a could be defined in a similar way to the be-lxm, but I'm unsure about the structure of the other two sentences, where the passive constructions seem like modifiers.

RQs: get v. be

- For the example "The cat got/was bitten by the dog" mentioned in this chapter, is there any subtle semantic difference between using "got" and "was" or they are just interchangeable? If there is no semantic difference, why do we want two different words?

RQs: Multilingualism

- English focuses on 'be' a lot in creating passive structures, I am curious about how passive structures would be represented in different languages that handled passives differently.

RQs: Multilingualism

- Since not all the verbs can take a passive form - only transitive verbs can (if i'm correct), so clearly to me semantics plays an important rule in deciding what verb can take passive forms, like I know in Chinese, we add a word instead of changing character forms in passive sentences, so different languages handle passive sentences in different ways, I'd like to learn more about how generalizable the rules introduced in this chapter can be applied across different languages?

Ch 9 RQs: Universals

- What does it say about language faculty that some languages have features like CASE and FORM, and some don't? Is there a limit to the type of languages that humans can produce naturally?

RQs: Language change

- When a language evolves (possibly into another language different from its mother language), which part in the grammar in our framework (lexical entry excluding) may be most prone to any changes? Will that generally be (selection of) features, constraints, rules or principles?

RQs: Chomsky

- What are your thoughts on how Chomsky's competence and performance may or may not be useful in evaluating generative language models? Is it a fatal flaw if statistical models don't capture the "mental processes underlying human language comprehension and production"? How can you determine if these have been "captured"?

RQs: TG

- What is an example of how a transformational grammar is not surface oriented while the grammar we've been learning is?

RQs: Constraints

- I understand "constraint-based" when talking about our grammar, but I'm struggling to understand what it means when referring to human language processing. How do the "constraints" in our grammar match onto how humans process language? Also, what are some alternatives to a constraint-based approach?