

Perspectives of Tonal Typology on Tonal Changes in Kyungsang Korean

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About me

- Seoul Korean intonation (PhD, Univ. of Tsukuba, 2005)
- Kyungsang Korean tone and intonation (Postdoc at Korea Univ. and Edinburgh Univ., 2006-2009)
 - Interplay between lexical tone and intonation
 - Variation and change
- After returning to Japan, I almost discontinued my research on Korean prosody.
- My latest project:
 - Voice quality of Japanese anime: Utsugi et al. (2019, ICPHS), Ota et al. (2021, EAJS), etc.
 - Hangul learning in Japanese learners of Korean from the developmental dyslexia perspective: Utsugi et al. (July 23, 2022, 국제한국어교육학회)

Why I discontinued my research on Korean prosody

- Large variations in Kyungsang Korean prosody, which also appears to be undergoing significant change
- To proceed with this research, we need:
 - Fieldwork to collect a large amount of data
 - The theoretical perspectives of phonology and variationist sociolinguistics
- Limitations that apply to me:
 - As a foreign researcher living outside Korea, it is difficult for me to conduct a large-scale fieldwork-based study

Today's talk

Aim: To elucidate relevant theoretical perspectives
(not to present my own research results)

Contents:

1. Tonal change-in-progress in Seoul and Kyungsang Korean
2. Typology of tonal systems in Japanese dialects
3. Kyungsang Korean
 - Tonal systems
 - HHL and LHHL
 - Regional differences
4. Concluding remarks

Tonal change-in-progress in Seoul and Kyungsang Korean

Consonantal effects

- Seoul Korean
 - Consonants at the beginning of accentual phrases (AP) affect tone (e.g., Jun 1996)

오월에는 /owɾlenwɾn/

LHLH (AP begins with a sonorant or lenis)

