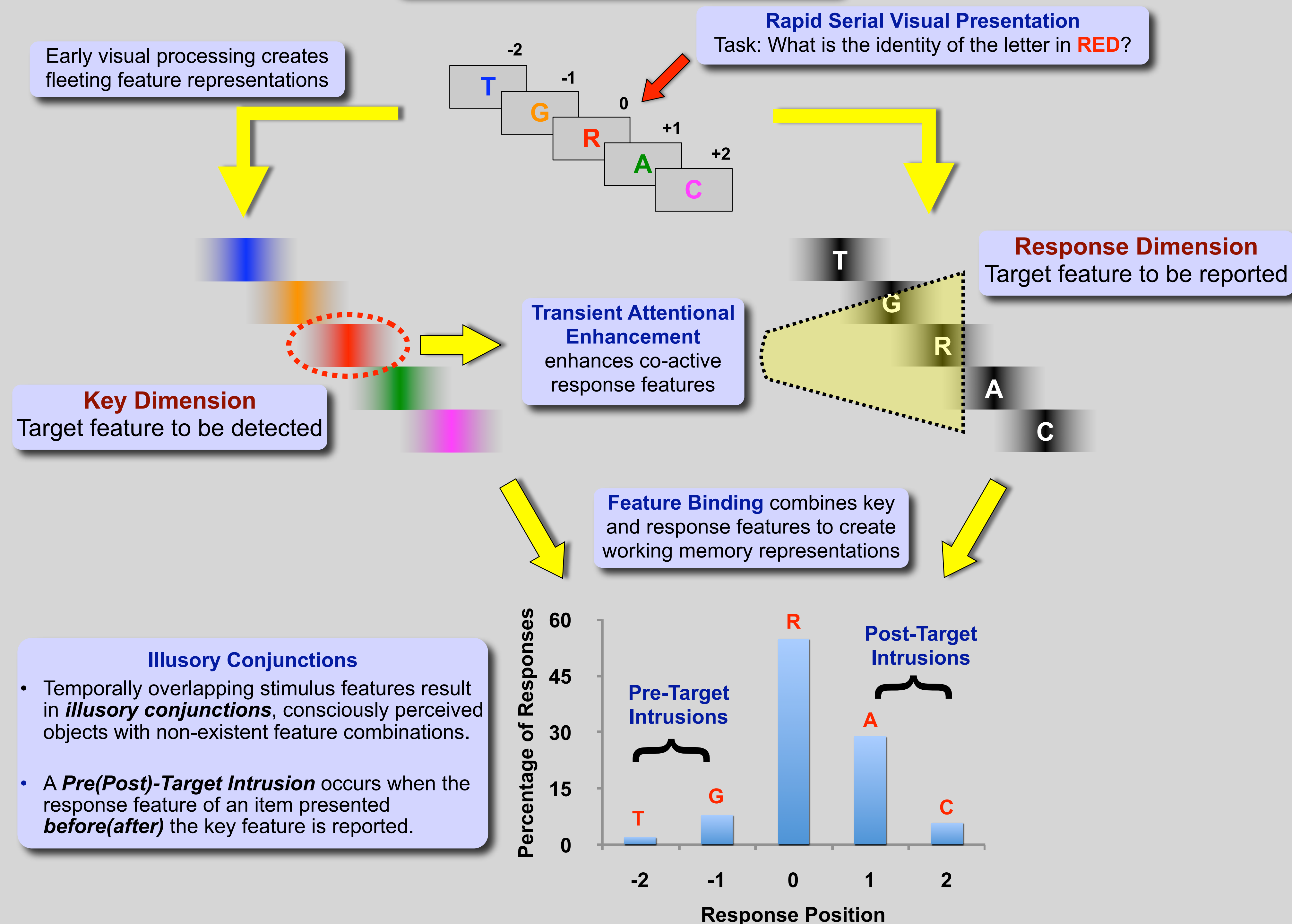


Temporal Binding, Illusory Conjunctions and the ST² Model

Srivas Chennu*, Brad Wyble and Howard Bowman

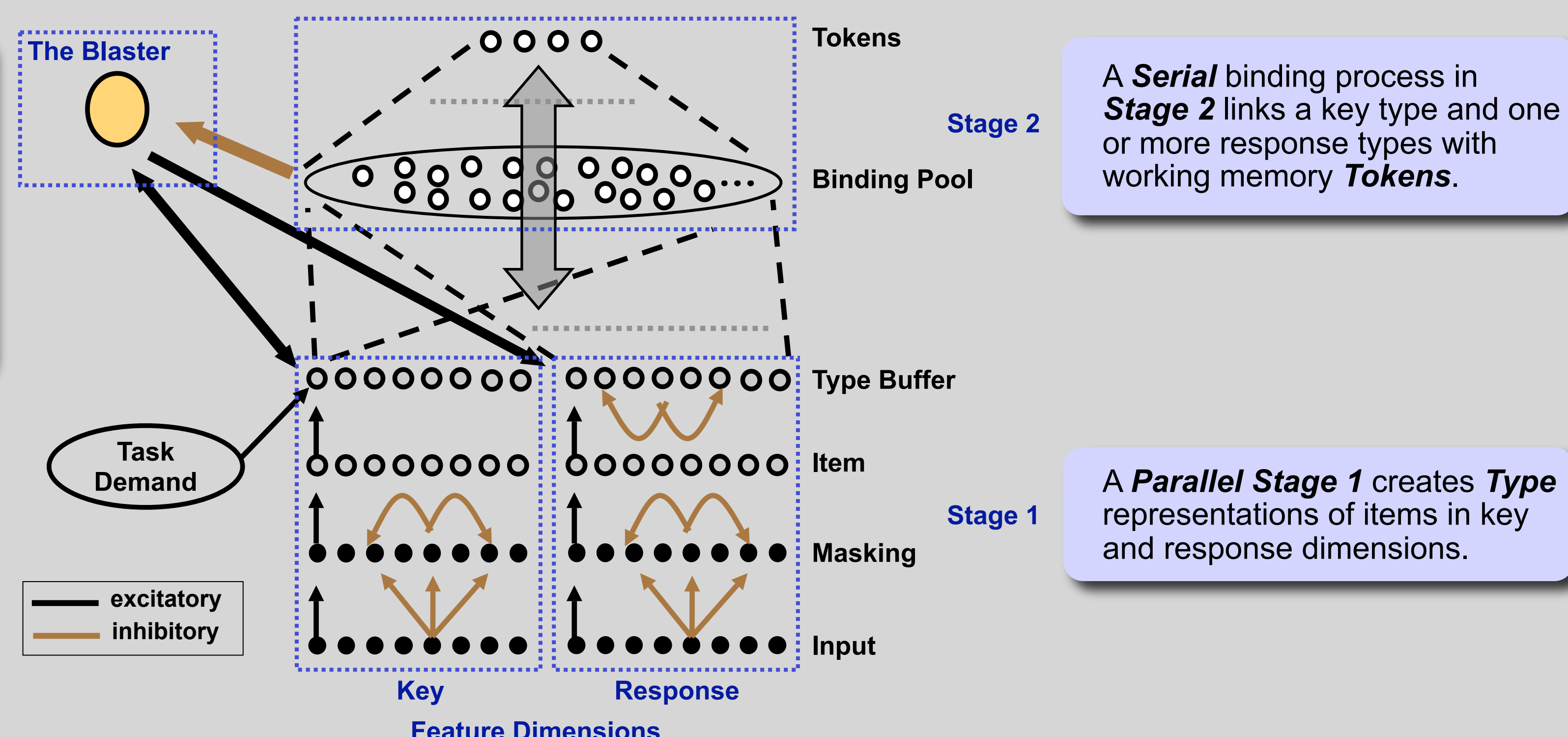
1. Temporal Binding

How does the visual system bind temporally co-active features into unitary mental percepts?



2. The Two-Feature Neural-ST² Model¹

The Blaster implements transient attentional enhancement. It is triggered by the detection of a target's key feature, and enhances active types in both dimensions.



