Ling 566
Nov 7, 2023

Passive Construction

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Overview

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

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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.

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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.

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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*

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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.

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Newly coined verbs that the Passive Lexical Rule can apply to

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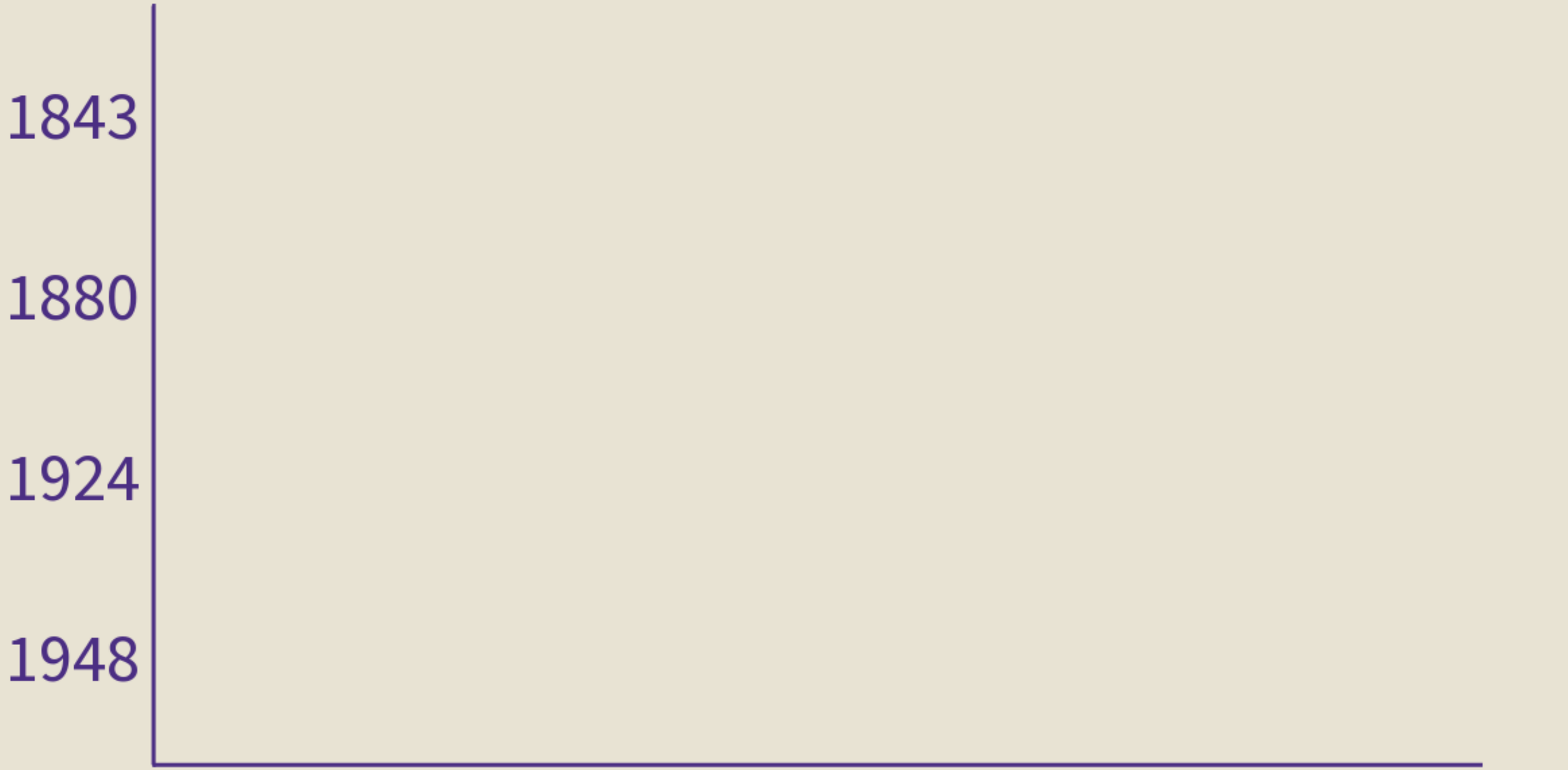
When was the first fax machine invented?