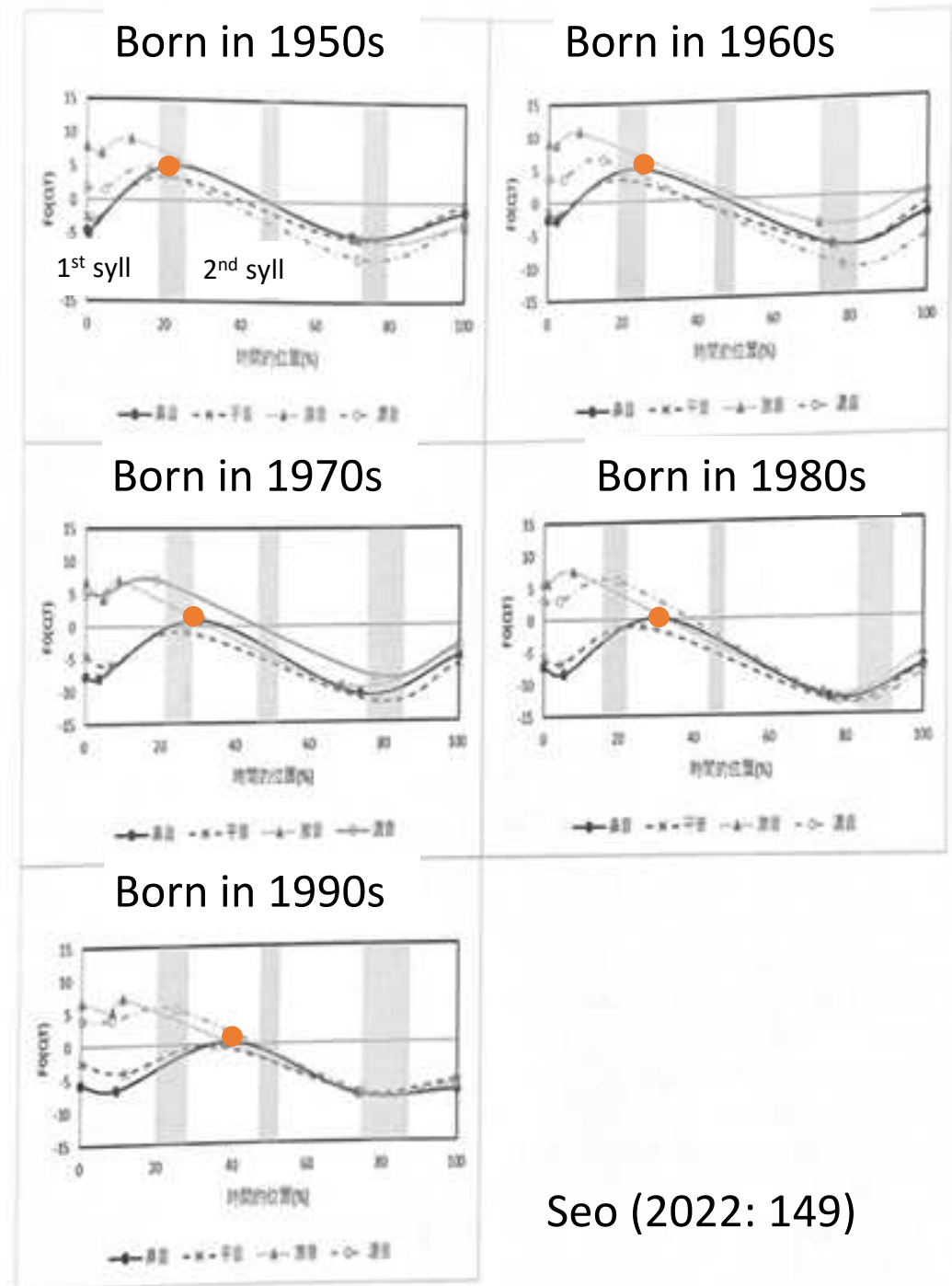
팔월에는 /pʰalwɾlenwɾn/

HHLH (AP begins with aspirated or fortis)

- Kyungsang Korean
 - Lexical tonal system
 - (In the younger generation,) the consonantal effect on tones is similar to Seoul Korean (Kenstowicz & Park 2006)

Generational difference of peak delay (Seo 2022)

- HL words
- Solid lines: words beginning with nasals
- AP-initial L tone pushes lexical tonal peak backward



Seo (2022: 149)

【図 41】世代別 HL 類型の F0 グラフ

Research questions

- How does the recent tonal change lead to the reorganization of the tonal system in Kyungsang Korean?
- How does such a reorganization affect phonological phenomena such as compound tone rules?



Perspectives of lexical tonal systems
in Japanese dialects

Typology of tonal systems in Japanese dialects

(i) Tokyo

Pitch patterns in citation form

H: high pitch

L: low pitch

(): particles

1 mora	2 morae	3 morae
		HLL(L)
	HL(L)	LHL(L)
H(L)	LH(L)	LHH(L)
L(H)	LH(H)	LHH(H)

Phonological analysis

acute mu: accent (or accent kernel)

1 mora	2 morae	3 morae
		acute mu mu mu
	acute mu mu	mu acute mu mu
acute mu	mu acute mu	mu mu acute mu
mu	mu mu	mu mu mu

Accent is assumed to be present just before the pitch fall

(ii) Kagoshima

Pitch patterns in
citation form

H: high pitch

F: falling pitch

L: low pitch

1 syll	2 syll	3 syll
F	HL	LHL
H	LH	LLH

Type A: peak on the penultimate syllable

Type B: peak on the final syllable

Type A:

sakana LHL 'fish'

sakana-ga LLHL 'fish-NOM'

Sakana-kara LLLHL 'from the fish'

Type B:

inoti LLH 'life'

inoti-ga LLLH 'life-NOM'

inoti-kara LLLLH 'from life'

(Kubozono
2012:1407)

Tokyo and Kagoshima

Tokyo

The no. of patterns increases
with length

Multi-pattern accent (Uwano 1999)

Accent (Hayata 1999)

Kagoshima

A constant number of patterns,
regardless of the no. of syllables

N-pattern accent (Uwano 1999)

Word tone (Hayata 1999)

