An Empirical Examination of Challenges in Chinese Parsing

THE UNIVERSITY OF SYDNEY

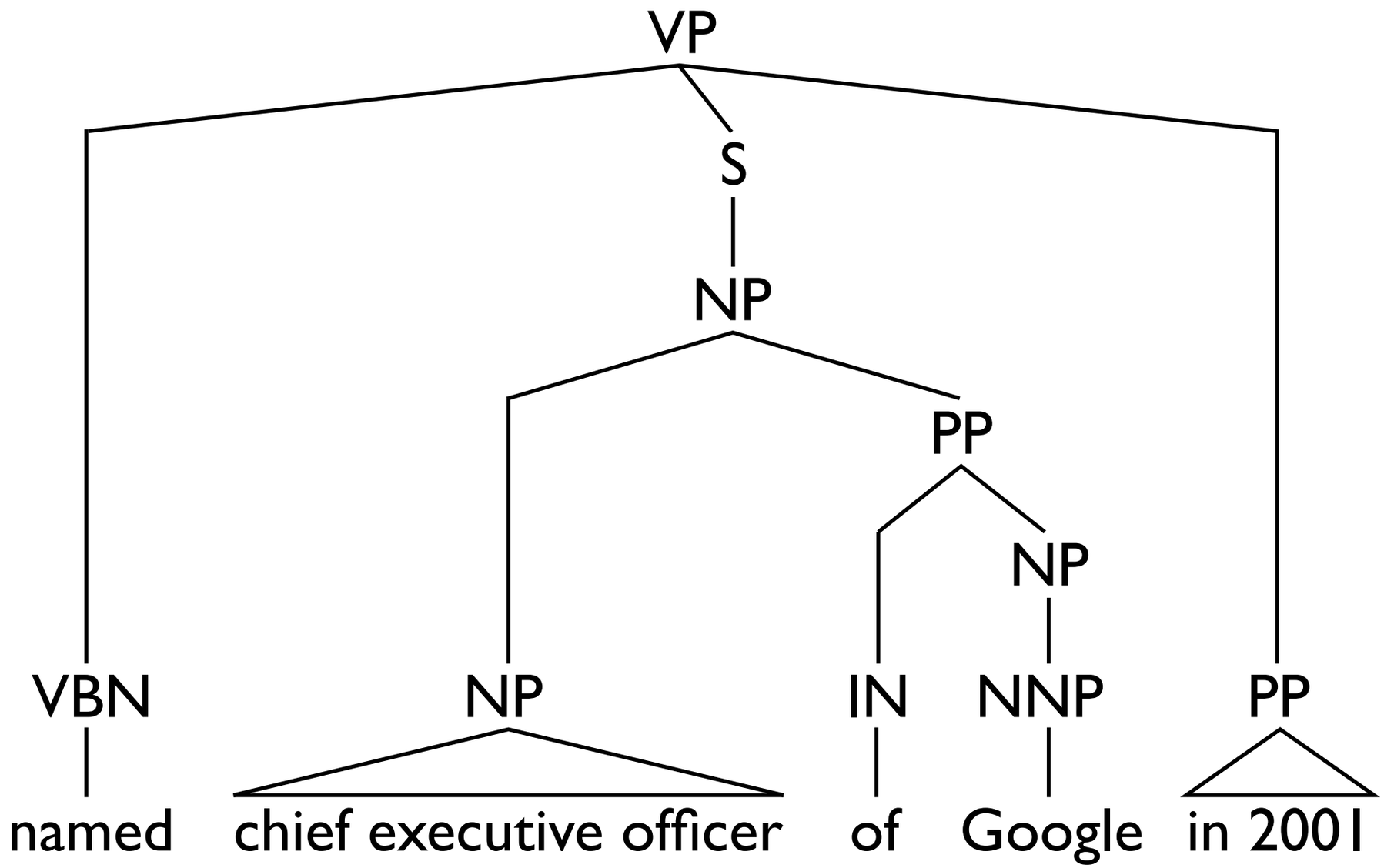
Jonathan Kummerfeld
Dan Klein
UC Berkeley

Daniel Tse
James Curran
U Sydney

Parsing Errors

named chief executive officer of Google in 2001

Parsing Errors



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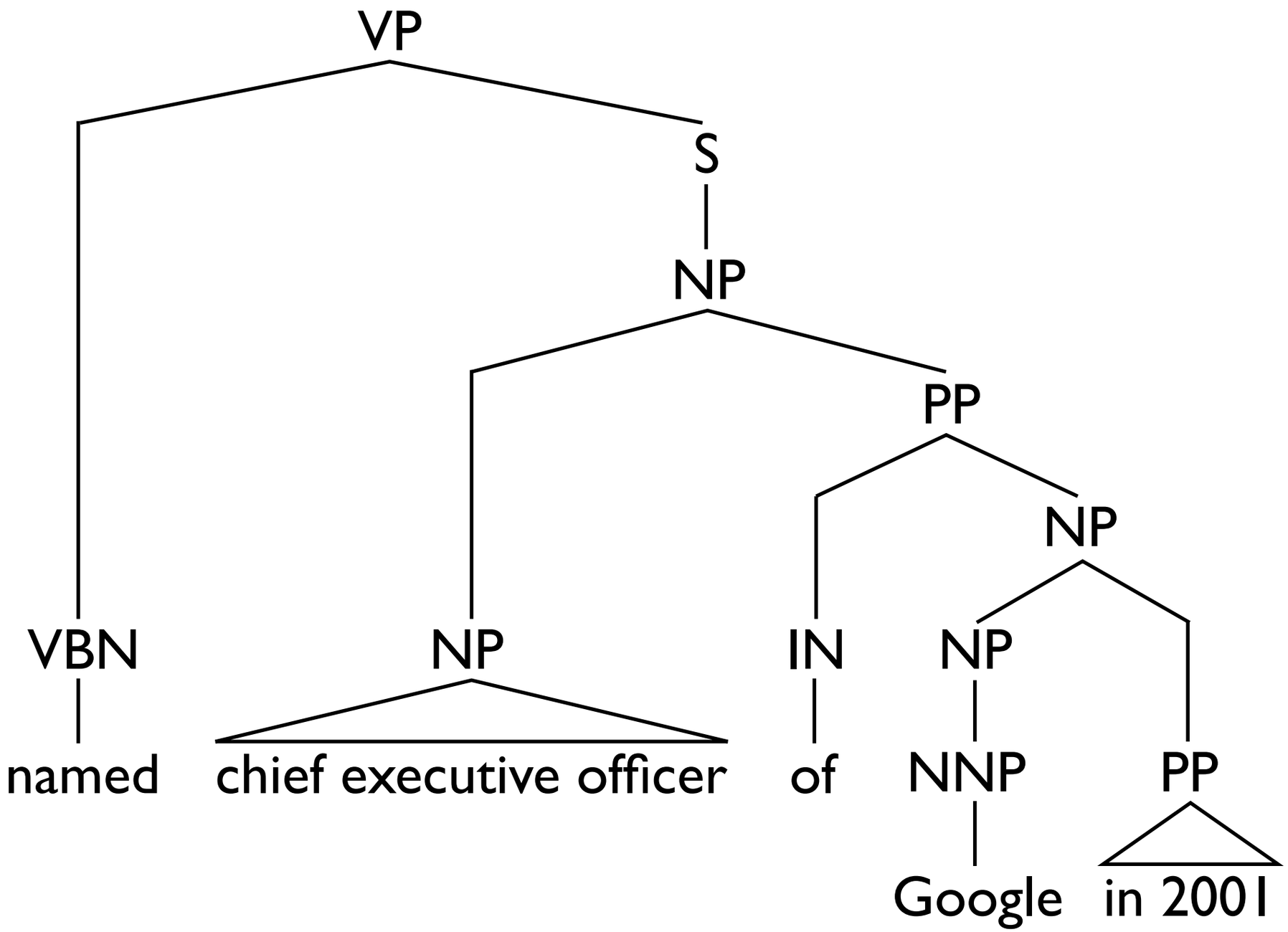

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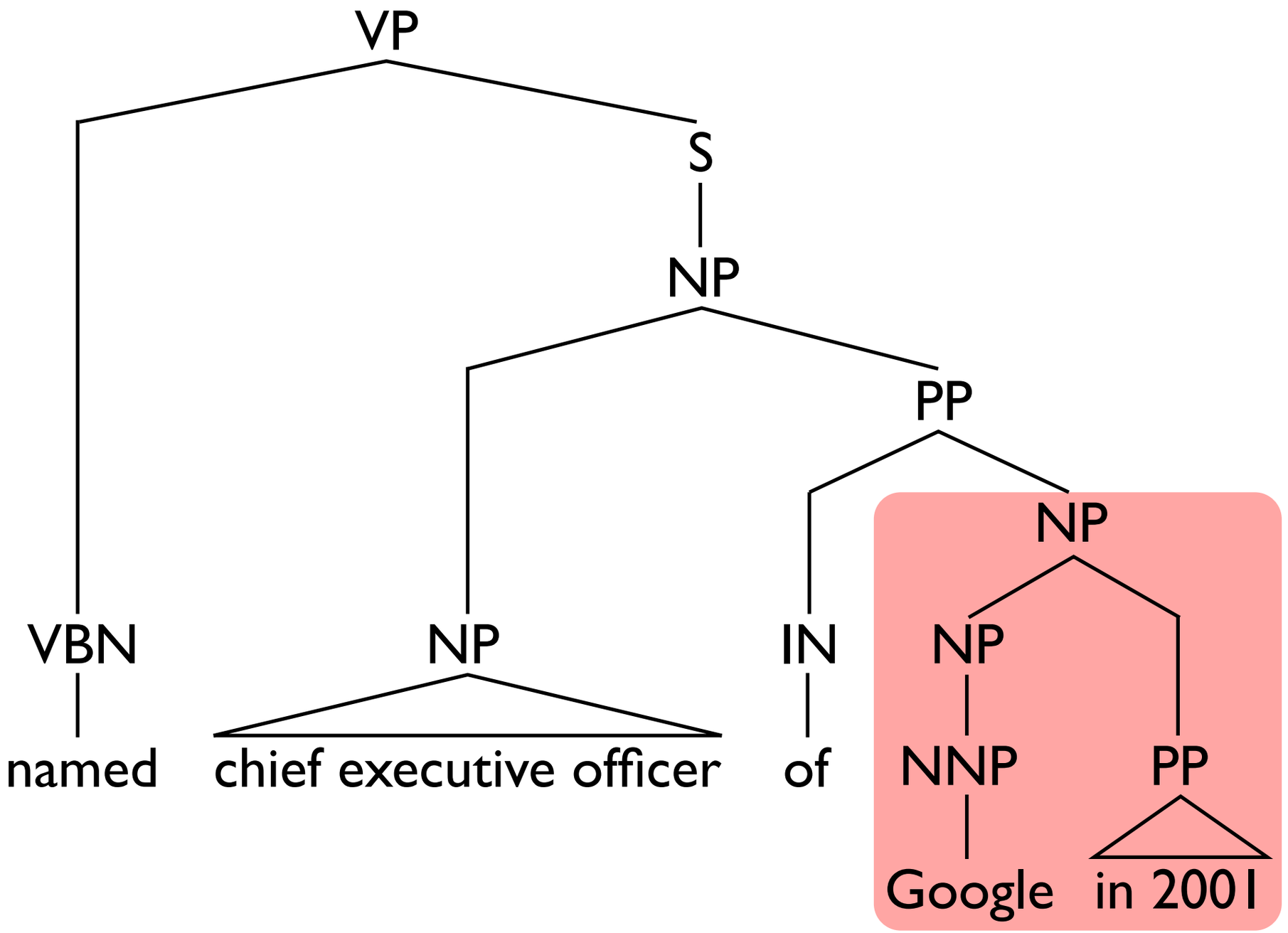

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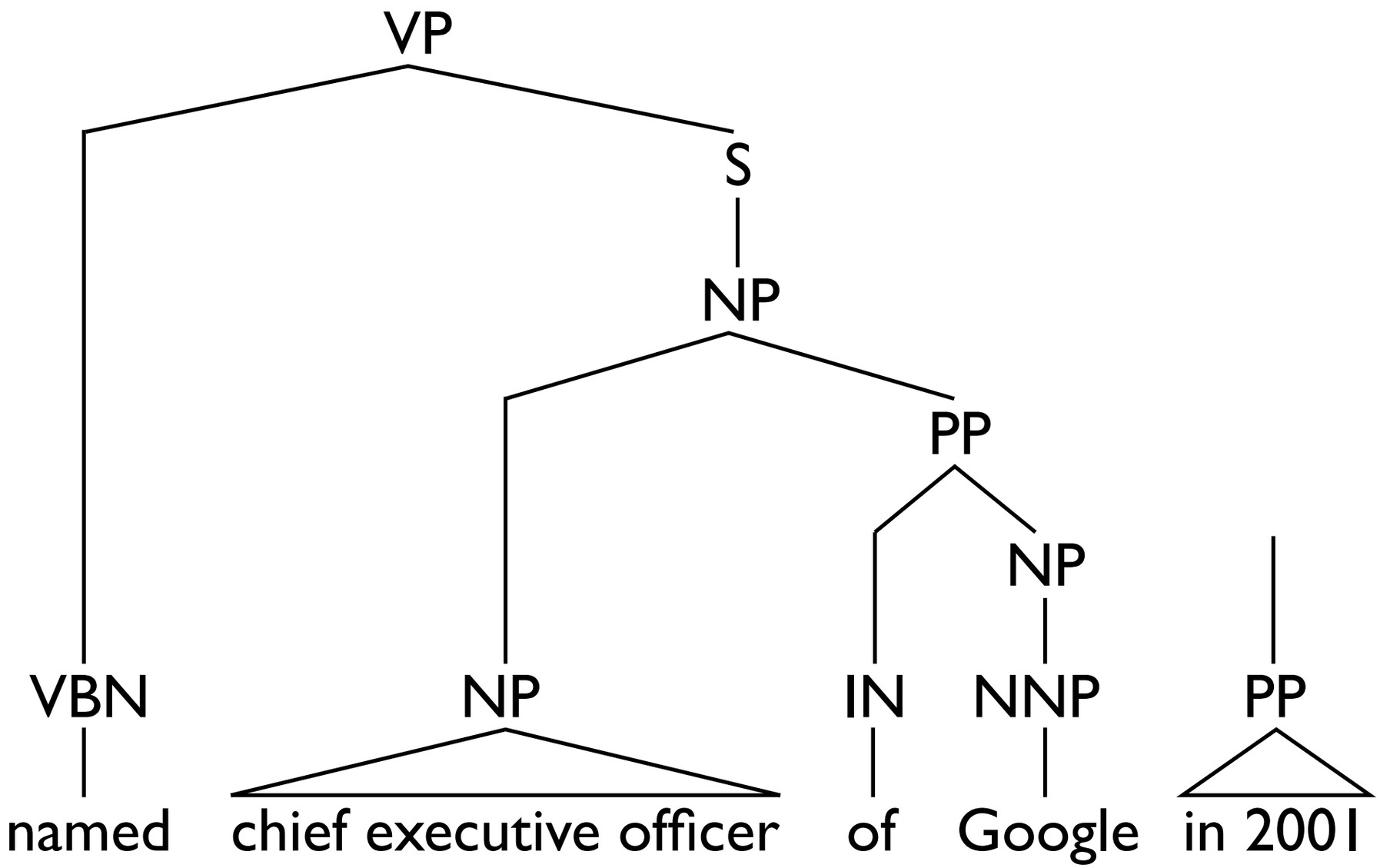

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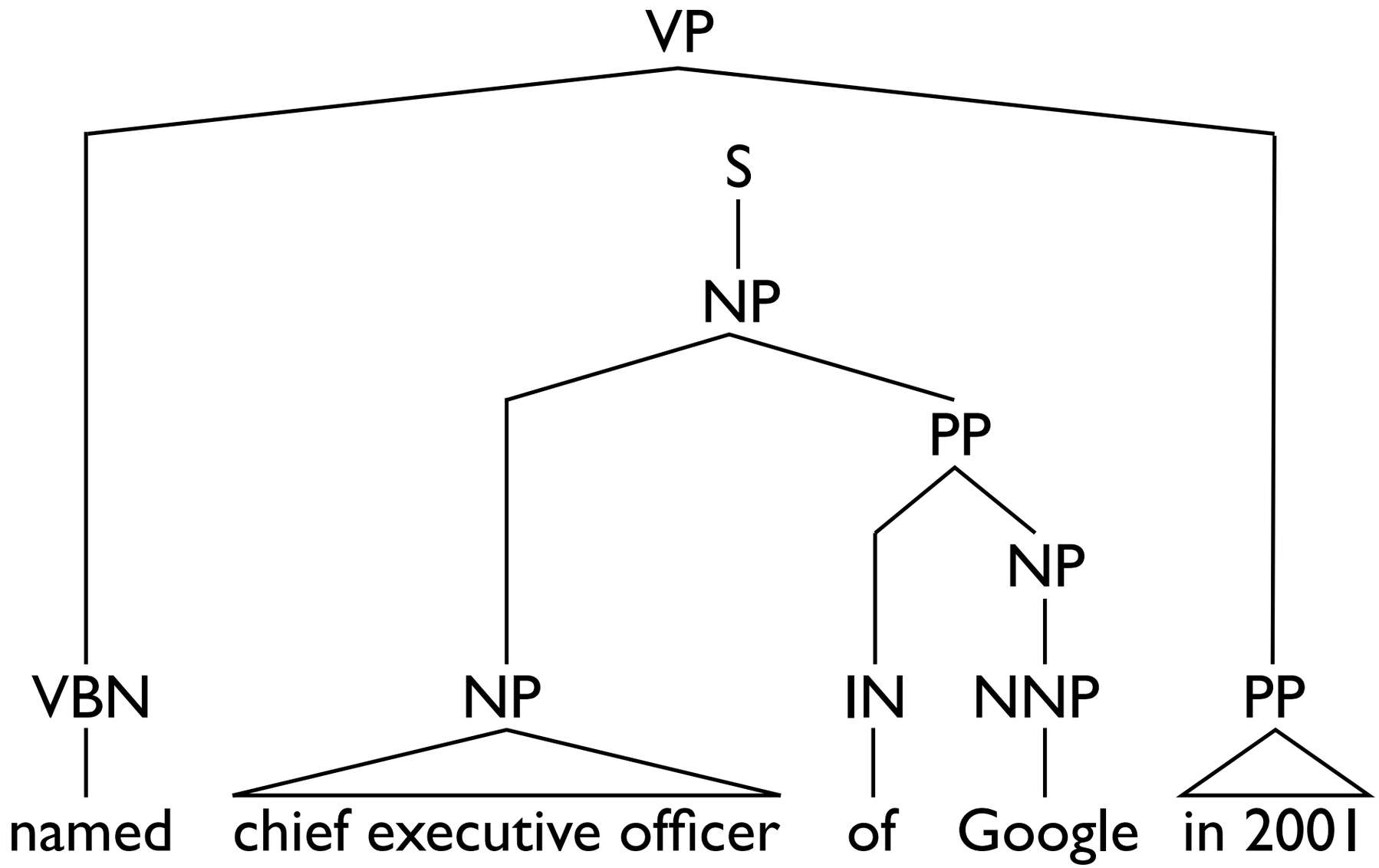

