



Ling 566

Oct 20, 2022

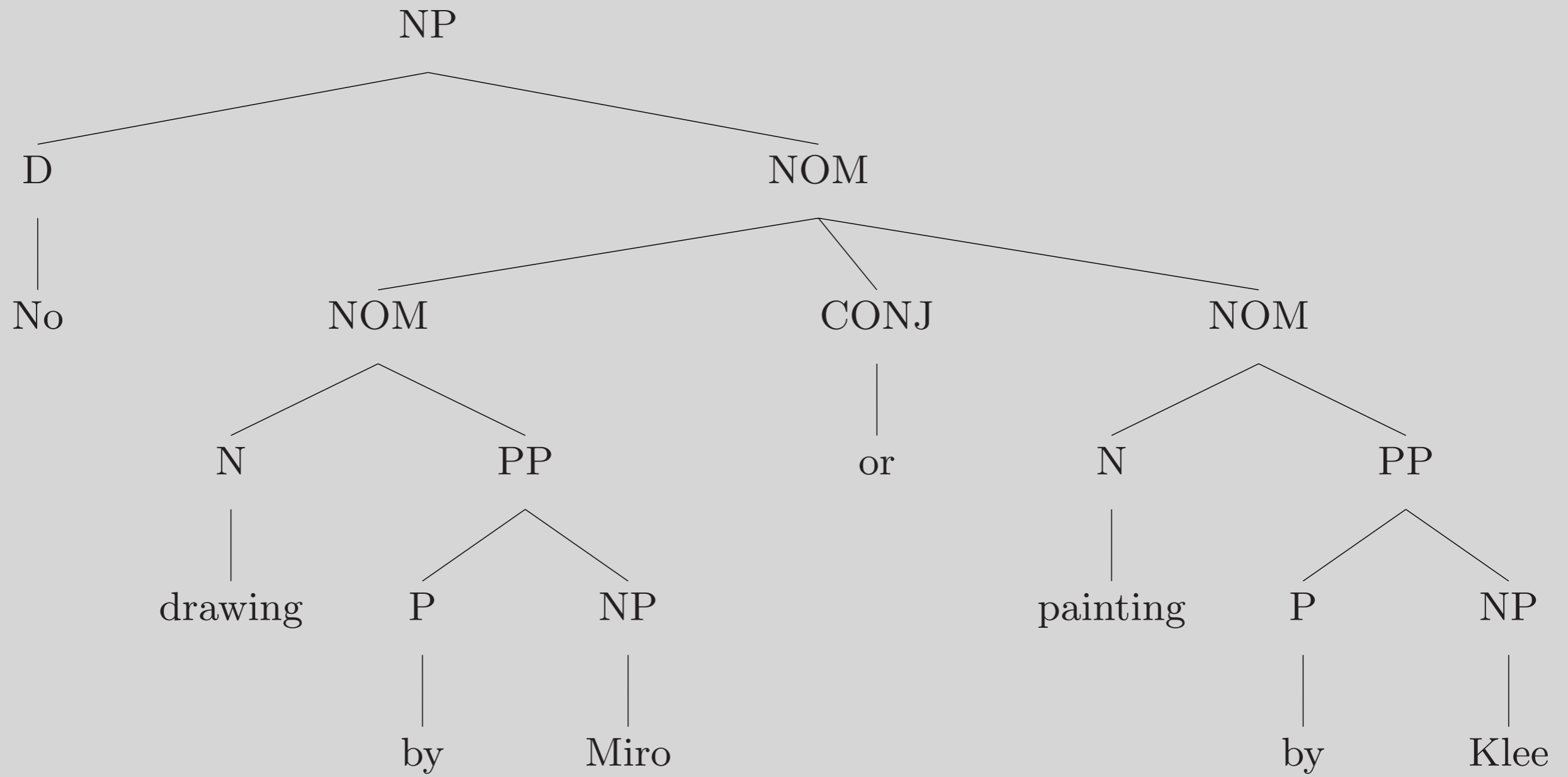
Catch-up, Review

Overview

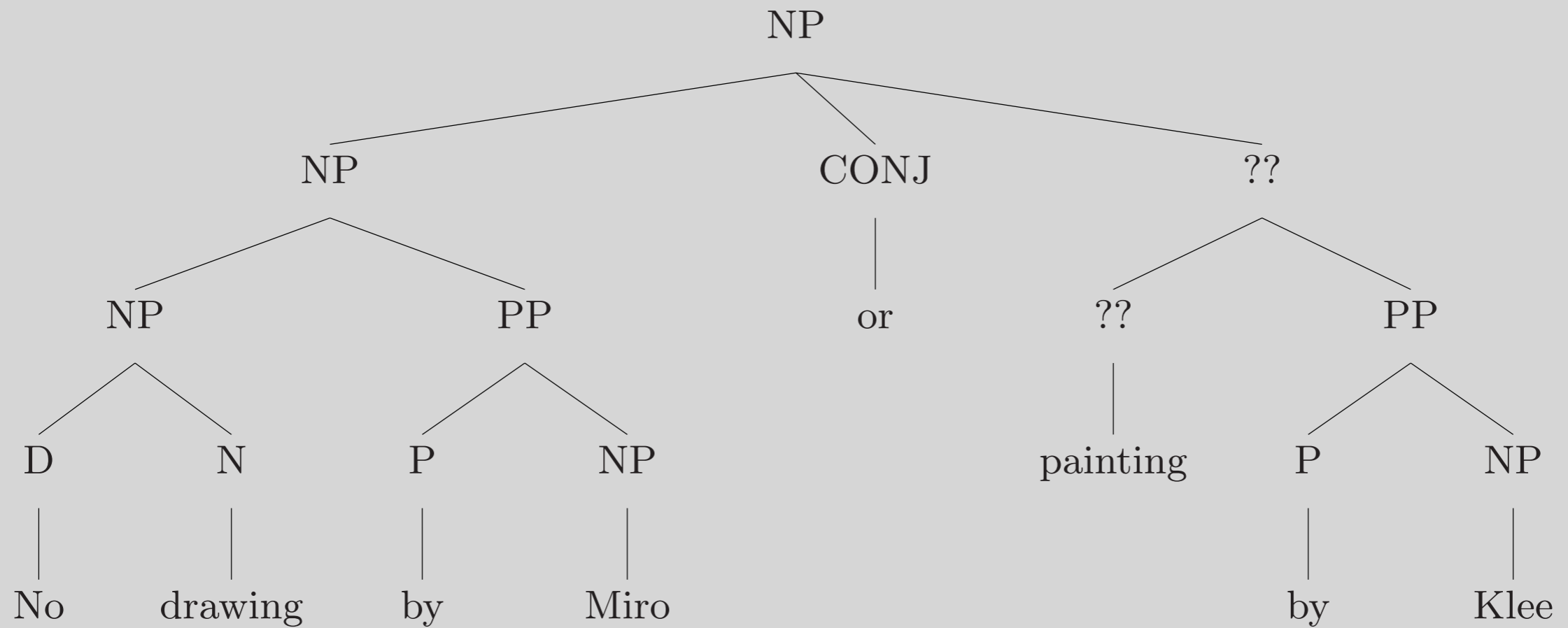
- NOM
- Homework tips
- Common mistakes
- Analogies to other systems you might know
- Terminology
- DELPH-IN demos (if time)

NOM

- *No drawing by Miro or painting by Klee*
- How does this item motivate a constituent within NP excluding D?



