

RESEARCH ARTICLE

Neural dynamic foundations of a theory of higher cognition: the case of grounding nested phrases

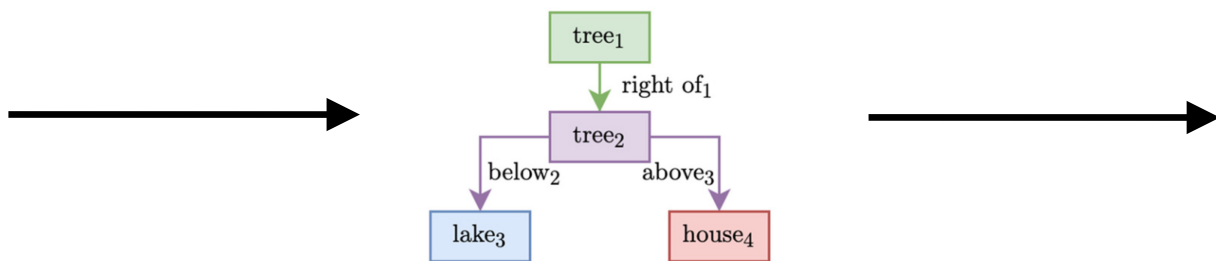
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Received: 1 February 2023 / Revised: 21 July 2023 / Accepted: 10 September 2023

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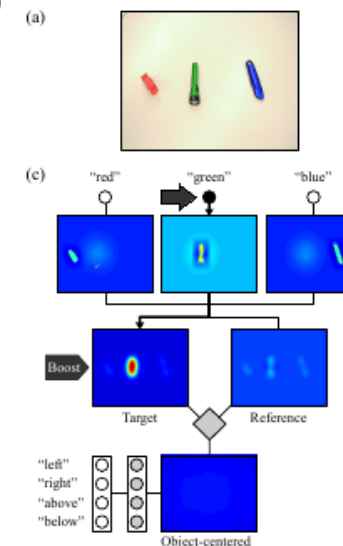
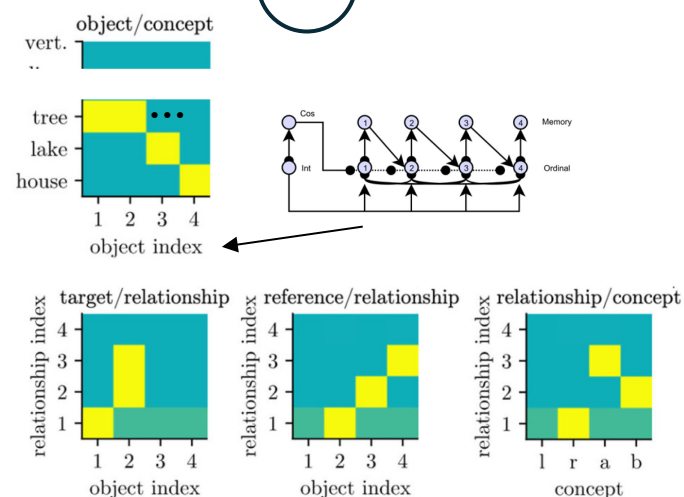
Problem settings

“the **tree** to the right of the **tree** (which is) below the **lake** and above the **house**.”



Language processing

Perceptual grounding

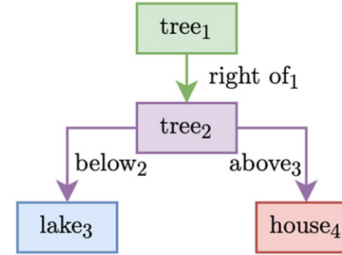


Problem settings

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Language
processing



Perceptual
grounding



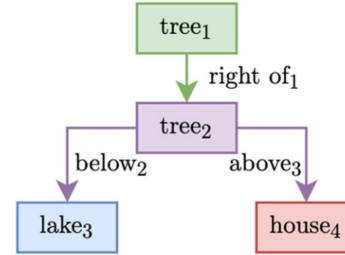
- Attentional bottleneck: only one object can be grounded at a time
- Relations can guide grounding only if other objects already have been grounded

Problem settings

“the **tree** to the right of the **tree** (which is) below the **lake** and above the **house**.”



Language
processing



Perceptual
grounding



- Strategy: start from the ‘bottom’ of the tree to guide the search of target object

