The status of syllables within the prosodic hierarchy in Korean

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Themes of the workshop

- (i) is the set of prosodic levels universal?
- (ii) what's the limitation on cross-linguistic variations of syllable shapes across languages?
- (iii) how do prosodic structures affect segmental phonological patterns and phonetic implementation patterns?
- (iv) what are possible segmental effects on prosodification?
- (v) how do speakers actually express prosodic structures in their speech?

- This talk aims to address (i), (iv) and (v)

Prosodic levels in Korean

- Korean phonology shows evidence for various prosodic levels

  - Phonological phrases

  - Prosodic words

  - (Feet)

  - Syllables

The status of foot in Korean

- Jun (1994)
  - … based on discussion in Lee (1974) and Lee (1987), I assume that Korean metrical feet are (i) right-headed, (ii) unbounded and (iii) quantity-sensitive.
  - Therefore, no matter how many light syllables precede a heavy syllable, they form a single foot with the heavy syllable. (See Jun 1993 for a fully detailed discussion of these two arguments.)

Korean truncation

- http://krdic.naver.com/
- The dictionary has a section for words used in chat rooms.
- Many of the words in this section have truncated forms.
- Anyone can add a new entry to this open dictionary.
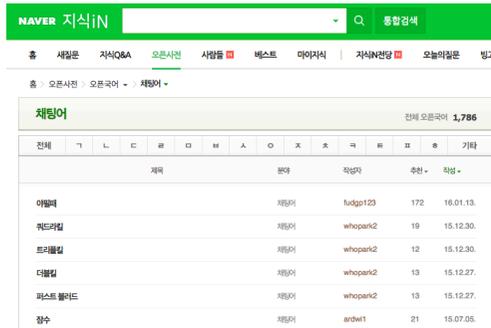
Some examples
(from the naver open dictionary)

- pulthanɨn kɨmjoil → pulkɨm (불타는 금요일 → 불금)
- hankukɨnheŋ → hanɨn (한국은행 → 한은)
- kaŋljʌkchuchʌn → kaŋchu (강력추천 → 강추)

- alɨpaithi → alpa (아르바이트 → 알바)
- keinsocaŋ → kenso (개인소장 → 갠소)

Pilot

- Experimental items (n=38) were run as a pilot with 4 participants
  - The participants were asked to suggest all possible truncated forms from a provided form.
    - 타르타버거 [thalithapʌkʌ]   'Burger with tartar sauce'
      →[thapʌ], [thalpʌ], [thapʌk]
  - They were also asked to judge their preference toward an expected form created by the experimenters.
    - 타르타버거 [thalithapʌkʌ] → [thapʌ]

- Results show a strong preference toward a truncation pattern that involves initial syllables of morphemes

- Participants often dispreferred non-initial truncation patterns citing the difficulty/impossibility of recoverability (to its original form).

Pilot stage: results

- Experimental forms with multiple patterns were selected for a further study.

  - There was no clear-cut patterns between linguistically trained participants and non-linguists.

  - All four participants were not active users of any online games.

Main experiment

- Using Google Forms
  - Available at: https://goo.gl/SnONMK

- Recruiting of participants:
  - Email
  - Facebook

- Experiment
  - 20 items (6 items were control)
  - each item had 3 varied truncation forms
  - instructions and forms were displayed in Hangul (the Korean script)
  - participants were asked to judge the well-formedness of the truncated forms in a scale of 0 (very bad) to 6 (very good)

Main experiment: demographics

- Participants: 62 speakers of Korean

- Gender: male (29) female (33)

- Age: average 36.4 (s.d. = 11.2)

- Game users: yes (15); no (47)

- Dialect
  - Seoul Metropolitan (32)
  - Jeolla (18), Gyeongsang (6), Chungcheon (3)
 - Jeju (1) Gangwon (2)

Main experiment: data

- A control form [hankukɨnheŋ] → [hanin] was used to group the participants

  - This form is used as a control because the truncated form is widely used in spoken and written Korean

  - Group 1: Participants who assigned 5 or 6   (n=27)

  - Group 2: Participants who assigned 1-4   (n=27)

 - Group 3: Participants who assigned 0   (n=8)