(iii) Kyoto/Osaka

H: high pitch
F: falling pitch
R: rising pitch
L: low pitch

Kyoto/Osaka

		1 mora	2 morae	3 morae
H-beginning	Accented			HLL
		F	HL	HHL
	Unaccented	H	HH	HHH
L-beginning	Accented			LHL
			LF	LLH
	Unaccented	R	LH	LLH

Word tone + Lexical pitch accent (Hayata 1999)

Word-level typology and compound tone rules: (i) Tokyo Japanese

pé.ru.sya + né.ko → pe.ru.sya-né.ko ‘Persian cat’

tyoo.kyó.ri + bá.su → tyoo.kyo.ri-bá.su ‘long-distance coach’

sák.kaa + kú.ra.bu → sak.kaa-kú.ra.bu ‘soccer club’

yá.ma.to + na.dé.si.ko → ya.ma.to-na.dé.si.ko ‘Japanese lady’

(Kubozono 2012:1409)

Basic rule: The accent on the final member is preserved



Word-level typology and compound tone rules: (ii) Kagoshima Japanese

PE.kin + GÒ → pe.KIN-go ‘Mandarin Chinese, standard Chinese’

PE.kin + dai.ga.KU → pe.kin-dai.GA.ku ‘Beijing University’

ni.HON + GÒ → ni.hon-GO ‘the Japanese language’

ni.HON + dai.ga.KU → ni.hon-dai.ga.KU ‘Nihon University’

(Kubozono 2012:1409)

A + A → A

A + B → A

B + A → B

B + B → A

Basic rule: The initial member’s tonal type determines the compound’s tonal type



Word-level typology and compound tone rules: (iii) Kyoto/Osaka Japanese

tyuUka + RYOori → tyuukaRYOori ‘Chinese food’

FURAnsu + RYOori → FURANSURYOori ‘French food’

GENJI + MONOGAtari → GENJIMONOGAtari ‘The tale of Genji’

iSOPpu + MONOGAtari → isoppumonoGAtari ‘Aesop’s Fables’

(Hayata 1999:41)

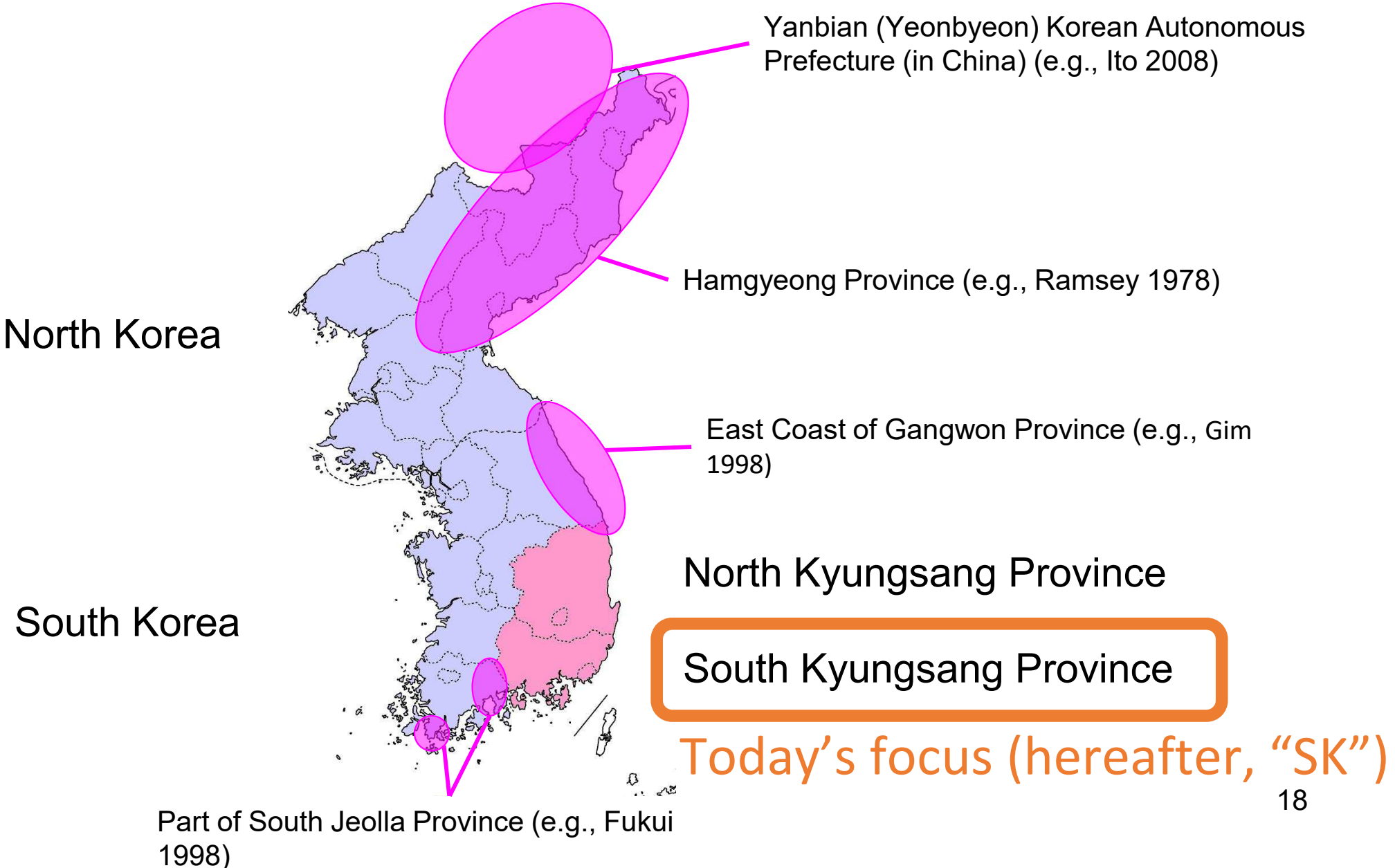
Basic rule:

