**Expectation-Driven Facilitation in Japanese: its Independence from Distance**

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### Highlights

- We designed an experiment with Japanese interrogative sentences.
- We show that the expectation-driven facilitation and the locality-driven difficulty are independently observed, even when both of the dependencies are simultaneously terminated by the single word (V+ka).
- We suggest that the parser handles a dependency with a syntactic wh-feature and that with lexical/semantic information separately, even when they were encoded in the same lexical item.

### Introduction

**Expectation and Locality (Dependency Length)**

- Expectation plays an important role for the incremental processing (Stowe, 1986; De Vincenzi, 1991; Ashima, et al., 2004; DeLong, et al., 2005; among others).

- The parser can sharpen its expectation for what to see in the sentence (the expectation-driven facilitation; Konieczny & Döring, 2003; Hale, 2001; Levy, 2008).

- At the same time, a longer dependency length between the elements increases the integration cost (the locality-driven difficulty; Grodner & Gibson, 2005; Lewis & Vasishth, 2005).

### Experiment: A Self-Paced Reading Task

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**Summary of the results**

- Two separate effects, no interaction (cf. Husain, et al.)
- Distance effects = at the verb
- Expectation effects = at the spillover reg.
- Two effects were observed even when one particular word (verb) triggers both effects (cf. Staub).

**Discussion 1**

- No interaction = the expectation and distance effects were independent from each other.
- No evidence for the integration-in-advance in the strong expectation condition.

**Discussion 2**

- the emb. verb “knitted-Q” = the trigger for the expectation effect
- the trigger for the distance effect

- Why did these two effects appear in separate regions?

- Recall Staub (2010)
  - the Distance costs showed up in Gaze duration (= early effect).
  - the Expectation costs showed up in Regression rate (= late effect).

This actually fits with the pattern observed here.

### References


### Acknowledgements

This research was supported by JSPS Grant-in-Aid Scientific Research (C) #15K02529 (Ph Hajime Ono) and (B) #25284083. Many thanks to Masa Koizumi, Edson Miyamoto, Satoshi Nambu and Hiroku Sakai. We also thank all of the participants in the study as well as Shiko Yangano and Rika Yoshizumi for helping us conduct this research.