Results: pair 1

		CVCV	CVCCV	CVCVCVC
son	keinsamulham	kesa	kensa	kesaham
obs	kuɨpsamulham	kusa	kupsa	kusaham

keinsamulham_Group1
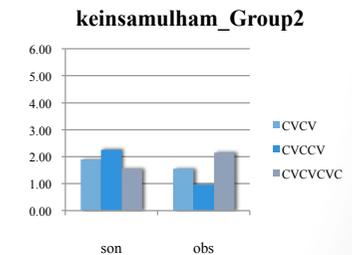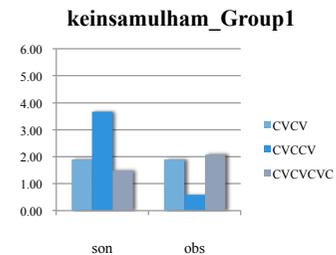
keinsamulham_Group2

Results: pair 2

		CVCV	CV**C**CV	CVC2CV
son	peiltehakkyo	pete	pe**l**te	ilte
obs	kaiptehakkyo	kate	ka**p**te	ipte

peiltehakkyo_Group1

peiltehakkyo_Group2
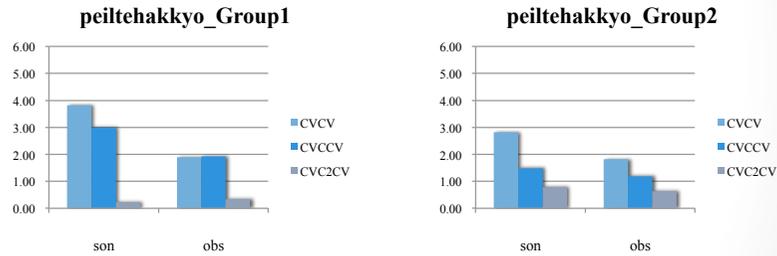
Results: pair 3

		CVCVC	CV**C**CVC	CVCCV
son	pʌnʌcaŋcʰi	pʌcaŋ	pʌ**n**caŋ	pʌncʰi
obs	mapukʌŋcʰi	makʌŋ	ma**p**kʌŋ	mapcʰi

pʌnʌcaŋcʰi_Group1

pʌnʌcaŋcʰi_Group2
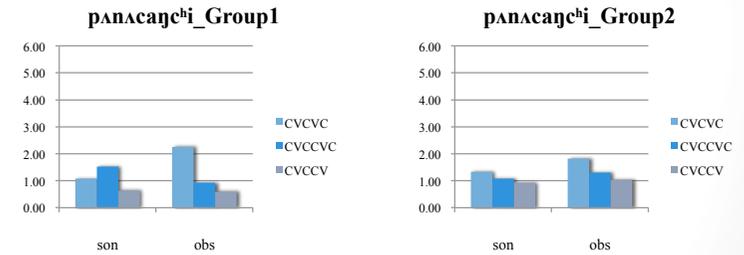
Results: pair 4

		CVCV	CV**C**CVC	CVCVC
son	tʰalitʰapʌkʌ	tʰapʌ	tʰa**l**pʌ	tʰapʌk
obs	kʰapɨkʰapʌkʌ	kʰapʌ	kʰa**p**pʌ	kʰapʌk

tʰalitʰapʌkʌ_Group1

tʰalitʰapʌkʌ_Group2
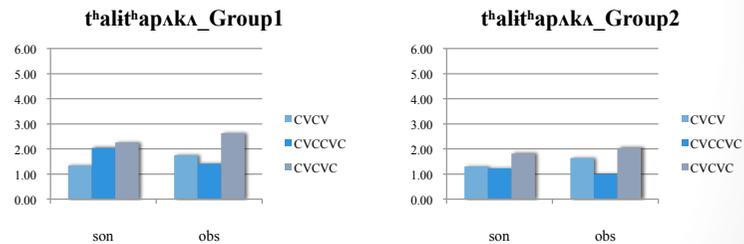
Results: pair 5

		CVCV(C)	CV**C**CVC(C)	CVCVCV
son	melitaitʰɨ	meta	me**l**ta	melita
obs	kaponaitʰɨ	kapon	ka**p**pon	kapona

