

# A study on Code-Switching in Korean Deaf

HYUNHWA LEE

# Chapter 1. Research Purpose

## Linguistics researches on Korean sign language

- There have been researches on morphology, morphosyntax, and

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The purpose is to research on Korean sign language and its code-switching in responsive method of Hangeul (Korean letter) to find out the existence of code-switching and phenomena in order to prevent occurrence of code-switching in collection of further research data, and to collect research data in Korean sign language rather than signed Korean, and to establish foundational data for right Korean sign language education.

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## Researches on code-switching

- Code-switching research in Korea has started recently, but mainly about spoken language and there's no code-switching research on Korean sign language.

# Chapter 2. Introduction

- **Signed Korean:**

The Korean language expressed by hands in order to arrange Korean sign language with Korean grammars (Jin-seok Jang, 2006).

- **Code-switching:**

Grosjean (2010) defines 'code-switching' as an alternate use of two languages, where the speaker switches to another language for a word, phrase or whole sentence before returning to the original language.

<엄마, 이것 봐요. How Wonderful it is, isn't it?>

<정말 I am happy>

# Chapter 2. Introduction

- **Code-blends :**

Emmorey, Borinstein, and Thomson (2005).

common amongst unimodal bilingual speakers, bimodal bilinguals produced.

Code-blends they defined as a condition in which ASL signs are produced simultaneously with English words. Code-blending can then be interpreted then as simultaneous mixes, as opposed to the sequential mixing found in code-switching.

# Chapter 3. Literature Review

## Code-switching

Lucas & Valli(1989)

- The code-switching by Deaf people is sensitive according to the hearing level besides the other person's sign language skills.
- When they talk with a person who has excellent sign language skills and then recognize the person is a hearing, they switch code and make hand gestures following the rules of spoken language.

Lucas & Valli(1999)

- The code-switching American sign language occurs in the invented system of codes by hand gestures of English such as ASL (American Sign Language, SEE1 and SEE2)

Woodward(1980)

- Deaf people don't use American sign language when they meet a hearing person and there's no chance for the hearing person to learn American sign language.
- In the end, hearing people are excluded from close encounters among Deaf people. They get a mark easily distinguished from Deaf group as they don't have the skills of American sign language.

# Chapter 3. Literature Review

## Code-switching

Peter C. Hauser(2000)

- The code-switching functions found from ASL and Cued English are similar to those in the code-switching of voice language.

- In ASL, repeating a sign two to three times creates a durational inflection that can be added to some root morphemes to show that an event is recurring.
- During Cued English and when they can't think of a relevant word, they code-switch to ASL. : “but I do TOAST and butter and jelly almost everyday”
- Finger spelling\_ to communicate a proper noun accurately: “MINNESOTA WON AND. . AND. . Timberwolves lost because. . ”

# Chapter 3. Literature Review

Code-switching

Jae-oh Choi  
(2006)

- In 'The research on code-switching of Korean and English bilingual language speakers', he classified 14 speaking types of code-switching with morphosyntax, and the most frequent types are combination with verbs in English and 'hada(하다)' in Korean.

# Chapter 4. Methodology



# Chapter 4. Methodology

- Participants

Deaf (Joon-woo Lee, 2002; Reagan, 1985; Padden & Humphries, 1998; Jeong-hyun Park, 2012 cited at second hand)

- It means a 'Deaf' born under Deaf parents or grow up in a Deaf community or Deaf culture as a cultural member while using sign language as the first language (Emphasizing sign language as a mother tongue and the background of growing up)

# Chapter 4. Methodology

- Participants

Group A:  
Participants know  
the other person is  
whether a Deaf or  
a hearing.

- Do Deaf people show code-switching simply as they know the other person is a hearing while not knowing the level of sign language skills?

Group B:  
Participants don't  
know the other  
person is whether  
a Deaf or a  
hearing.