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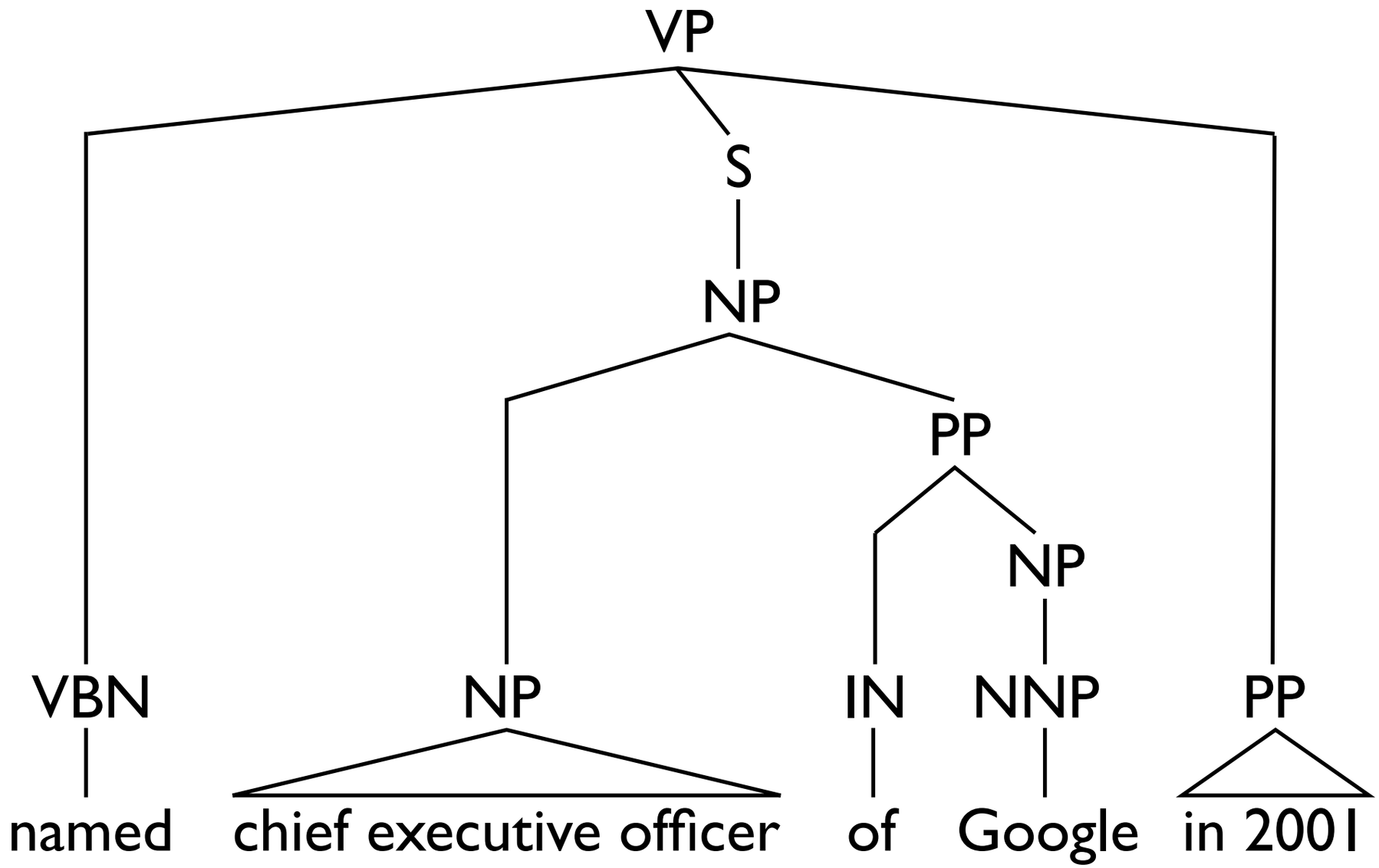
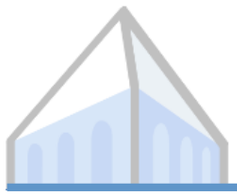




Manual Error Analysis

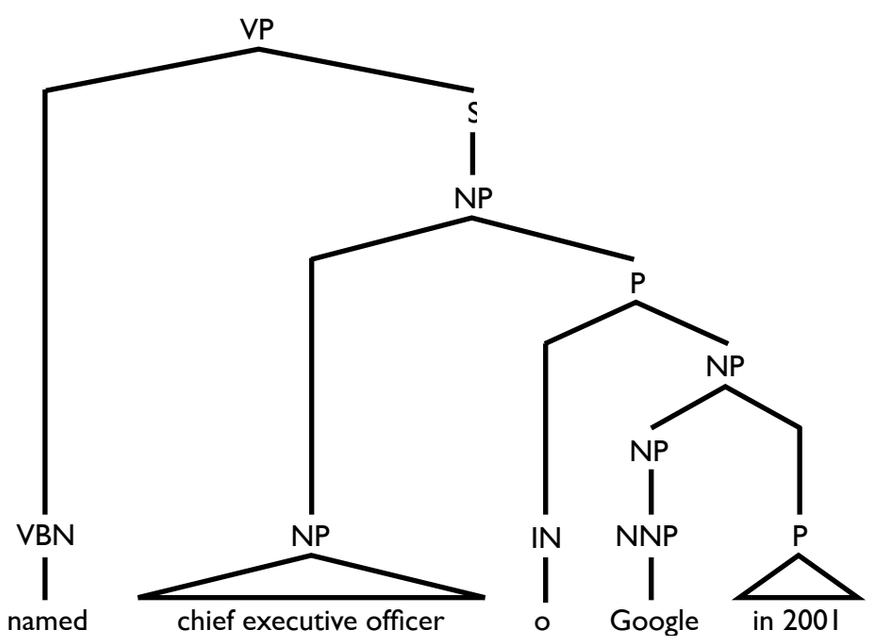
Manual Error Analysis

- Too slow!

Automatic Error Analysis

Kummerfeld et al. (2012)

Automatic Error Analysis



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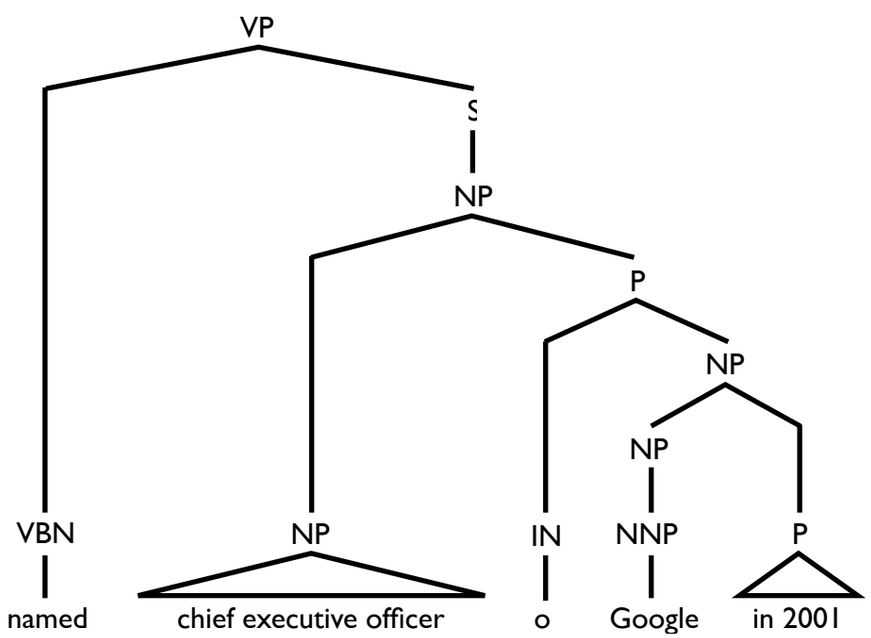
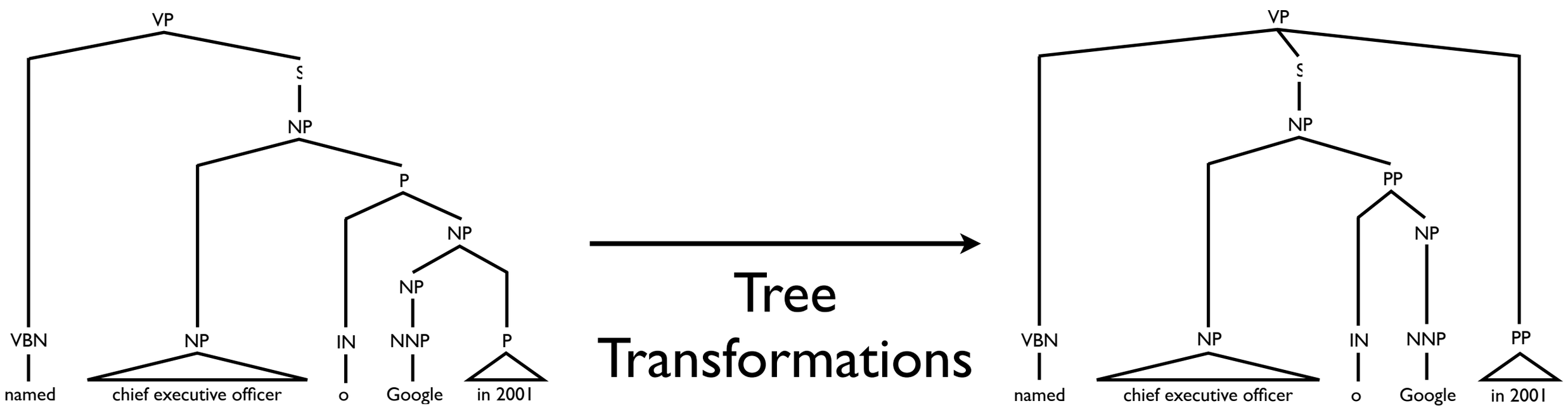


Tree

Transformations

Kummerfeld et al. (2012)

Automatic Error Analysis



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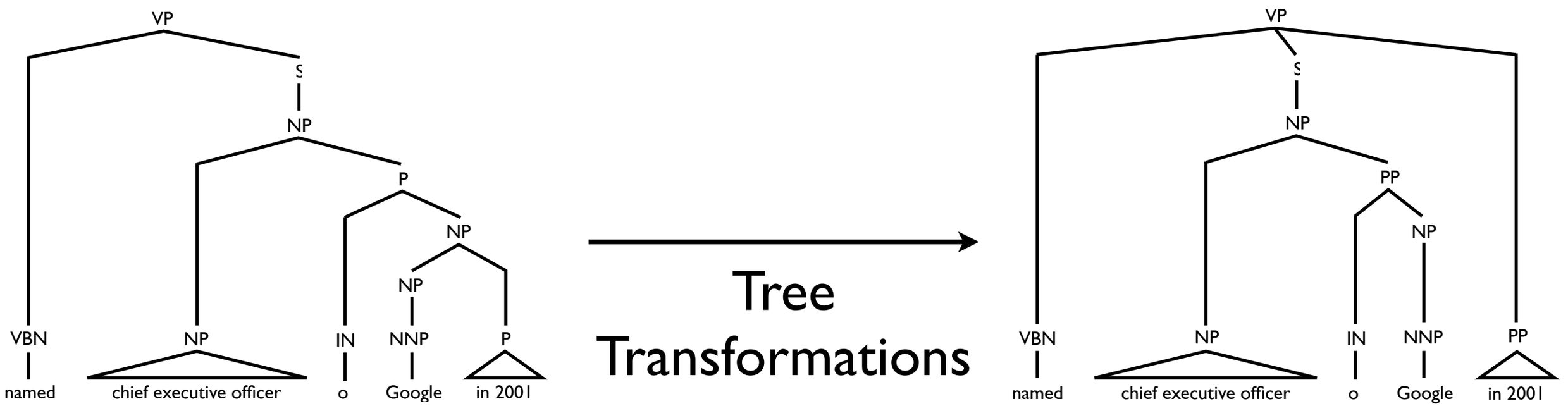
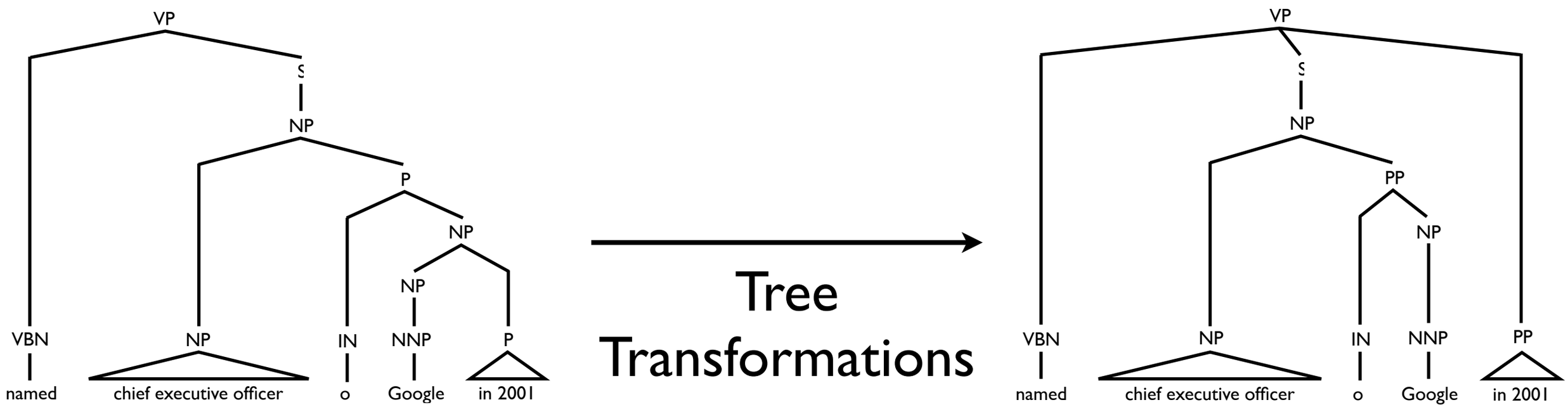


List of Transformation Steps

Kummerfeld et al. (2012)

Automatic Error Analysis



List of Transformation Steps

Categorise

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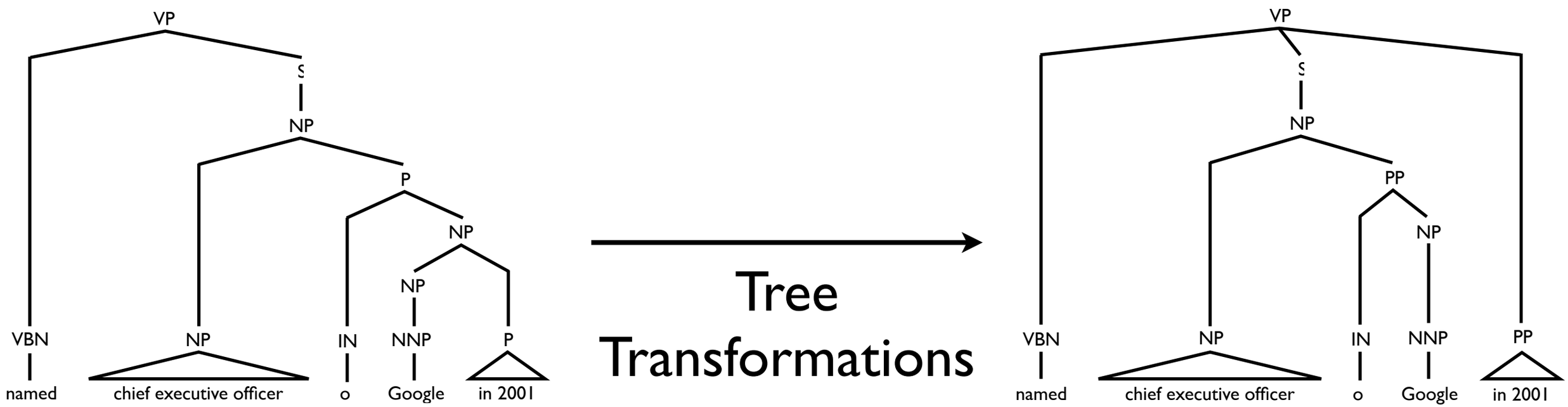

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List of Errors

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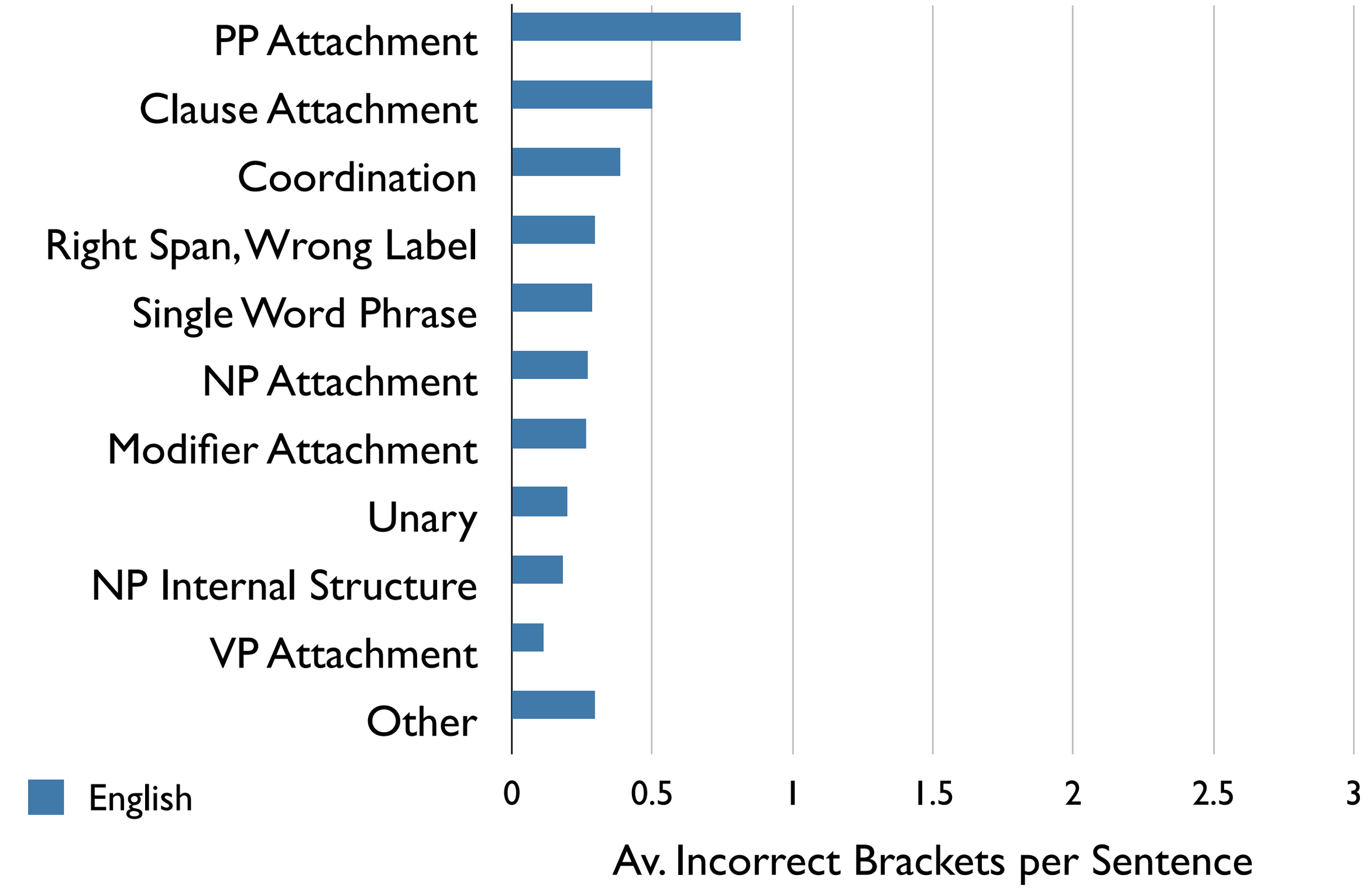
English and Chinese Errors