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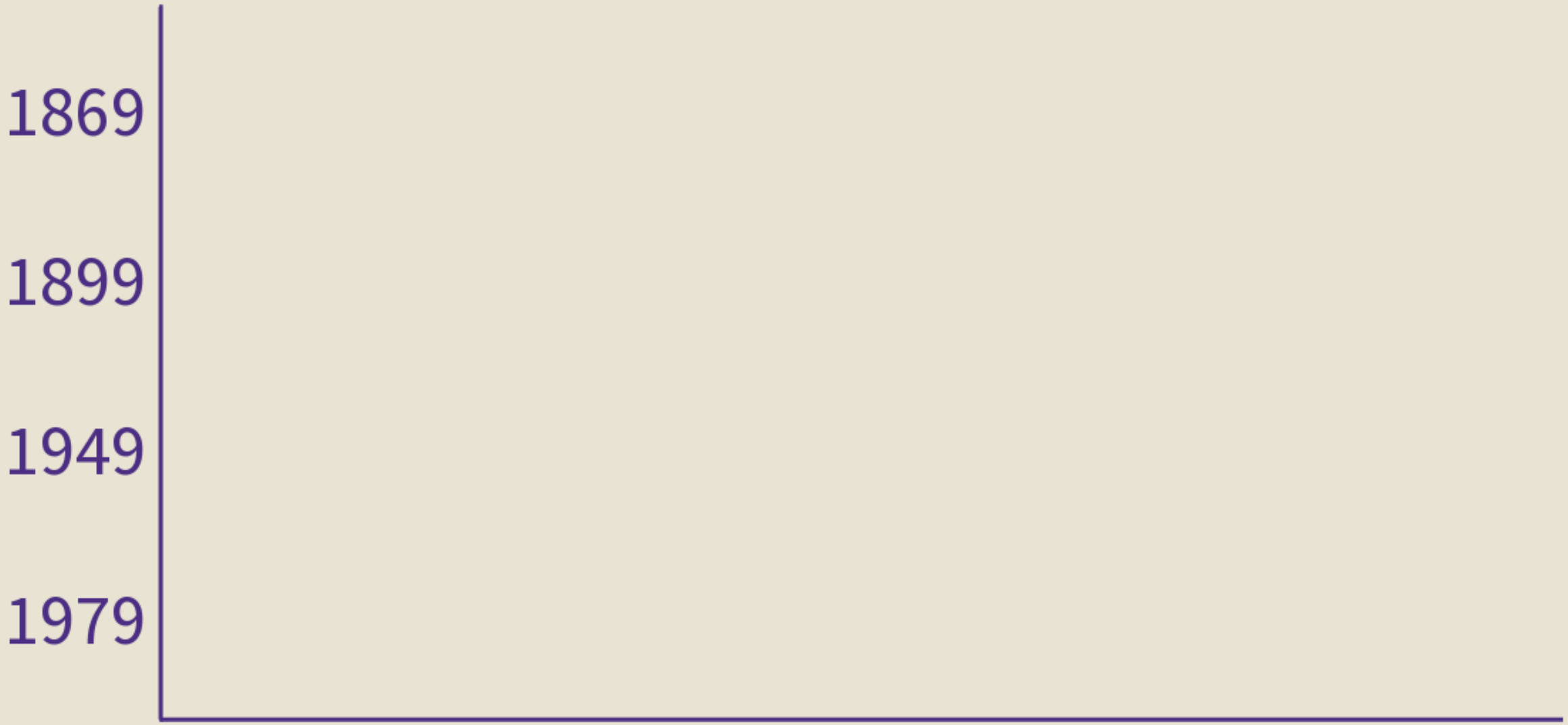
When was the verb fax first attested, per the OED?



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The Passive Lexical Rule

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

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Questions About the Passive Rule

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

- 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)?

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More Questions

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

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

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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*.

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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....

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

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In a bit more detail…

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

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The *be* that Occurs with Most Passives

$$\left\langle \text{be} , \left[\textit{be-lxm} \right.\right.$$

$$\left.\left. \begin{array}{ll} \text{ARG-ST} & \left\langle \boxed{1} , \left[\begin{array}{ll} \text{SYN} & \left[\begin{array}{ll} \text{HEAD} & \left[\begin{array}{ll} \textit{verb} & \\ \text{FORM} & \text{pass} \end{array} \right] \\ \text{VAL} & \left[\begin{array}{ll} \text{SPR} & \left\langle \boxed{1} \right\rangle \\ \text{COMPS} & \left\langle \right\rangle \end{array} \right] \end{array} \right] \\ \text{SEM} & \left[\text{INDEX} \quad s \right] \end{array} \right] \right\rangle \\ \text{SEM} & \left[\begin{array}{ll} \text{INDEX} & s \\ \text{RESTR} & \left\langle \right\rangle \end{array} \right] \end{array} \right] \right\rangle$$

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Questions About the Entry for *be*

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

- 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?