If just NP -> NP PP



If just NP \rightarrow NP PP

- No way to represent that *no* also applies to *painting*
- Have to admit *painting by Klee* as an NP that can show up wherever other NPs can: *I have painting by Klee.*
- See also: *I have book by Chomsky.*

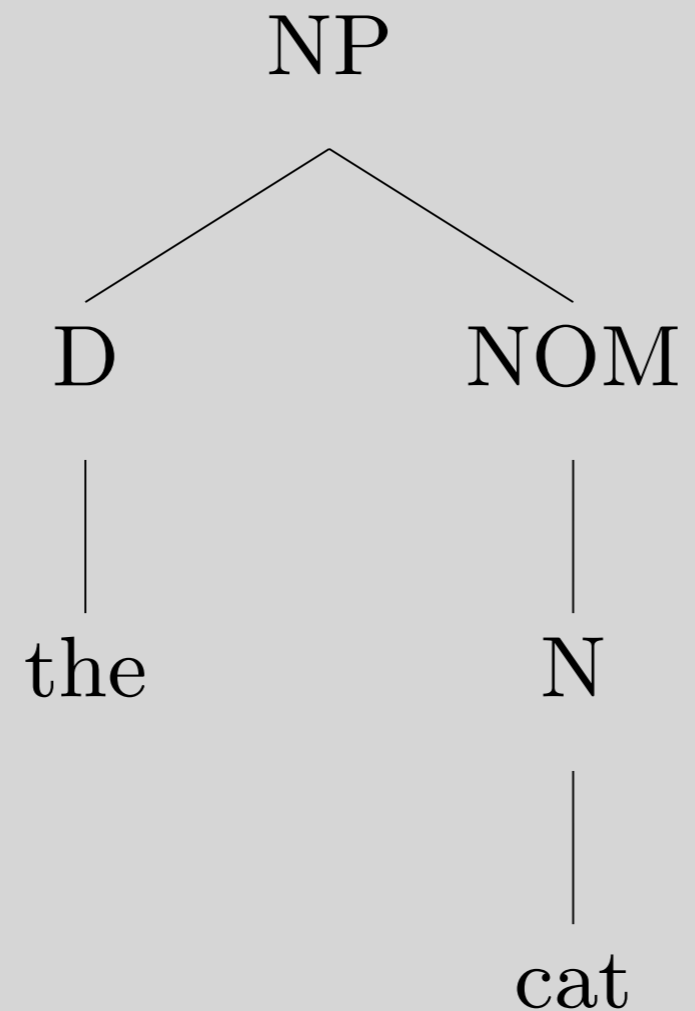
Other ideas?

- NP \rightarrow (D) A* N PP*
- Same arguments apply, to this even flatter structure.

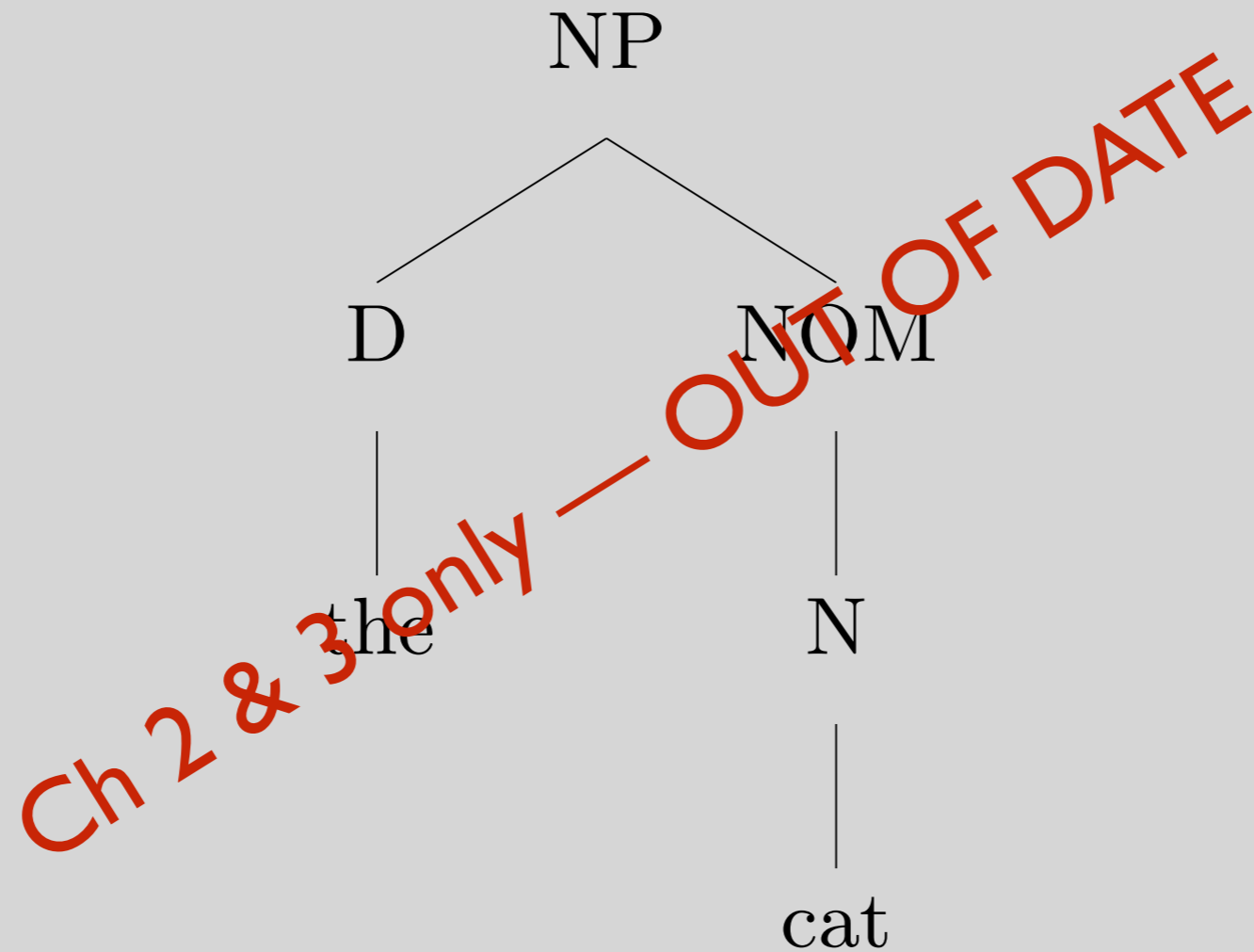
Homework tips/requests

- Type whenever possible (no photos of whiteboards)
- Answer each part of each question separately (but don't include the full text of the question)
- Be sure to answer each part of each question, and follow the directions!
- Look over the problems early and ask questions
- Check your work
- Monitor Canvas discussions
- **WORK TOGETHER**

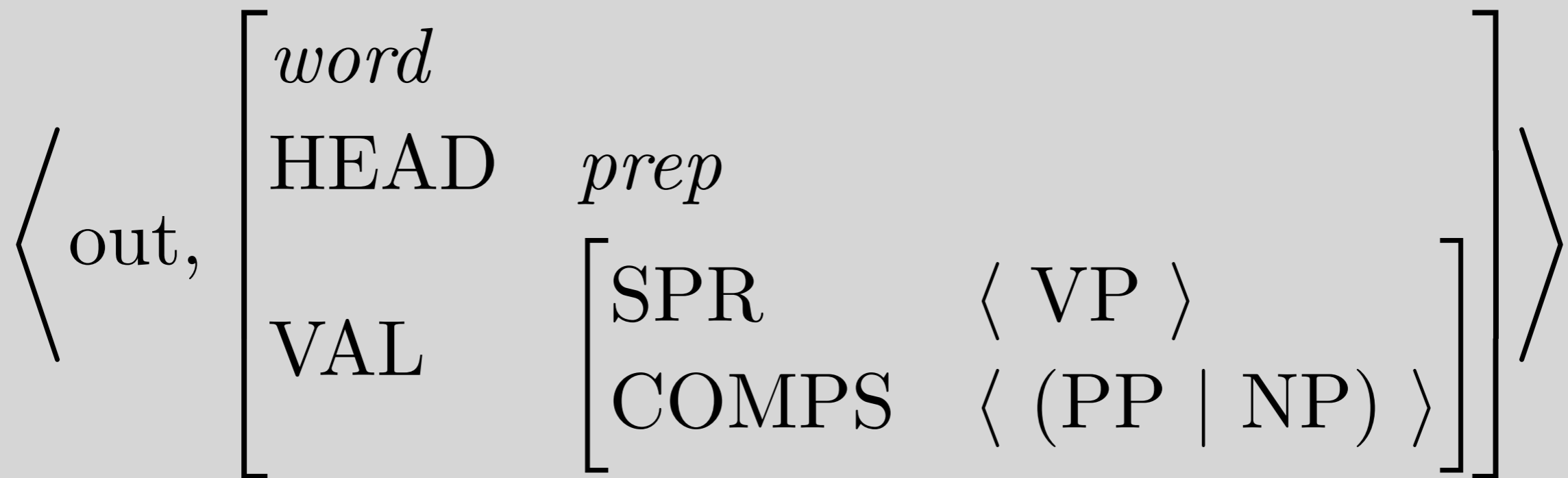
Which grammar does this tree go with?