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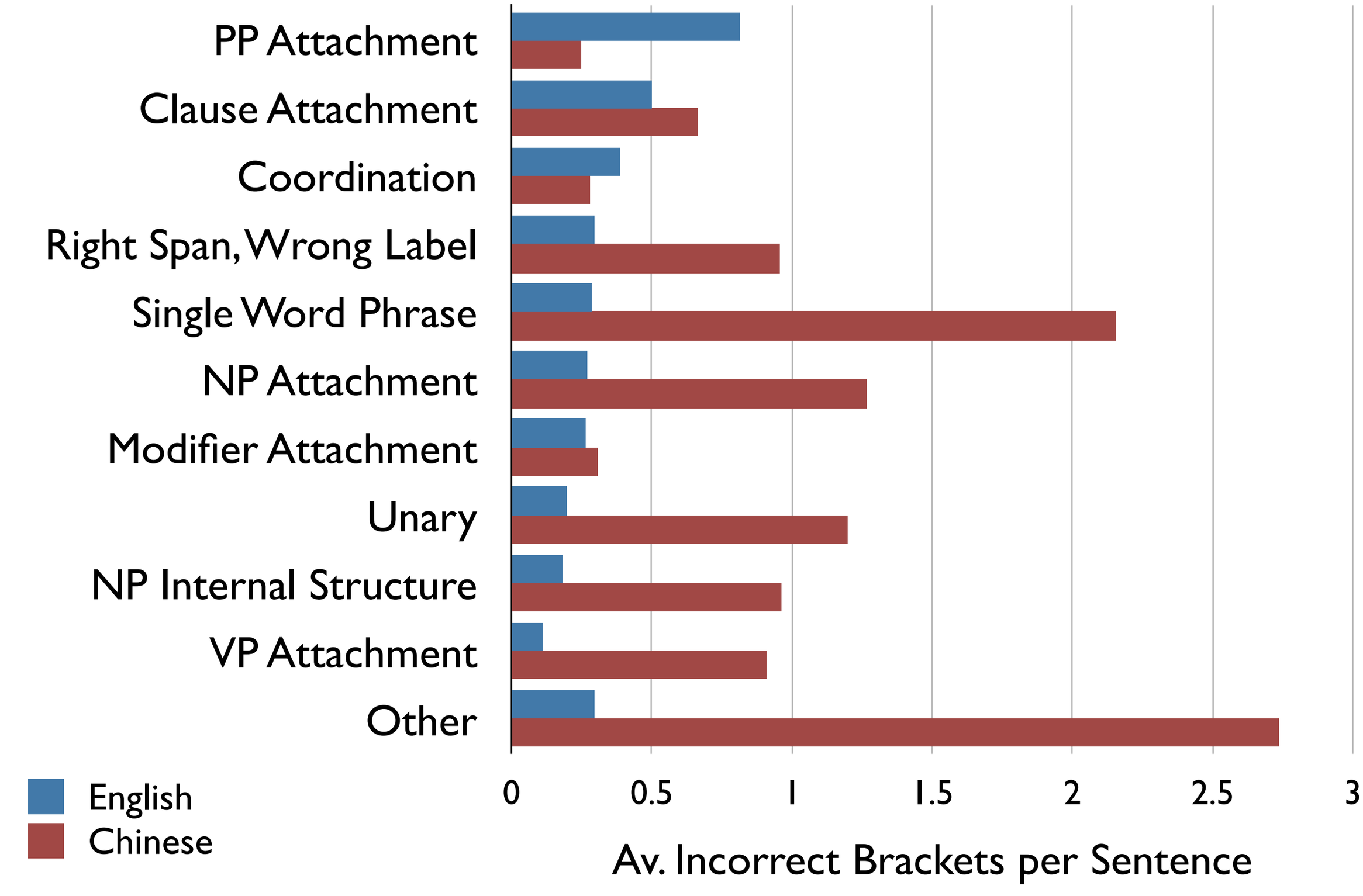

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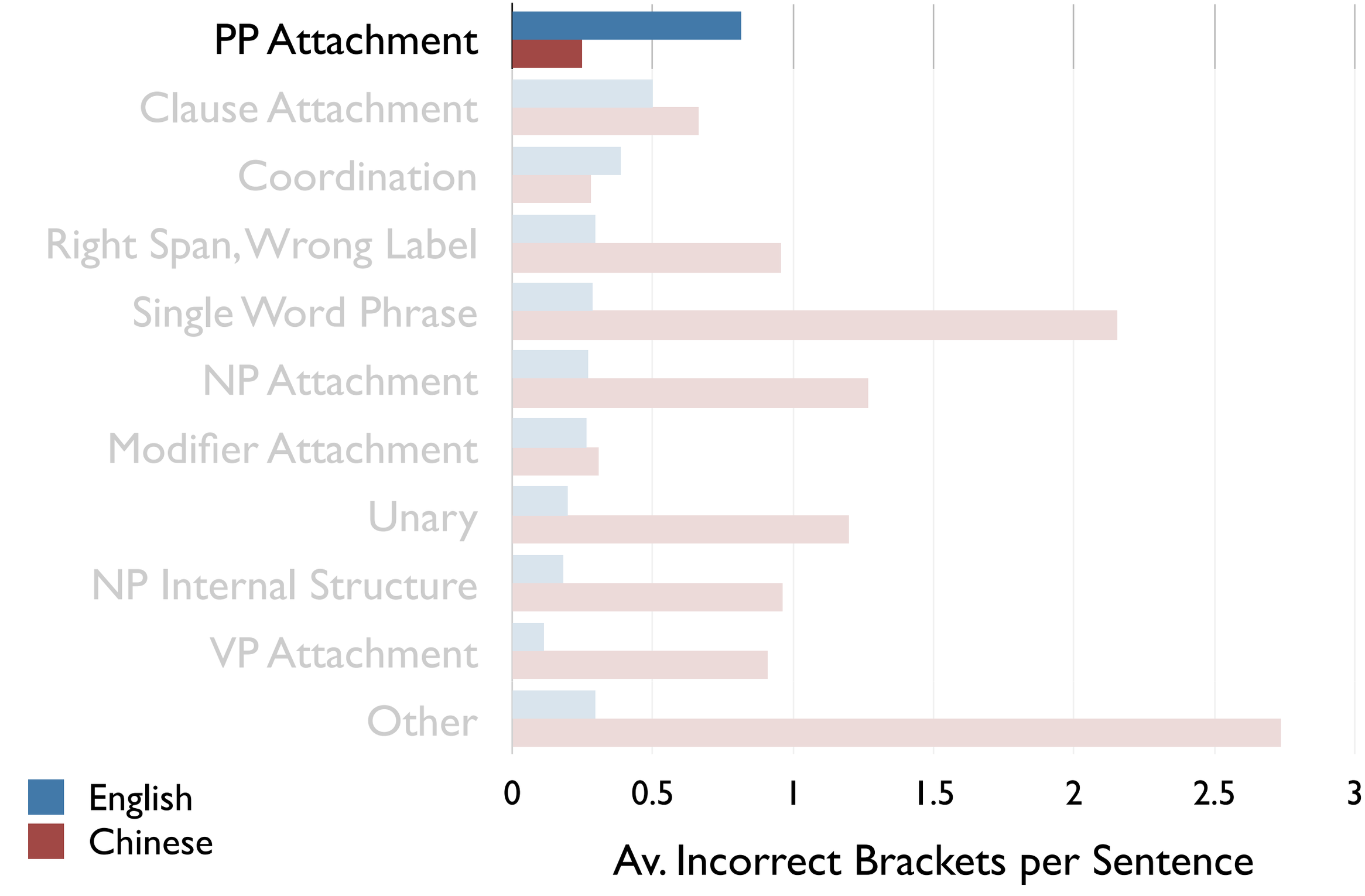

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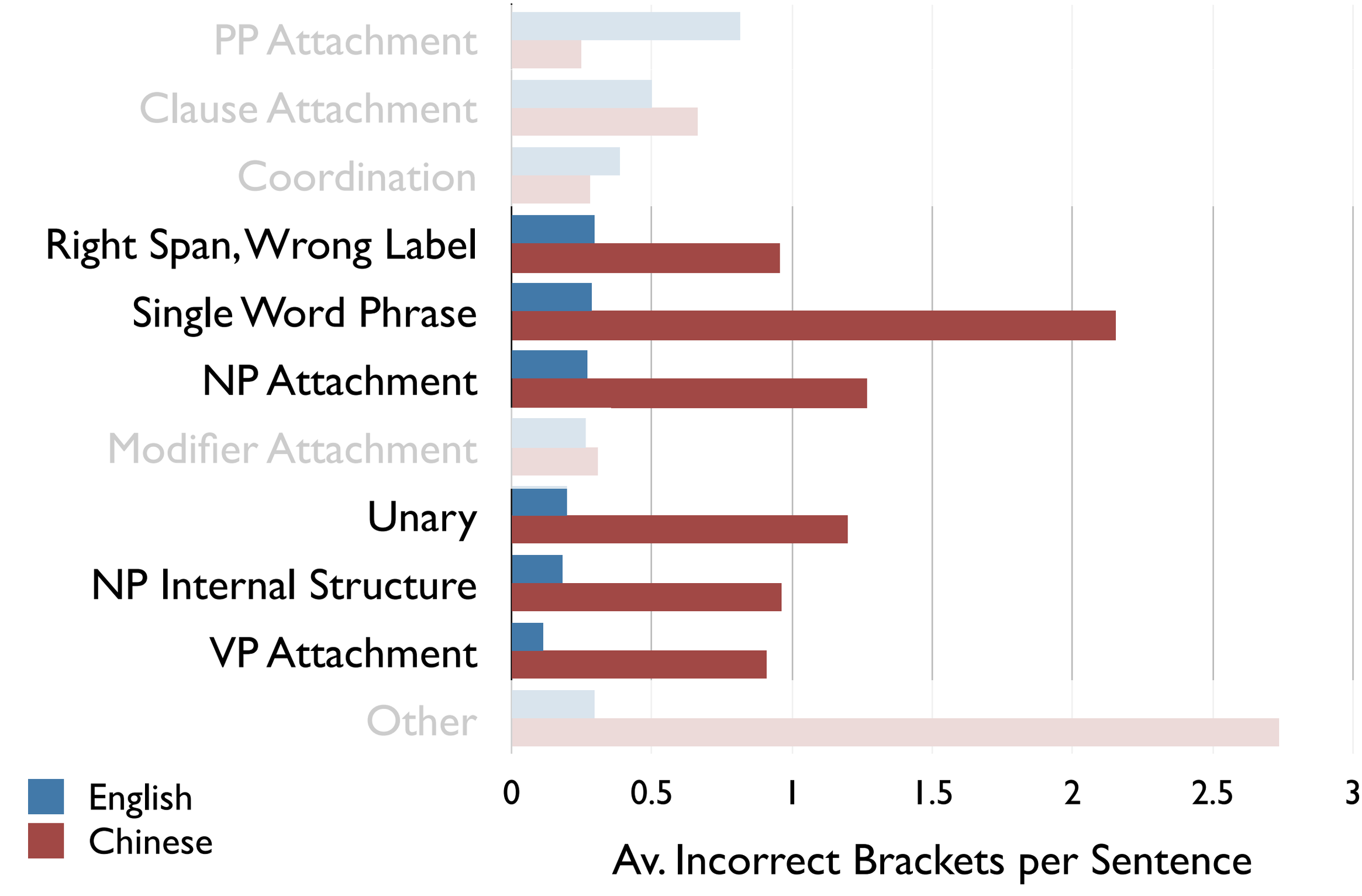

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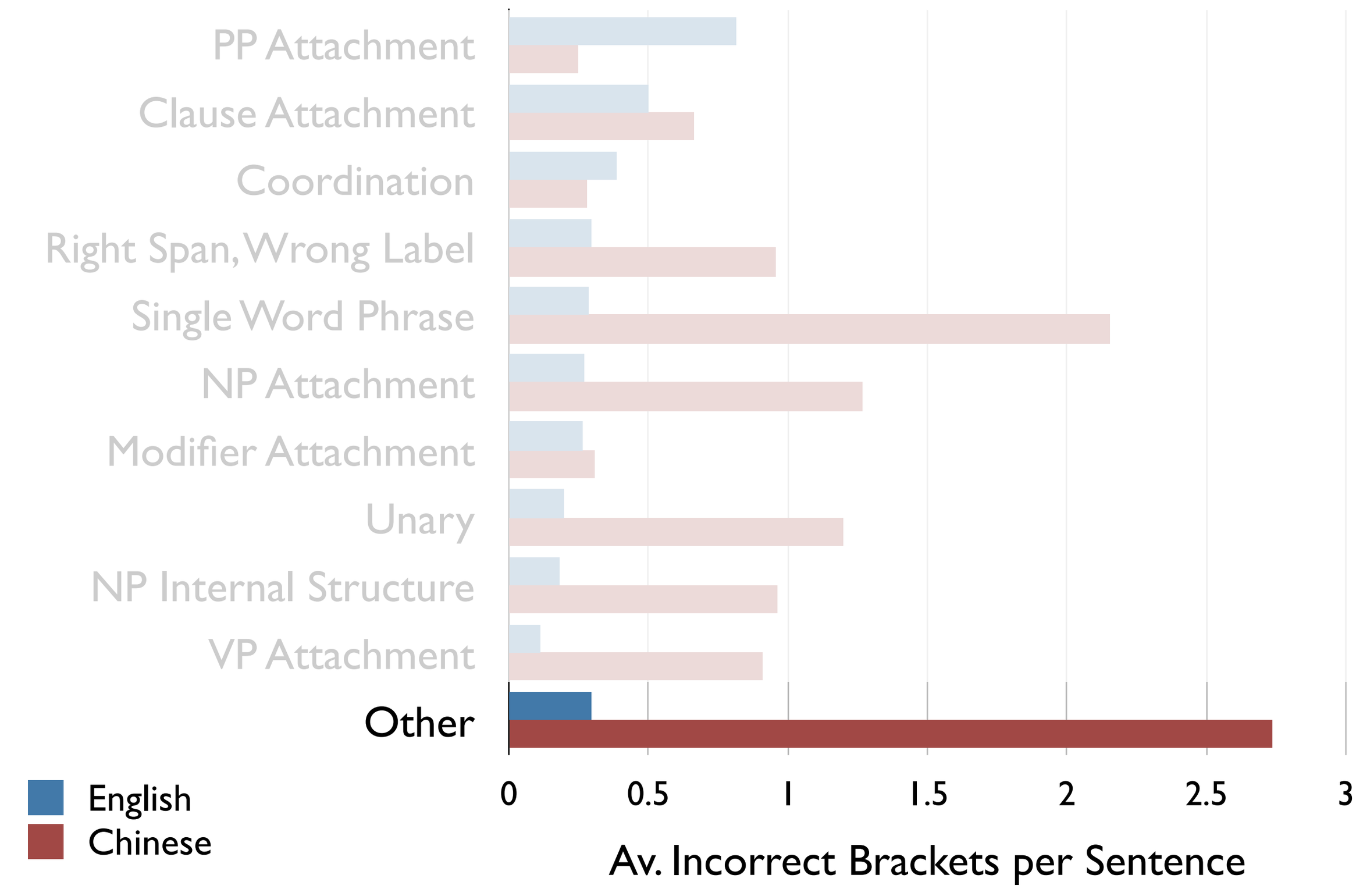
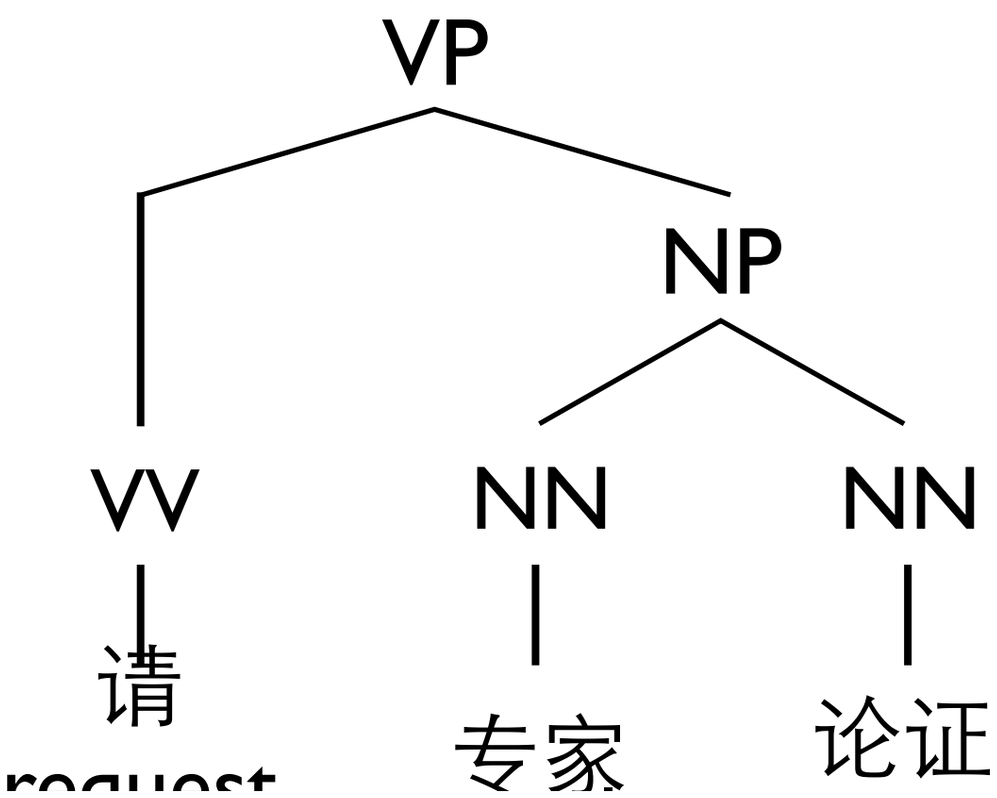