1. The first member’s initial edge tone determines that of the compound
2. The accent on the final member determines the accent on the compound



Kyungsang Korean

Lexical tone (in a broad sense) in Korean



Eastern SK dialects

Haman (함안) (Kang 2017: chap.3)

# of syllables		
1	2	3
		HLL(L)
	HL(L)	LHL(L)
H(L)	LH(L)	LHH(L)
H(H)	HH(L)	HHL(L)
L(H)	LH(H)	LHH(L)

H: high pitch
L: low pitch

Lexical pitch accent

Word tone

(): Postpositional particle

A hybrid system of lexical pitch accent (Tokyo type) and word tone (Kagoshima type)
Cf. a similar analysis for Masan/Changwon Korean in Utsugi (2007)

Compound tone rules in Eastern SK dialects

Haman (Kang 2017: chap.3)

- When the initial member of a compound is originally an accented word (except for a final-syllable accented word):
HL + HL → HLLL Keep the accent on the initial member.

Similar to Kagoshima?

- When the initial member of a compound is originally a final-syllable accented word:
LH + HL → LHHL Keep the accent on the final member.

Similar to Tokyo

- When the initial member of a compound is originally a word-tone word:
HH + HL → HHLL Keep the initial member's word tone.

Similar to Kagoshima

Compound tone rules in Eastern SK dialects: Summary

- In a hybrid tonal system, the compound tone rules are also hybrid.
- Tonal class affects compound tone rules.
- This phenomenon is not entirely comparable to Japanese dialects.

Pitch realization in accented and word-tone words

- Gim's (1970) impressionistic analysis: the pitch realizations of word-tone words were different from those of accented words
 - 바람 /palam/ MH vs. 사람 /salam/ LM (Gim 1970)
- Cf. Chang (2007) makes the opposite description based on acoustic analysis: /palam/ LM vs. /salam/ LH

[Correction of my abstract]



In my abstract, I wrote that Gim (1970) and Chang (2007) made a similar description. This was incorrect.

- Lee & Jongman's (2015) acoustic analysis: No significant differences were found between the two classes in older and younger generations

Accented LH and word-tone LH in isolation

- Phonetically similar, but not identical?
- Incomplete neutralization? (Fourakis & Iverson 1984, Warner et al. 2004)
- Variation and change?

