A descriptive account of the developmental trajectory of L2 learners' use of hesitation phenomena

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Acknowledgments

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### Introduction

Well, i- i- in my own life I'd- I'd break it up in stages, when uh I had a difficult youth. Uh my father wasn't in the house, uh I've written about this, uh there- uh uh you know there were times where uh I've experimented with drugs, and I drank, uh yeah in my teenage years, a-nd wh- what I trace this to is uh a certain selfishness on my part, I- I was so obsessed with me, and you know the- the reasons that I might be dissatisfied, that I- I- w- I couldn't focus on other people. And uh y-you know I think the process for me of growing up was to recognize that it's not about me, it's about ...

it's about- absolutely, so- so- but- but look, you know, th- the uh whwhen I uh wh- when I find myself um taking the wrong step, I think a lot of the times it's because I'm trying to protect myself, instead of trying to do God's work. And- and- an- and so that I think is- is my own failure

### Overview

- Hesitation phenomena
  - Overview
  - HP in L2 speech
- Crosslinguistic Corpus of Hesitation Phenomena
  - Description
  - Results
- HP Developmental Trajectory
- Accessing the CCHP

# **Overview of types of HP**

- Long investigative history
  - Goldman-Eisler 1961, Levelt 1989, 1989, Maclay and Osgood 1959, Rochester 1973, inter alia
- Types
  - Silent pauses (SP): longer than 0.3-1.0 sec
  - Filled pauses (FP): uh/um in English, e-to/ano- in Japanese
  - Lengthenings: prolongation of one or more syllables
  - Repeats/restarts: repetition of a sequence of words
  - False starts: beginning of an utterance that is abandoned
  - Self-corrections: a sequence of words that repairs an immediately preceding sequence

# HP in L2 production

- Findings (Cucchiarini et al 2010, Kormos and Dénes 2004, Riazantseva 2001, Rieger 2003, Tavakoli 2011, Trofimovich and Baker 2006, 2007, Wu 2008)
  - SP duration and rate: higher proficiency → shorter and fewer silent pauses
  - FP rate: higher proficiency  $\rightarrow$  fewer filled pauses
  - Differences between read and spontaneous speech
- Related
  - Speech rate: higher proficiency  $\rightarrow$  faster rate

# HP in L2 production

- As a whole, work has been quite comprehensive.
- However, individual works are limited in that many do not take individual variation into account (cf., de Leeuw 2007).
- Gradually, more studies are including L1 observations.
  - Derwing et al (2009) and Cox and Baker-Smemoe (2012) observed that both speech rate and pause rate in L1 and L2 production are correlated.
- The current research is designed to contribute to greater understanding of the influence of L1 hesitation on L2 hesitation.

### **Research Questions**

- What is the relationship between hesitation patterns in L1 and L2 speech?
- What is the developmental trajectory of HP use in L2?

# Crosslinguistic Corpus of Hesitation Phenomena (CCHP)

- Participants: L2 learners of varying proficiency levels
- Elicitation tasks
  - Spontaneous speech: picture description, topic narrative
  - Reading aloud
  - Performed in both L1 and L2
- Demographic information: age, gender, L2 proficiency (standardized test scores, experience abroad, selfassessment)
- Annotation
  - Transcripts, HP, word & pause intervals
  - Two annotators, one checker

### **CCHP Results: Basic Statistics**

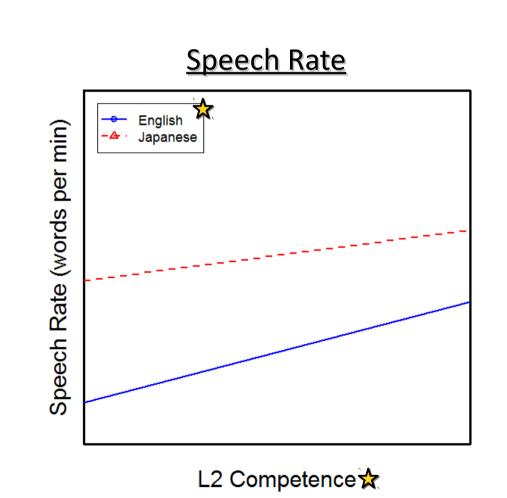
- Participants: 25 Japanese
   L1, English L2 speakers
- Full corpus
  - 42,972 words
  - 8 hrs, 9 min
- Spontaneous speech
  - 27,416 words
  - 6 hrs, 12 min
- Read speech
  - 15,556 words
  - 1 hr, 57 min

- 2,404 filled pauses
- 1,080 self-corrections
- 309 repeats
- ?? silent pauses
- ?? false starts
- ?? lengthenings