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Passive tree

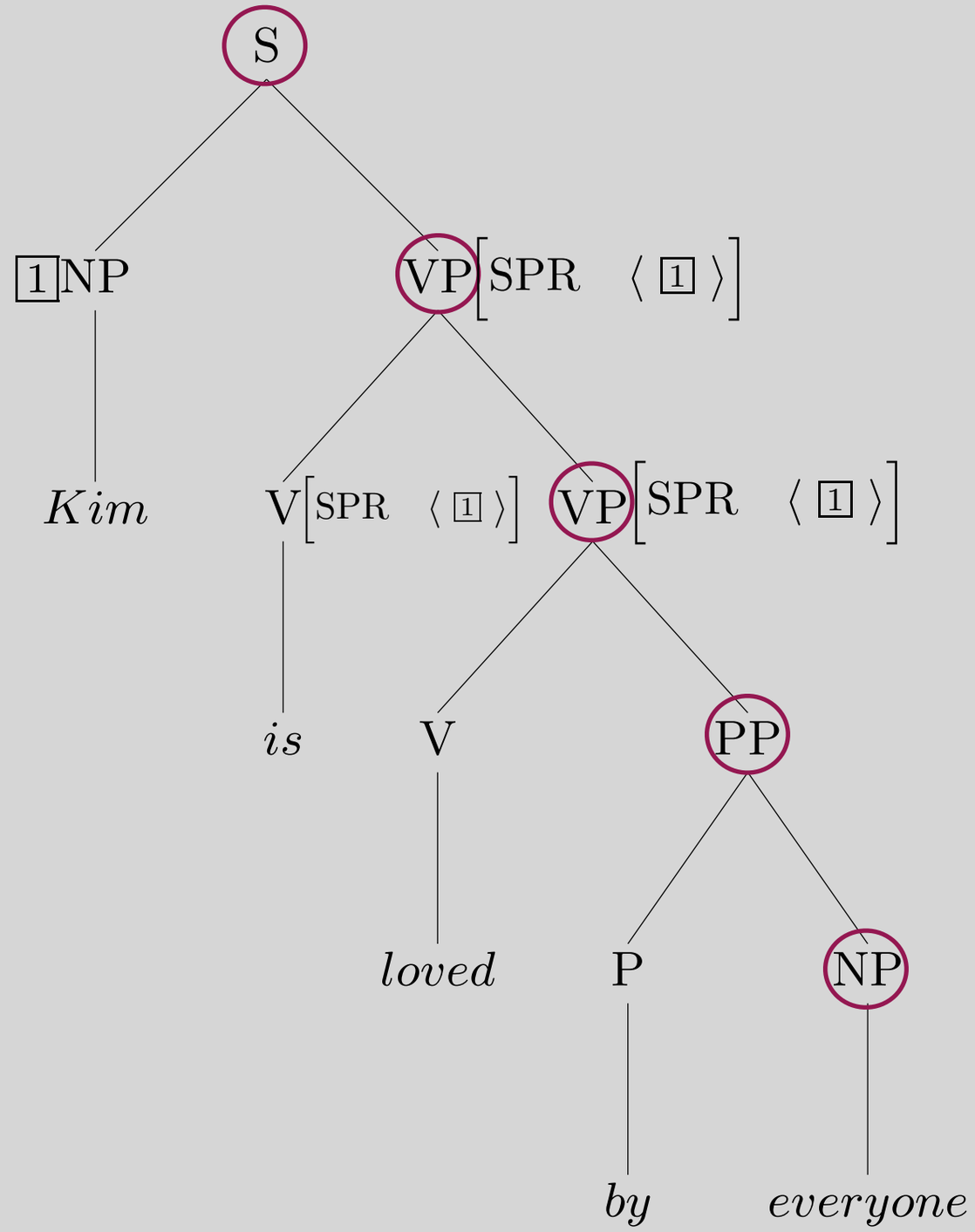
Which rule licenses each node?