Confusion of tonal classes (Utsugi 2009)

- Accented LH vs. word-tonal LH
- Theoretically extrapolated classical rule
 - Accented LH + LH → LHHH (or LHLL) 
 - Word-tonal LH + LH → LHHL 
- Data collected from the younger generation
- Results: LHHH, LHLL, and LHHL patterns are found regardless of the original tonal class.

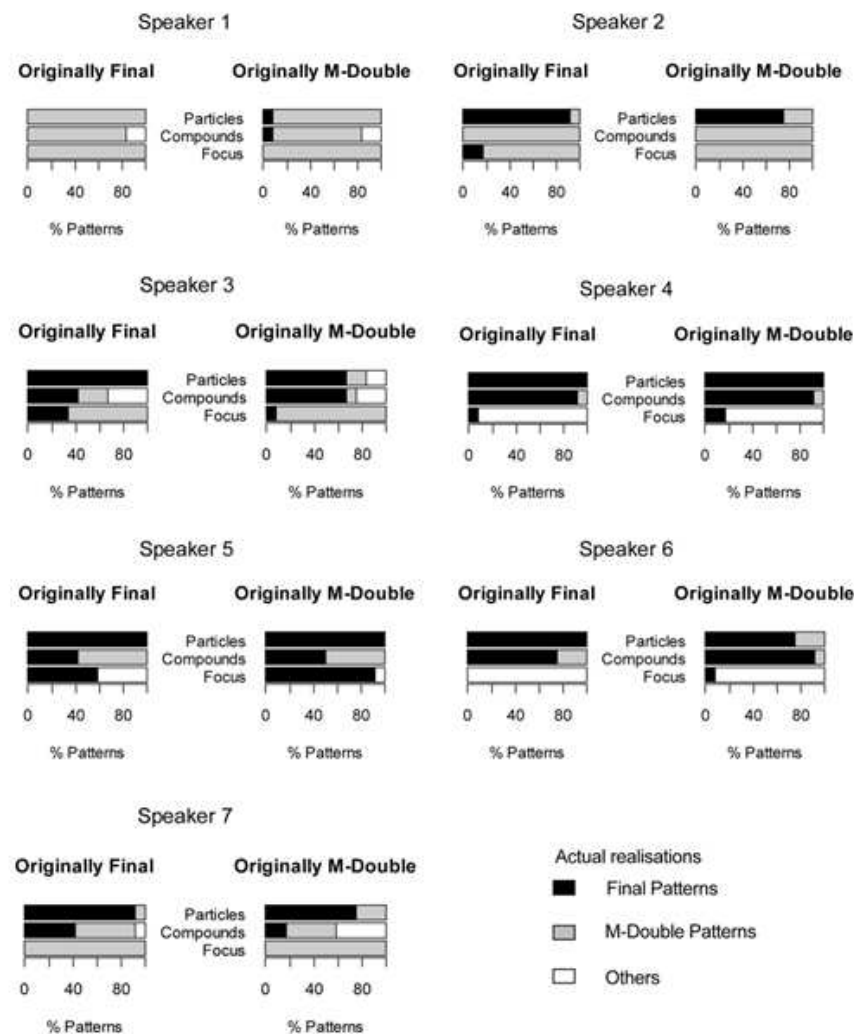
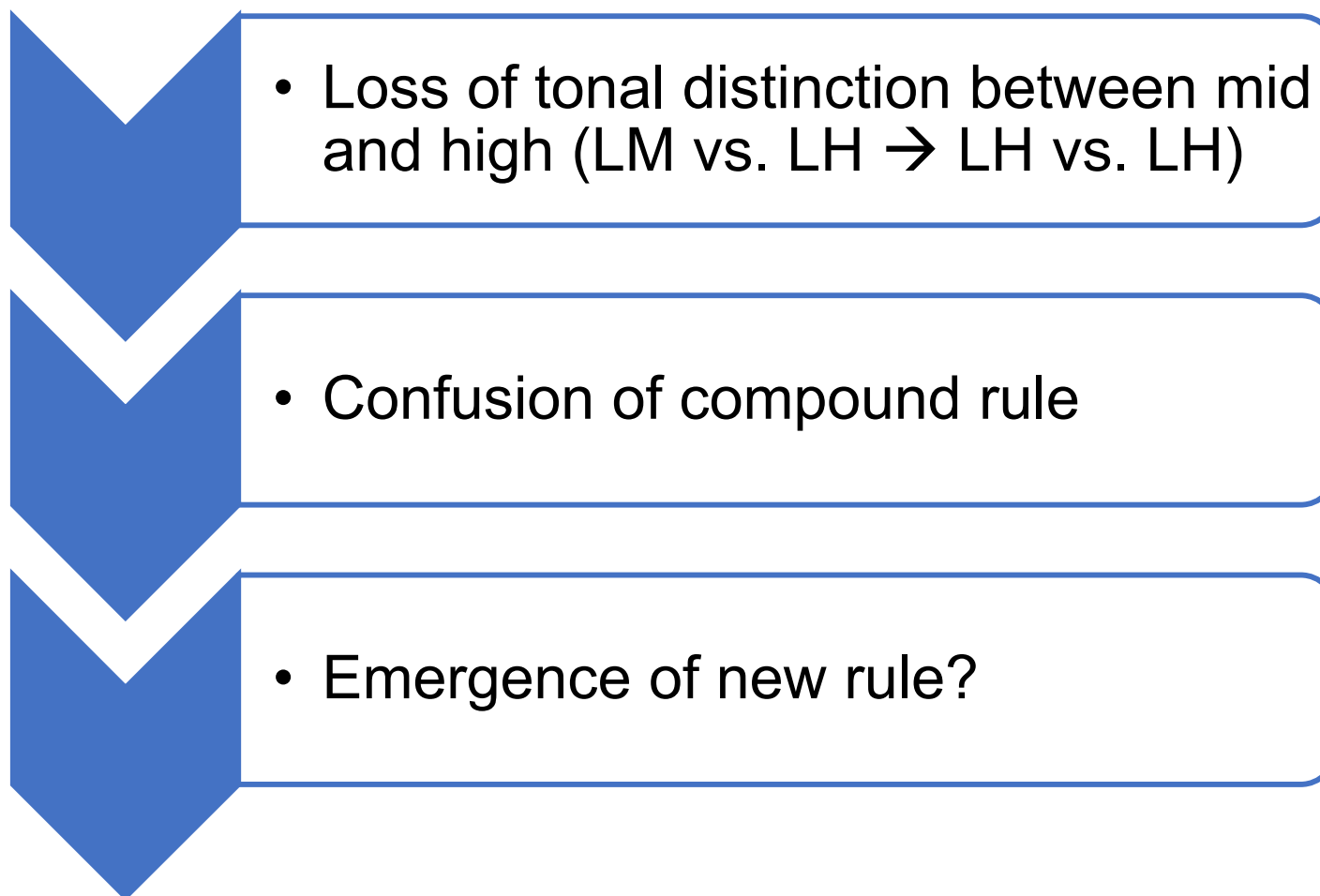


