**Morphology and Picture Relatedness**

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**Background**

Different languages use different words to express the same concept and thus have different shared constituency patterns.

- e.g. *fireworks* (English)
  - hanabi (Japanese)
  - 'flower-fire' (Mandarin Chinese)

Baayen & Boroditsky (in press) revealed that morphological structural relatedness in Dutch (e.g. *vracht-wagen* & *kinderwagen*) influenced Dutch speakers’ perception and conceptualization of reality by means of picture comparison tasks.

The Linguistic Relativity Hypothesis (LRH), which holds that the languages people are normally exposed to influence their cognition of reality, has motivated several lines of research in psychology and linguistics, but the evidence is not clear, due to methodological limitations (Lucy, 1997).

**Morphology**, especially compound representations in the mental lexicon has motivated intensive psycholinguistics research for the last 30 years.

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**Research Scheme**

**Research Question:** Does structural relatedness in morphology lead to perceptual similarity (picture relatedness)?

**Hypothesis 1:** There is a morphological effect on picture relatedness.

YES: consistent with Baayen & Boroditsky (in press)

NO: No consistent evidence

**Hypothesis 2:** Carrying more meaning, head constituents have more influence on picture relatedness than modifier constituents.

**Hypothesis 2:** The degree of word activations in the mind influences the picture relatedness ratings.

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**General Discussion**

- Contrary to Baayen and Boroditsky (in press) study, shared constituency phenomenon did not influence the target group’s picture relatedness ratings significantly in the picture comparison paradigm.
- Picture Perception does not lead to automatic word activations in the mental lexicon (or very weak activation).
- Picture comparison could influence language performance (Ikeda, 1994), but not vice versa.
- Influence of language on picture relatedness is conditional.
- Influence of shared constituency on picture relatedness ratings is positively correlated with the degree of word activation in the mind.

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**References**


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