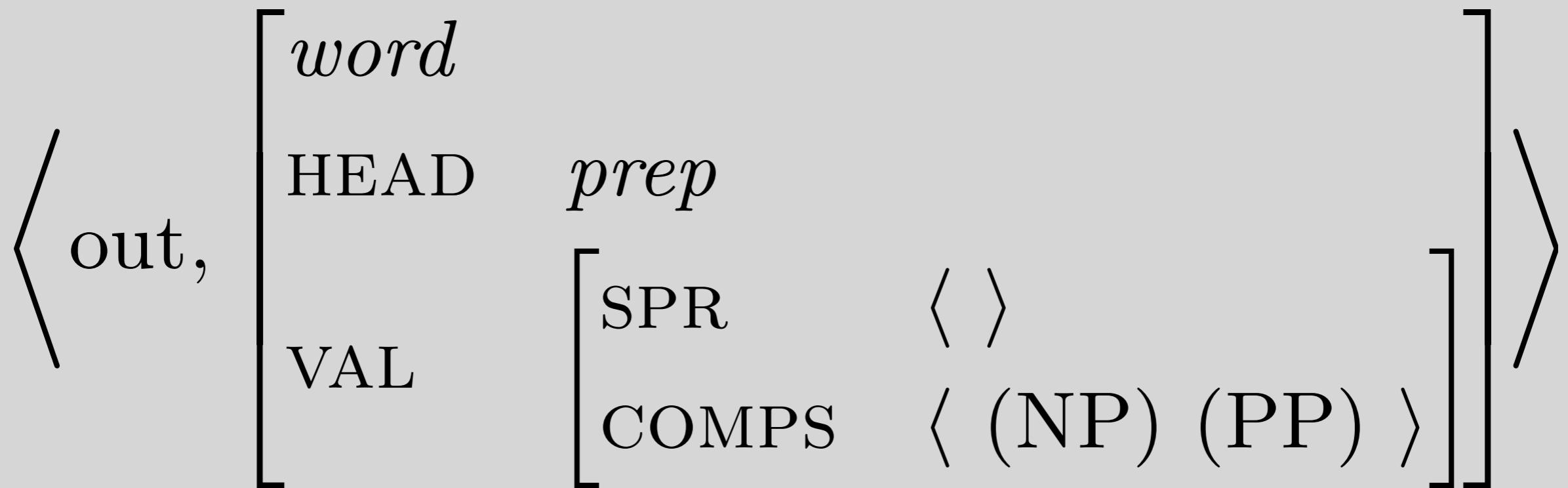
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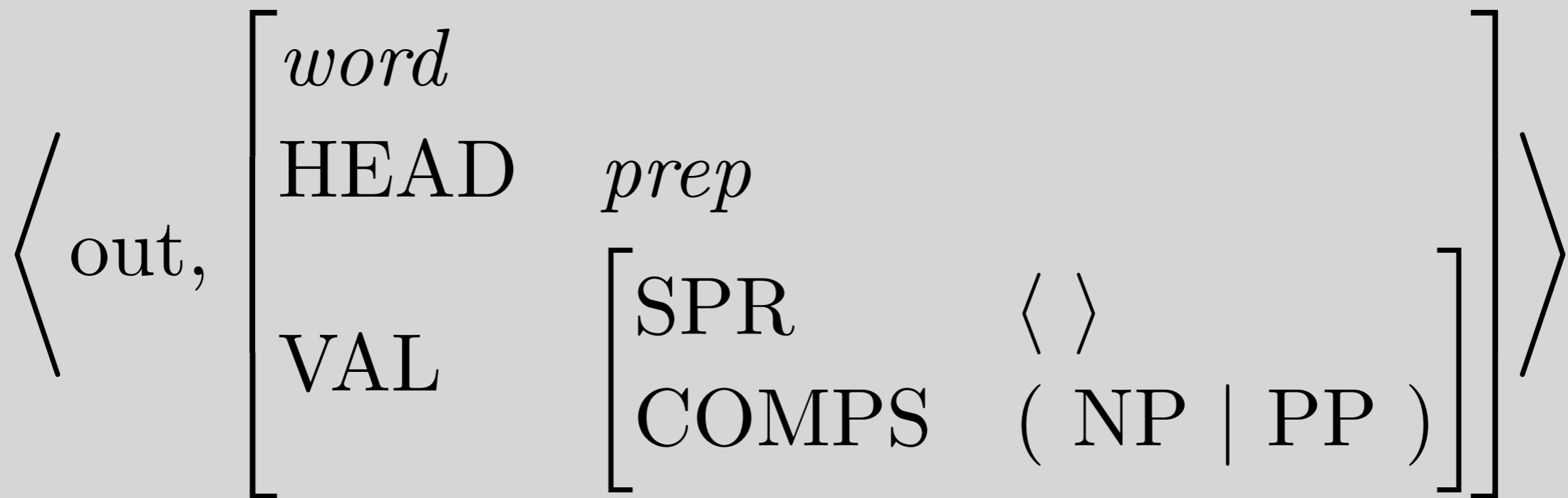
What's wrong with this?



