

## Grammar searches for *wh*-questions during task performance in English

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### Introduction: Word searches

- Display a speaker's "difficulty in finding the relevant linguistic items to convey the meaning so that it would be understood by the other speaker" (Kurhilar, 2006)
- Preceded by sound stretches, speech perturbations, and/or a pause (Goodwin & Goodwin, 1986; Kurhilar, 2006; Markee & Kunitz, 2013)
- 2 types:
  - Lexical searches: Accompanied by direct questions (e.g., "what's the word?")
  - Grammar searches: Marked by word repetitions and self-corrections without being specifically announced (Kurhilar, 2006)

## Research gaps

- Many L2 research on lexical searches (e.g., Carroll, 2004; Gullberg, 2011; Kurhila, 2006)
- Less L2 studies on grammar searches
- The previous studies on grammatical searches placed their focus only at the morphology level: e.g., inflections in Finnish (Kurhila, 2006), gender marking in Italian (Markee & Kunitz, 2013)

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## Research focus

- Grammar searches at the syntax level shown in L2 interaction, focusing on searches for a *wh*-question
- Research questions:
  - (1) How a grammar search for a *wh*-question is enacted;
  - (2) How a grammar search for a *wh*-question is (collaboratively, if any) resolved in L2 interaction;
  - (3) How a grammar search for a *wh*-question is phonetically realized

## Method

- Participants: 66 Korean children (age: 11–12)
- Speaking task: "Talk about any relevant things about their birthday (e.g., a birthday party) in English in pair."
- Pre-task planning (Ellis, 2005): 25 minutes
- During the task performance: Not allowed to see the script if they had written any; allowed to use Korean only when they didn't know how to express what they wanted to say

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## Data

- 33 separate dyadic talks
- structured more like an interview than a peer conversation, showing a series of question-answer adjacency pairs (Mori, 2002)
- 133 *wh*-questions, either grammatical or ungrammatical
- 26 involved a trouble in their formulation
- "grammar search" (Kurhila, 2006; Markee & Kunitz, 2013)

## Data analysis

- Qualitative + Quantitative analysis

<RQs 1 & 2>

transcribed all data following standard Conversation Analysis conventions (Jefferson, 2004) → analyzed line-by-line (Sacks, 1992; Schegloff, 2007) with a focus on the sequential moments of speakers' grammar searches for *wh*-questions

<RQ 3>

examined phonetic properties using Praat

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## Analysis 1: Grammar searches resolved in the same turn

- 14 out of 33 excerpts
- 24 among 26 grammar searches for a *wh*-question

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### Excerpt 31

01 Jun: <what's your birthday>  
 02 Kyu: uh my birthday i:s: (0.1) July eighteen;  
 03 (2.0)  
 04-> Jun: uh where [(0.8) where, uh [(1.0) uh what (0.5) what]  
 05 Kyu: [mm hehheh [m hehheh  
 06-> Jun: [(0.3) play, [(0.2) with i [who,  
 07 Kyu: [heh [heh [heh  
 08 (1.3)  
 09 Kyu: ah xnuukwulang nonyako hamyeon ettekhay hehhhuh:::::  
 ab who-with play-CMP do-if what-DC  
 'Ah, What am I supposed to do if you say whom I played with?'  
 10 Kyu: w: with my friends; and play: (0.7) uh::: uh:::: friend: we  
 11 Kyu: go to the playground and: uh::: running: ends: uh[:  
 12 Jun: [circus [circus  
 13 Kyu: haiyoiki heh heh uh yes, haha  
 'hi restaurant'  
 '(0.5)'  
 14 Jun: what's your kanceong?  
 feeling  
 'what did you feel like?'  
 (1.1)  
 15 Kyu: oh (0.6) it's fun::: and: hafyi (0.5) cho-exciting  
 super  
 'it was super exciting'



## Analysis 2: Grammar searches resolved in the next turn

- 2 out of 33 excerpts
- 2 among 26 grammar searches for a *wh*-question

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### Excerpt 16

01 Chi: what's your birthday:  
 02 (0.1)  
 03 Han: mybirthday i:s:  
 04 (1.5)  
 05 Chi: hankullo malhay= Korean-with speak-IM  
 'speak in Korean.'  
 06 Han: =iwei isi:pyu:ki:l February twenty sixth  
 'February twenty sixth.'  
 07 (2.6)  
 08-> Chi: kuttay mwehaysnya: then what-do-PST-Q  
 'what did you do then?'  
 09 (1.1)  
 10-> Han: what are you doing=  
 11-> Chi: =what are you doing:  
 12 (1.6)  
 13 Han: uh: (0.5) uh:mm: mm: mm: mm:(0.6) Uhm:(0.7) I'm: play:  
 14 (0.7) basketball  
 15 (0.7)  
 16 Chi: Okay,  
 17 Han: [with (0.3) my friend:  
 18 Chi: <okay>