Figure 1. Results based on auditory judgements.

Confusion of tonal classes (cont.)

Interpretation

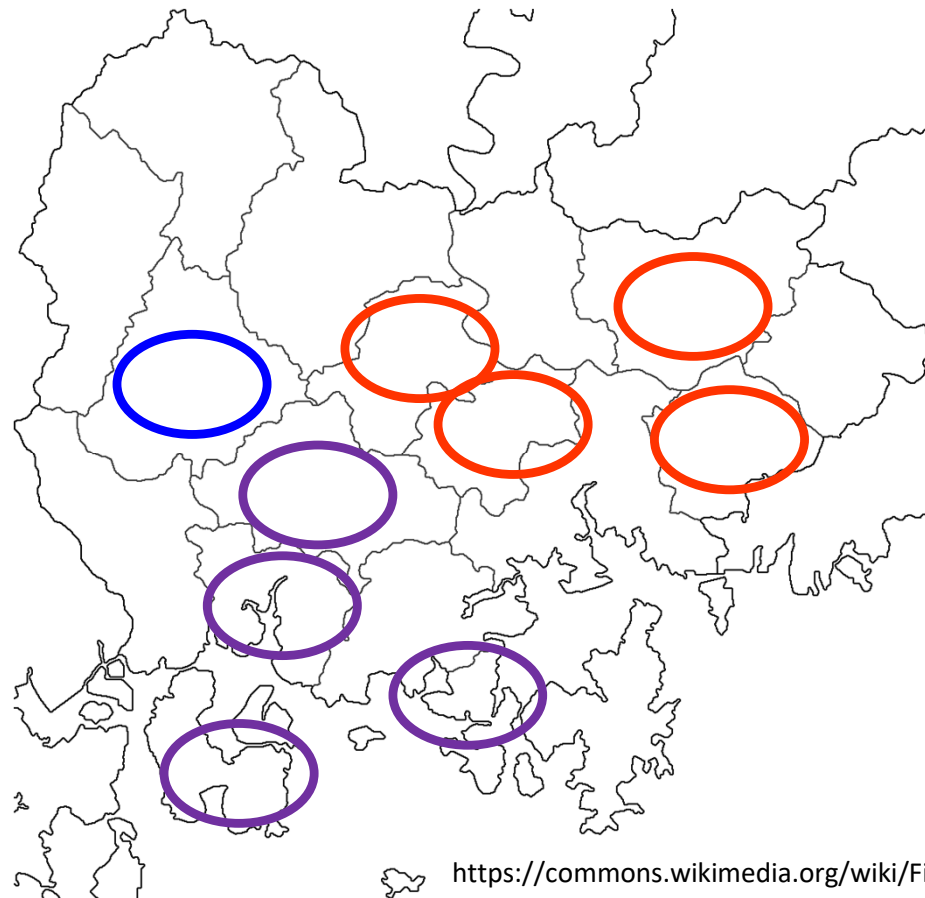


Regional differences

Number of tonal patterns in trisyllabic words in SK (based on Kang 2017)

3 patterns
(Sancheong)

4 patterns
(Tongyeong, Jinju,
Sacheon, Namhae)



5 patterns
(Milyang, Gimhae,
Uileyong, Haman)



Sancheong (산청) dialect (Kang 2017: chap.8)

# of syllables		
1	2	3
H(L)	HL(L)	HLL(L)
H(H)	HH(L)	HHL(L)
L(H)	LH(L)	LHH(L)

H: high pitch

L: low pitch

(): Postpositional particle

Citation forms and particles in Sancheong

고양이	/kojaŋi/	LHL
고양이가	/kojaŋika/	LHHL
고양이까지	/kojaŋik*aci/	LHHHL

Cf. Haman

상안치	/saŋanc ^h i/	LHL
상안치가	/saŋanc ^h ika/	LHLL
상안치꺼정	/saŋanc ^h ik*əcəŋ/	LHLLL

Cf. Kagoshima

Compound tone rules in Sancheong

- HL + any disyllabic words → HLLL
- HH + any disyllabic words → HHLL
- LH + any disyllabic words → LHHL
- The initial member decides the compound's tonal class.
→ Similar to Kagoshima