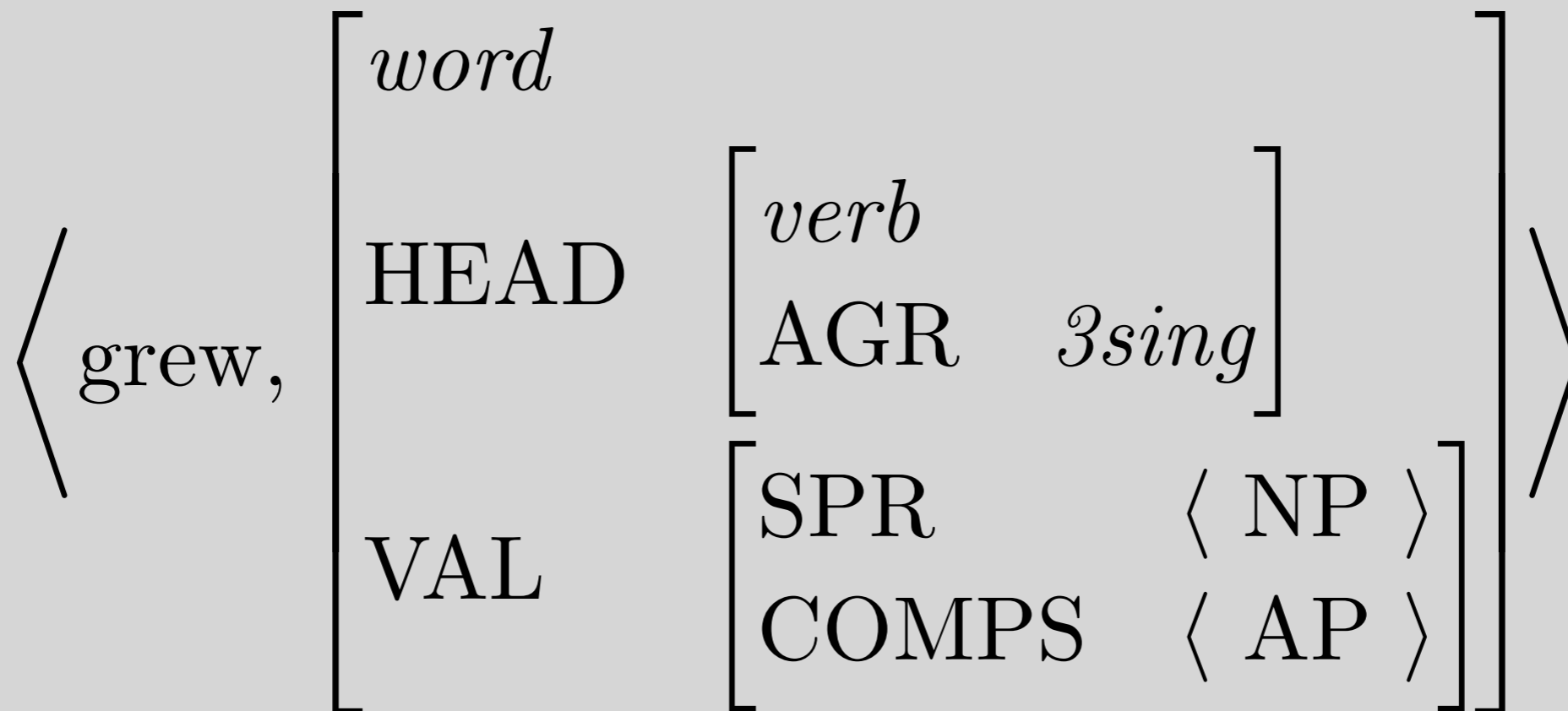
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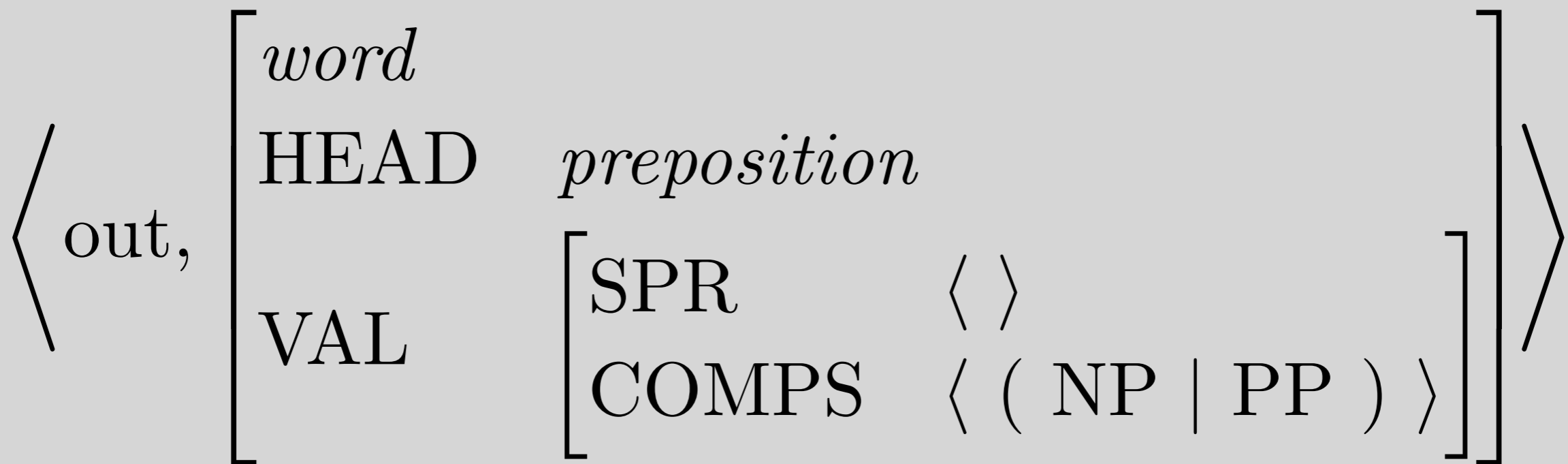
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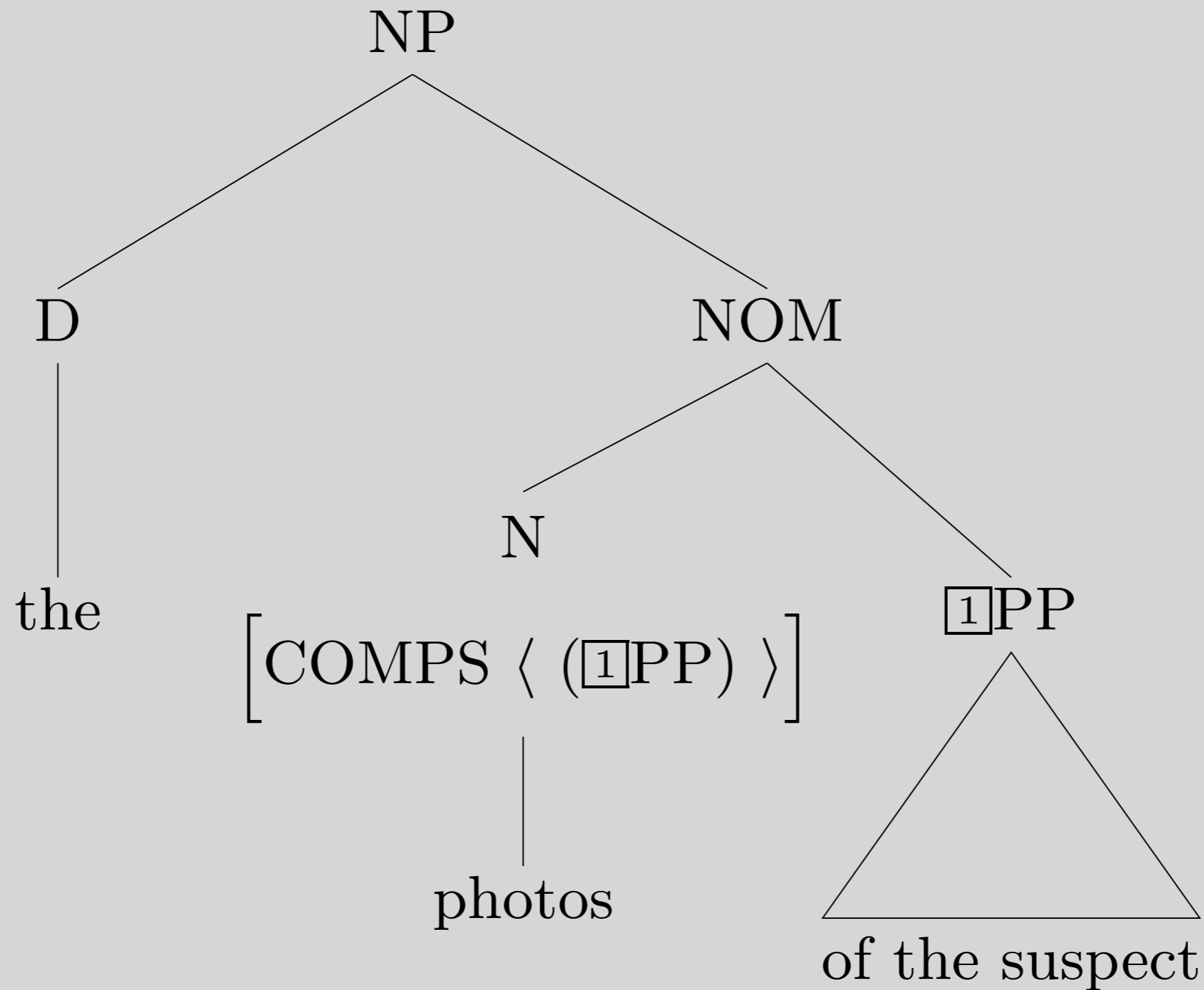
Tags & lists

- What's the difference between these two?

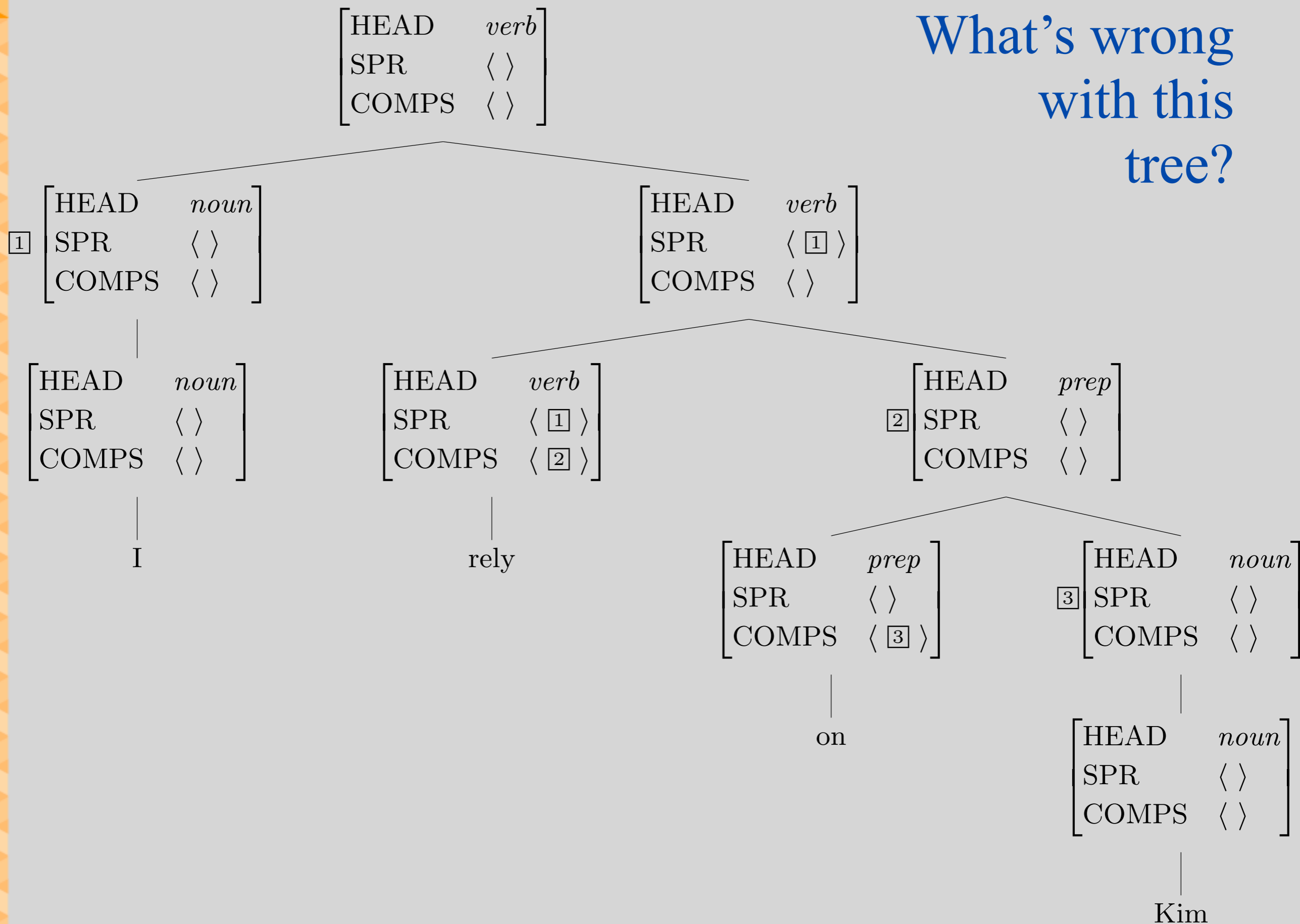
$$[\text{SPR} \quad \boxed{1} \langle \text{NP} \rangle]$$
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- When does it matter?

