

< Fodor and Kitagawa's experiment in cooperation with Hirose >

The target sentence was as in (1) below, which is, unlike the earlier examples, **unambiguous**. The embedded Wh-phrase *dare* 'who' must be associated with the matrix Wh-COMP *-no* since the declarative complementizer *-to* 'that' in the subordinate clause is incompatible with it.

- (1) Kimi-wa Kyooko-ga hontoowa [**dare-o** aisiteita-**to**] i'mademo omotteiru-**no**?
 you-TOP -NOM in.reality who-ACC love-COMP_{THAT} even-now thinking-COMP_{WH}
 'Who do you still think that Kyoko in fact loves?'

This in turn means that Global FPD should be assigned to (1). However, if there is a tendency to assign Local FPD to (1) in silent reading, as hypothesized above, then (1) should be judged unacceptable more often when presented in written form than when spoken appropriately with Global FPD. The experiment had 12 target sentences along with 12 fillers for comparison (4 grammatical, 8 ungrammatical) that were superficially similar in structure but did not contain the critical scope issue in question. These sentences were presented in pseudo-random order among 40 assorted filler sentences (20 grammatical, 20 ungrammatical) with completely different structures. One group of subjects saw each sentence on a computer screen with a timed exposure (9 seconds per sentence), and read them silently. Another group heard sound files of the same sentences, spoken with appropriate prosody by an instructed native speaker. For the spoken materials, the presentation time was from 5 to 7 seconds, tailored to the length of the sentence. Subjects were college students, native speakers of Japanese, 13 in each presentation condition. They made rapid grammaticality judgments by circling "YES" or "NO" on a written response sheet. They were then allowed to revise this initial judgment if they wished to. This revision opportunity was included in order to prevent excessively slow initial responses. In fact there were few revisions and we report only the initial judgments here.

Acceptance rates (as percentages) are shown in Figures 1 - 2 below.¹ In all the graphs, grammatical filler sentences are represented by vertical stripes, target sentences by horizontal stripes, and ungrammatical fillers by white. As expected, the target sentences are accepted more often in listening than in reading. The difference is not large but it is statistically significant ($p < .01$). In the reading condition, the rate of acceptability falls in the middle of their matched grammatical fillers and matched ungrammatical fillers. But in the listening condition they draw much closer to the grammatical fillers, supporting the hypothesis that the grammar does indeed license them, though only with a very particular prosody.²

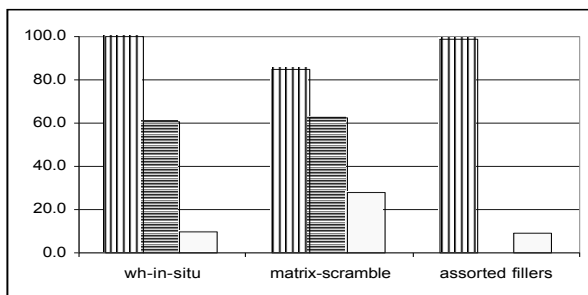


Figure 1. Reading, percent acceptance

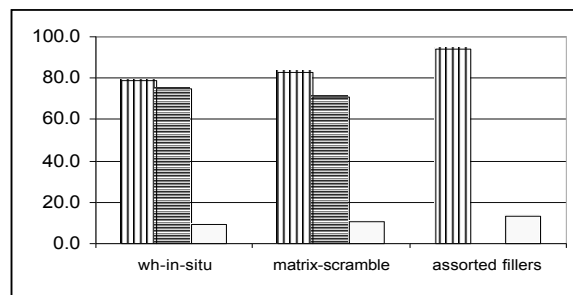


Figure 2. Listening, percent acceptance

¹ Figures 1-2 include the outcomes of another pilot experiment on Wh-questions involving long-distance scrambling, which is not being discussed here.

² The one oddity in the results is the decrease in acceptability judgments in the listening condition for the four Wh-in-situ filler sentences. We do not know why this occurred, but possibly the prosody with which these sentences were spoken might have been less than optimal in some cases, and might have inhibited rather than facilitated recognition of the intended syntactic analysis. We are currently investigating this possibility through acoustic analyses of the stimuli.