Chinese Parsing Errors

请 专家 论证

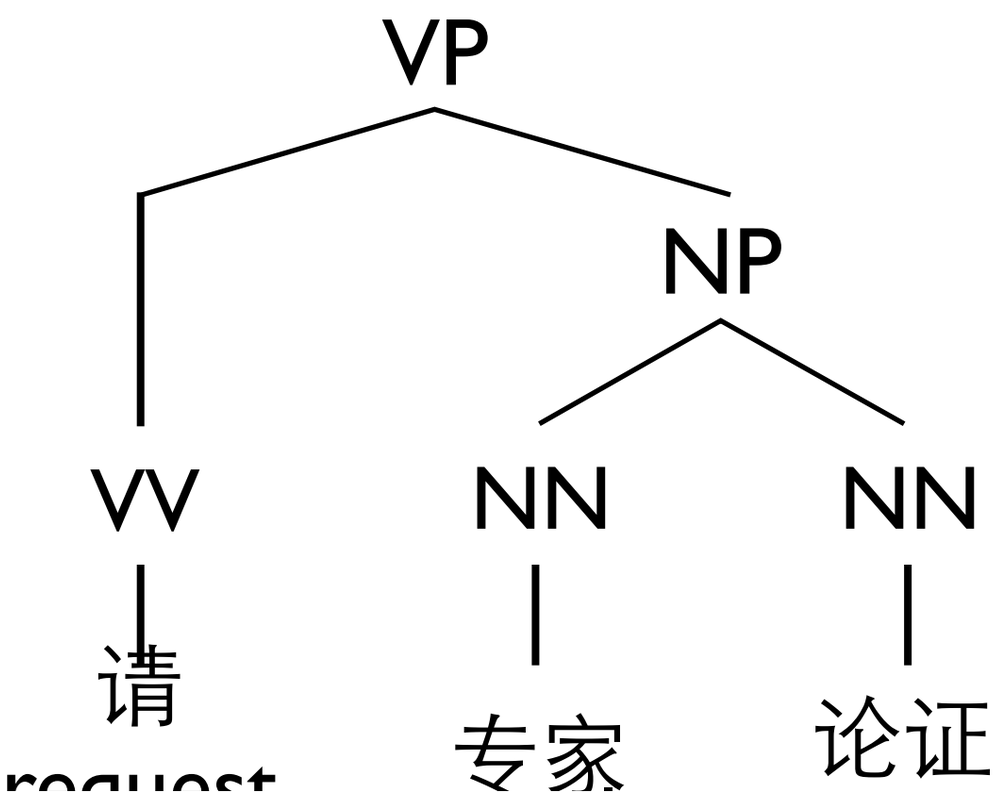
request

Chinese Parsing Errors



System

Chinese Parsing Errors



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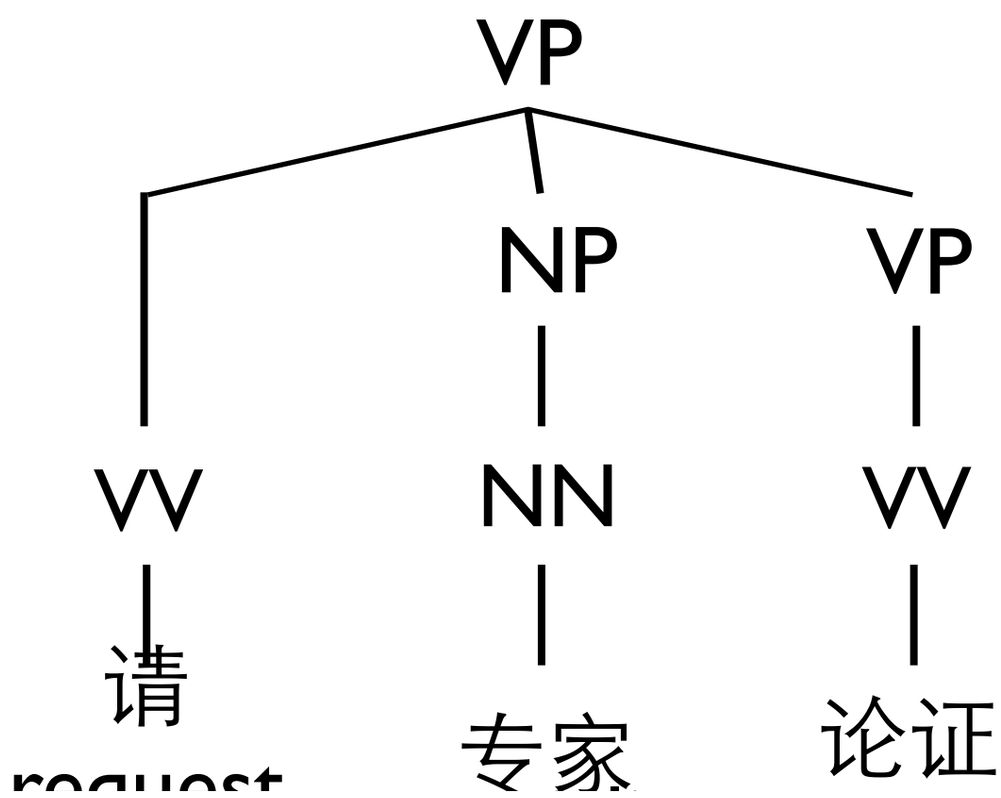

Gold

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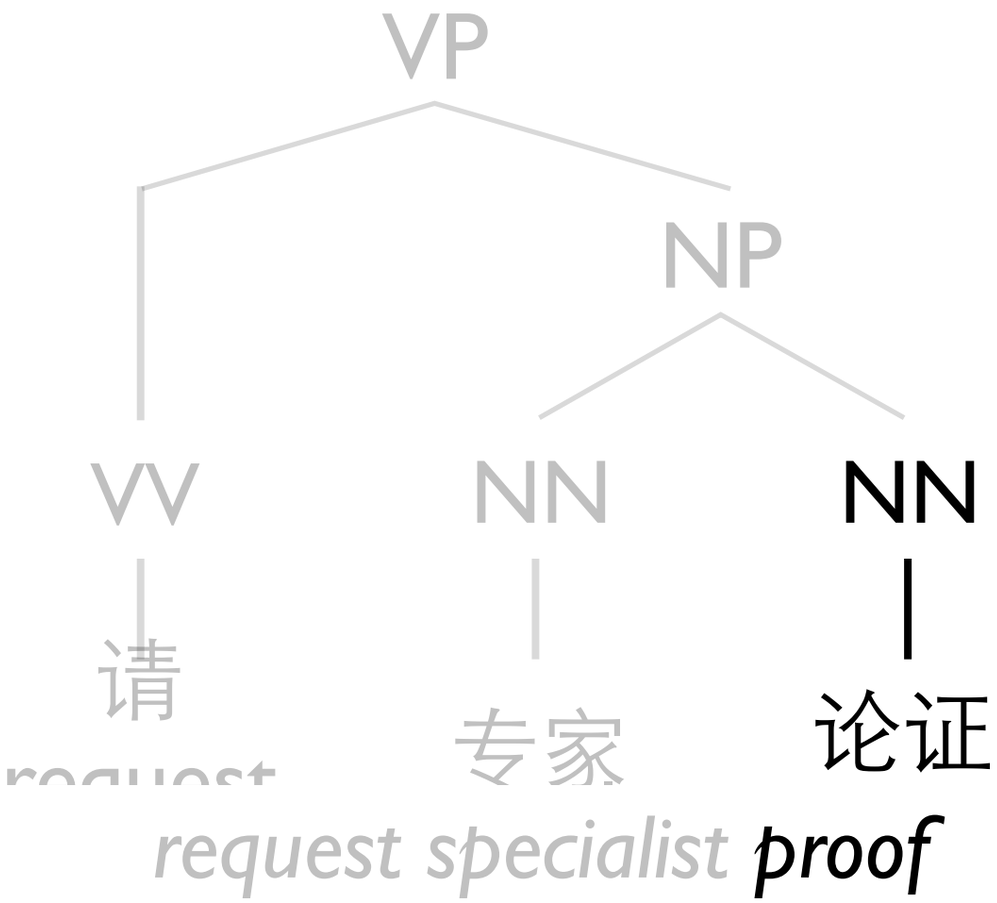

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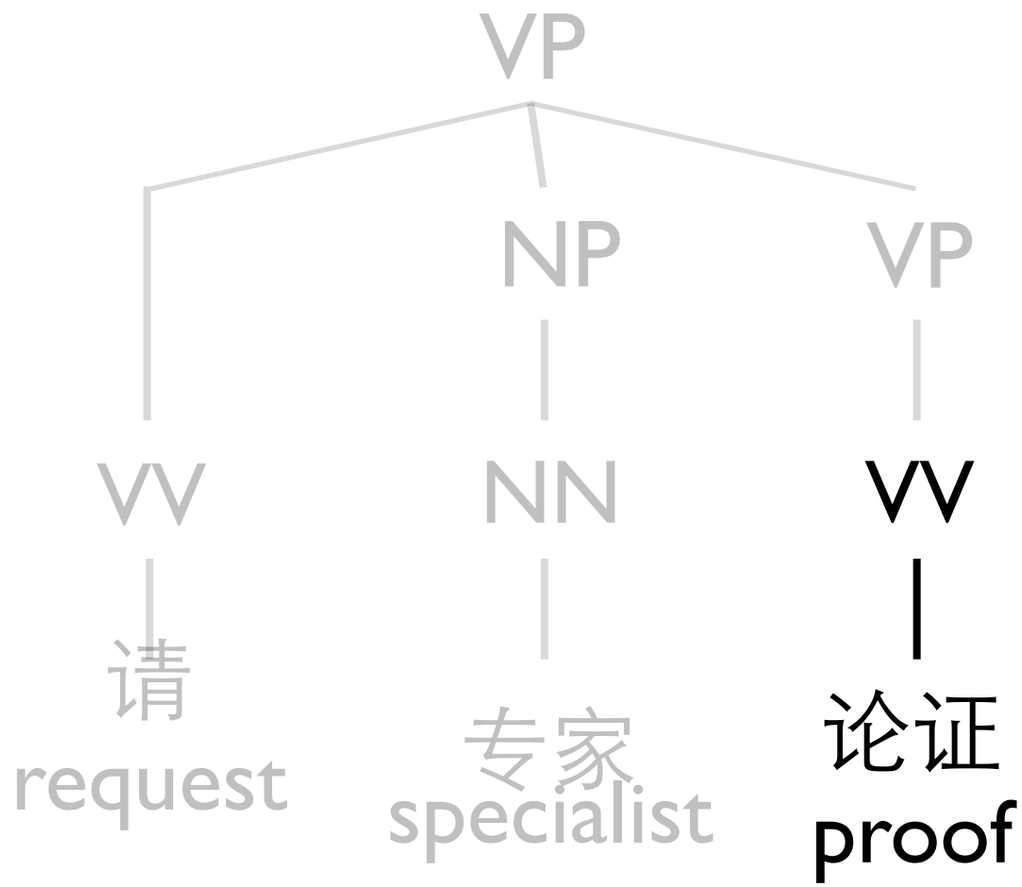

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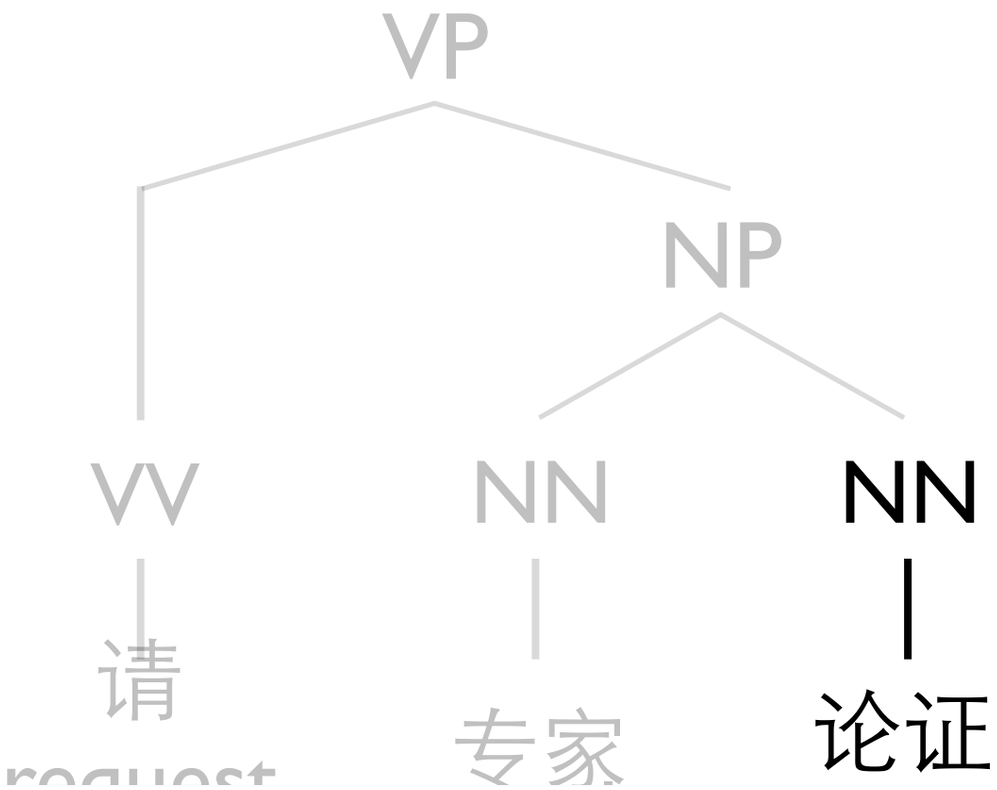

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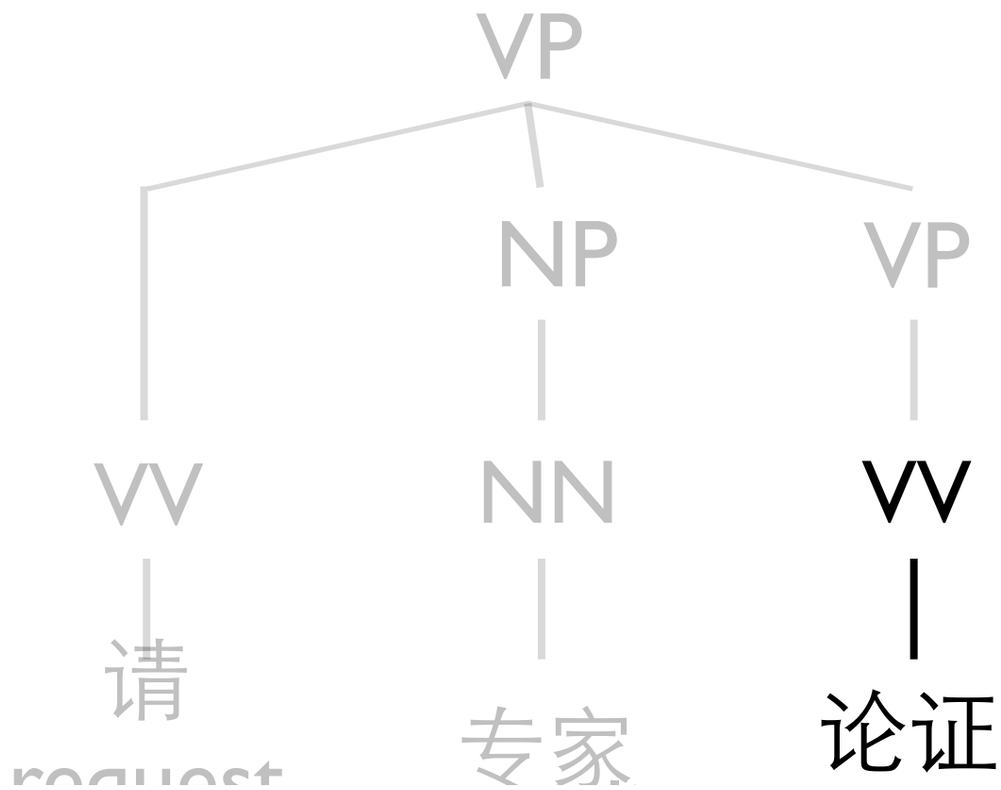

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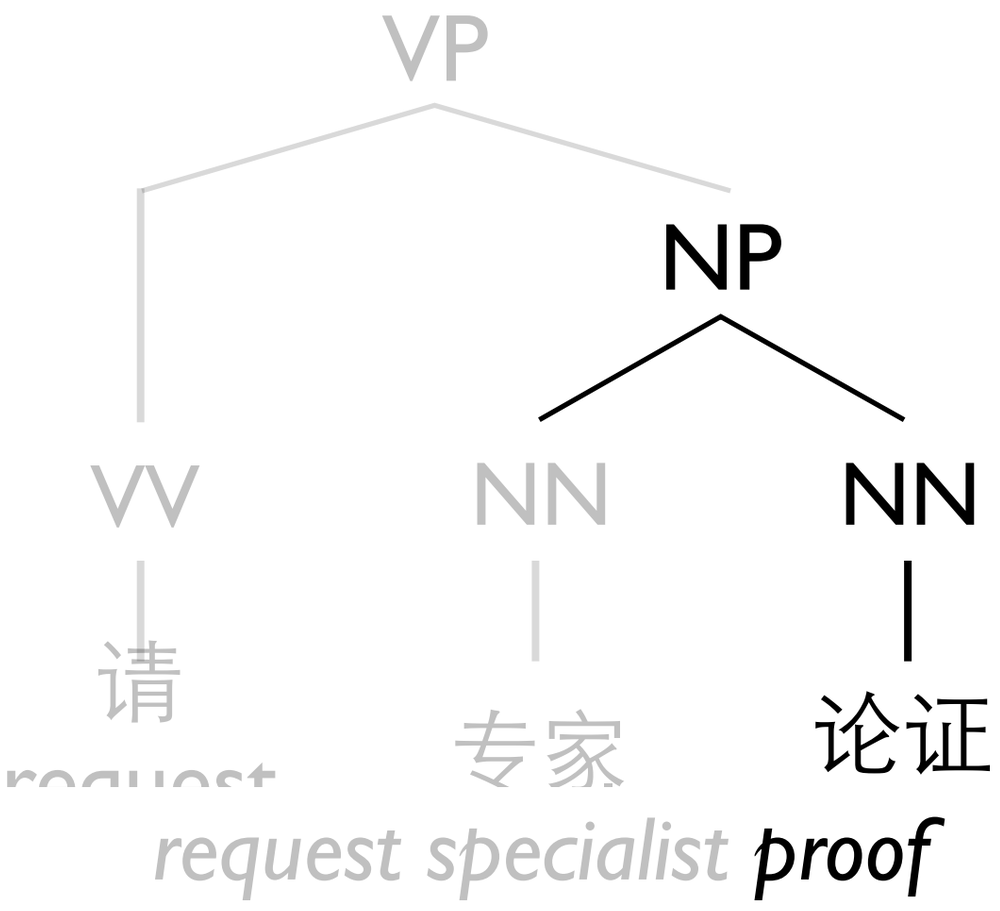

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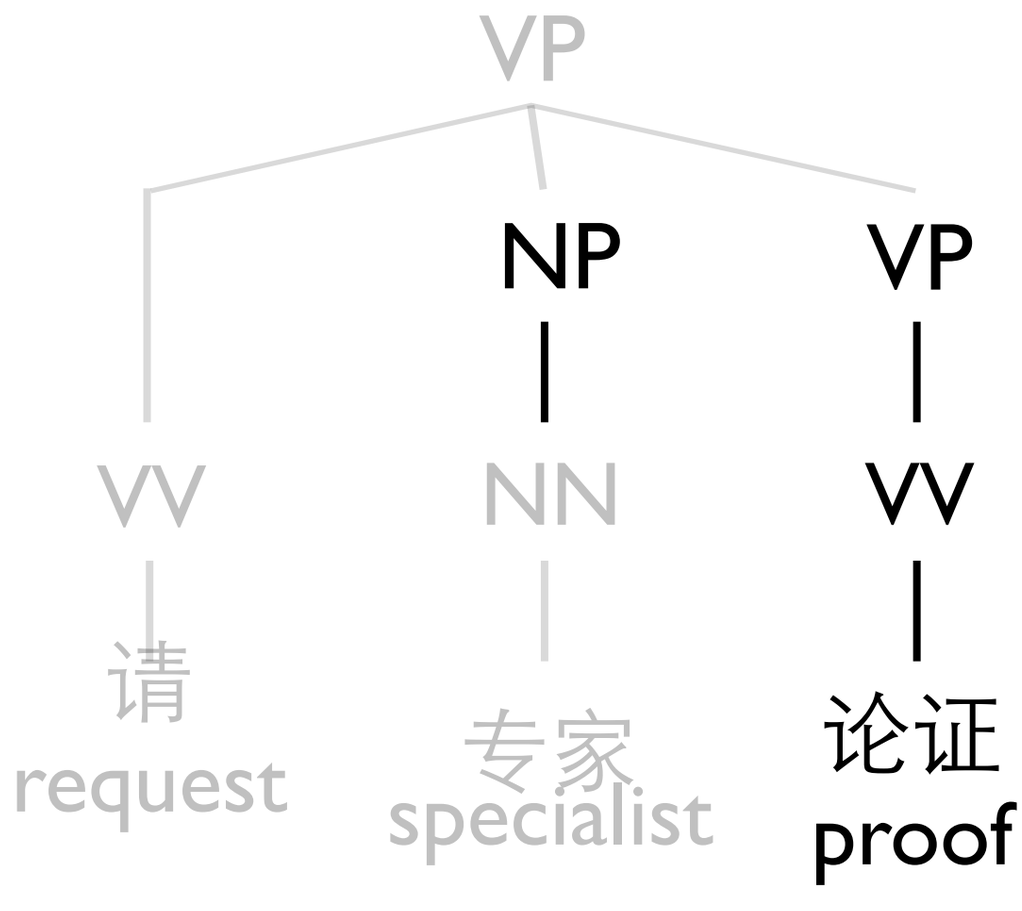