### **CCHP Results: Analysis**

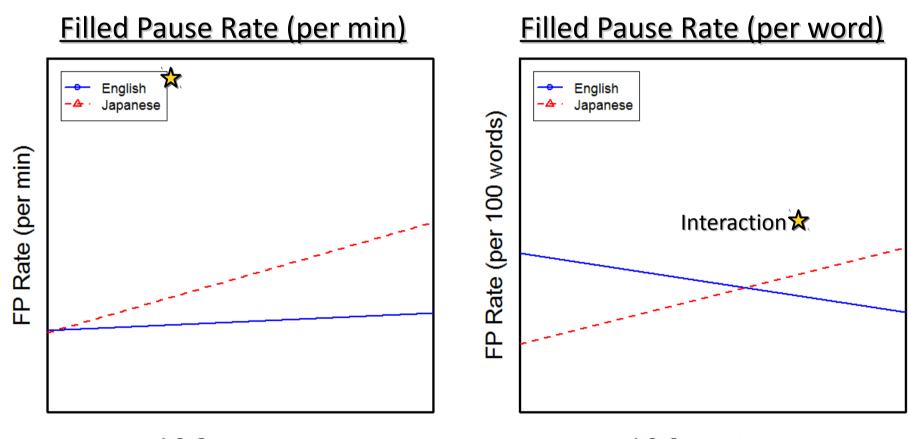
- Used spontaneous speech data only.
- Extracted counts for speech rate, filled pauses, repeats, and self-corrections.
- Performed repeated measures ANOVA
  - (between) L2 Proficiency as numerical variable, estimated from test scores, experience abroad, self-assessment
  - (within) Language as categorical variable: Japanese, English
- Used  $\alpha = 0.05$  for significance testing (marked with  $\Rightarrow$ ).

#### **CCHP Results: Speech Rate**



Consistent with Derwing et al (2009) and Cox and Baker-Smemoe (2012)

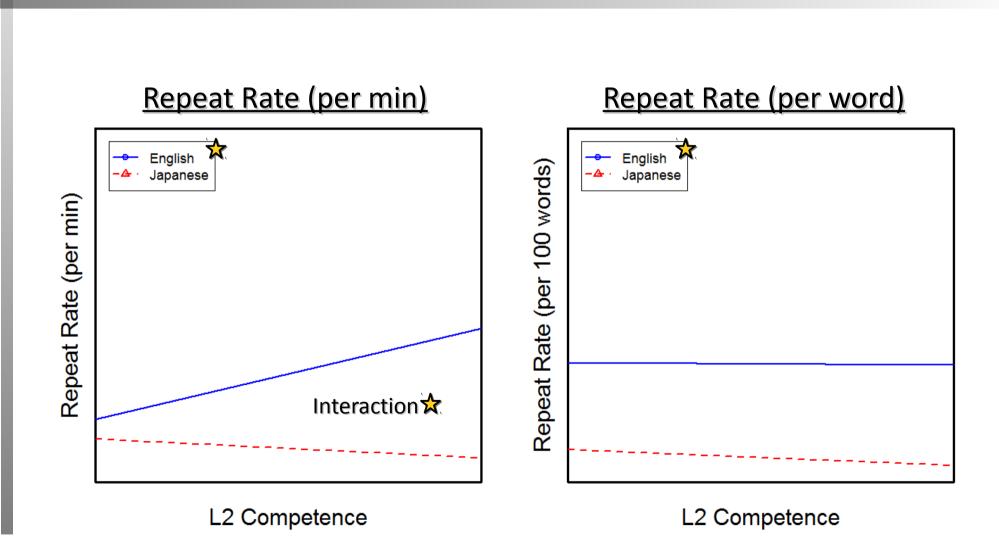
### **CCHP Results: Filled Pauses**



L2 Competence

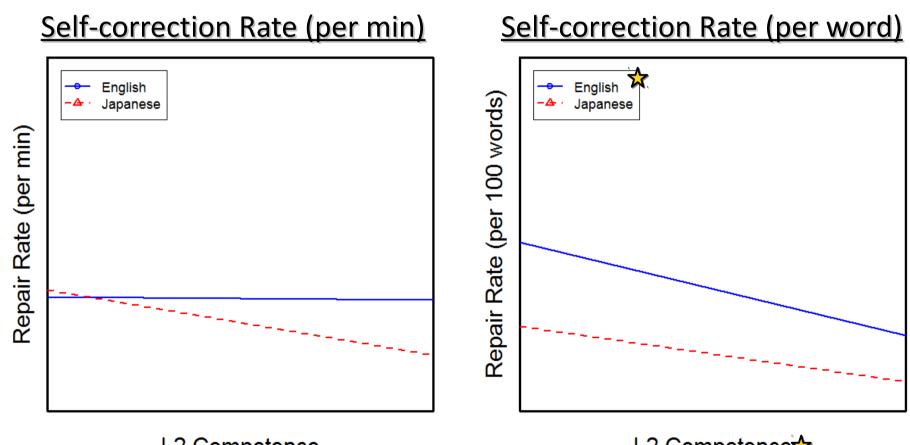
L2 Competence

### **CCHP Results: Repeats**



Repeats are uncommon in Japanese (Fox et al 1996)