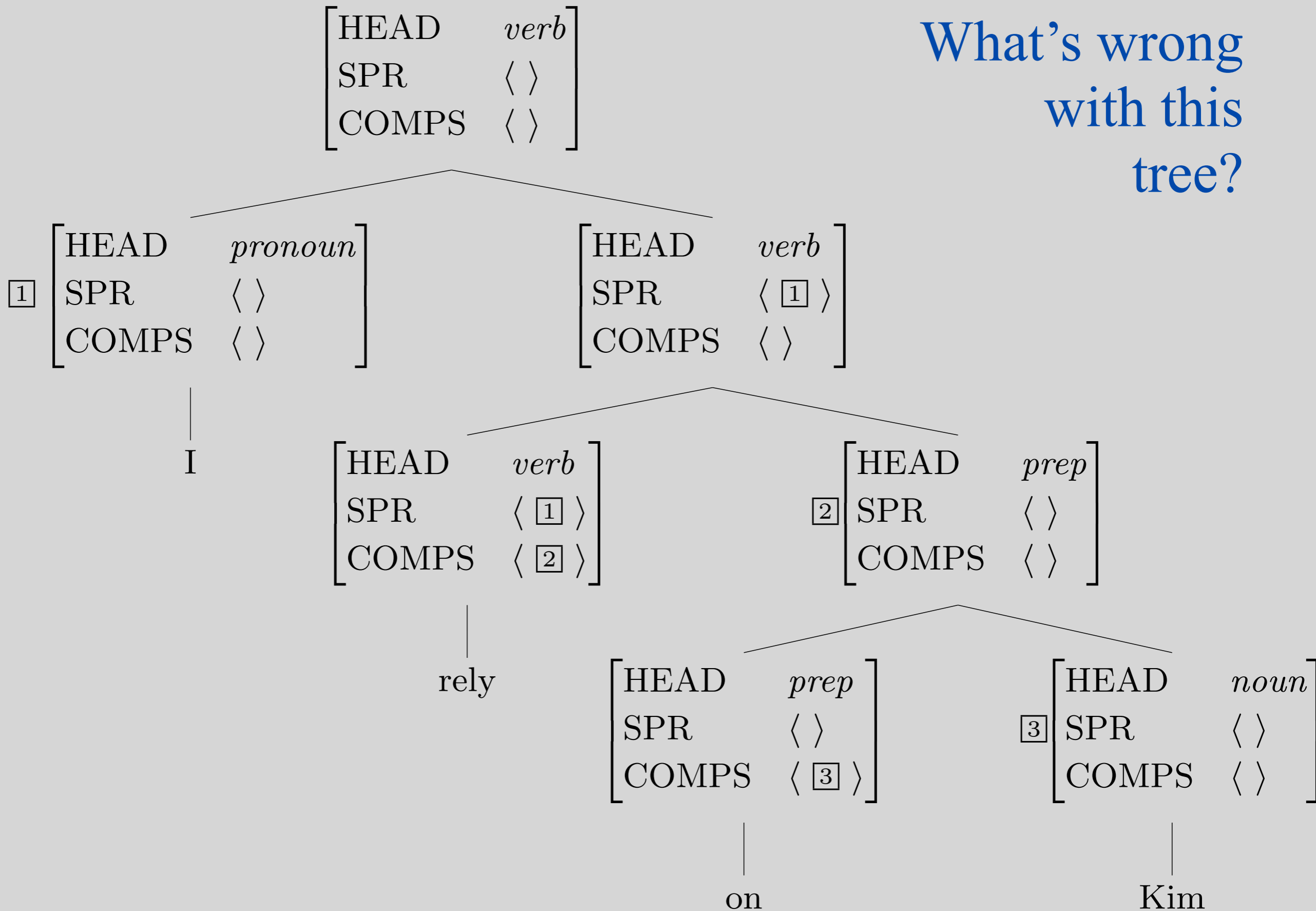
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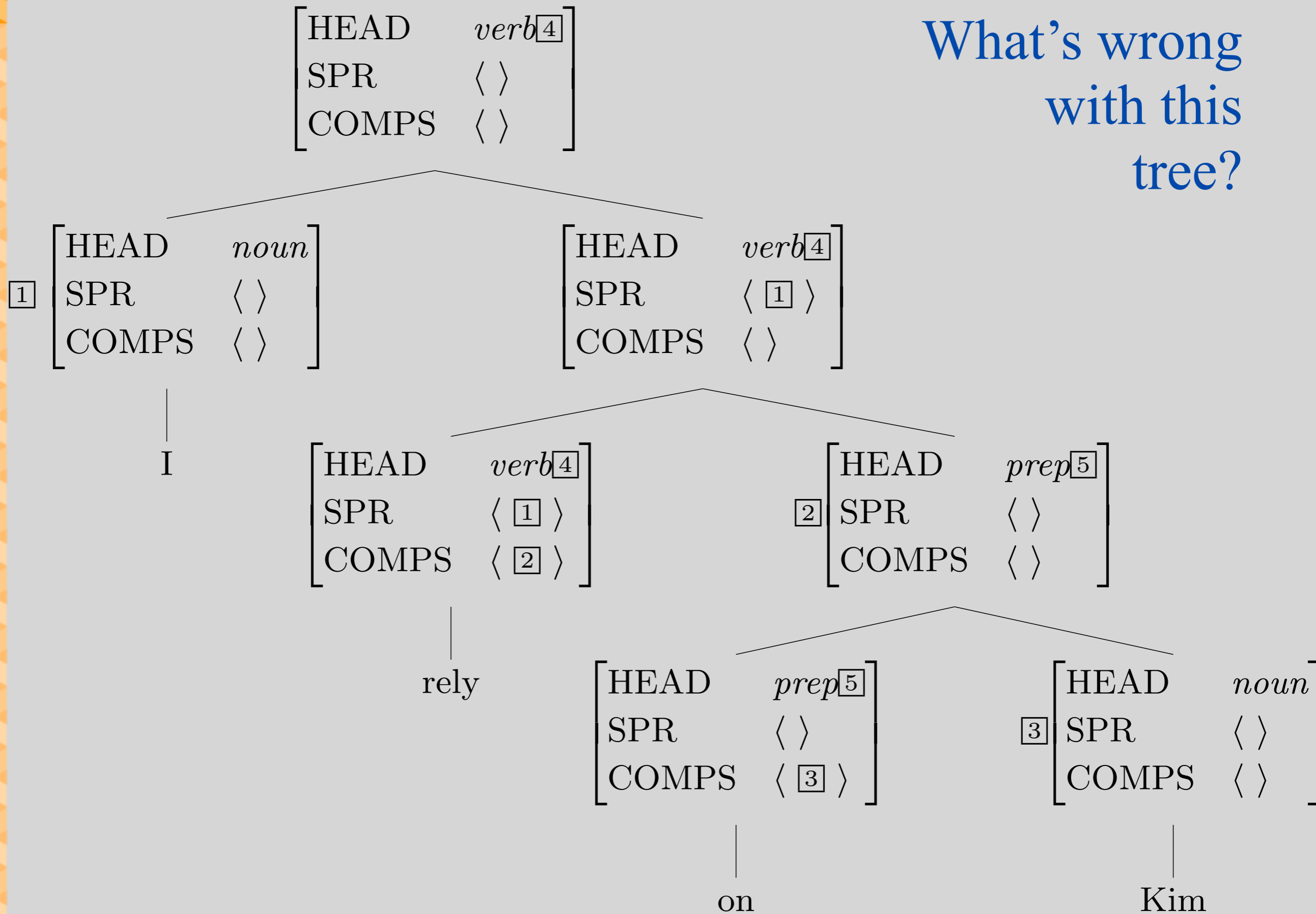
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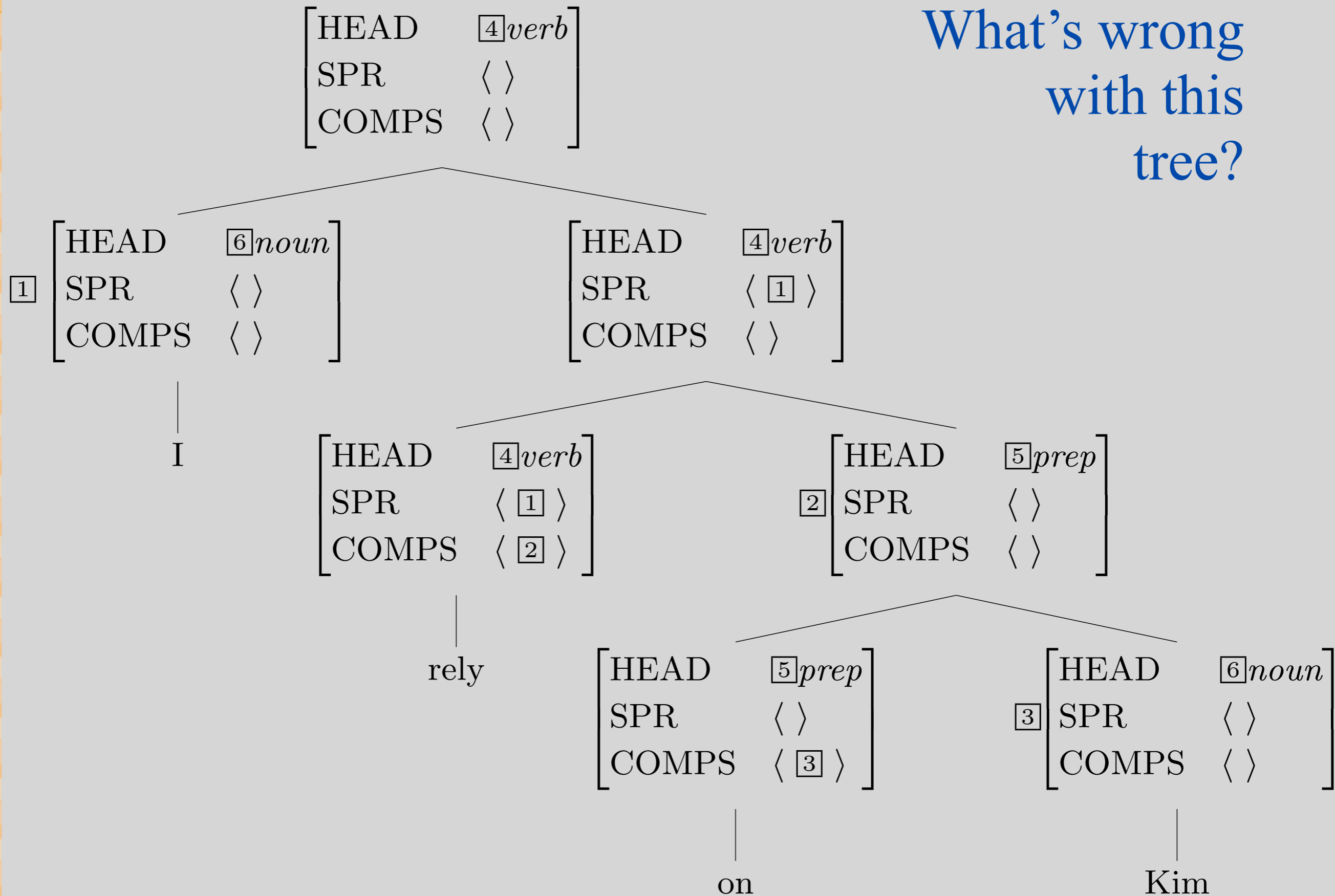
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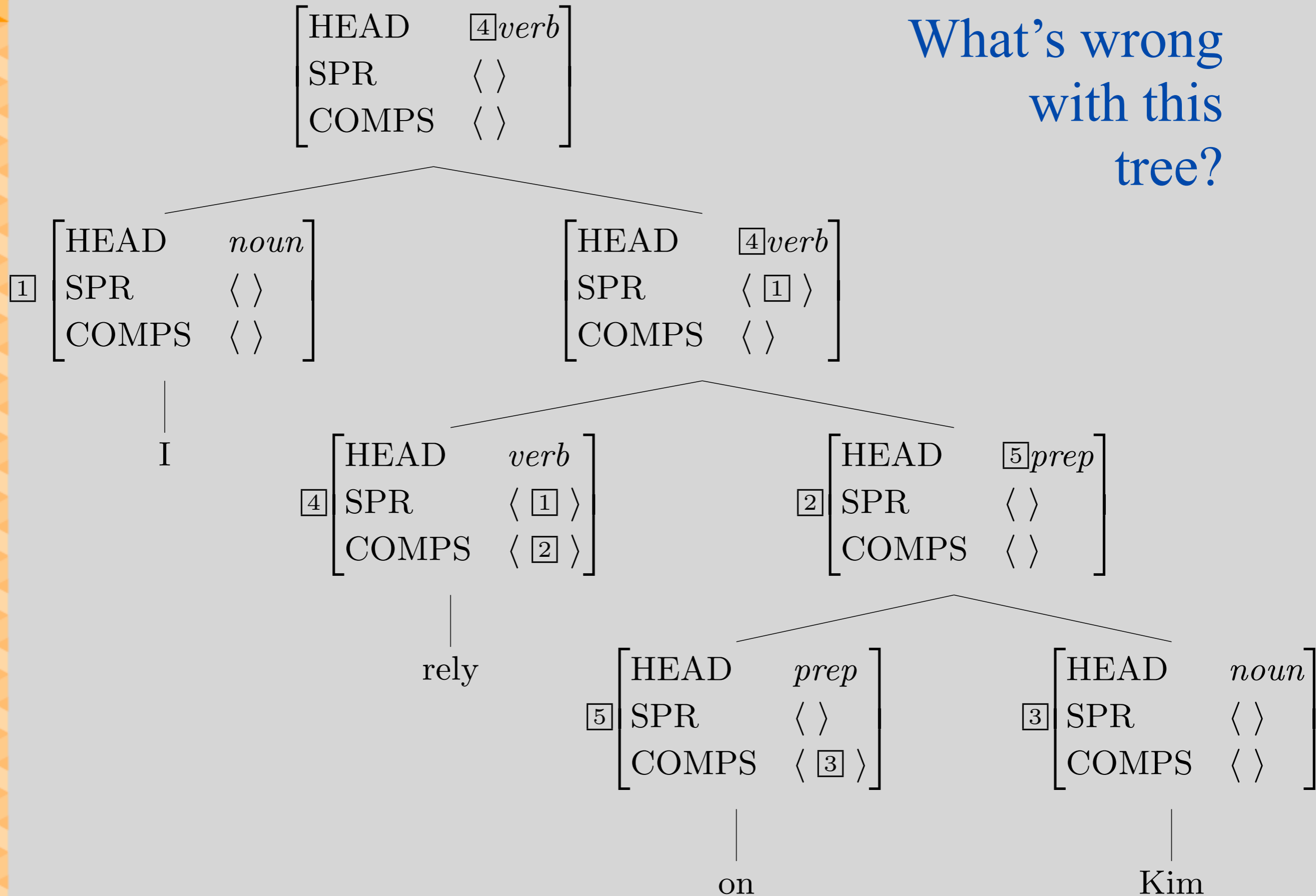
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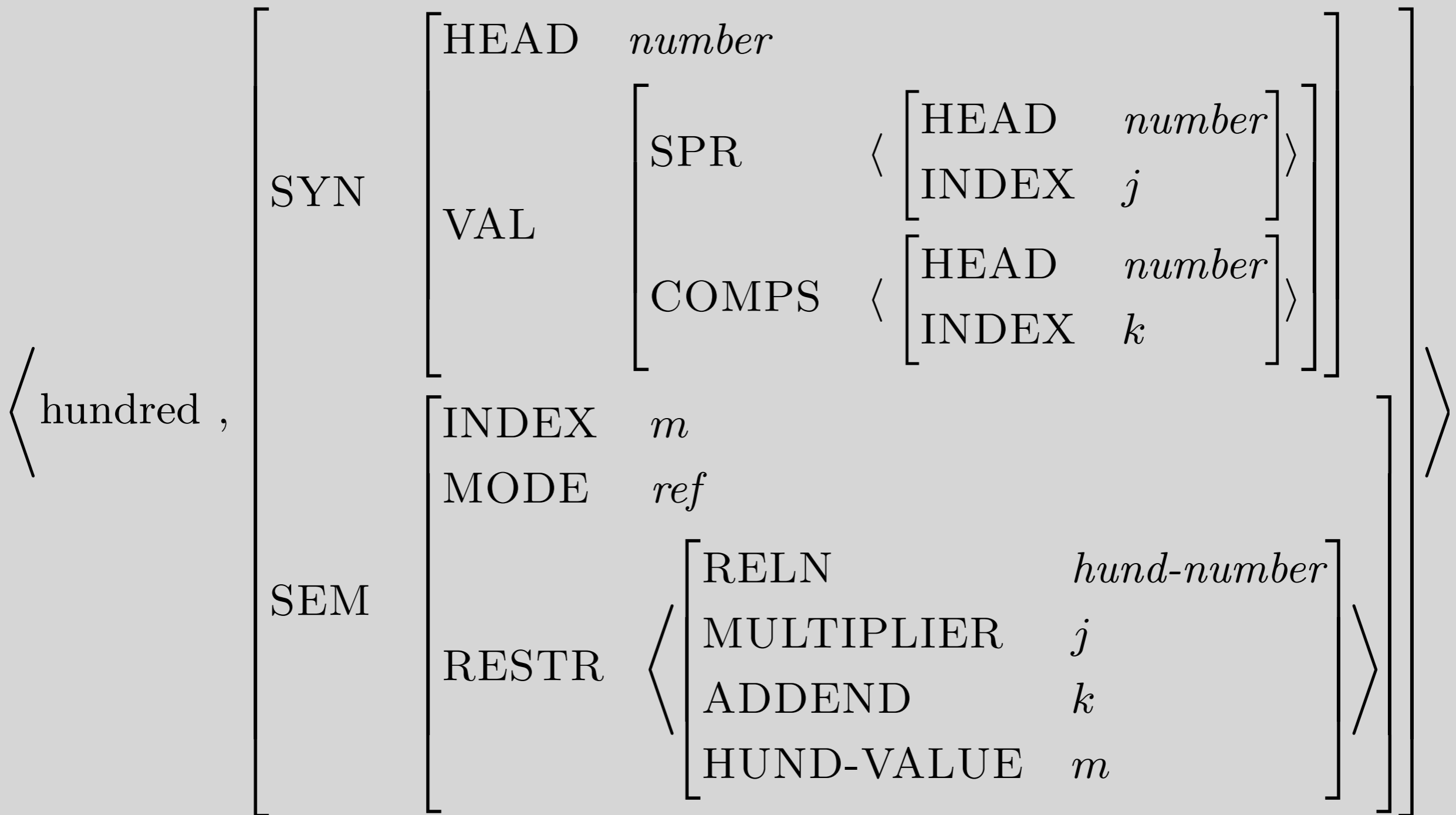
