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# Syntactic Knowledge and Context Sensitivity: Evidence from Japanese EFL Learners on the Processing of Raising Constructions in English

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### **Introduction**

### **Raising Constructions**

- (1) a. It seems that John wears a purple jacket.
  - b. John seems to wear a purple jacket.
  - c. [John seems to Mary [John to wear a purple jacket]].



- to Mary =an experiencer phrase =an intervener
- (1b) more difficult than (1a)

L1 (Hirsch & Wexler 2007, Choe & Deen 2016)

L2 (Choe 2015, Yoshimura et al. 2016, 2017)

() a. Joe thinks that Hanako is smarter than any other student in their class.

Hanako seems to Joe to be the smartest student in their class. (TRUE)

- b. The nurse thinks that Dr. Adam's shirt is white, not gray. The nurse seems to Dr. Adam to wear a white shirt. (FALSE)
- () a. Susan thinks that her brother Mike is now taller than his father.

Mike appears to Susan to be taller than his father. (TRUE)

b. Mary thought that her brother worked hard on his assignment.

Mary appeared to her brother to work hard on his assignment. (FALSE)

## QI:

How can the pronoun advantage help Japanese EFL learners reduce the degree of intervention effects?

## QII:

What role can a morphological gender distinction play in dealing with syntactic deficits during the acquisition of the raising construction?

## QIII:

How can Japanese EFL learners become sensitive to the morphosyntactic information?

## Raising Constructions in Japanese?

- Yooda and rashii are neither verbs nor lexical counterparts of seem.
- (2) a. Mary-ni John-ga shiawaseni omoeru/mieru
  - b.  $[_{TP}Mary-ni\ [_{vP}[_{TP}John-ga\ shiawaseni]\ mieru]]$  'To Mary, John seems/appears to be happy.'
- omoe/mie = lexically seem
- omoe/mie ≠ syntactically seem (Takezawa 2015)
- Matrix TENSE assigns Nominative to John (ECM)
- No movement required for Case

## Raising Constructions in English

- (3) a. John seems to Mary to wear a purple jacket. (=(1c))
  - b.  $[_{TP1}[DP_i | [seems to DP_j | _{TP2} | DP_i | [to VP]]]] (i \neq j)$ copy & deletion

**A-movement** 

- John=a semantic subject of the infinitive clause
- John=a syntactic subject of the matrix verb seem
- via A-movement → meeting the EPP avoiding a Case filter violation

However, A-movement across DP<sub>i</sub> induces intervention effects.

# **Previous Findings**

## 2 approaches to intervention effects: RM (Rizzi 1990) L1 transfer

Yoshimura, Nakayama, & Fujimori (2017)

(4) Kenji seemed to Mary to be an excellent signer for the school festival.

Q: Who would be an excellent singer at the school festival?

A: Kenji Mary both I don't know

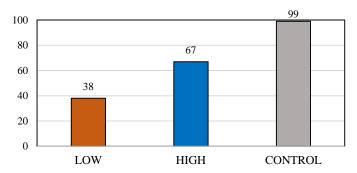


Figure 1 Correct response rates by group (%)

- Low (*n*=28, Mean TOEIC scores 443.4)—correct response rate=38%
- Nearly 50% of the participants chose Mary as the infinitive subject

### **Previous Findings**

Yoshimura & Nakayama (2019) (TVJ task): 51 JEFL (87) and 7 NSE (10)

- (5) a. To Martha, Kenny appears to learn Japanese well.
  - b. Hanako seems to Jennifer to be smarter than Ai.
  - c. Amy appeared to him to be full.

Table 1 Correct response rates by group and experiencer type

<b>Experiencer Phrase</b>	Lex	Pronominal		
	Fronted (5a)	in-situ (5b)	in-situ (5c)	
True vs. False	True False	True False	True False	
JEFL (n=51)	94.1 92.8	<mark>53.3</mark> 73.9	85 92.8	
NS (n=7)	100 90.5	95 95	90 90	

#### Choe and Deen (2016) on L1 children's comprehension

- a. Donald seems to Mickey to be short. (40.9%)
- b. To Mickey, Donald seems to be short. (87.5%)
- c. Bart seems to him to be studying. (81.5%)

### **Previous Findings**

Nakayama, Yoshimura, & Fujimori (2018): 46 JEFL learners (23 each; Lower, TOEIC Ave. 558.3; Higher, 720.7; *F*(1, 44)=59.914, *p*<.000) and 10 NSEs.