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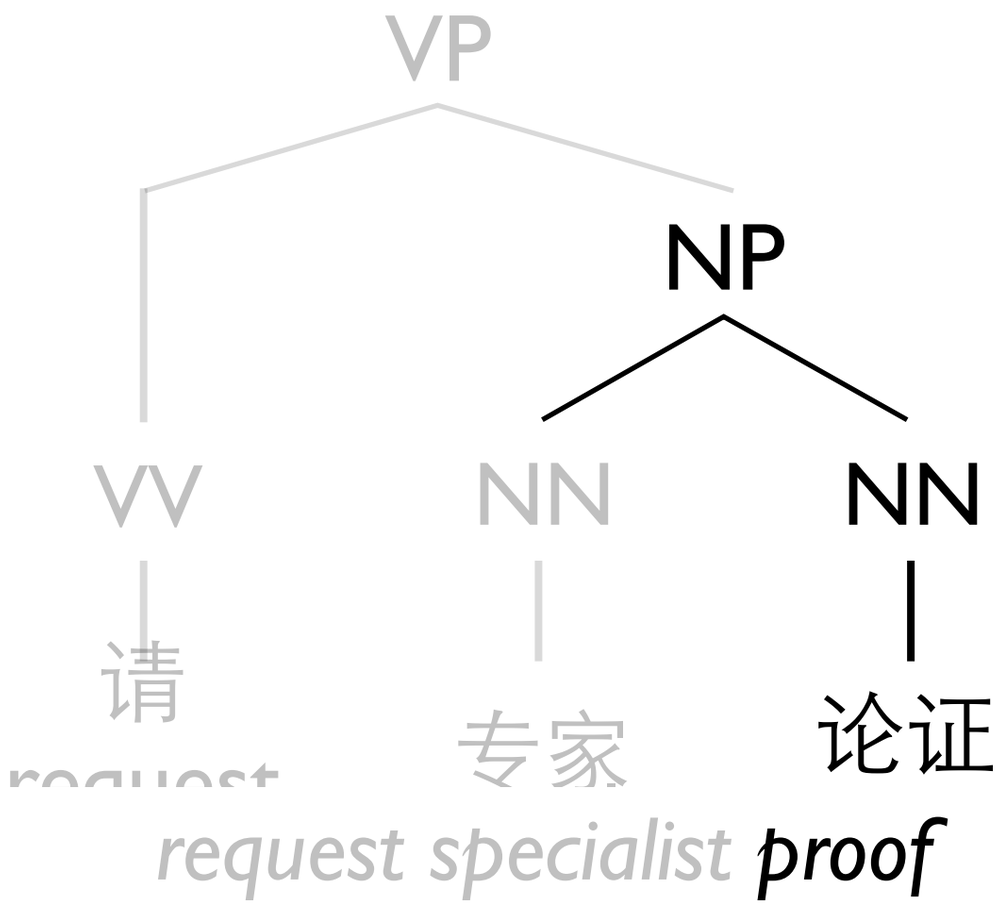

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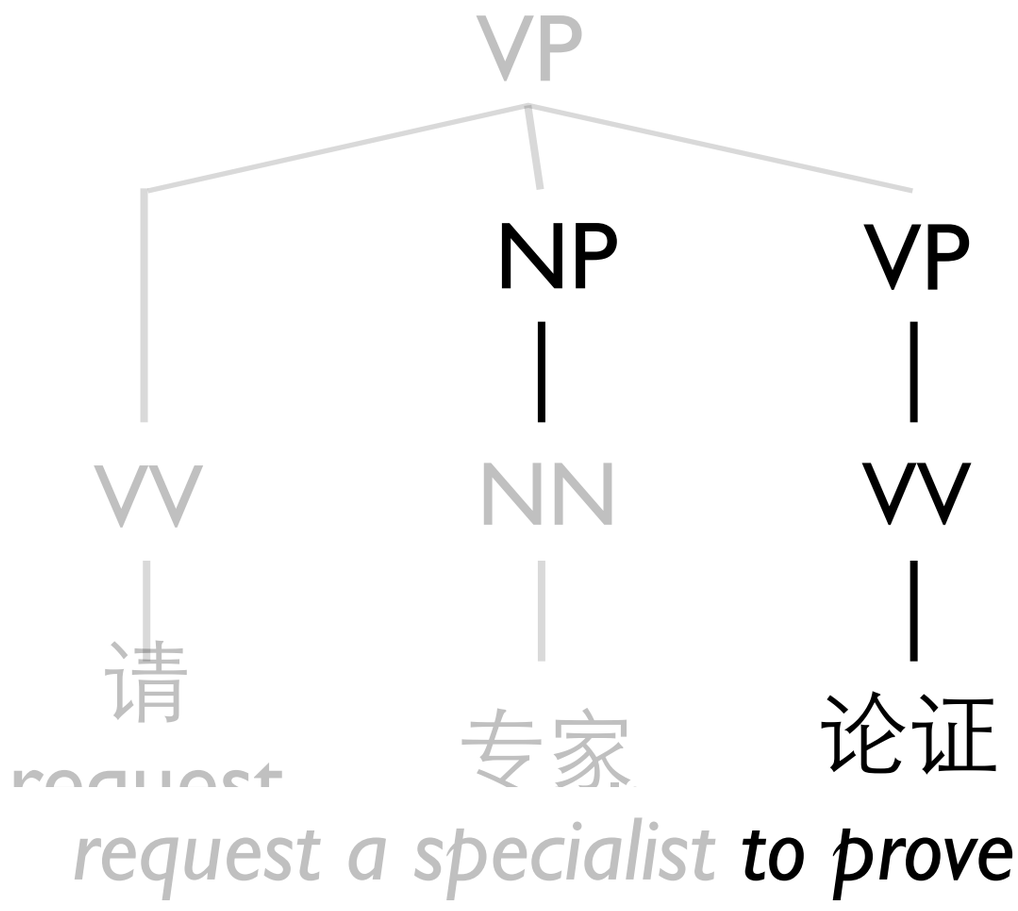
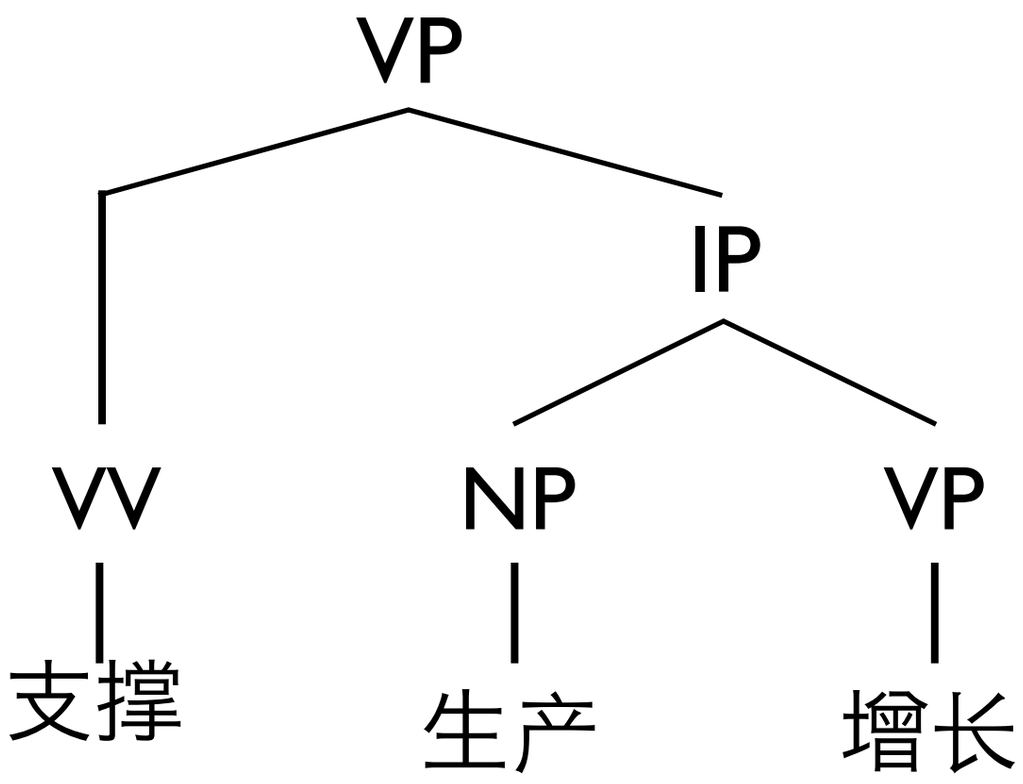


Gold

Chinese Parsing Errors

支撑　　生产　　增长

Chinese Parsing Errors



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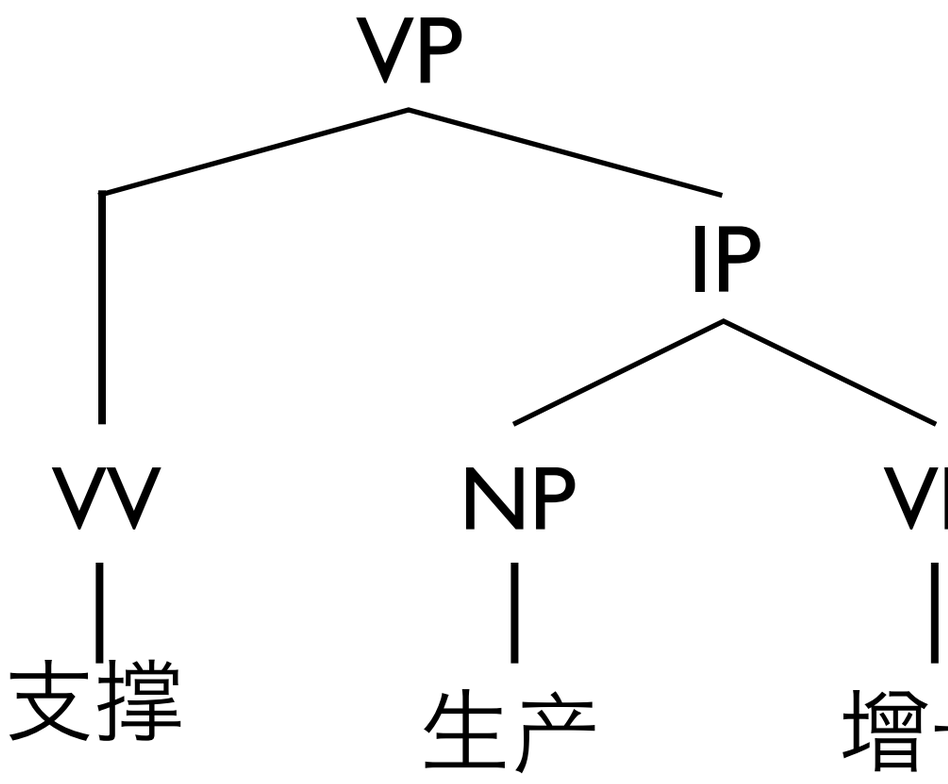
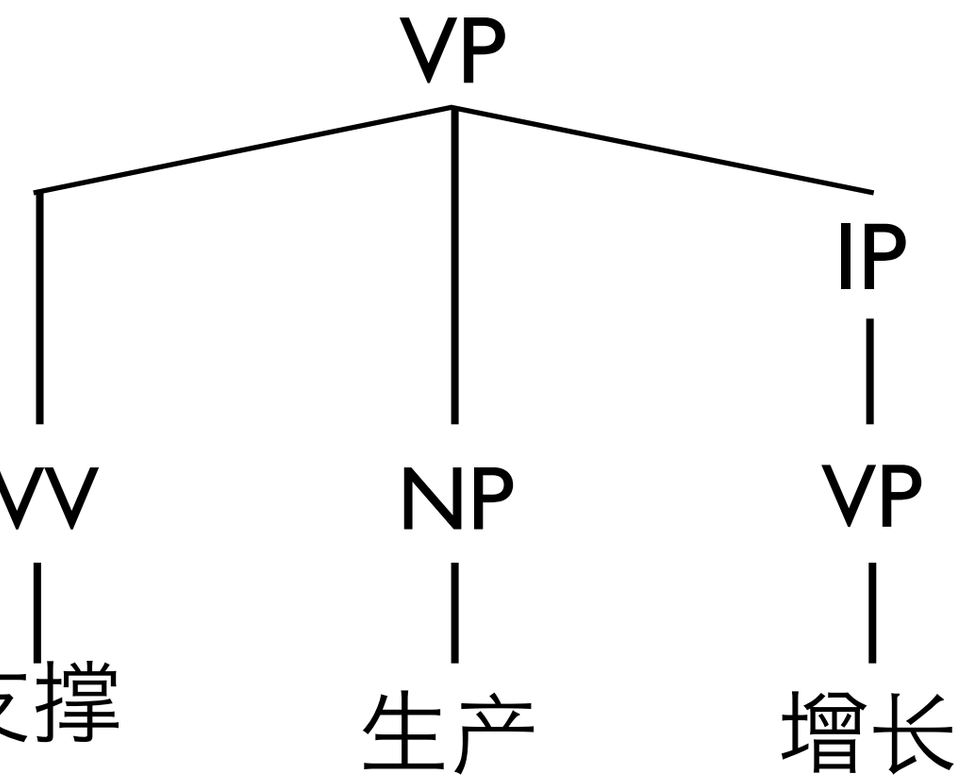


support increasing production

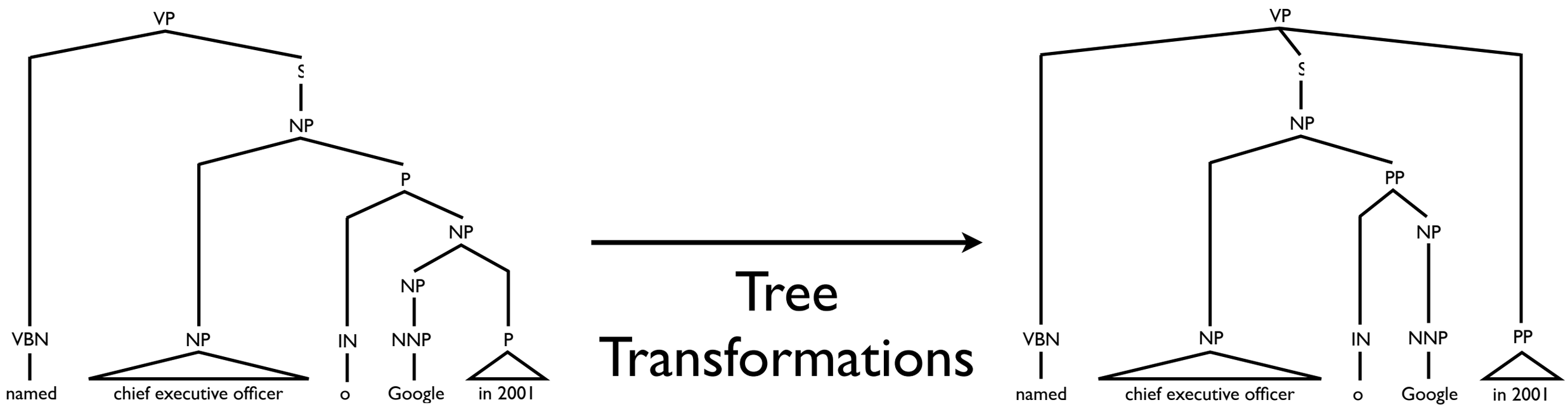
System



support production to increase

Gold

Automatic Error Analysis



List of Transformation Steps

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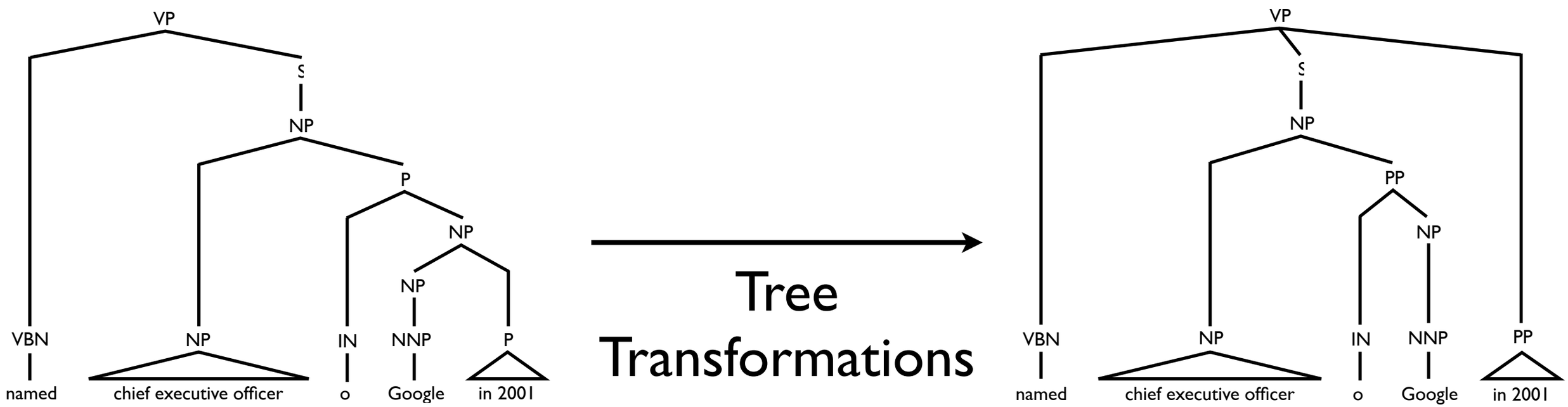

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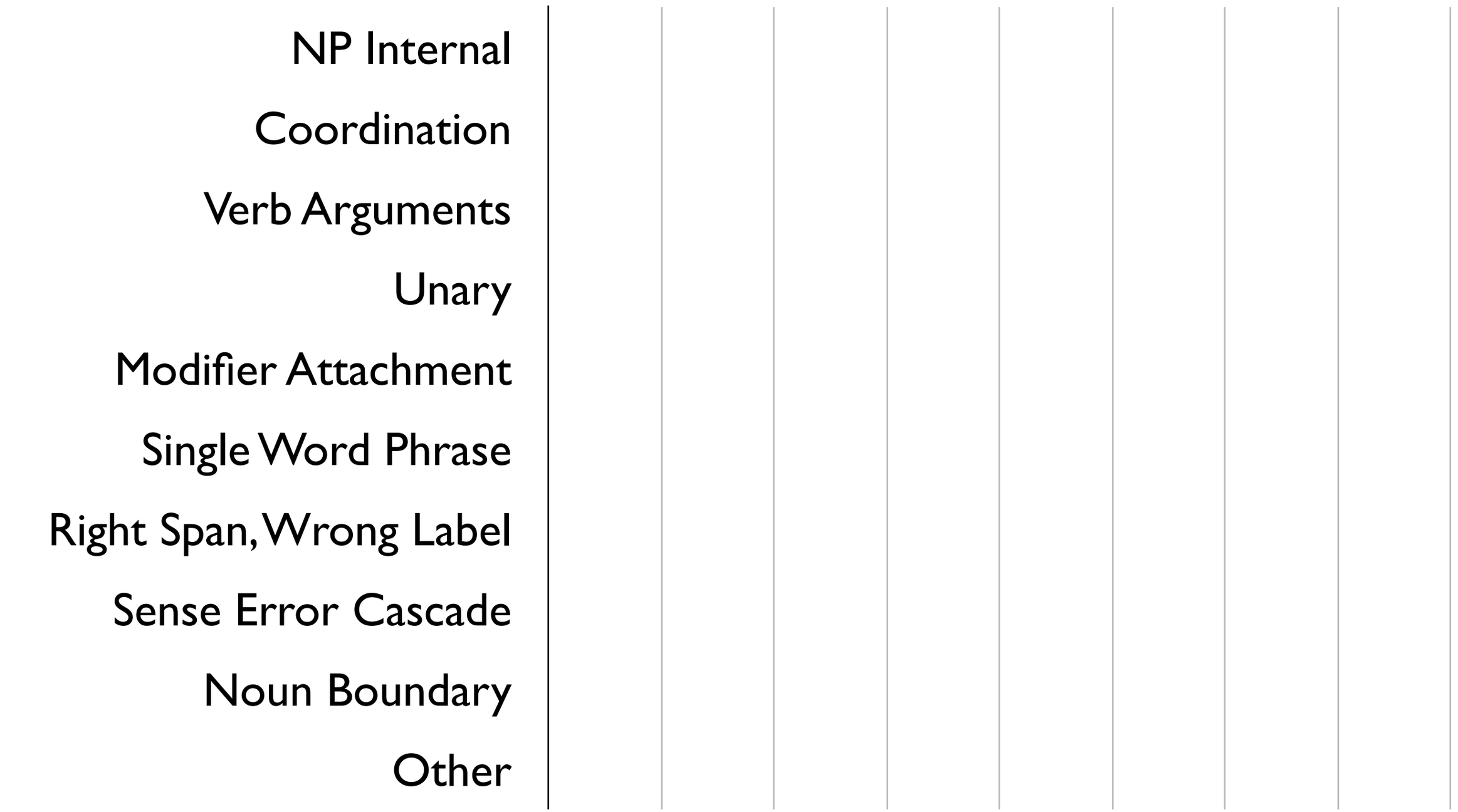