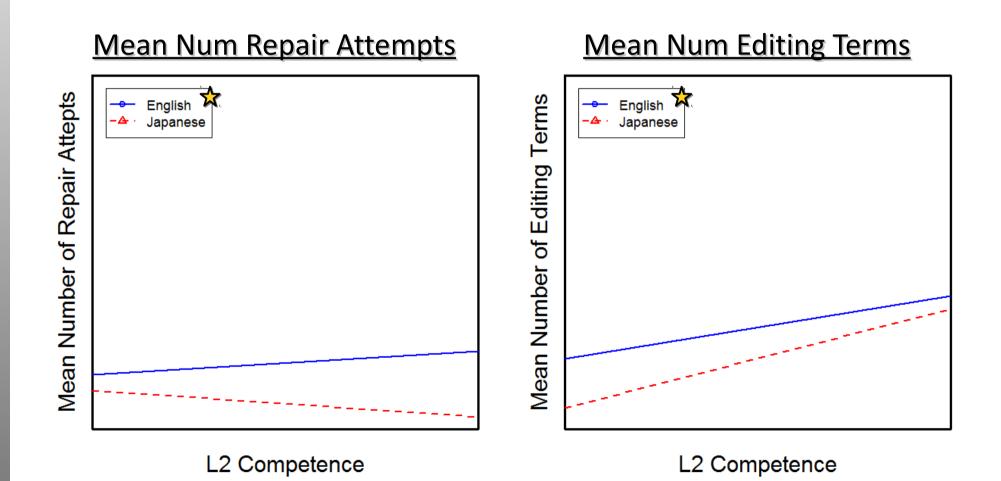
### **CCHP Results: Self-corrections**



L2 Competence

L2 Competence

#### **CCHP Results: Other Repair Measures**

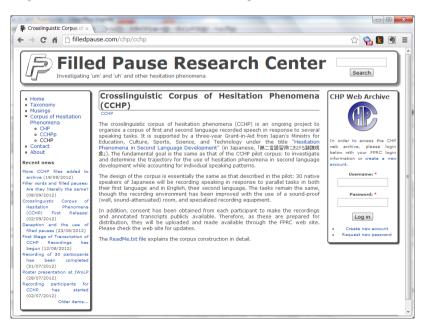


### Summary

- Recent studies of L2 speech performance are taking L1 speech performance more and more into account.
- The Crosslinguistic Corpus of Hesitation Phenomena allows us to account for L1 factors in the study of L2 hesitation patterns.
- Results show that learners' use of filled pauses change with increased proficiency, independent of L1 speech factors.
- Results show that speakers at all proficiency levels use more repeats.
- Results suggest that other aspects of L2 hesitation use correlate with that of L1.

# **CCHP Public Corpus**

- Assembling a larger (N=30), public version of the Crosslinguistic Corpus of Hesitation Phenomena is ongoing.
- When complete, audio files and annotated transcripts will be available for free download.
- Some files are already available for download: http://www.filledpause.com/chp/cchp



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CCHP     Browse files     Download	CCHP full corpus (audiofiles and transcriptions)	p102-p104, p106-p108	Cchp_20120901.zip	522.06 MB	2012/09/02
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About	CCHP files for English speech	p102-p104, p106-p108	Chp_english.zip	273.99 MB	2012/09/01
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filler words and filled pauses: Are they literally the same?	CCHP files for Topic Narrative	p102-p104, p106-p108	Cchp_topic-narrative.zip	199.26 MB	2012/09/02
(08/09/2012) Crosslinguistic Corpus of Hesitation Phenomena	CCHP files for Reading Aloud	p102-p104, p106-p108	Cchp_reading-aloud.zip	124.43 MB	2012/09/02
(CCHP) First Release! (02/09/2012)	CCHP files for Picture Description	p102-p104, p106-p108	Cchp_picture-description.zip	198.34 MB	2012/09/02
Deception and the use of filled pauses (23/08/2012)	By file type				
First Stage of Transcription of	Description	Coverage	File	Size	Updated
CCHP Recordings has begun (12/08/2012) Recording of 30 participants	CCHP audiofiles in mp3 format	p102-p104, p106-p111, p113-p114	Cchp_mp3.zip	100.75 MB	2012/09/19
has been completed (31/07/2012) Poster presentation at IWoLP	CCHP text transcripts (no annotation)	p102-p104, p106-p111, p113-p114	Chp_bxt.zip	34.06 KB	2012/09/19
(28/07/2012)		p102-p104,			

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