- Is there code-switching when they participated not knowing the other person is a Deaf or hearing but recognize he or she is a hearing?

# Chapter 4. Methodology

- Participants( Group A)

Group	Structure	Sex	Age	Education at Deaf school	Deaf family
Set 1	Participant1	Male	20s	Graduated from a Deaf school	None
	Deaf	Female	20s	Graduated from a Deaf school	-
	Hearing (Sign language interpreter)	Male	20s	-	-
Set 2	Participant2	Female	20s	Graduated from a Deaf school	None
	Deaf	Female	20s	Graduated from a Deaf school	-
	Hearing (Sign language interpreter)	Female	20s	-	-

# Chapter 4. Methodology

- Participants (Group B)

Group	Structure	Sex	Age	Education at Deaf school	Deaf family
Set 1	Participant1	Male	40s	Graduated from a Deaf school	Deaf spouse, Deaf children
	Deaf	Male	20s	Graduated from a Deaf school	-
	Hearing (Sign language interpreter)	Female	20s	-	-
Set 1	Participant2	Female	30s	Graduated from a Deaf school	Deaf siblings, Deaf spouse, Deaf children
	Deaf	Female	20s	Graduated from a Deaf school	-
	Hearing (Sign language interpreter)	Male	20s	-	-

# Chapter 4. Methodology

## • Data Collection Techniques

After installing a camera, the research walks out from the recording place

Receive a written consent for the recording from every participant

Before recording, show the picture story to Participant 1 twice.

The recording starts, and the Deaf Participant 1 explain about the picture story to the Deaf Speaker 1 once, and then have a free conversation. (Starts conversation while not knowing the other person is a Deaf or a hearing)

After Deaf Speaker 1 leaves, and a hearing Speaker 1 enters, explain the same picture story and have a free conversation.

Process the same as Set 2

Get 40 minutes of vides from 1 Set (20 minutes from Deaf-Deaf, 20 minutes from Deaf-hearing)  
Total 80 minutes of video from Set 1 and 2

Receive a written consent for the recording from every participant

Before recording, show the picture story to Participant 1 twice.

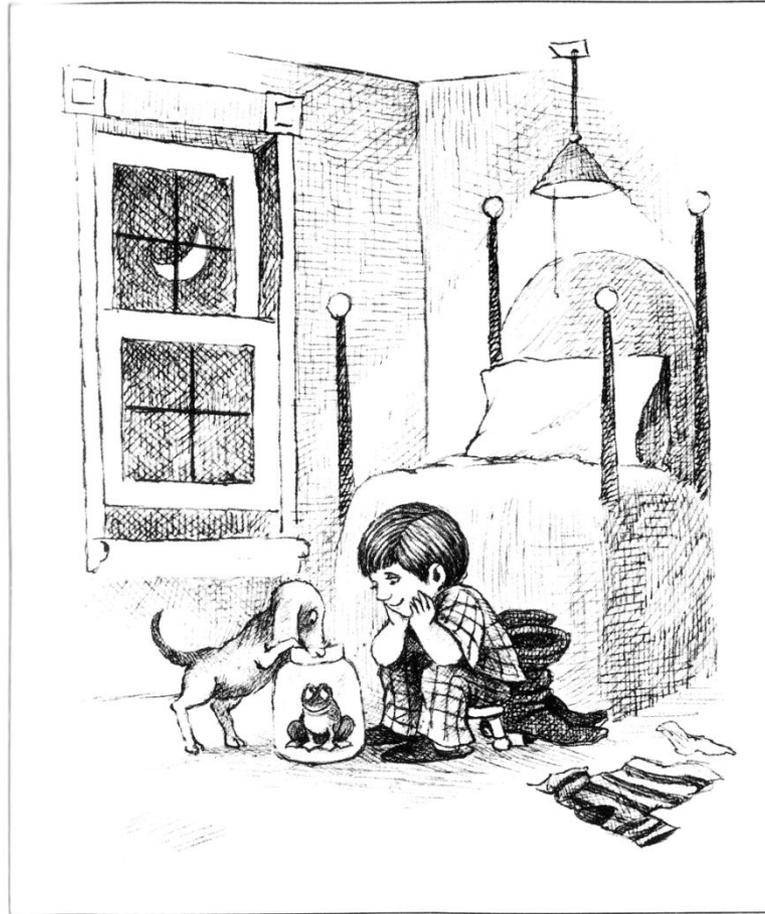
The recording starts, and the Deaf Participant 1 explain about the picture story to the Deaf Speaker 1 once, and then have a free conversation. (Starts conversation while knowing the other person is a Deaf or a hearing)