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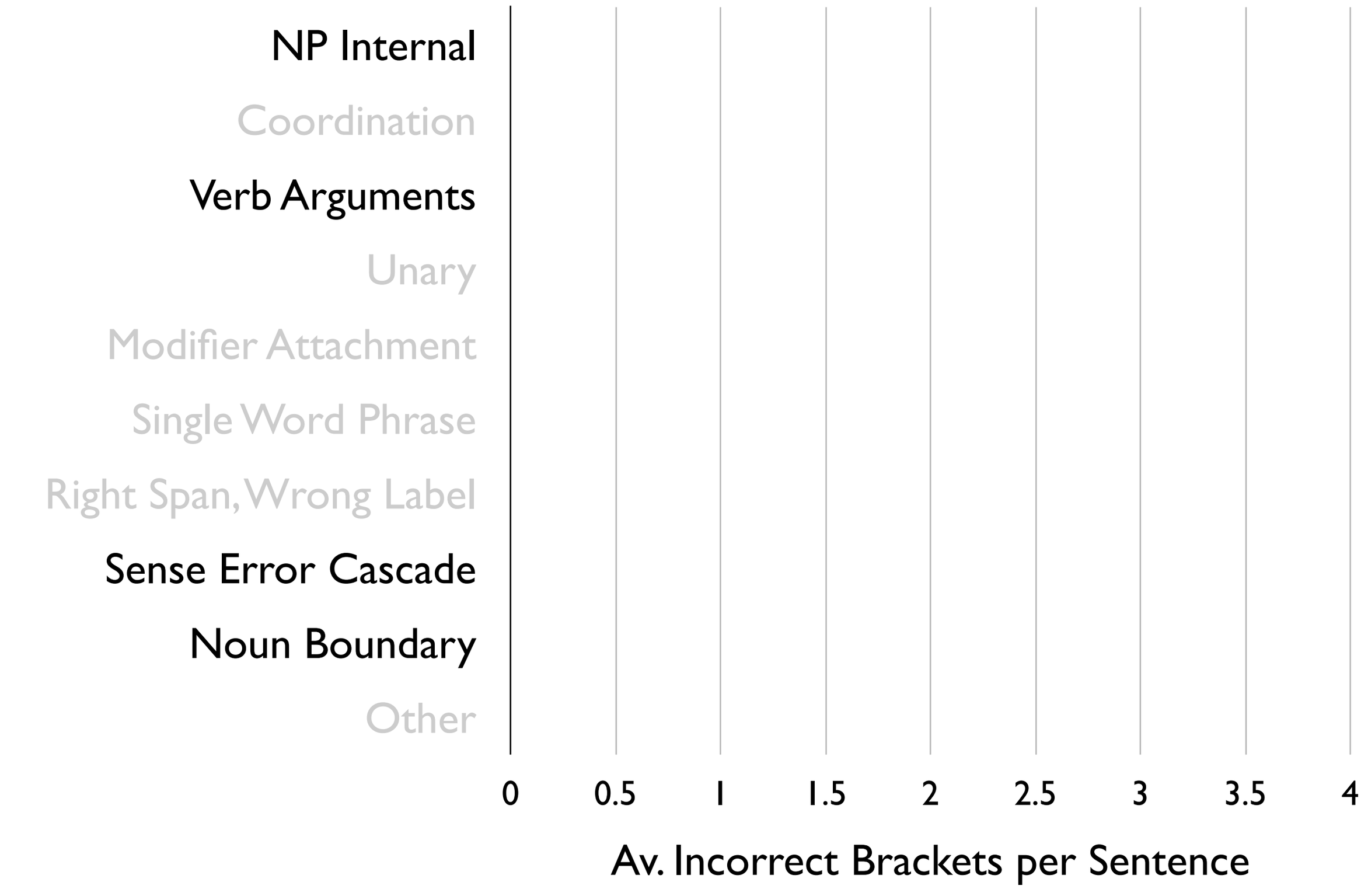

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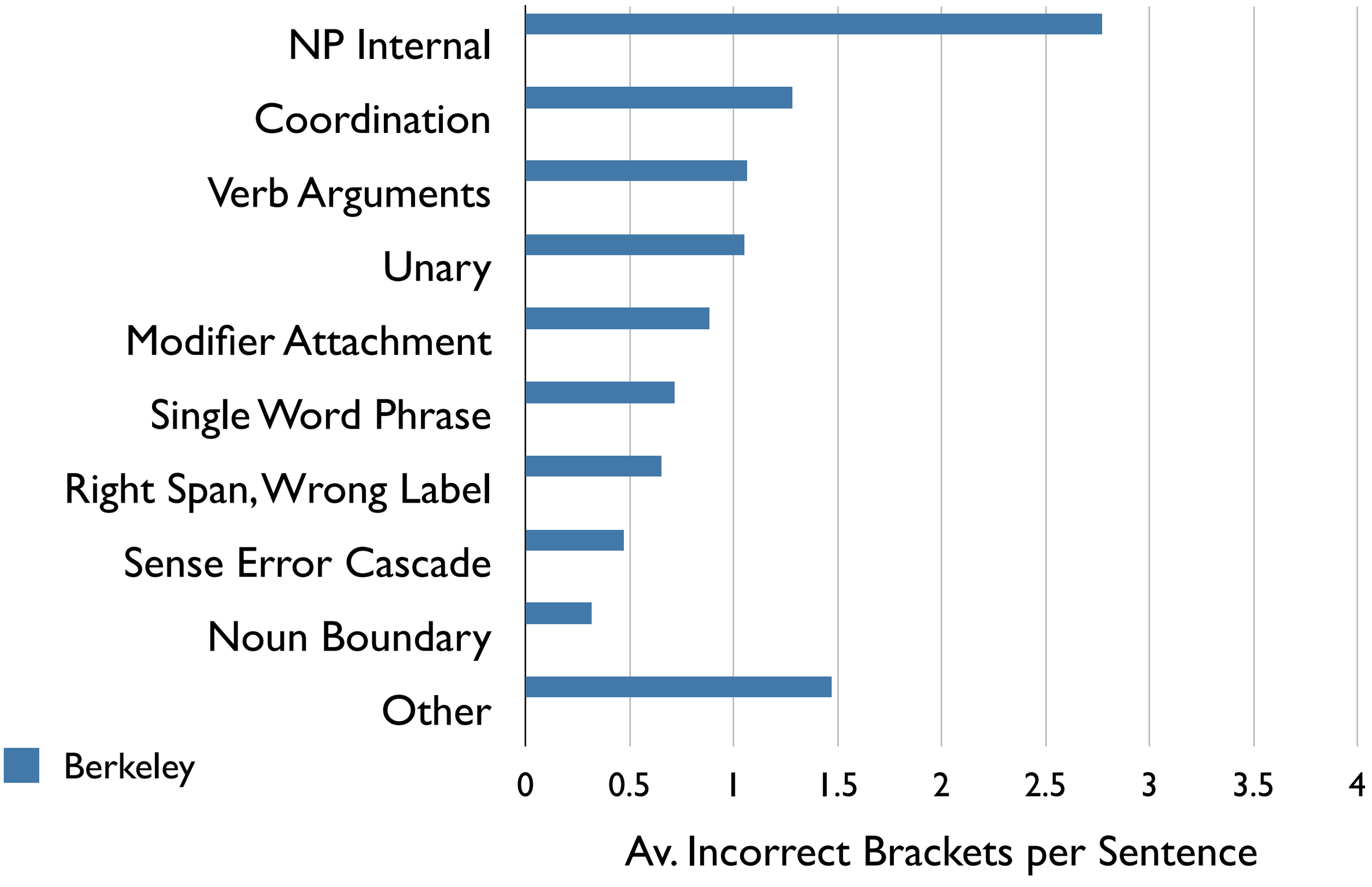

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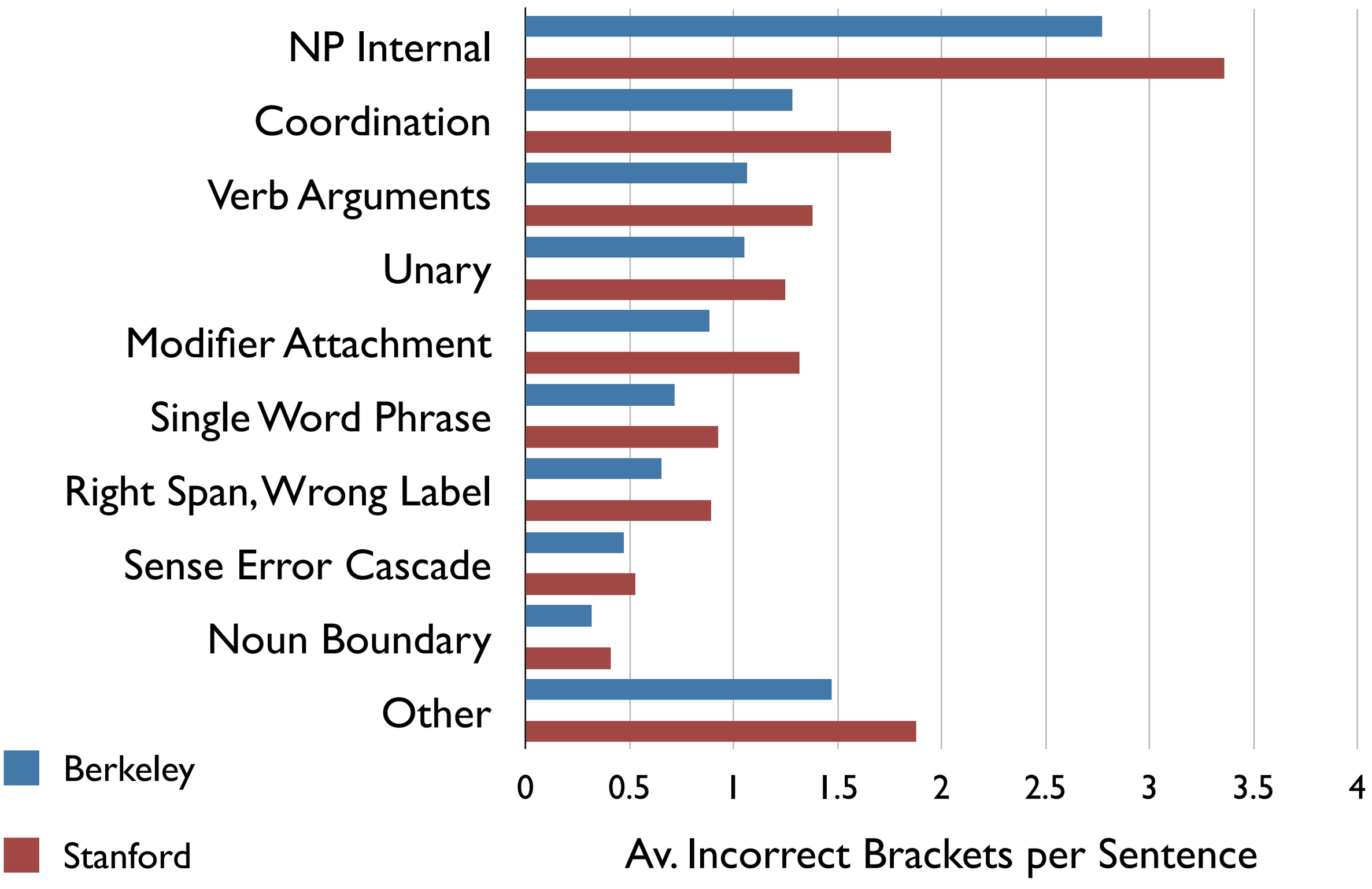

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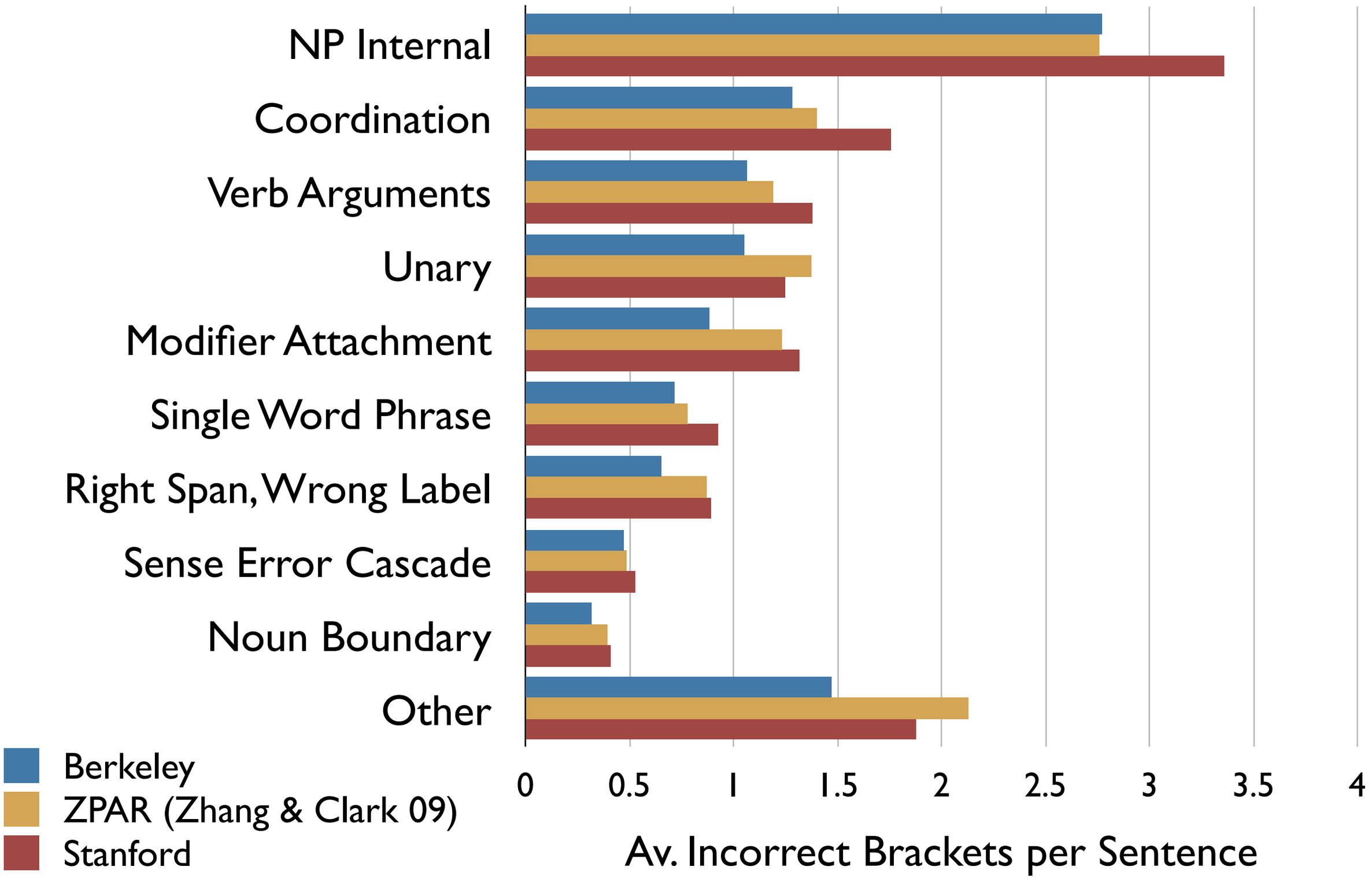

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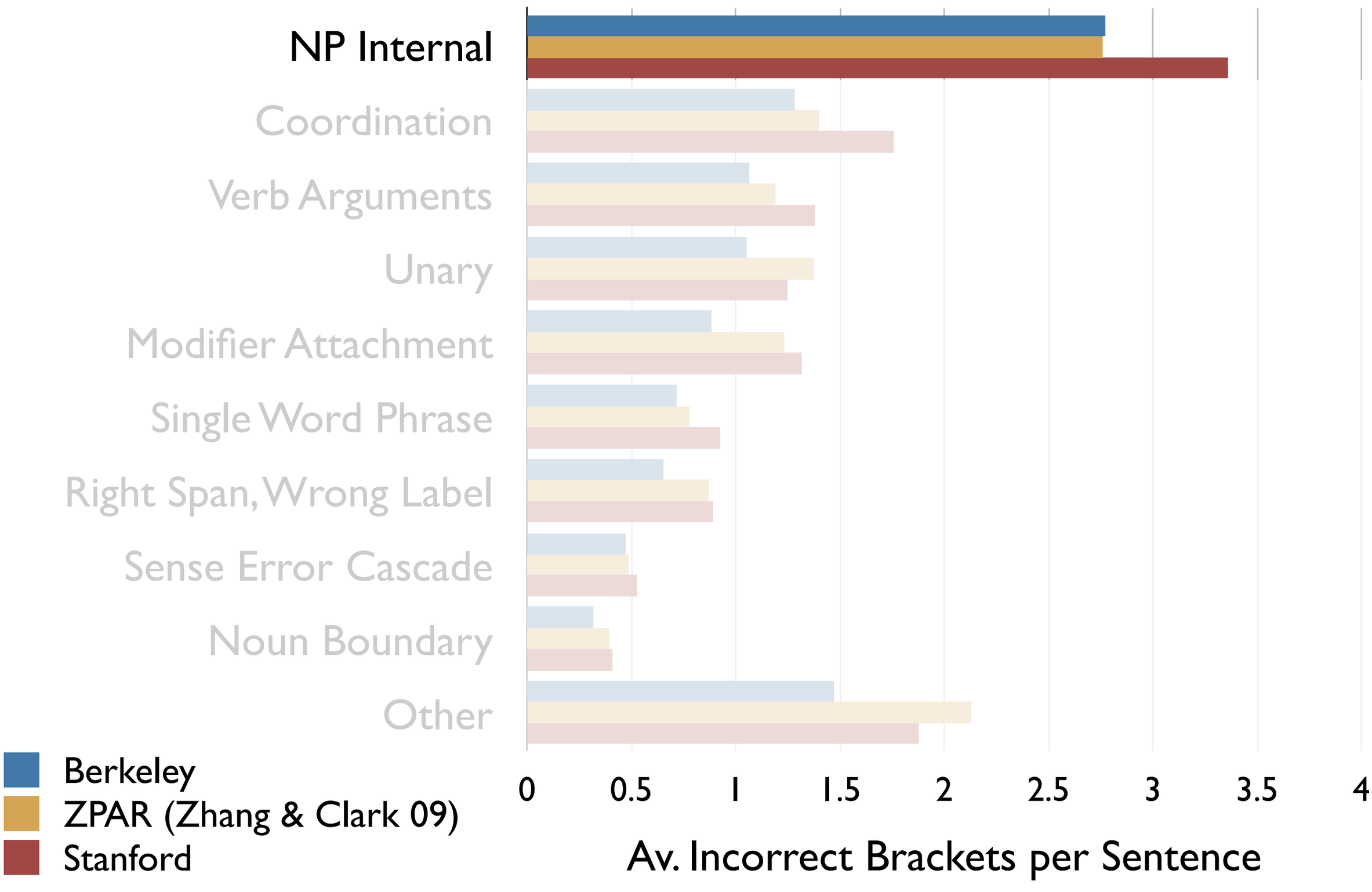