Summary of Sancheong dialect

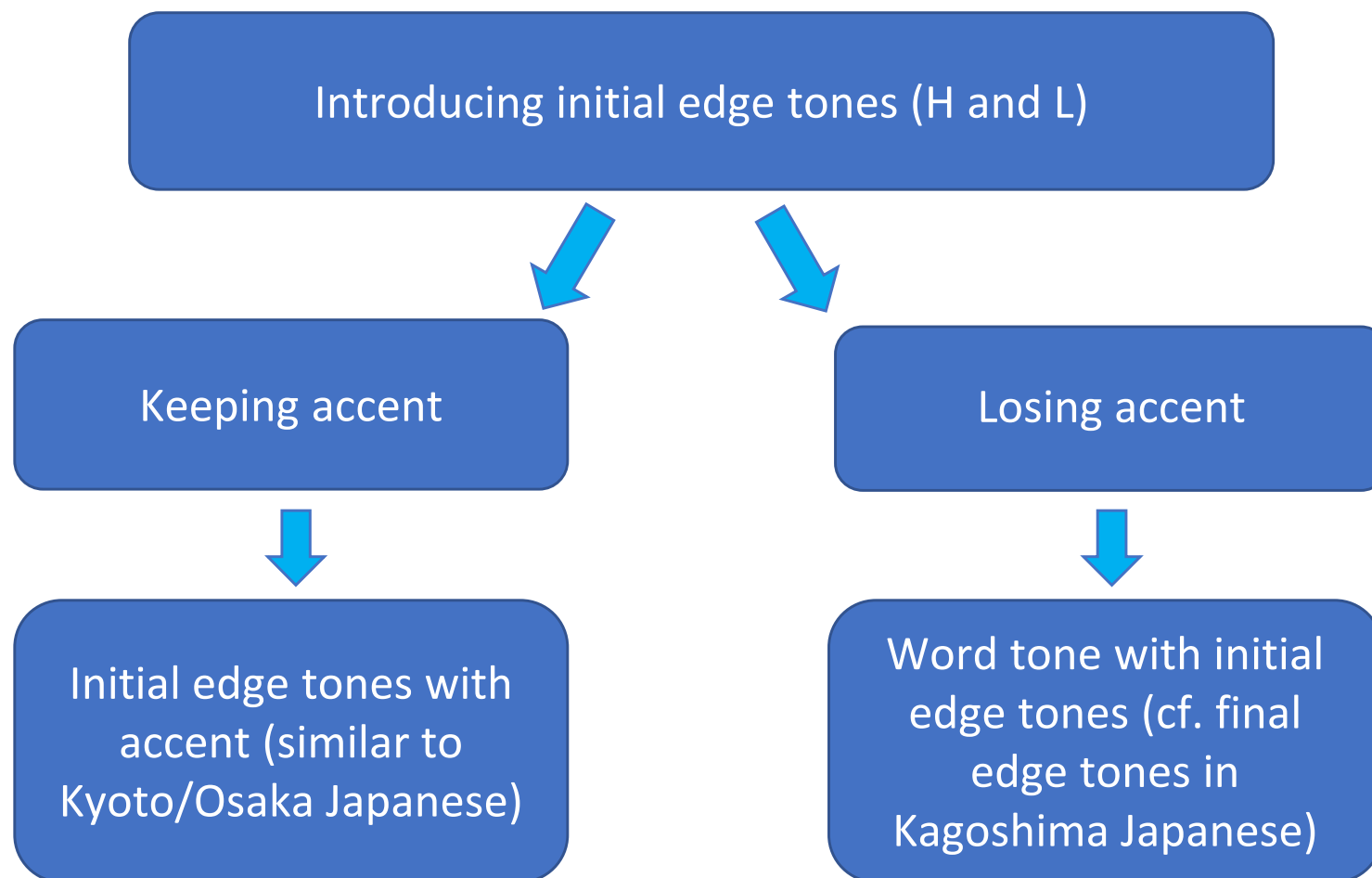
- Three patterns regardless of the number of syllables (except for monosyllabic words)
 - In a word with a tonal peak (or shoulder) on the penultimate syllable, the peak (shoulder) moves backward when a particle is attached.
 - In compound, the initial member determines the word's tonal class.
- Sancheong dialect is similar to Kagoshima not only in terms of the word-level tonal system but also regarding attaching particles and compounding.

Concluding remarks

Summary

- Eastern SK dialects have a hybrid tonal system of pitch accent and word tone.
- Western SK dialects (such as Sancheong) have fewer tonal patterns and a system similar to Kagoshima Japanese (word tone).
- The tonal system affects the compound tone rules.

What will happen in the future?



Do word-level tonal system changes lead to changes in phonological phenomena such as compound tone rules? 32

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