

# Selection and Reassembly of an Uninterpretable Feature in L2 Acquisition of Wh-questions

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LINK to Kimura's PhD dissertation (ResearchGate) →



## Two Hypotheses in Generative Approaches to L2A

### ◆ Representational Deficit Hypothesis (RDH)

(e.g., Tsimpli, 2003; Hawkins & Hattori, 2006)

**Feature Selection** is impossible if the feature is uninterpretable (i.e., *uFs*) and not selected in learners' L1

### ◆ Feature Reassembly Hypothesis (FRH) (Lardiere, 2008, 2009).

**Feature Reassembly** pose a learning problem for learners, but can eventually be overcome.

## Syntax of English wh-questions

(1) Internal Structure of *wh*-phrases (e.g., Cable, 2007, 2010)  
[<sub>QP</sub> *wh* [<sub>Op</sub>:\_\_]] → *the whole wh-phrase moves!*

(2) Island Constraints (*strong vs. weak*, Chomsky, 1986)

- ??What did you hear [<sub>NC-ISLAND</sub> the rumor that Tom killed\_\_]?
- ??What do you know [<sub>EQ-ISLAND</sub> where Tom ate\_\_]?
- \*What did you chase [<sub>RC-ISLAND</sub> the man who stole\_\_]?
- \*What did you get angry [<sub>ADJ-ISLAND</sub> because Tom broke\_\_]?

*note.* NC=noun complement, EQ=embedded question, RC=relative clause, ADJ=adjunct

(3) Scope Taking

- Who** do you think that Bill loves\_\_? (✓ syntactic position of *wh* = *wh*-scope)
- \*Do you think **who** Bill loves\_\_? (\**split scope*: matrix scope but *wh* is in the embedded clause)
- \***What** do you think **who** Bill loves\_\_?

## Syntax of Japanese wh-questions

In Japanese and Chinese, *wh*-phrases stay in-situ.

(4) Taro-wa **nani**-o kaimashita **ka**?  
Taro-<sub>TOP</sub> what-<sub>ACC</sub> bought Q  
Lit: 'Taro bought what?'

(5) Internal Structure of *wh*-phrases (e.g., Hagstrom, 1998; Cable, 2010)  
[<sub>NP</sub> [<sub>NP</sub> *nani* [<sub>Q</sub> *ka*[<sub>Op</sub>:\_\_]]]] → *only Q (ka) moves!*

(6) In general, Japanese *wh*-questions are insensitive to islands, but are **sensitive to the EQ- (*wh*)-island**  
→ Q-movement incurs a violation of Relativized Minimality

(7) *Wh-scrambling* is **sensitive to strong, but not weak, islands** (e.g., Kuno, 1973; Hoji, 1985; Tokimoto, 2019).

(8) Under *wh-scrambling*, **split scope in (3b) is possible**.

## Syntax of Chinese wh-questions

(9) Zhangsan mai-le shenme ne?  
Zhangsan buy-<sub>PERF</sub> what Q

(10) Syntax of *wh*-questions (e.g., Tsai, 1994, 1999)  
[<sub>CP</sub> [<sub>iOp</sub>: val] ... [<sub>NP</sub> shenme.]] → *no [Op: \_\_], hence no move!*

(11) Chinese *wh*-questions are insensitive to all the islands in (2).

(12) *Wh-topicalization* makes the **strong/weak distinction**.

(13) **Split scope (3b) is possible** under *wh-topicalization*.

## Predictions

**Predictions by the RDH:** CLEs can NOT acquire the [<sub>Op</sub>: \_\_] feature (and hence, *wh*-movement).

**Predictions by the FRH:** JLEs will transfer feature representations in Japanese and have problems with feature reassembly.  
hypothesized *wh*-phrase structure:  
[<sub>NP</sub> [<sub>NP</sub> what [<sub>Q</sub> ∅ [<sub>Op</sub>: \_\_]]]] cf. (1) & (5)

**wh-fronting by scrambling (possibility for JLEs):**

- ✓ NC island, \*EQ & strong islands (RC, ADJ) islands
- ✓ split scope (3b)

**wh-fronting by topicalisation (possibility for CLEs):**

- ??weak islands (NC, EQ islands), \*strong islands (RC, ADJ) islands
- ✓ split scope (3b)

## Experiments

- Oxford Quick Placement Test
- Acceptability Judgment Task (AJT)
- Elicited Production Task (EPT)