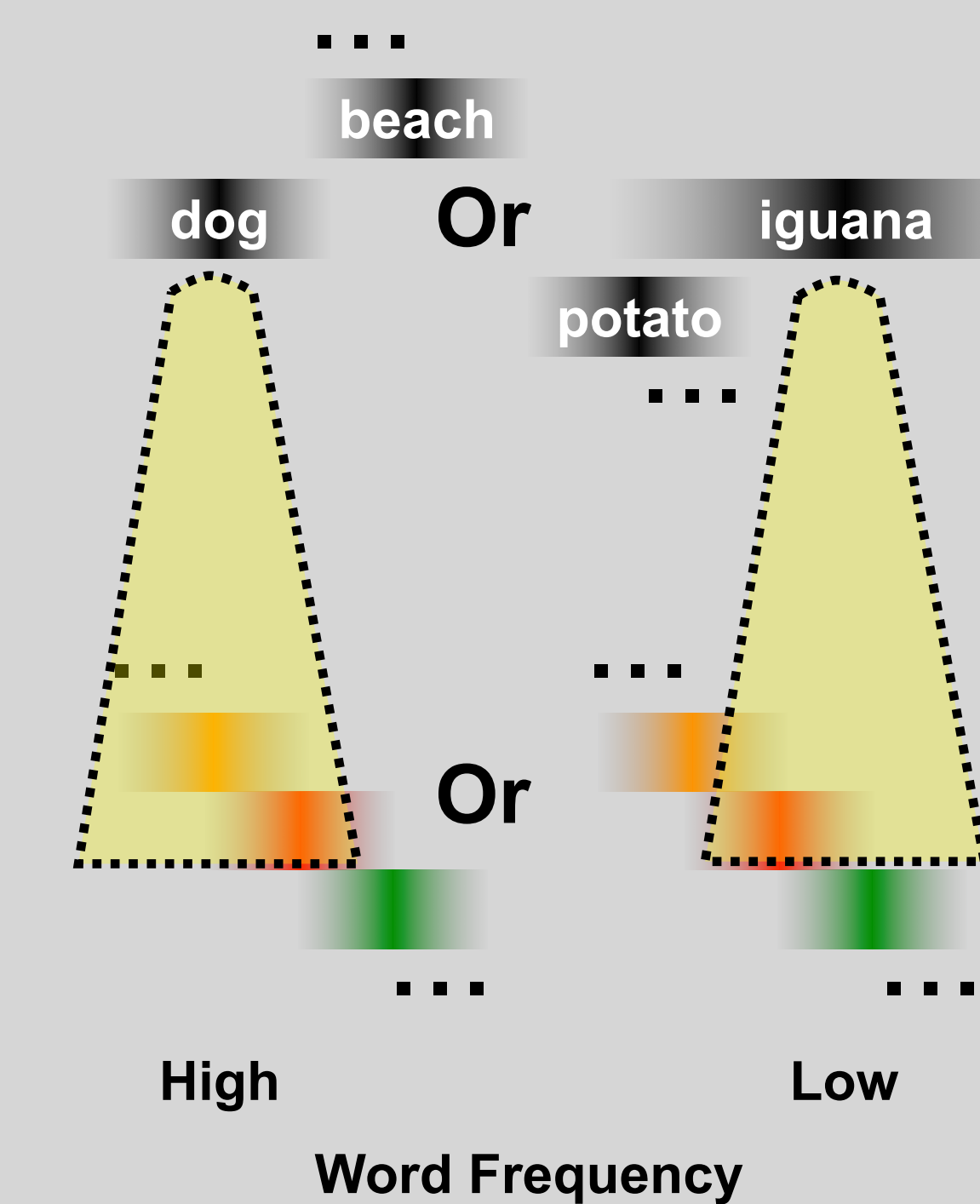
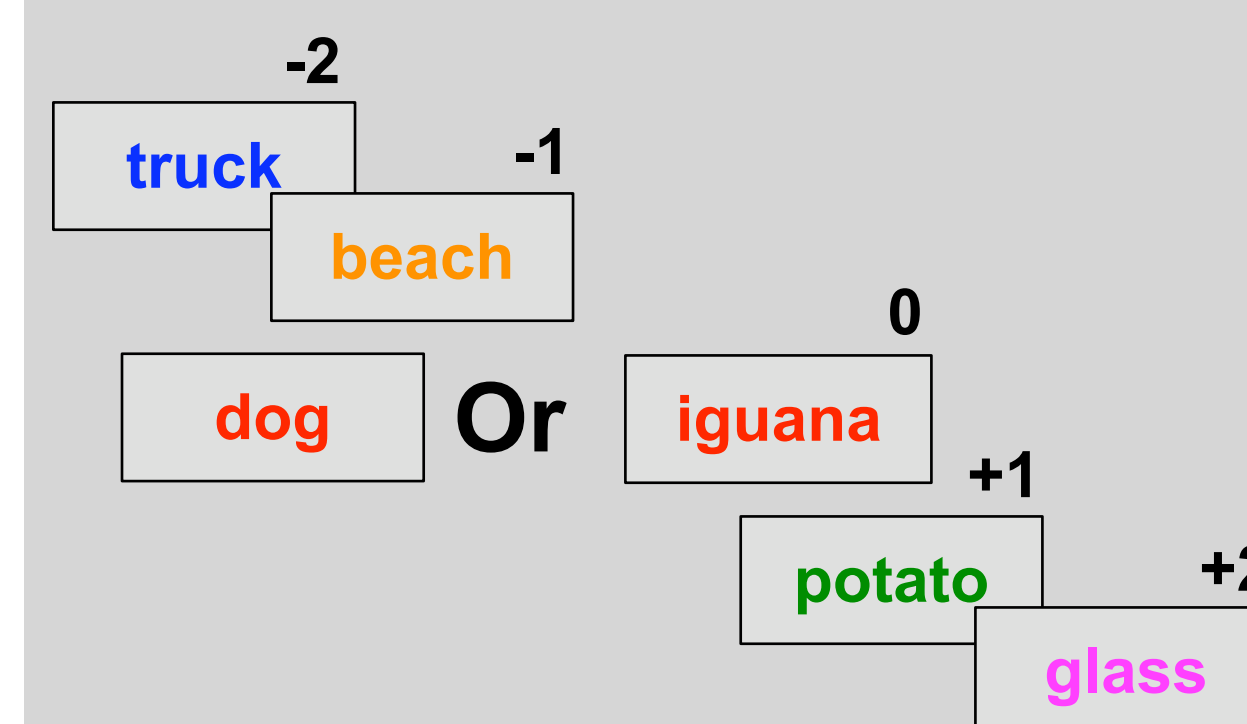
References