After Deaf Speaker 1 leaves, and a hearing Speaker 1 enters, explain the same picture story and have a free conversation.

Process the same as Set 4

Get 40 minutes of vides from 1 Set (20 minutes from Deaf-Deaf, 20 minutes from Deaf-hearing)  
Total 80 minutes of video from Set 1 and 2

# Chapter 4. Methodology



“Frog, Where Are You?(Mayer, 1969)”

# Chapter 4. Methodology

- transcription

ELAN - 원서연\_백수정\_그림설명\_전사.eaf

File Edit Annotation Tier Type Search View Options Window Help

Grid	Text	Subtitles	Lexicon	Audio Recognizer	Video Recognizer	Metadata	Controls
▼ 코멘트							
>	Nr	Annotation	Begin Time	End Time	Duration		
	1	입모양 (신현지 담화 초기 비교)	00:00:12.089	00:00:13.456	00:00:01.367		
	2	정정, 백>원, '영상통화'로 수화 잘못사용하자 그대로 사용해서보여준후 바른수...	00:00:33.772	00:00:35.825	00:00:02.053		
	3	지연(9개 어휘 6.3초), 입모양, 한국어 표현 수화를 읽다'	00:00:36.688	00:00:42.900	00:00:06.212		
	4	KSL/V+K/V	00:00:53.010	00:00:55.160	00:00:02.140		
	5	KSL/V+K/V	00:01:05.415	00:01:07.015	00:00:01.600		
	6	분열문: 무엇+하다?(H결합형), 한국어 표현, 입모양	00:01:09.010	00:01:09.860	00:00:00.850		
	7	부연설명, 지문자, 반복, 입모양 백>원 '방금수화가 뭐냐'고 묻자 개구리 설명.	00:01:32.300	00:01:35.700	00:00:03.400		
	8	쉬운 어휘로 교체 설명, 입모양없다가분형 사용, 신현지때는 다른 수화 사용.	00:01:43.199	00:01:43.398	00:00:00.199		
	9	사물지시	00:01:50.555	00:01:51.798	00:00:01.243		
	10	한국어 문법, 입모양	00:02:05.197	00:02:07.117	00:00:01.920		
	11	주축에서 한국어의 형용사 '같다'	00:02:37.383	00:02:38.281	00:00:00.898		
	12	지문자 사용	00:02:45.693	00:02:46.799	00:00:01.106		
	13	KSL/V+K/V, 입모양	00:03:39.358	00:03:40.641	00:00:01.283		
	14	한국어접속사 사용, 입모양, 지연(6.5초)	00:03:54.931	00:04:01.636	00:00:06.705		
	15	한국수화 표현으로 2차 설명함. (1+2차 설명, 총 10.5초)	00:04:03.278	00:04:06.528	00:00:03.250		
	16	1차 주어 확인 총 6.5초 소요	00:04:10.721	00:04:17.222	00:00:06.501		

00:02:44.616 Selection: 00:02:37.383 - 00:02:38.281 898

Selection Mode Loop Mode

Timeline: 30.000 00:01:31.000 00:01:32.000 00:01:33.000 00:01:34.000 00:01:35.000 00:01:36.000 00:01:37.000 00:01:38.000