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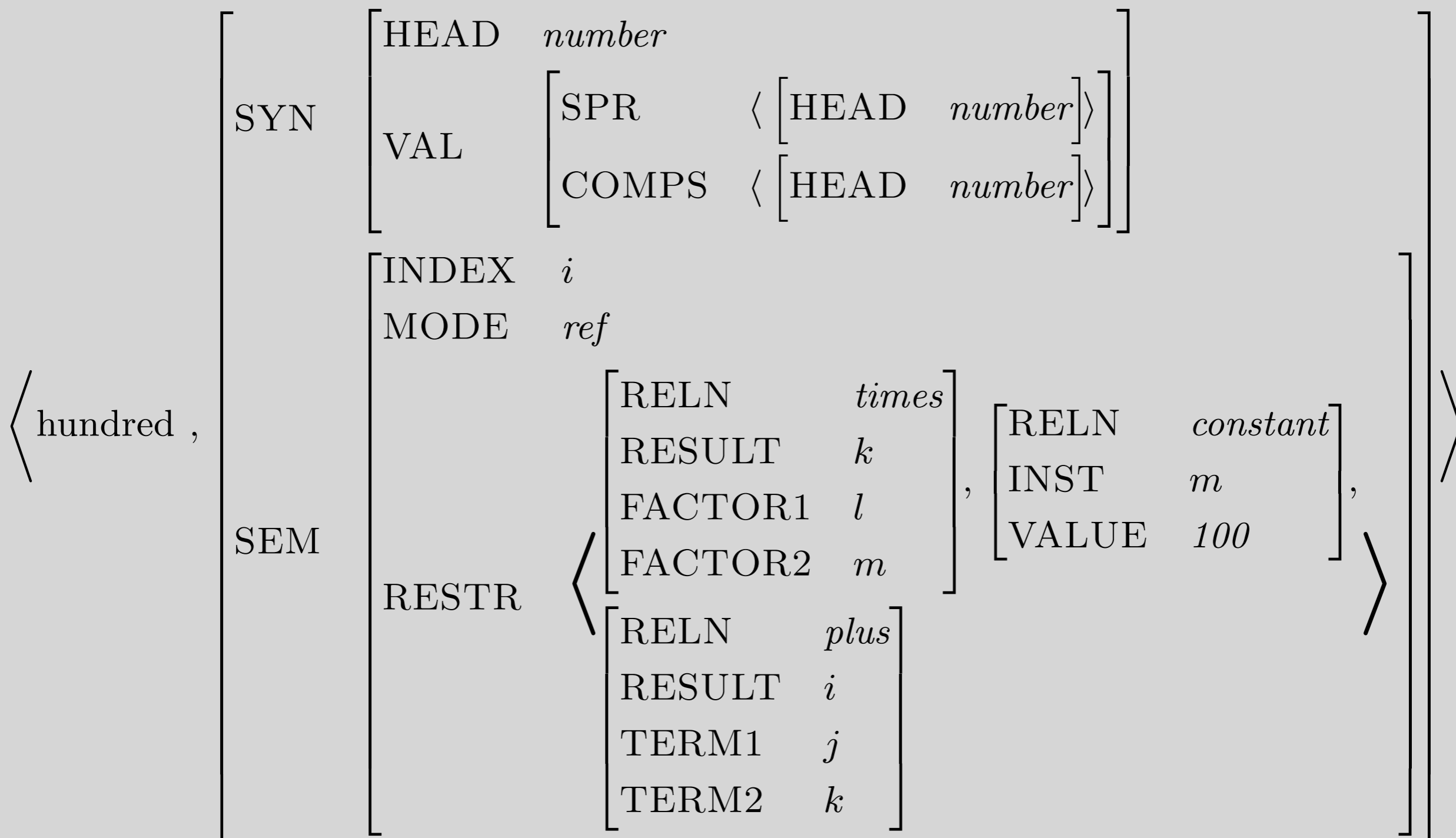
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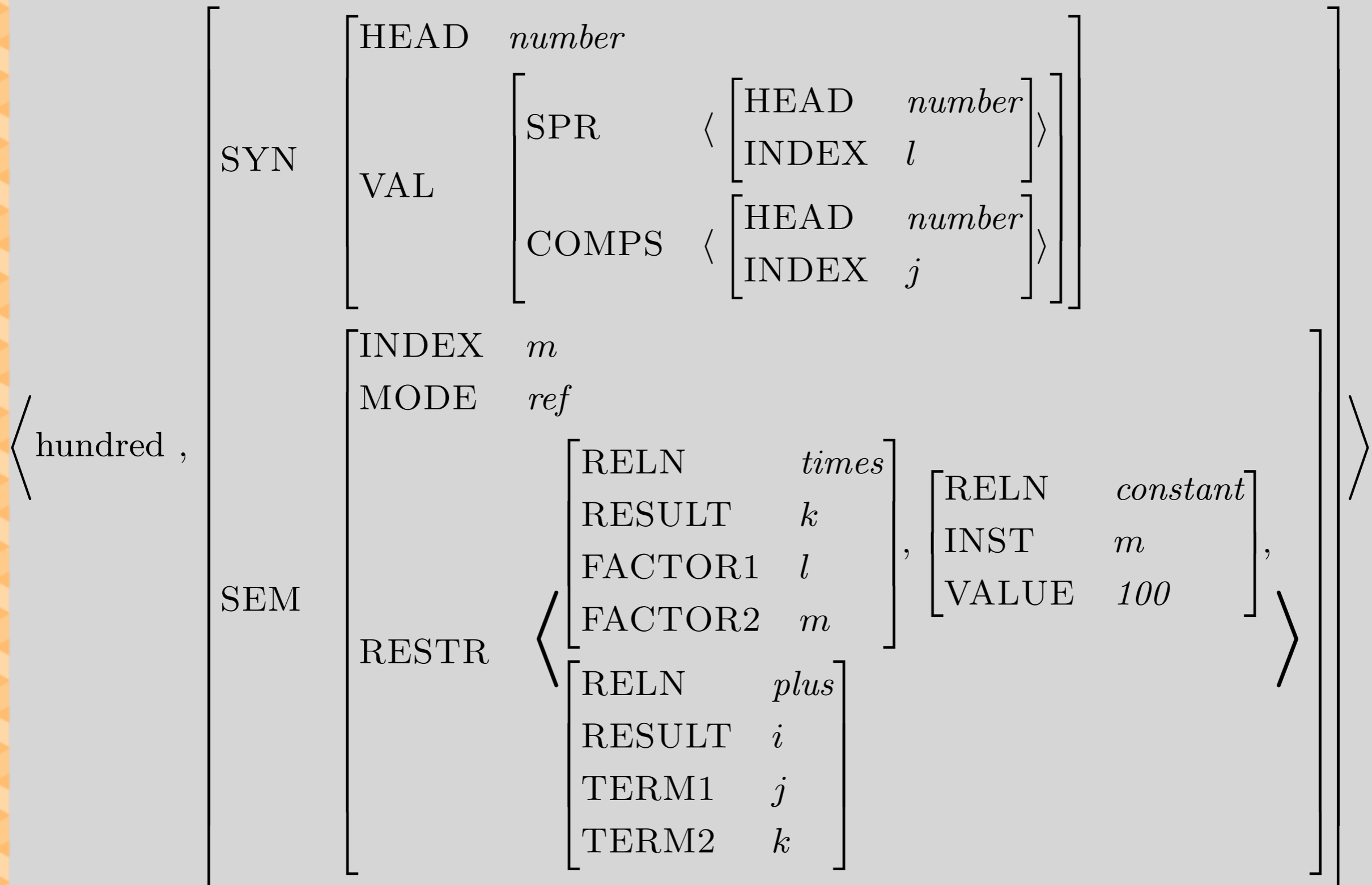
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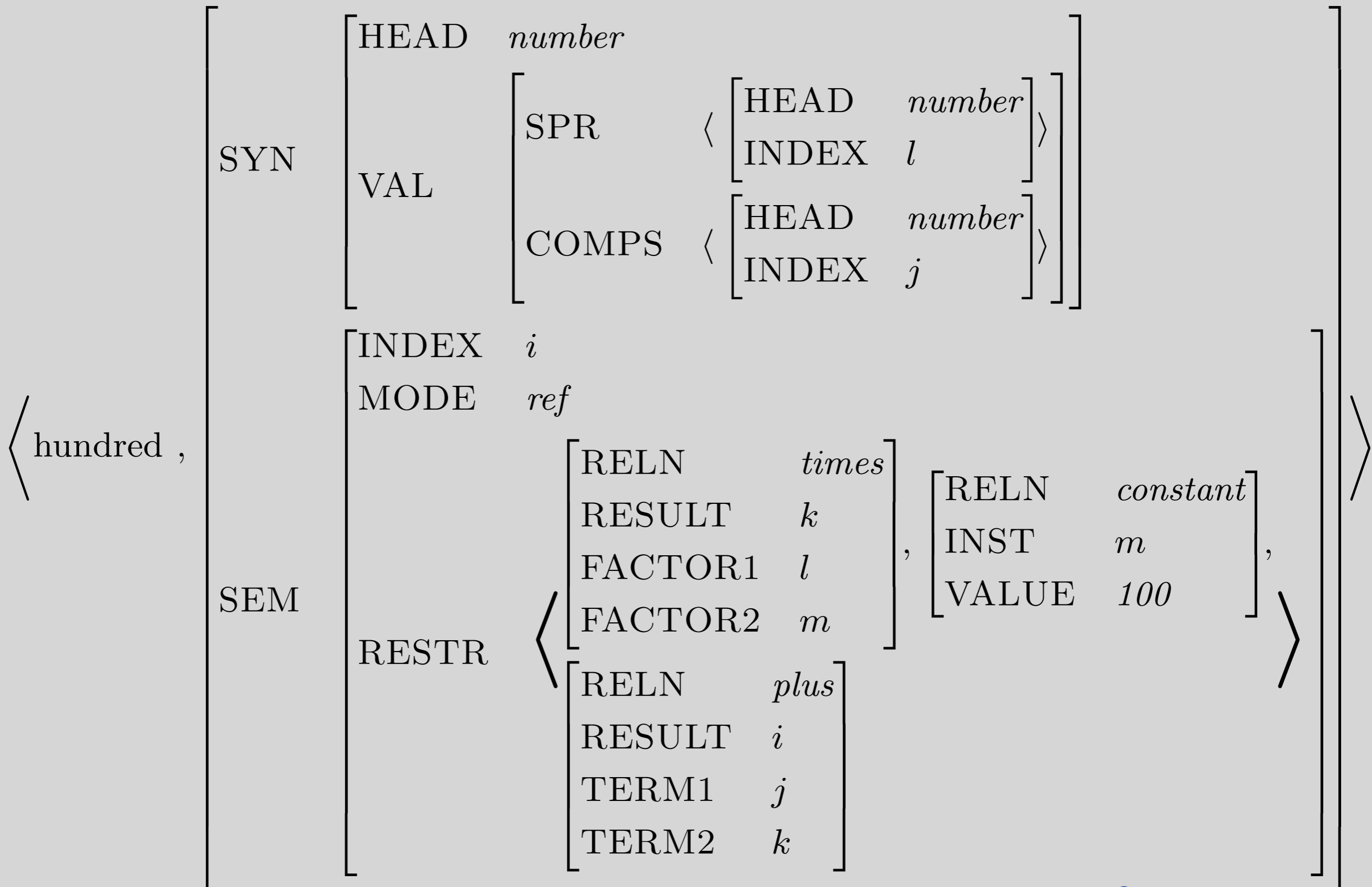
And this?



How about this?



Better version



SPR value on AP/PP?

- Kim grew fond of baseball.
- Kim and Sandy ate lunch in the park.
- Kim and Sandy are in the park.

Type hierarchy analogies

- How is this formalism like OOP?
- How is it different?
- How is the type hierarchy like an ontology?
- How is it different?
- How is this formalism like the MP's formalism?
- How is it different?

Terminology

- Over to Liz...

English Resource Grammar

- Broad-coverage, precision HPSG for English
- Under continuous development since 1993
- >90% validated coverage on open-domain (well edited) English text
- Demo: <https://delph-in.github.io/delphin-viz/demo>
- Flickinger 2000, 2011

Redwoods Treebank

- <https://github.com/delph-in/docs/wiki/RedwoodsTop>
- Use grammar to create parse forest
- Hand select preferred parse based on discriminants (Carter 1997)
- Store these choices!
- Oepen et al 2004, Flickinger et al 2017
- Demo: <http://erg.delph-in.net/logon>

HPSG formalism as Turing machine

- <https://github.com/delph-in/docs/wiki/Fairhaven2022-Emerson-Turing-types>