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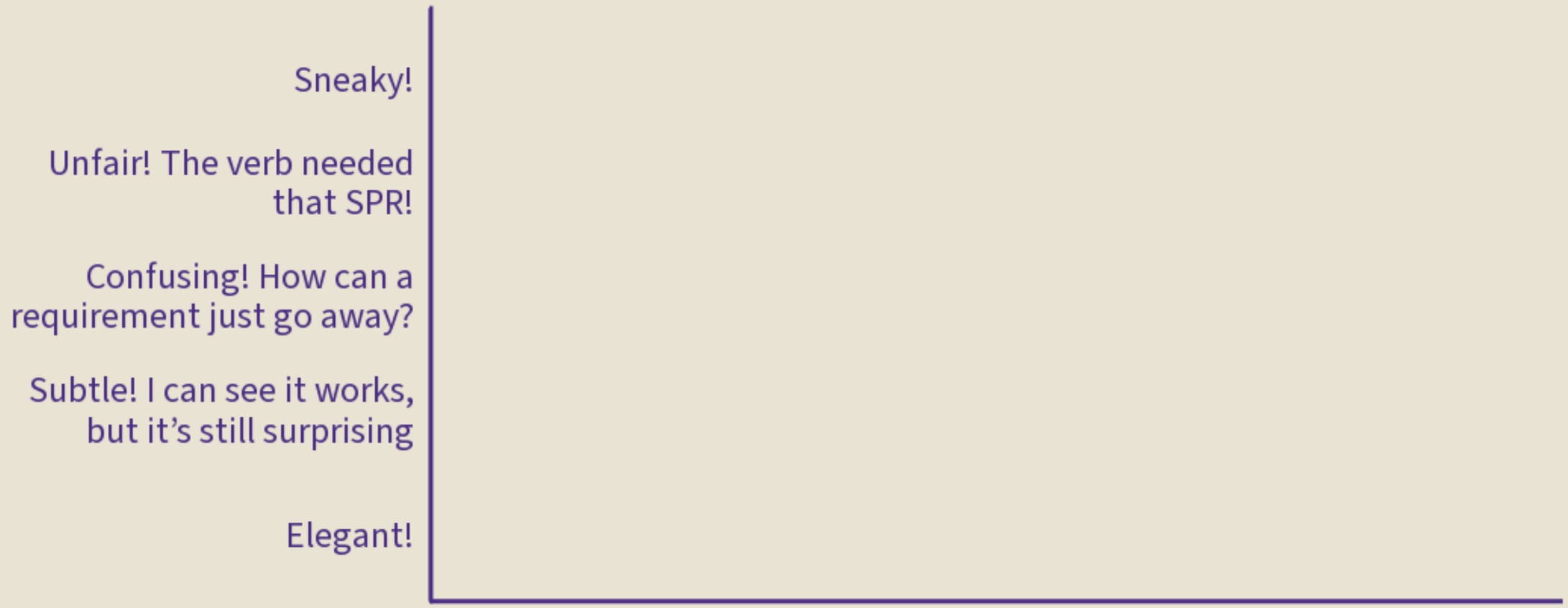
The verb be just does away with the SPR of it complement and I think that's:



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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?

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Overview

- Passive
  - Arguments for lexicalist account
    - Details of our analysis
- Reading Questions
- Ch 9 leftover Reading Questions

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RQs: Headedness

- It seems strange to me that the "be" verb is the head daughter and the passive verb is its complement, when the only role "be" serves is to indicate that we are using the passive form. Would it even be possible to write the rules such that the verb from the active form is still the head daughter in the passive form for English passive sentences that use "be"?

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RQs: Optional PP[by]

- On page 318 (18) -- The Passive Lexical Rule makes the `PP[by]` optional. So it's possible that [INDEX i] may not be introduced via the PP argument. What happens to the [LOVER i] value in the RESTR list if the optional PP is omitted?

- In (19) and (28) the PP of index i is optional, but index i is not optional in the RESTR list. How does that work?

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RQs: ARG-ST in (18) and (19)

- I'm confused by the formatting of (18) and (19), specifically in the ARG-ST. What does the comma entail? There may be more elements before the PP[by]?
- On page 318, why is the ARG-ST for (18) one list where the elements are separated by commas and the ARG-ST for (19) two lists combined with the oplus? Are these two strategies (commas and oplus) different?