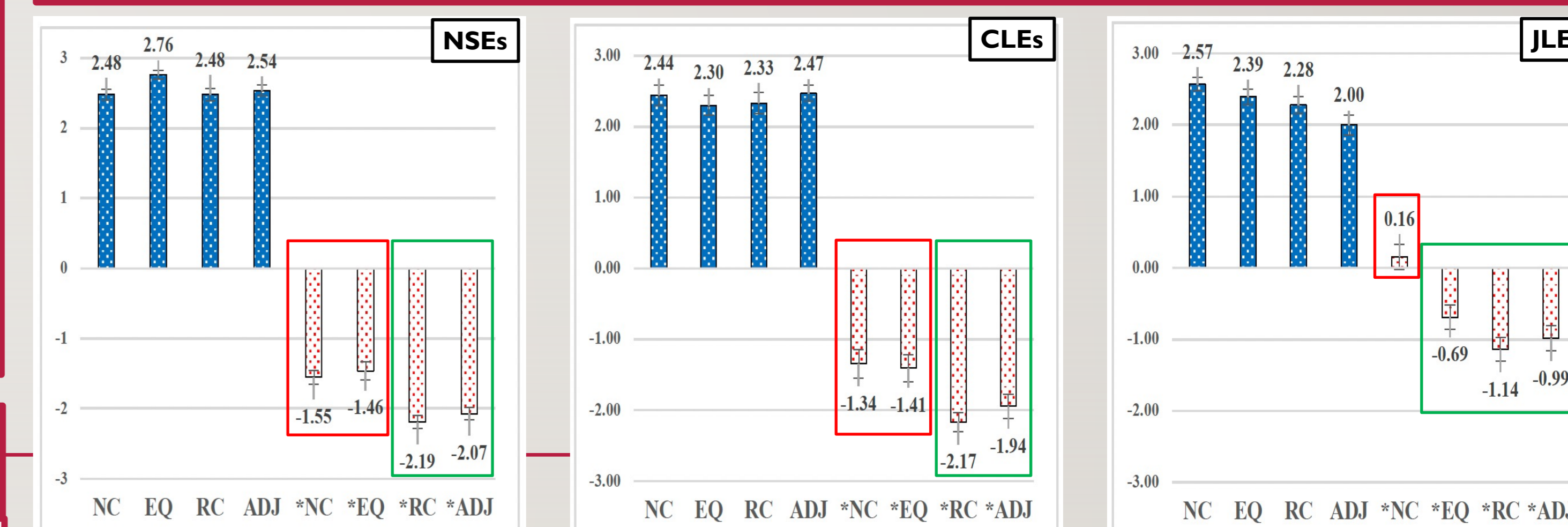
**Participants:** 33 Native speakers of English (NSEs)  
29 Japanese learners of English (JLEs) (11 upper, 18 lower)  
28 Chinese learners of English (CLEs) (14 upper, 14 lower)

**AJT:** 4 grammatical Yes/No-Q types (4\*6tokens) (NC, EQ, RC, ADJ)  
4 ungrammatical *wh*-Q types (4\*6tokens) (\*NC, \*EQ, \*RC, \*ADJ)  
(see (2a–d)) & 24 fillers

e.g., Do you know the rumor that Bill killed a bear?  
What do you believe the claim that Tom saw?  
scale – from -3 (completely unacceptable) to +3 (completely acceptable)

**EPT:** 3 subject *wh*-Qs, 3 object *wh*-Qs and 22 fillers  
target e.g., Who do you think (that) Mr. Blue loves? (see (3))

## Results & Discussion



### AJT Results (group) ↑

Statistics:

Linear Mixed-Effects Model (LME)

Response variable: judgements (z)

Predictor variable: type, proficiency, grammaticality

Random effects: item, participants

### Individual Analysis →

Prop. of participants who strongly rejected each type

### EPT Results

|                  | NSEs | CLE (L) | CLE (U) | JLE (L) | JLE (U) |
|------------------|------|---------|---------|---------|---------|
| target-like (3a) | 85%  | 46%     | 67%     | 41%     | 85%     |
| *(3b)            | 0%   | 14%     | 0%      | 22%     | 12%     |
| *(3c)            | 0%   | 13%     | 0%      | 22%     | 0%      |

**Low-level CLEs:** Strong/Weak distinction of islands but scope taking errors  
→ *wh-topicalization*

**High-level CLEs:** S/W distinction of islands and no scope taking errors  
→ *wh-movement* (Feature Selection succeeded)

**Low-level JLEs:** i) rejection of strong island violations, ii) failure to reject the NC-island, and iii) scope taking errors → *wh-scrambling*

**High-level JLEs:** S/W distinction of islands and few scope taking errors  
→ *wh-movement* (Feature Reassembly succeeded)

◆ **Conclusion: Feature Selection & Feature Reassembly are possible in L2 acquisition! (FRH is supported)**