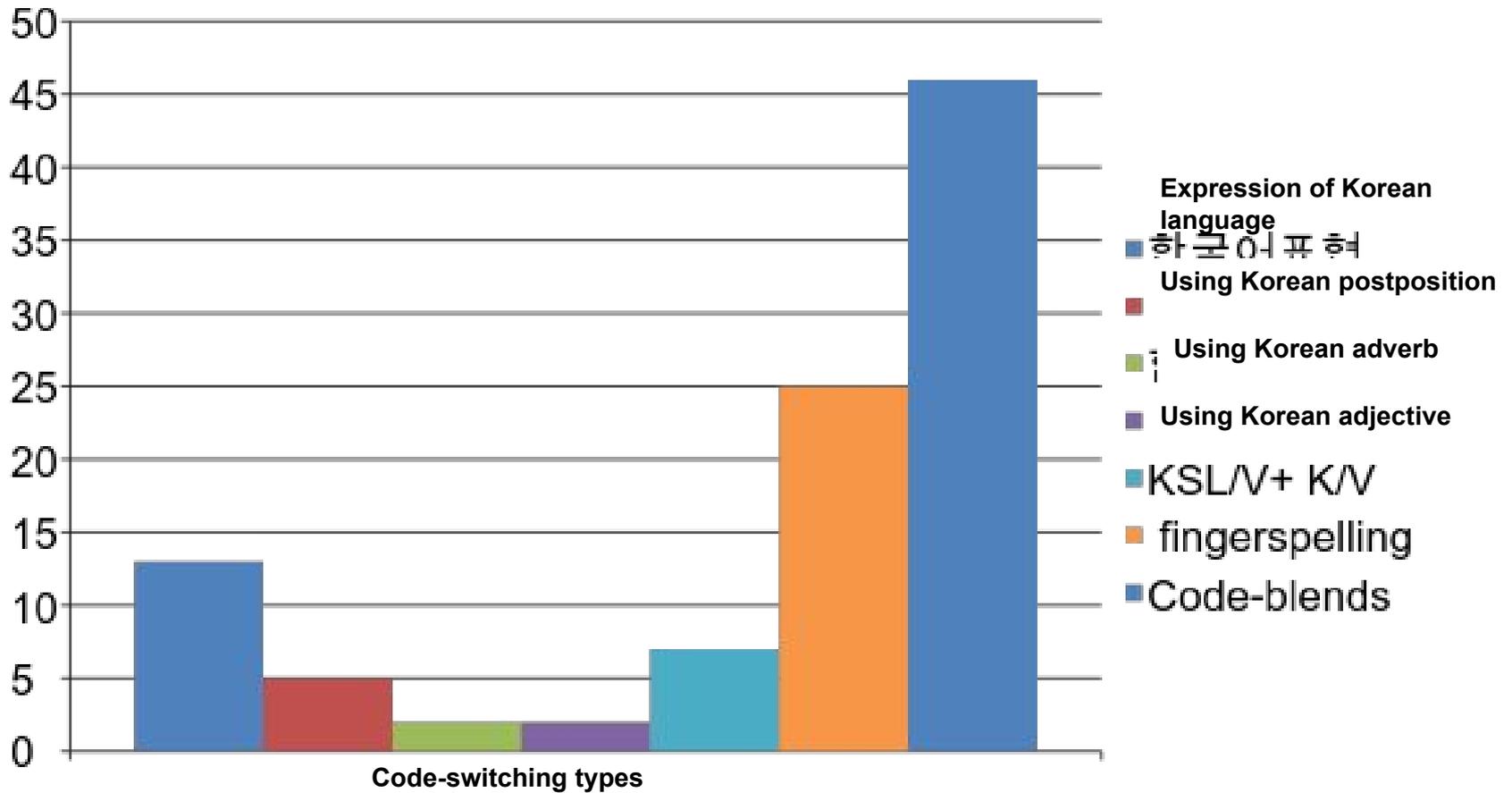
Tier: default [0], 문장 [0], GLOSS(R) [59], GLOSS(L) [4], 입모양 [27], 코멘트 [16]

Annotations in GLOSS(R) tier: 개구리, 뛰다(jump), 개구리(지), 개구리

Annotations in GLOSS(L) tier: 개구리, 개구리, 개구리, 개구리

Annotation in 코멘트 tier: 7. 부연설명, 지문자, 반복, 입모양 백>원 '방금수화가 뭐냐'고 묻자 개구리 설명.