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- Botella et al. A Model of the Formation of Illusory Conjunctions in the Time Domain *JEP:HPP*, 2001, 27, 1452-1467
- Polich & Donchin P300 and the word frequency effect *Electroencephalography and Clinical Neurophysiology*, 1988, 70, 33-45
- Craston et al. The attentional blink reveals serial working memory encoding: Evidence from virtual & human event-related potentials *JOCN*, 2008, in press

3. Key Feature Manipulation²

Task: What is the colour of the only animal word in the list?

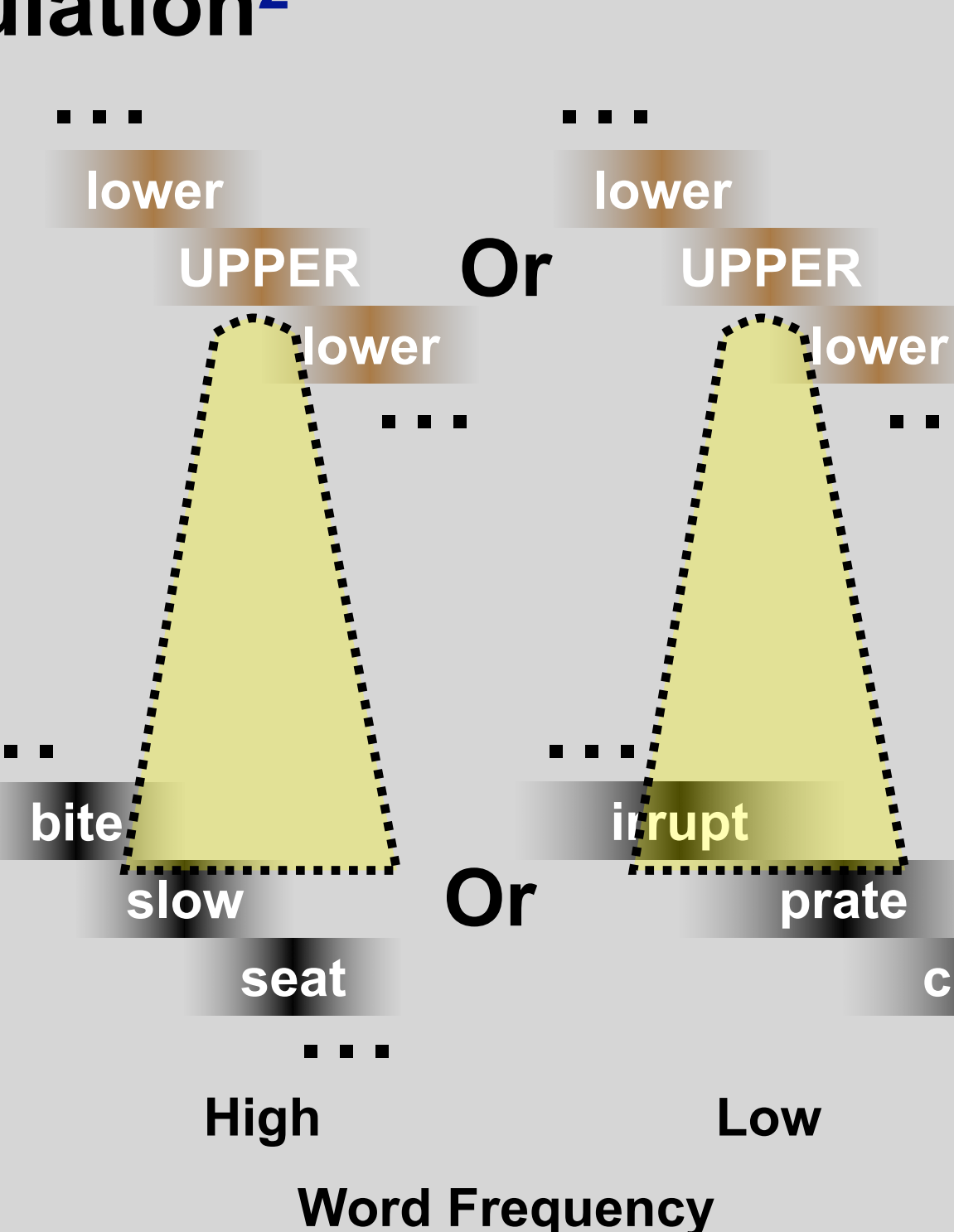
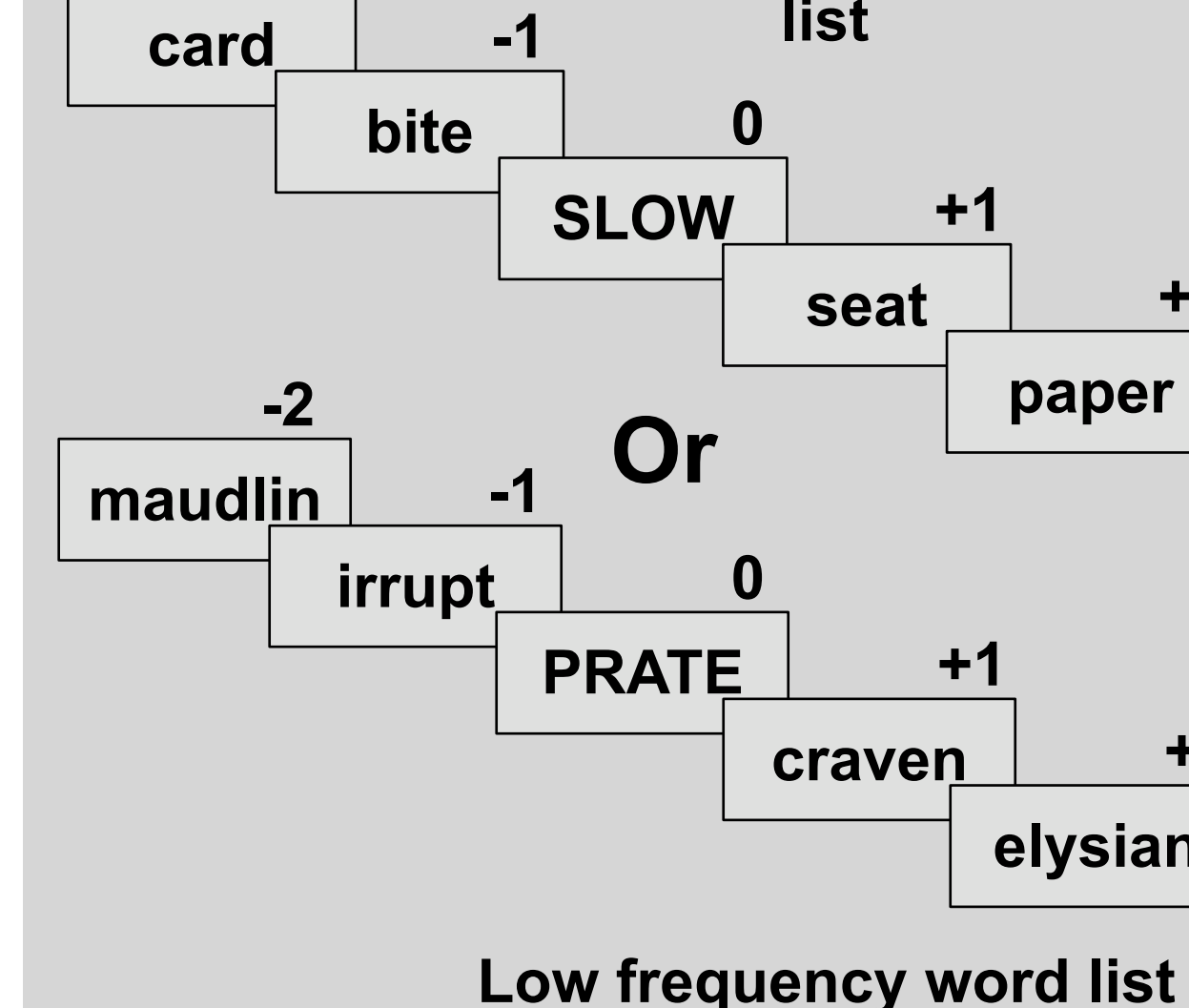
High or low frequency animal word