## Analysis 3: Phonetic realization of *wh*-questions in grammar searches

- Observation from children's grammar searches for a *wh*-question
  - Perturbations, sound stretches, word repetitions, code-switching
  - Plus 1) longer duration of the *wh*-words;
    - 2) longer pauses after them;
    - 3) and a falling tone (.)
- Phonetic analyses using Praat focusing on
  - 1) the duration of the first *wh*-words;
  - 2) the duration of pauses after the first *wh*-words;
  - 3) the F0 contour of the first *wh*-words

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### Analysis 3: Phonetic realization of wh-questions in grammar searches

- Among 133 questions, 37 were excluded in the phonetic analyses because they had wh-words all in Korean
- 3 questions involving grammar searches were additionally removed in the analyses since the first wh-word was not fully projected (e.g., [we]) in 1 case and the first word was not the wh-word in the other 2 cases

### Analysis 3: Phonetic realization of wh-questions in grammar searches

- Frequency of the first wh-words used in 93 wh-questions

Wh-word	No grammar search	Grammar search
what	34	5
when	26	5
how	12	1
who	3	1
why	3	1
where	0	2

### Analysis 3: Phonetic realization of wh-questions in grammar searches

Figure 1. Duration of the first wh-words

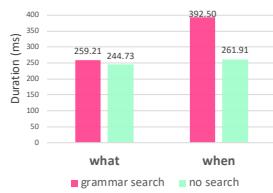
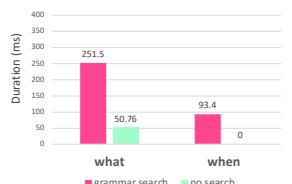


Figure 2. Duration of the pauses following the first wh-words



### Analysis 3: Phonetic realization of wh-questions in grammar searches

Figure 3. Normalized F0 contour of the first wh-words (for time-normalization of F0 contours, see Adank et al. 2004; Xu, 2013)

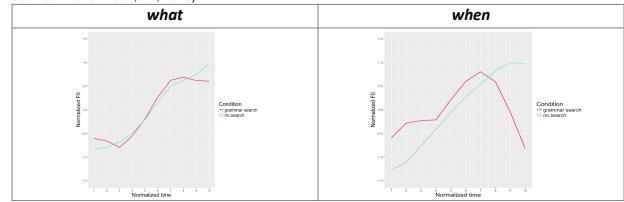
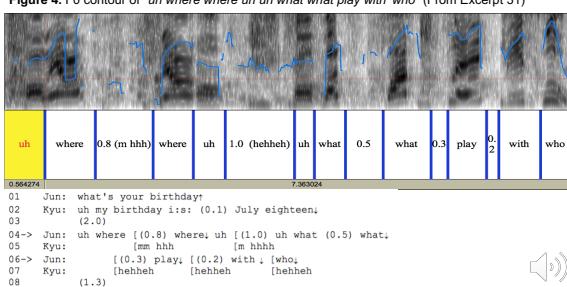


Figure 4. F0 contour of "uh where where uh uh what what play with who" (From Excerpt 31)



### Discussion & Conclusion

- The sequences involving Korean children's grammar searches for a wh-question during task performance in English displayed a distinct interactional structure, in which a grammar search was initiated and the search was resolved either within the same turn (24/26 TCUs in grammar searches for a wh-question) or in the next turn (2/26 TCUs in grammar searches for a wh-question) in order for the task to be completed

## Discussion & Conclusion

- These grammar searches for a *wh*-question were flagged by the long duration of a *wh*-word and the following pause, a falling tone along with perturbations (Schegloff, Jefferson & Sacks, 1977), and repetitions of a certain word (e.g., *wh*-word) (Kurhila, 2006)

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## Discussion & Conclusion

- Why do the Korean children frequently show such a difficulty in formulating a *wh*-question in English?
- Cross-linguistic difference in the strength of the *wh*-feature
  - Korean: weak → *Wh*-words are allowed to remain in situ and a multiple *wh*-question is almost always possible
  - English: strong → *Wh*-words should be overtly moved to the beginning of a question and a multiple *wh*-question is relatively restricted (e.g., ✓Who read what?, \*What did who read?; \*Where did he go how?; \*How did John go where?)

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## Pedagogical implications

- Most of the English sentences that learners encounter in EFL textbooks are declaratives
- EFL learners do not receive much exposure to *wh*-questions
- Teachers can address this issue by designing and implementing activities that encourage students to experiment with a wider range of *wh*-questions

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## Pedagogical implications

- Activity 1:** Introduce *wh*-questions as formulaic expressions
- Activity 2:** Give students practice with formulating a wide range of simple *wh*-questions in the frame of [*wh*-word] + [copula (e.g. *is*) + [demonstrative pronoun] (e.g., *What is this?*, *Who is this?*)
- Activity 3:** Give students pictures from a storybook and ask them to make questions on their own, such as *Where is he?*, *What is he doing?*, *Which person do you like?*
- Activity 4:** Ask students to interview each other about a familiar topic

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