# Chapter 5. Results



# Chapter 5. Results

## (1) Korean expression

'You understood my sign language well.'

Deaf-Deaf: [Do well+know my everything]

Deaf-Hearing: [Do well+*read*]

## (2) Korean speech part\_Postposition

Deaf-Deaf : [Little

boy+again+dog+together+there+house+return]

Deaf-Hearing : [dog+~*with*+little

boy+together+return+house+return+go+end]

# Chapter 5. Results

## (2) Korean speech part\_Postposition

‘There was a stretching branch so he walked and stood on it. Suddenly, a deer came out from below. The little boy was standing on an antler of the deer not a tree branch.’

Deaf-Deaf : [Frog+find+something came out from below while standing on it.]

Deaf-Hearing : [a stretching branch+ there+stand+**but**+something came out from below +deer]

# Chapter 5. Results

## (3) Korean speech part\_adjective

‘Perhaps there’s a frog.’

Deaf-Deaf : [There+perhaps+frog+jump in]

Deaf-Hearing : [There+is+*maybe*]

## (4) Korean sign language verb+ Korean supplementary word

‘Now I will start’

Deaf-Deaf : [I+start]

Deaf-Hearing : [I+start+*do*]

# Chapter 5. Results

(4) Korean sign language verb+ Korean supplementary word

‘A branch stretches.’

Deaf-Deaf : [A branch stretches]

Deaf-Hearing : [A branch stretches+ *There is*]

\*[There is (있다)] gets code-blends as ‘로 ‘있어’ with the mouse shape.

# Chapter 5. Results

## (5) Finger spelling

Deaf-Hearing : [Life+~of+skill+the  
best+life+*of+master*]

(As the hearing don't understand a TV program 'The master of life',  
expressed again with finger spelling)

# Chapter 5. Results

- Mentioning code-switching

Group A Participant2 says “I express in sign language for the other person to understand with consideration.”

Mentioning “I express with consideration of the person who can’t do sign language well.”

# Chapter 5. Results

## (6) Code-blends

Deaf-Deaf : [Understand]

Deaf-Hearing : [Understand + understand]\_

KSL signs are produced simultaneously with Korean words.

- Group A: Starts knowing the other person is a hearing.  
Code-blends clearly increased during Deaf-hearing conversation than Deaf-hearing conversation.
- Group B: The participants in Set1 showed less than 5% of code-blends when thinking the other person is a Deaf, but increased by 80% when knowing the he or she is a hearing.

# Chapter 6. Discussion

Is there code-switching exist in KSL-signed Korean? In which form it occurs?



The same types in group A and group B (1) Code-switching with Korean speech part  
(2) Using with finger spelling. (3)Korean expression



The participants in group A knew the other person is a hearing (not knowing the hearing person's sign language skills) but did code-switching from the start.



The participants in group B didn't do any code-switching before knowing the other person is a hearing , but started code-switching actively after knowing he or she was a hearing. B

# Chapter 4. Discussion

Code-blending occurred higher rate than code-switching.

The Deaf participants in this research showed diverse speaking strategy such as slowly, hold, checking the subject, correcting the word order as well as code-switching in order to help understanding the picture story for the hearing.

It is not possible to generalize the markedness of KSL-Signed Korean within specific communities based on these very limited data.

The researcher will interview participants to find out the causes of code-switching and supplement the research.

# REFERENCES

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