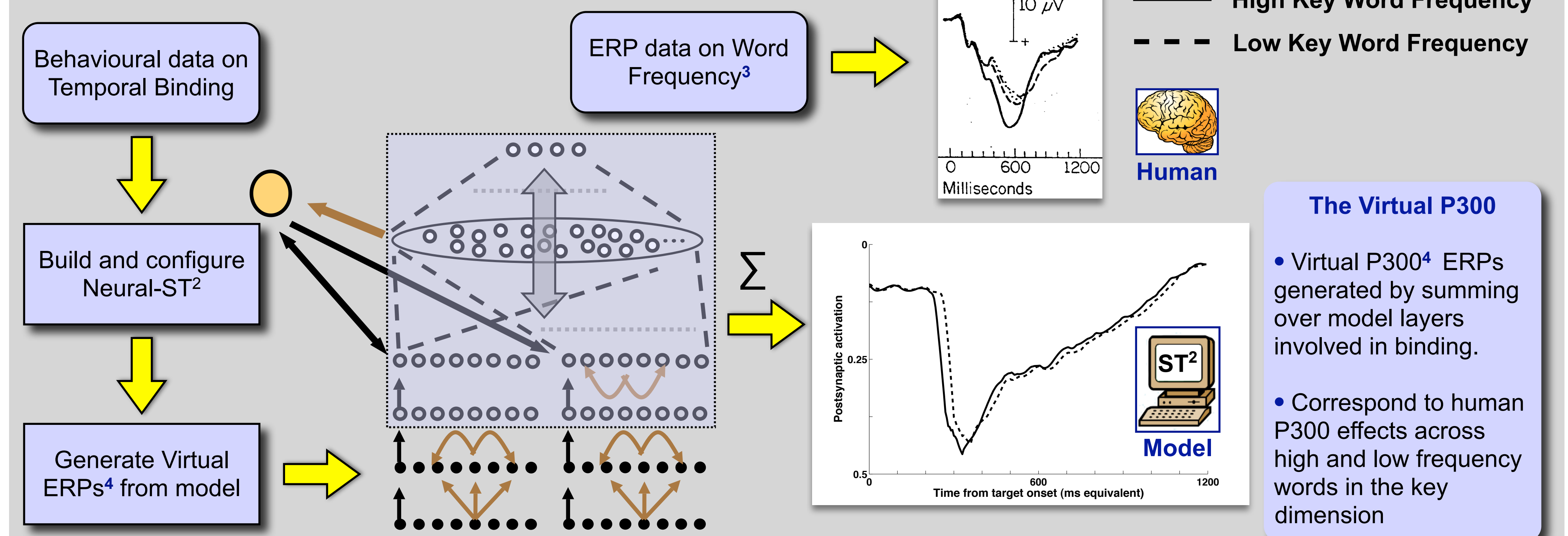
4. Response Feature Manipulation²

Task: Which is the only word in UPPER case?

High frequency words list



5. Virtual ERPs from 2f-ST²



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