- (6) a. John was a reporter and he thought that Virginia had a lot of money. *Virginia seemed to be rich.* 
  - b. Harry is Jane's secretary and he thought she looked sad after the business trip. \*After the business trip appeared to be feeling sad for Jane.
  - c. Ken cleaned Haruko's room.

    Haruko's room was cleaned by Ken.
  - d. Tomoko flew to Paris and enjoyed drinking good wine during the flight. \*On the plane was served good wine.

Table 2 Mean acceptability ratings by sentence type (1  $\sim$  7=acceptable)

Group	Passives		Raising (6)	
	Acceptable	Unacceptable	Acceptable	Unacceptable
Lower	6.08	4.35	5.36	4.34
Higher	5.75	<mark>4.53</mark>	5.75	<mark>4.90</mark>
NSE	6.32	<mark>2.12</mark>	5.94	<mark>1.46</mark>

# **Experiment**

- Participants=56 Japanese college students (out of 73) divided into 2 groups (LOW and HIGH) and 10 NSEs
- 2 raising types with and without a pronominal gender cue
   5 YES and 5 NO in each type and 20 fillers, 40 in total

### Type I

- (7) a. Joe thinks that Hanako is smarter than any other student in their class.
  - Hanako seems to Joe to be the smartest student in their class. (True)
  - b. Joe wondered why Sachiko drank too much wine at the party.
    - Joe seems to Sachiko to have drunk too much wine at the party. (False)

### Type II

- (8) a. The girl thinks that the boy likes his English teacher.
  - The boy seems to the girl to like his English teacher.
  - b. Mary thought that her brother worked hard on his assignment.
    - Mary appeared to <u>her brother</u> to work hard on <u>his</u> assignment. (False)

(True)

#### -Results-

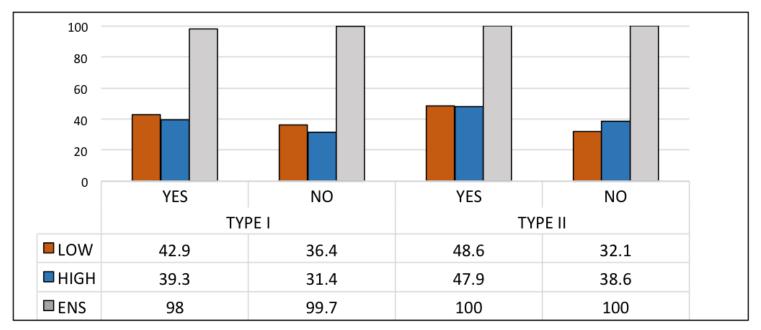


Figure 2 Mean accuracy rates for the type of gender morphology by group (%)

- •Japanese EFL learners' correct response rates were below the chance level, regardless of the presence or absence of the genitive pronoun in the context and in the test sentence.
- Japanese EFL learners tended to select the experiencer phrase as the subject of the lower infinitive clause in both Type I and Type II.
- Japanese EFL learners have not acquired the grammatical knowledge that A-movement is involved in the raising construction in English.

#### -Results-

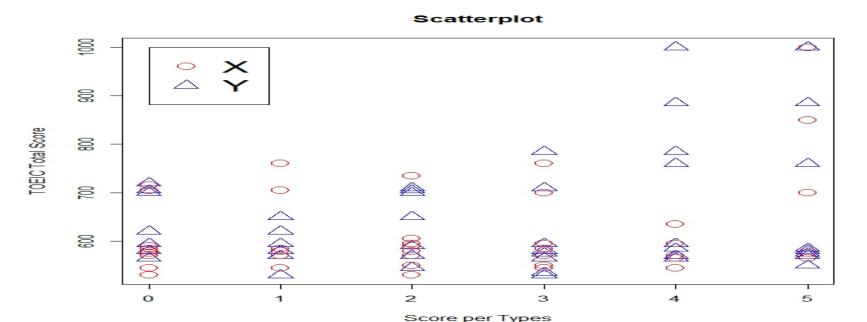


Figure 3 Individual differences by type and proficiency (X=Type I, Y=Type II)

- Japanese EFL learners become sensitive to the gender-morphological distinctions, gradually utilizing the pronoun advantage as their English proficiency improves.
- Grammatical knowledge seems to be a prerequisite for the resolution of discourse-pragmatic insensitivity in L2 acquisition.



## Conclusion

Findings: •delayed sensitivity to the discourse context

→failed to take full advantage of the gender information

• insufficienct computation of A-movement

←due to the absence of the *seem* construction in Japanese

We claim that Japanese EFL learners (i) observe an RM constraint or locality, thereby inducing an intervention effect and (ii) do not assume Amovement to occur in the raising construction due to L1 transfer.

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