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(18)

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

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(19)

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

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RQs: Subject sharing

- Why is [1] in three places in (25)? Why do we also have [5]?
- In example (32) on page 326, why doesn't adding the RESTR lists of 'was' and 'handed' result in there being two duplicate structures of the subject ('Chris') in the RESTR list of the final phrase (because both verb's RESTR lists contain a structure for 'Chris')? Or does this happen and does it not matter?
- It seems a bit weird to have both be verbs and passive verbs share the same specifier. Why do the passive verbs have to specify a specifier?

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(25)

$$\left\langle \text{was} , \left[\begin{array}{ll} \textit{word} & \\ \text{SYN} & \left[\begin{array}{ll} \text{HEAD} & \left[\begin{array}{ll} \textit{verb} & \\ \text{AGR} & \boxed{5} \\ \text{FORM} & \text{fin} \end{array}\right] \\ \text{VAL} & \left[\begin{array}{ll} \text{SPR} & \langle \boxed{1}[\text{AGR} \quad \boxed{5}] \rangle \\ \text{COMPS} & \langle \boxed{2} \rangle \end{array}\right] \end{array}\right] \\ \text{ARG-ST} & \left\langle \boxed{1}\left[\begin{array}{ll} \text{AGR} & \textit{3sing} \\ \text{CASE} & \text{nom} \end{array}\right] , \boxed{2}\left[\begin{array}{ll} \text{HEAD} & \left[\begin{array}{ll} \textit{verb} & \\ \text{FORM} & \text{pass} \end{array}\right] \\ \text{VAL} & \left[\begin{array}{ll} \text{SPR} & \langle \boxed{1} \rangle \\ \text{COMPS} & \langle \ \rangle \end{array}\right] \\ \text{INDEX} & s \end{array}\right] \right\rangle \\ \text{SEM} & \left[\begin{array}{ll} \text{MODE} & \text{prop} \\ \text{INDEX} & s \\ \text{RESTR} & \langle \ \ldots \ \rangle \end{array}\right] \end{array}\right] \right\rangle$$

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RQs: INDEX of PP

- It feels weirdly unintuitive to me for a PP to have an index value . For example, in "...bitten by the dog", does the PP[by]_i get its index in the same way that the determiner "the" does? i.e. DP "the dog" gets index i from "dog", then "by" gets the index i from "by the dog" in the same fashion as we work our way up the tree?

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RQs: was/were

- Regarding the lexical sequence for "was" in (25), I was wondering what the steps are that would derive/ inflect it from the lemma form "be"? The verb "be" is a bit unusual in that its past tense forms still show agreement, unlike other English verbs, and since the past-tense verb lexical rule in (10) of chapter 9 does not specify the AGR value, so it won't distinguish between "was" and "were". I was thinking of going down the path of "be → am/is → was", but this would entail using a pi-rule due to "is" and "am" being of type "word". Would it be necessary to amend the past-tense verb lexical rule to handle this special case?

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RQs: Word Structures, Binding T.

- I don't 100% understand as to why (29) licenses (30)? What changes between the two structures that suddenly resolves the optionality?
- Where does the Binding Theory surface in (30)?

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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:

(30)

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

handed

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RQs: Crosslinguistic

- Up until now, we have been dealing with languages that have relatively fixed word orders. Since the passive form in English is a construct that essentially rearranges the order of a verb's arguments, can it be generalized to handle the syntax of case-marked languages with free word order? If so, I assume that head-specifier/complement rules would have to change as well (since the specifier/ complements are not in their "regular" positions anymore)?

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RQs: Crosslinguistic

- At the bottom of page 315, it says that verbal lexemes do not specify CASE values for their arguments in English. Why is that and how do other languages differ?
- The footnote on page 313 intrigued me. French may reveal some things about passivity in English because they are closely related, but is passivity a thing that happens in most languages? More broadly, how much can we trust any of our lexical rules to translate over to other languages?

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RQs: Crosslinguistic

- How many of the facts about passives are specific to English? For example, is it a linguistic universal that when a language has passives, its subject takes the nominative? What about the optional omission of the agent? Etc.?

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RQs:

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RQs:

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