melitaitʰɨ_Group1

melitaitʰɨ_Group2
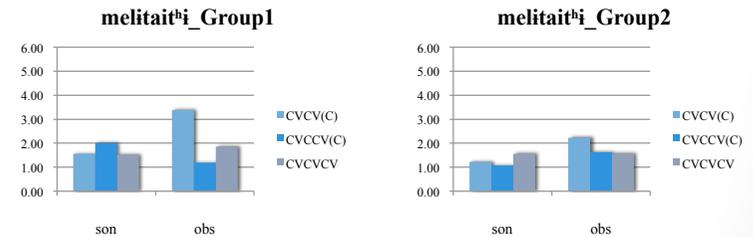
Discussion
- truncation strategy

- Morpheme initial-syllable
  - hankukinheŋ → hanin (한국은행 → 한은)
  - kaŋljʌkcʰucʰʌn → kaŋcʰu (강력추천 → 강추)

Discussion
- segmental effects on prosodification

- sonorant coda
  - word-medial syllables can be truncated with a sonorant coda
    - kensa, pelte, pʌncaŋ, tʰalpʌ, melta
  - obstruent codas are not a preferred strategy
    - kupsa, kapte, mapkʌŋ, kʰappʌ, kappon

- Truncation of particles
  - na-nin → nan (나는 → 난)　　　　　　'I-Topic'
  - nʌ-lil → nʌl (너를 → 널)　　　　　　'you-Acc'
  - nuku-lil → nuku-l (누구를 → 누굴)　　'who-Acc'

  - muʌt → mwʌ/mʌ (무엇 → 뭐/머)　　　'what'　　(*mwʌt)
  - muʌt-il → mwʌl (무엇을 → 뭘)　　　　'what-Acc'

Discussion
- segmental effects on prosodification

- obstruent coda

  - word-final syllable can be truncated with an obstruent coda
    - tʰapʌk > tʰapʌ, tʰalpʌ
    - kʰapʌk > kʰapʌ, kʰappʌ

  - word-initial syllable can be truncated with an obstruent coda
    - cʰek ilknin mokjoil → cʰekmok
    - cʰʌspʌc'e kʰomenti → cʰʌskʰo
    - noksekk'aŋtʰoŋ → nokk'aŋ

Discussion
- universality of prosodic level

- In partial reduplication (Jun 1994), right-headed unbounded feet were seen as a preferred foot structure

- The truncation pattern reported here shows that there is a different foot structure preferred.
  - CVCCV vs. CVCVCVC

References

- Jun, Jongho (1994). Metrical weight consistency in Korean partial reduplication. Phonology 11: 69-88.
- Lee, Hoyoung (1987). Hyeontay hankuke-uy accent-ey kwanhan yeonku. [Study on modern Korean accent.] MA thesis, Seoul National University.
- Lee, Hyunbok (1974). Seoul mal-uy litum-kwa ekyang. [Rhythm and intonation of Seoul language.] Language Research 10. 15-23.

Experimental items

- 개인사물함 (개사, 갠사, 개사함)
- 구급사물함 (구사, 굽사, 구사함)
- 배일대학교 (배대, 밸대, 일대)
- 가입대학교 (가대, 갑대, 입대)
- 타르타버거 (타버, 탈벅, 타벅)
- 카프카버거 (카버, 카벅, 캎벅)
- 버너장치 (버장, 번장, 번치)
- 마부경치 (마경, 맙경, 맙치)
- 메르다이트 (메다, 멜다, 메르다)
- 카보나이트 (카본, 캅본, 카보나)

(The following items are excluded from the current analysis)
- 나무다리건설 (나다건, 나다건설, 나건)
- 고기야채김밥 (고야김, 고야밥, 고야김밥)
- 술 먹는 공휴일 (술공, 술휴, 술먹공)
- 책 읽는 목요일 (책목, 책일, 책목일)

Group 3 Results (n=6)

keinsamulham_Group3

peiltehakkyo_Group3

Group 3 Results

tʰalitʰapʌkʌ_Group3

pʌnʌcaŋcʰi_Group3

melitaitʰi_Group3