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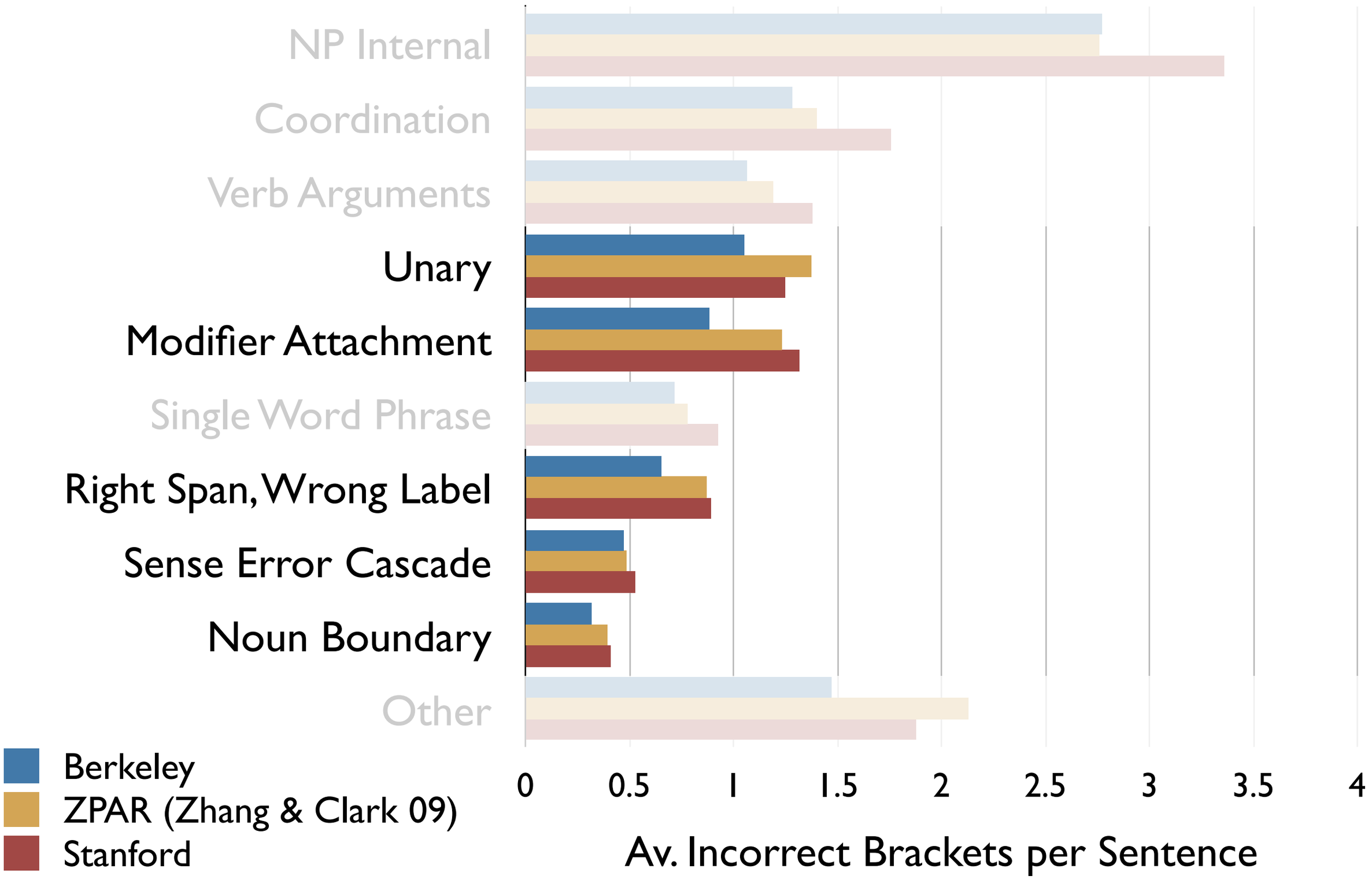

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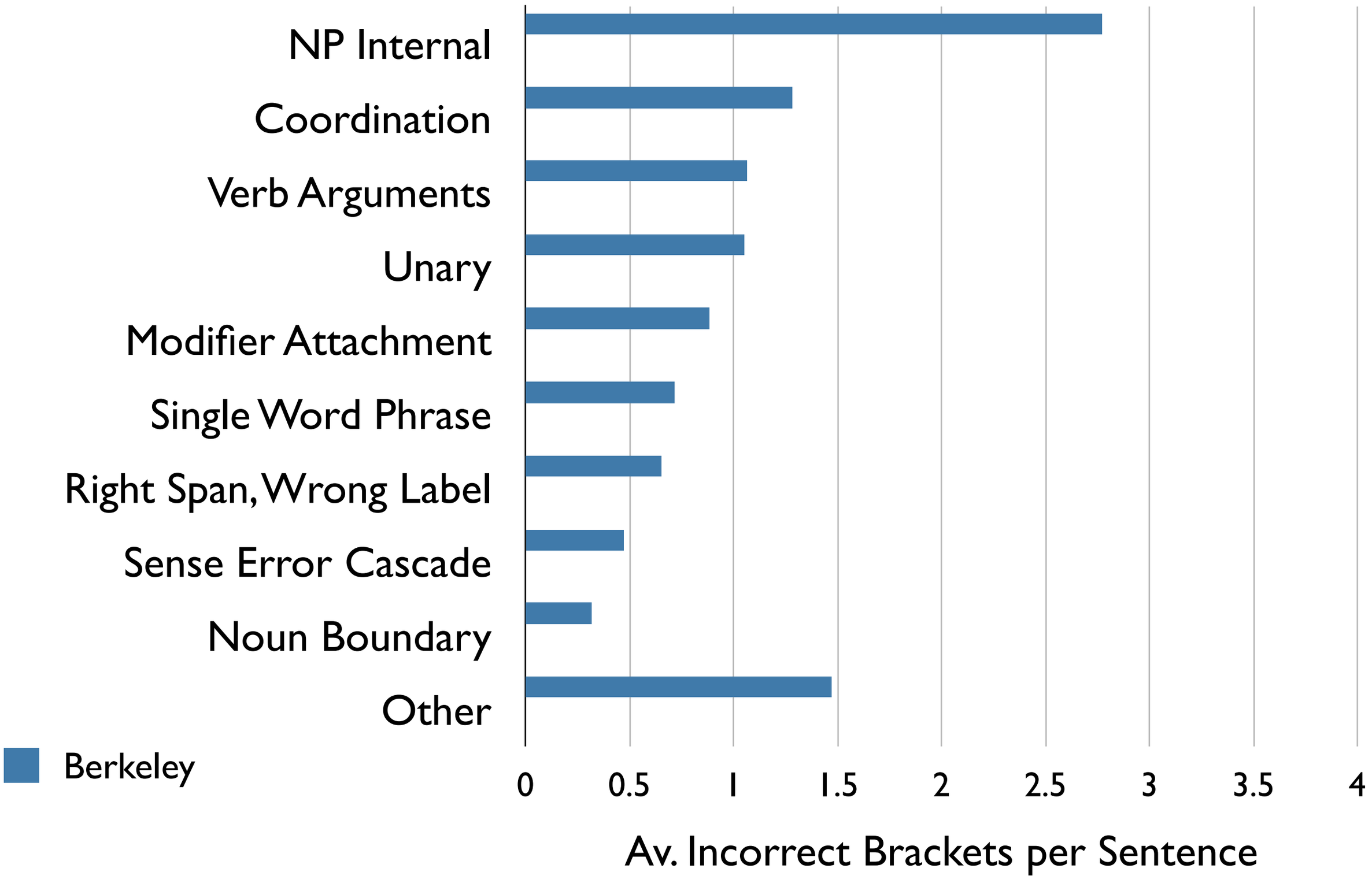

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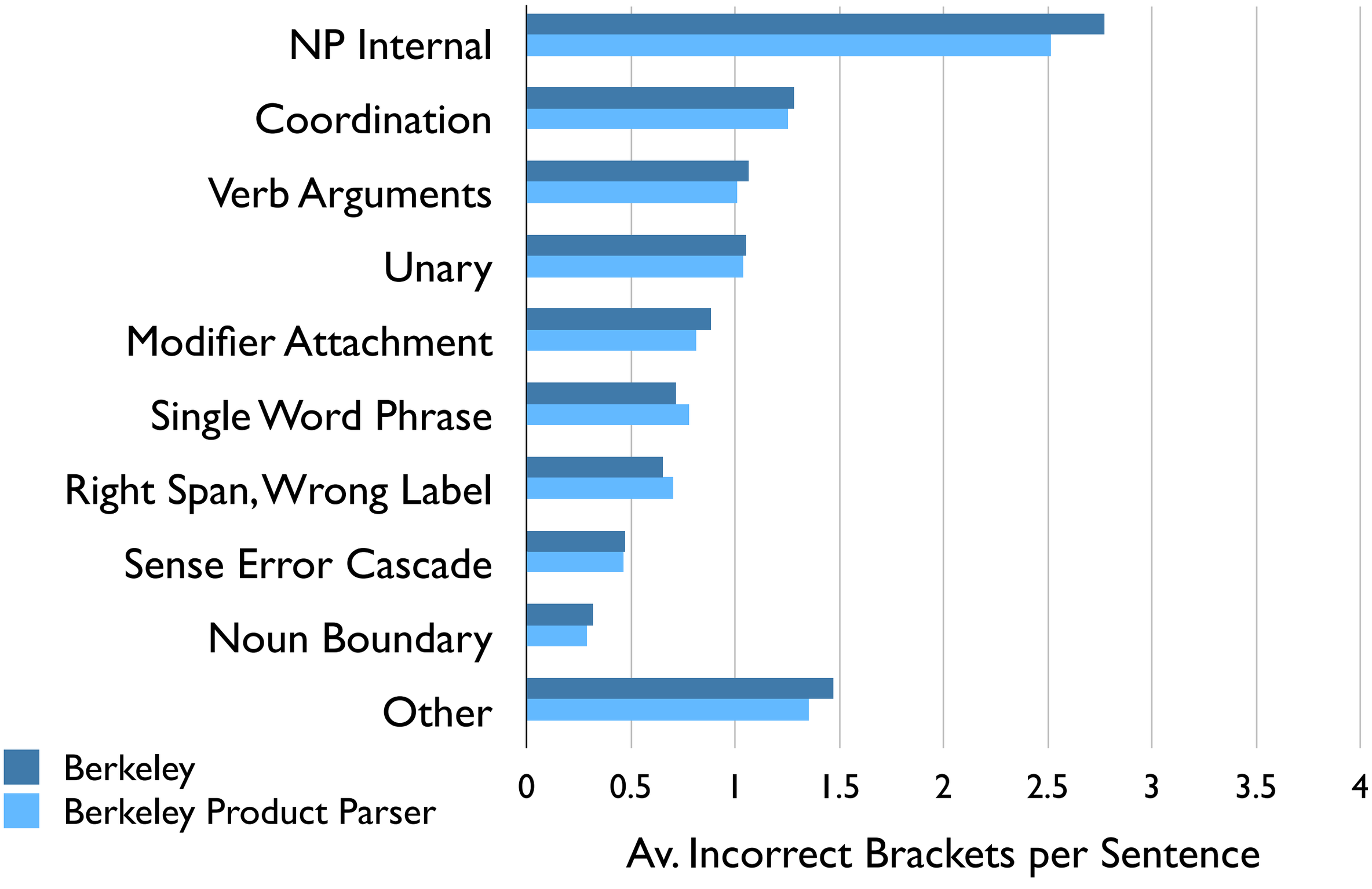

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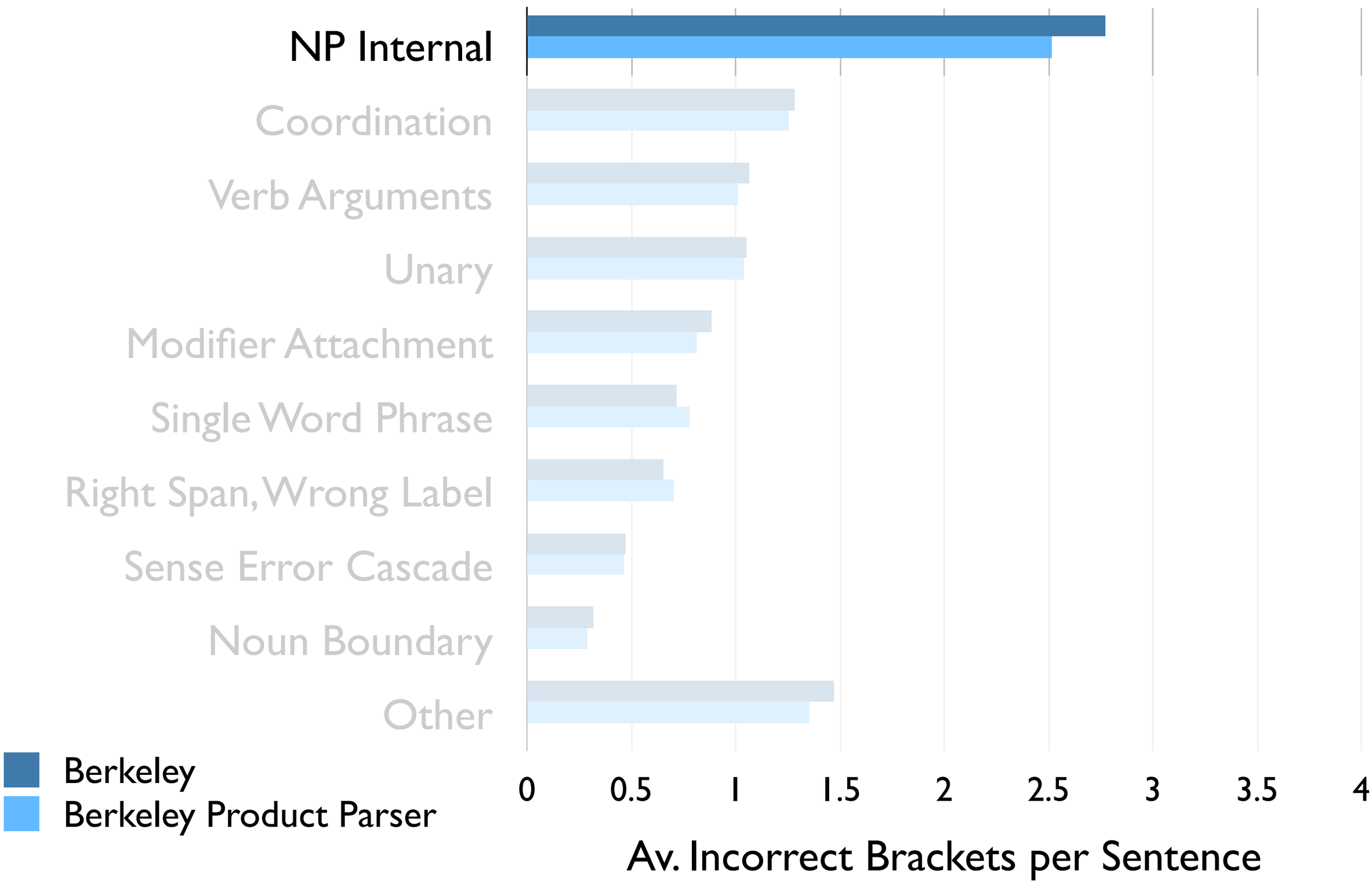

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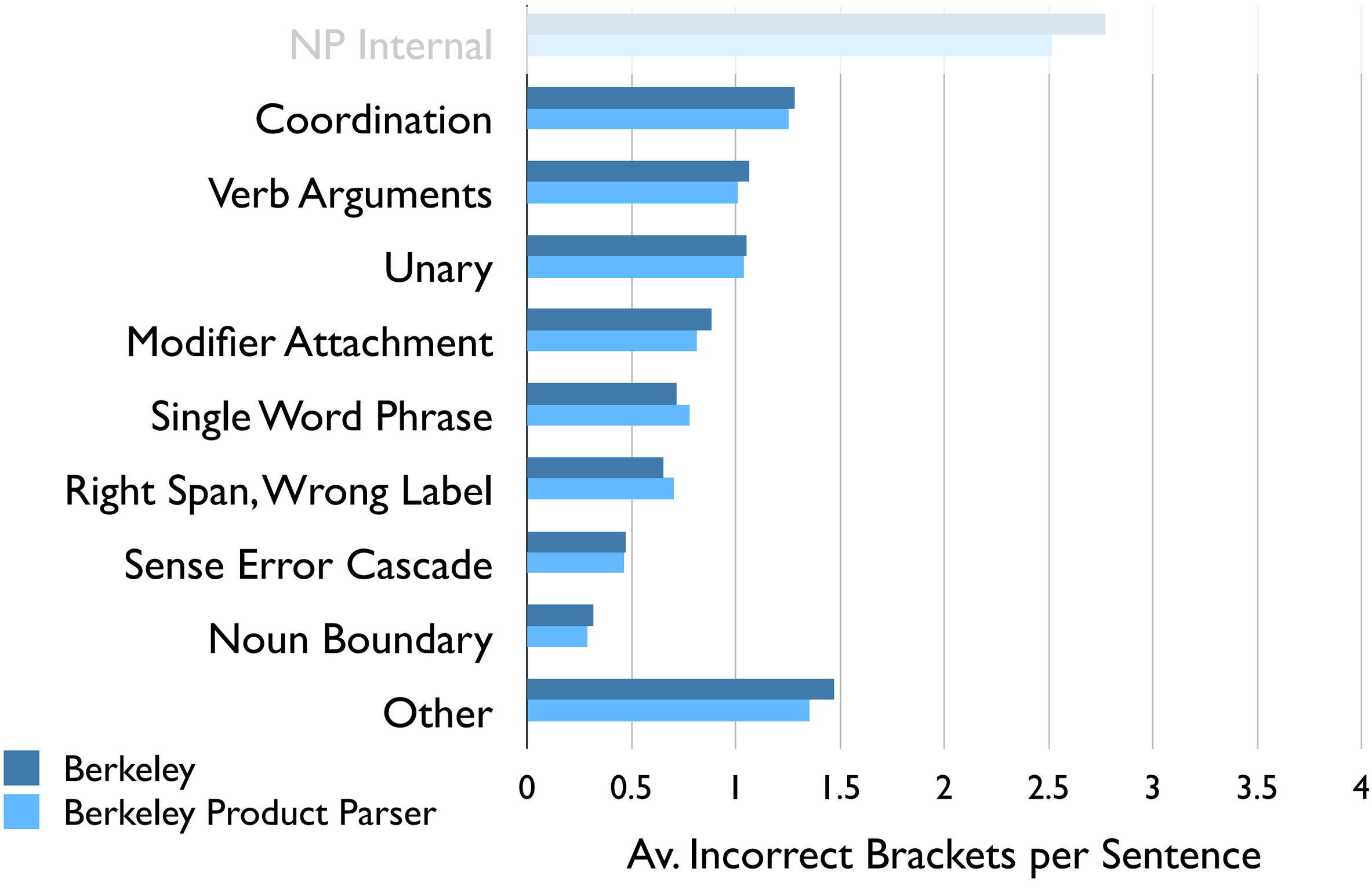

Tagging Error Impact

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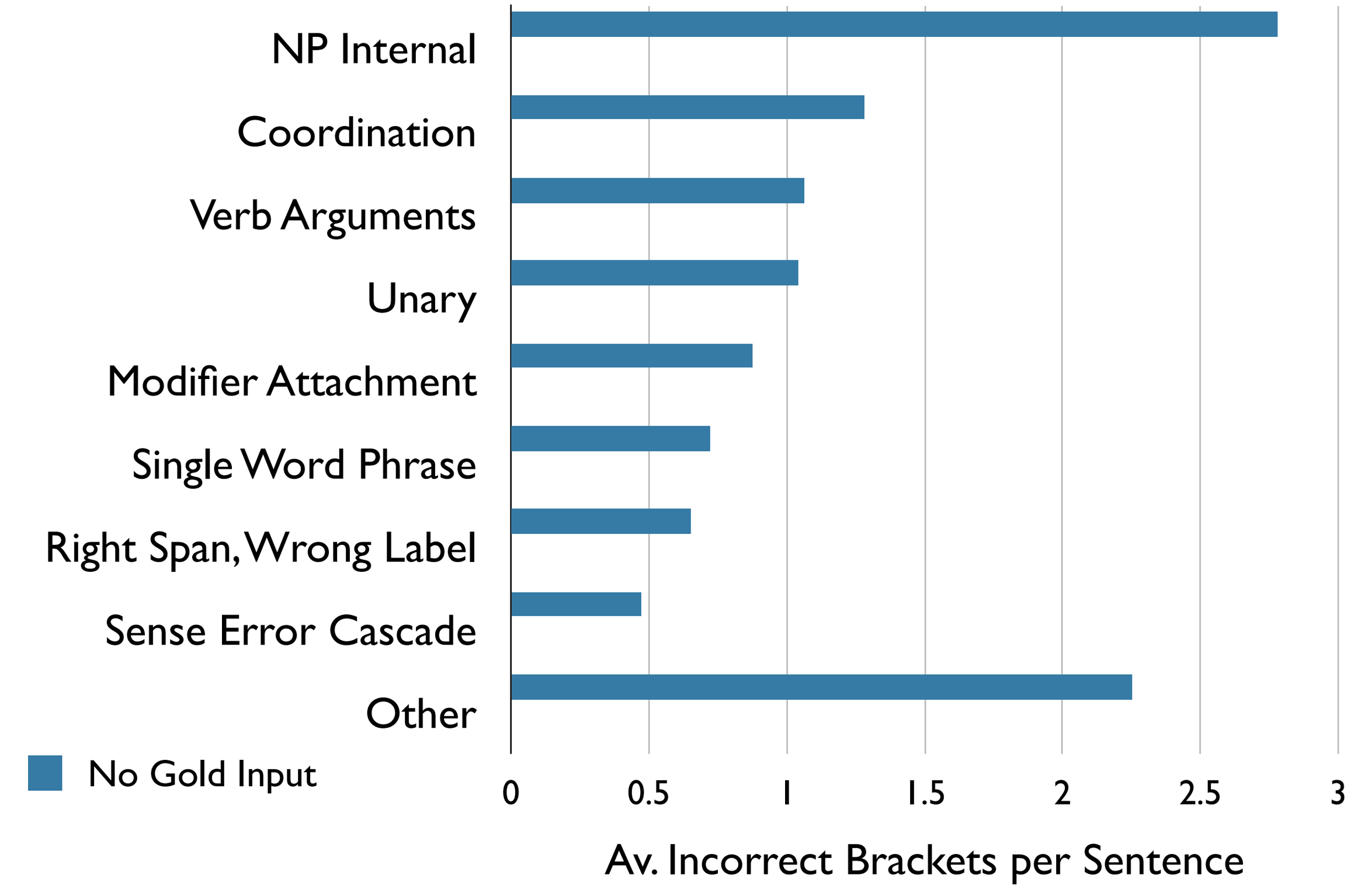

Tagging Error Impact

计划 在 星期六 晚 的 阿拉法特 、 佩雷斯 会晤 …

Tagging Error Impact

VV	VV	NT	NT	DEC	NR	PU	NR	NN	
计划	在	星期六	晚	的	阿拉法特	、	佩雷斯	会晤	…

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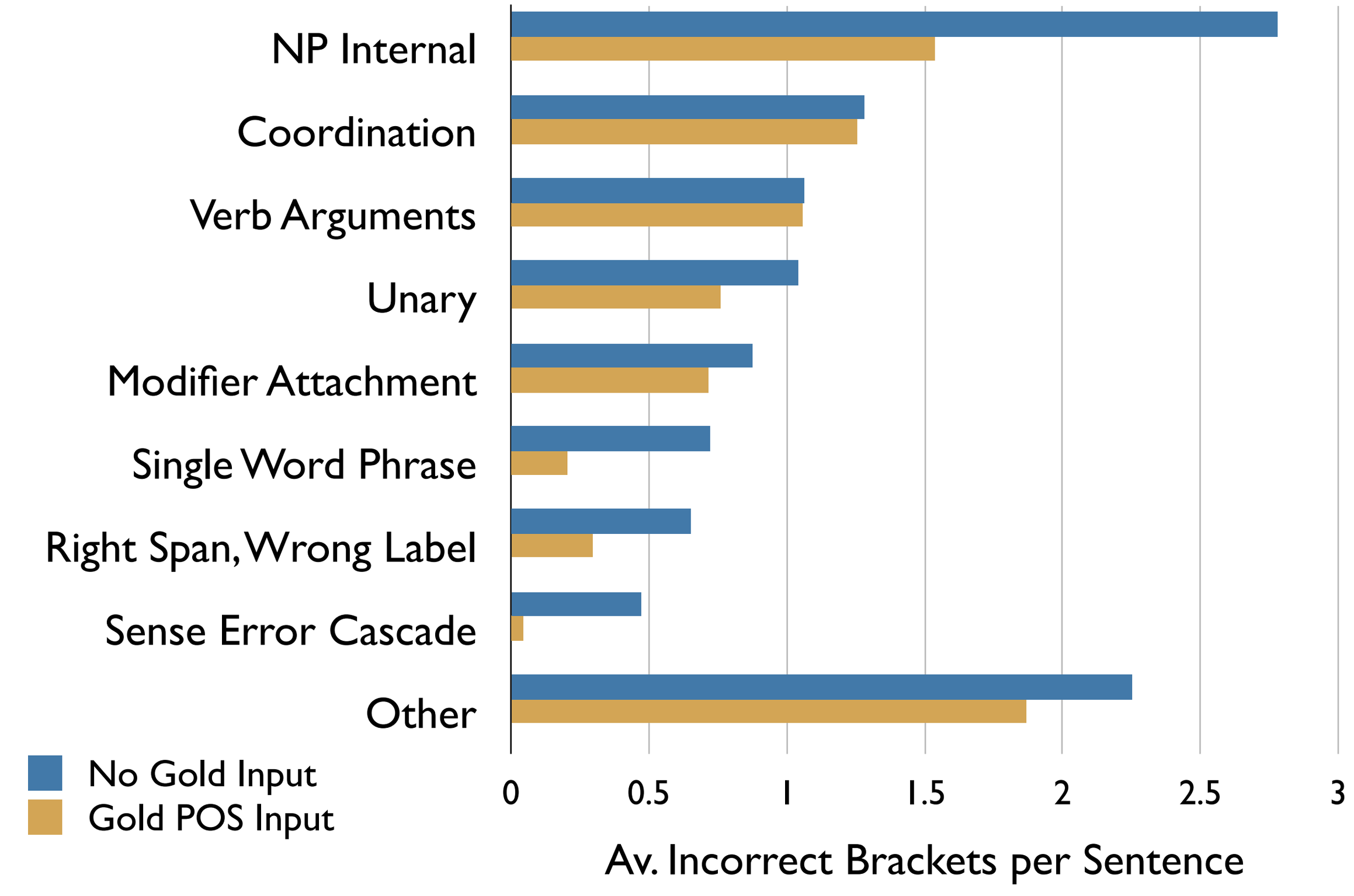

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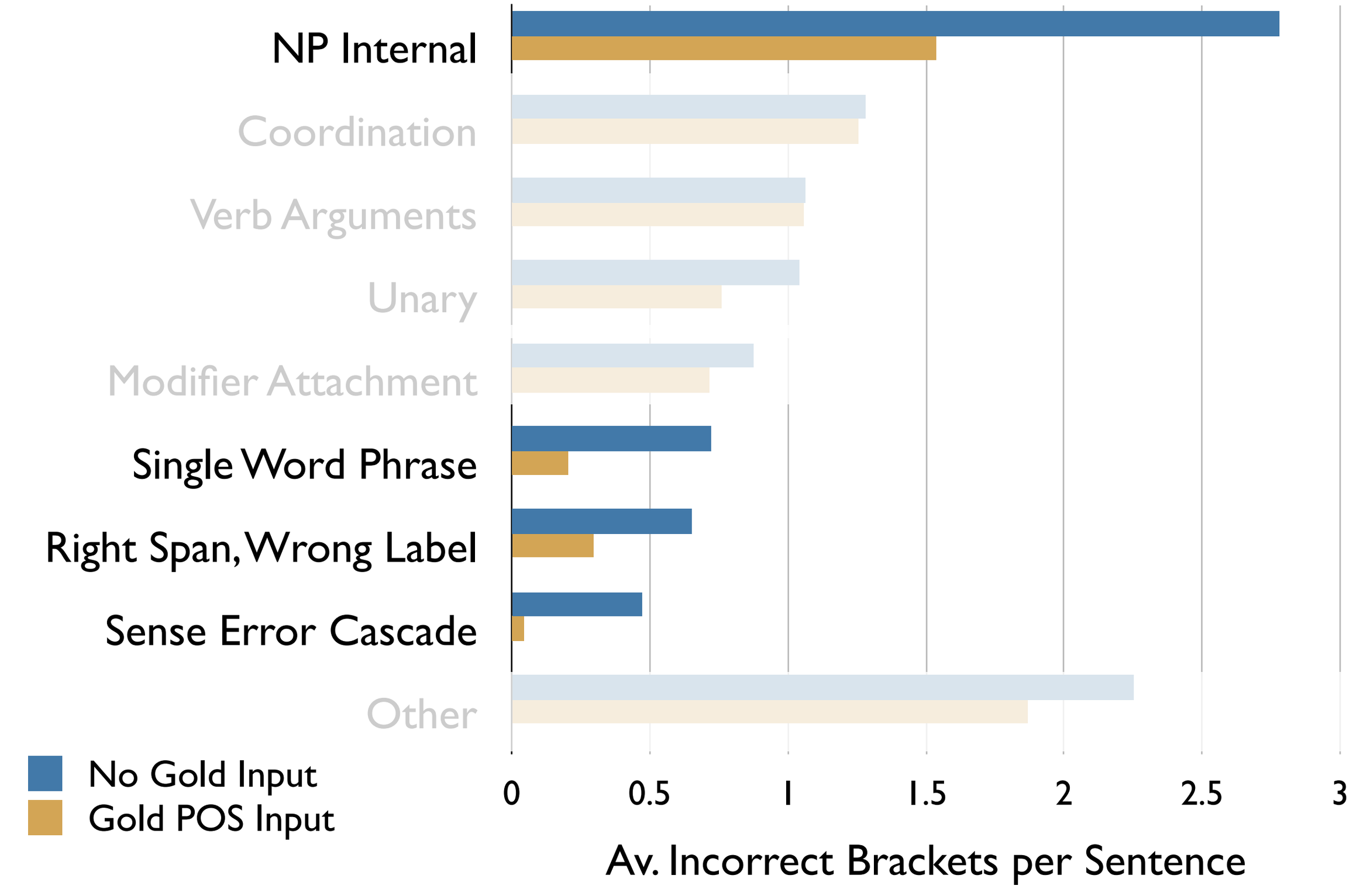

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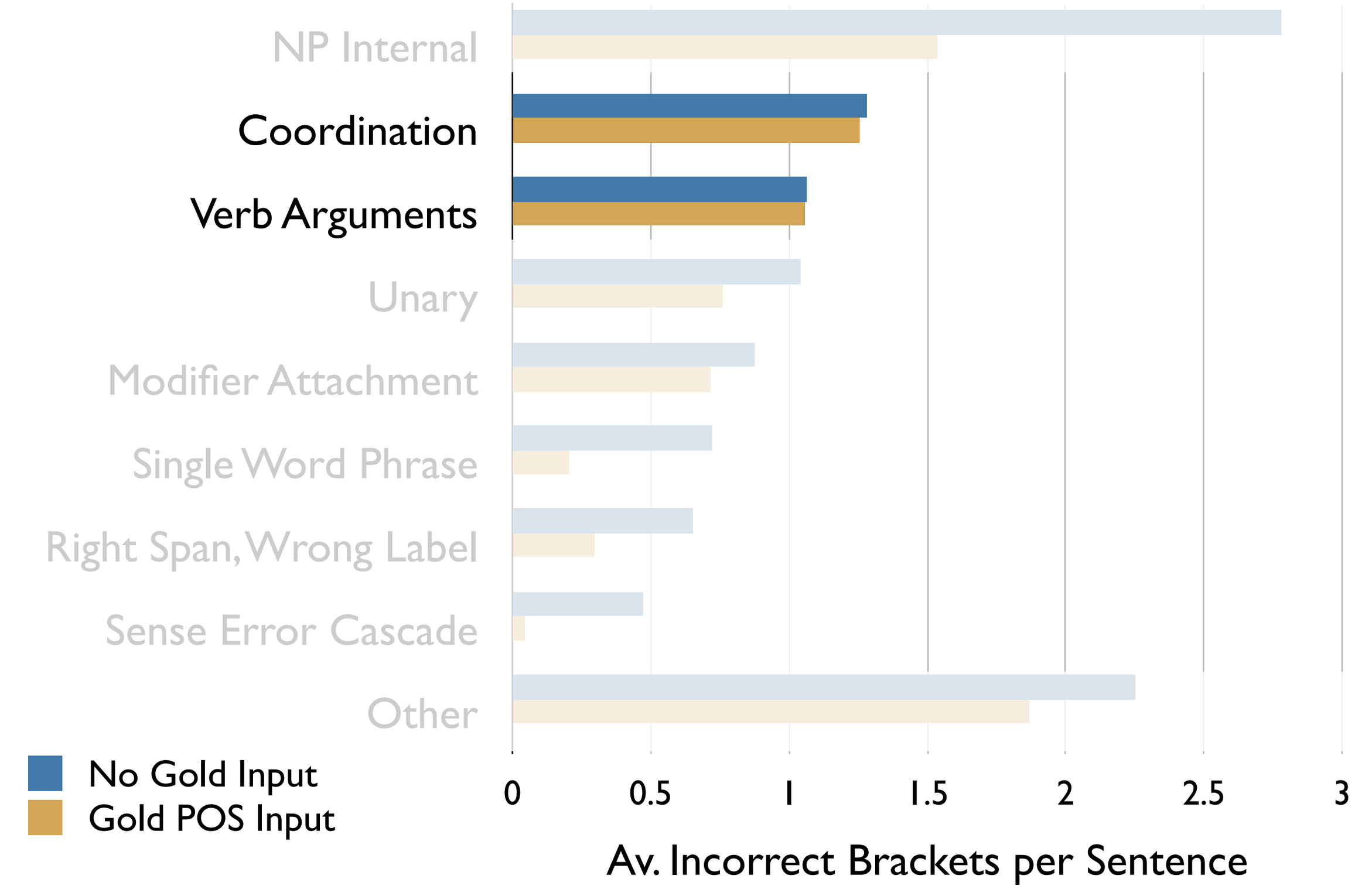

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VV	VV	NT	NT	DEC	NR	PU	NR	NN	
计划	在	星期六	晚	的	阿拉法特	、	佩雷斯	会晤	…

Tagging Error Impact

NN	VV	NT	NT	DEC	NR	PU	NR	VV	…
计划	在	星期六	晚	的	阿拉法特	、	佩雷斯	会晤	…

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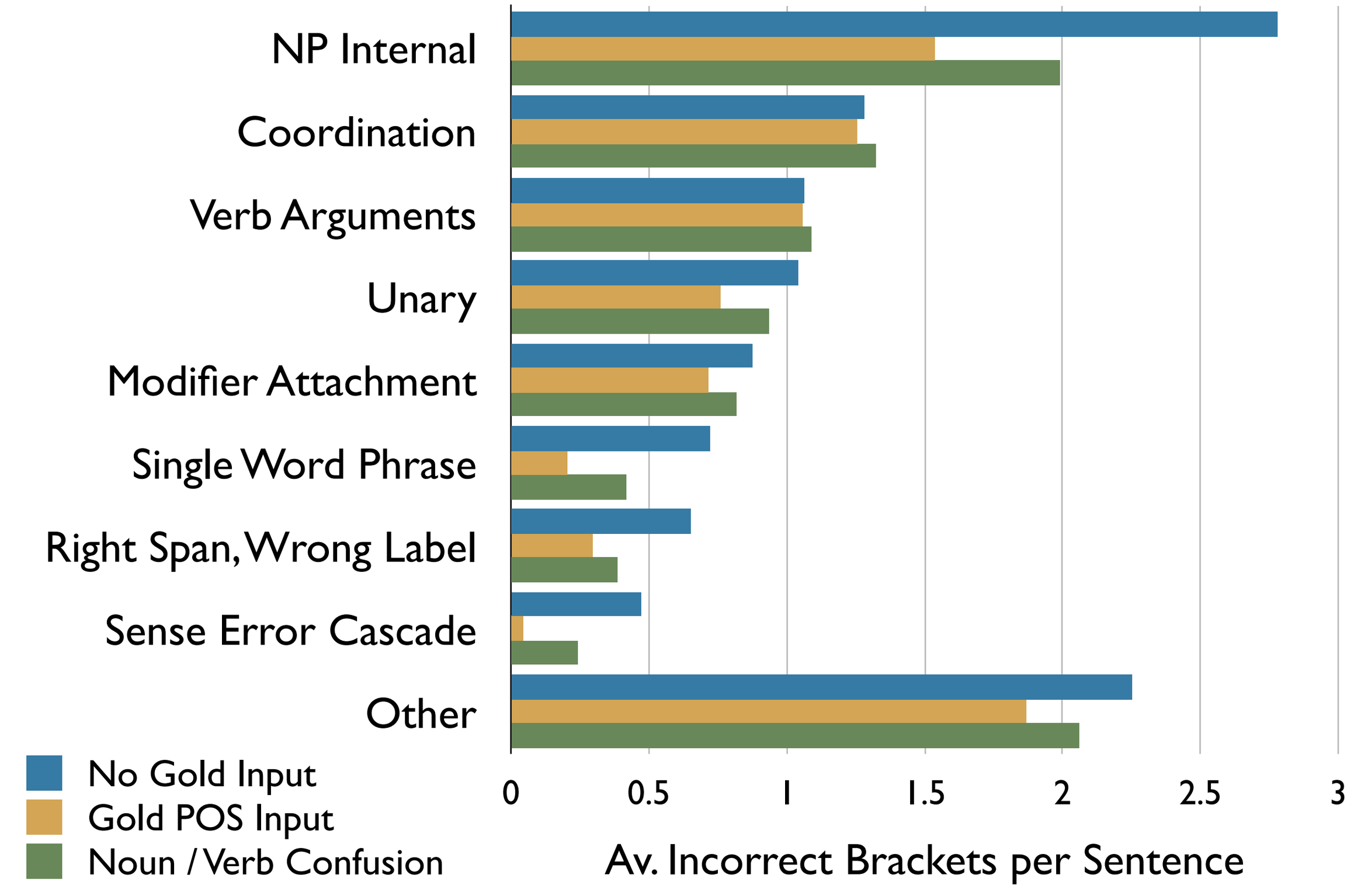

Conclusion

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- Download our automatic analysis tool: nlp.cs.berkeley.edu/software

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Thank you!