

### Syllable deletion and morphological length in Cantonese verbs

Sheila Shu-Laam Chan<sup>1</sup>; Tommy Tsz-Ming Lee<sup>2</sup>; Ka-Fai Yip<sup>3</sup>

<sup>1,3</sup>The Chinese University of Hong Kong; <sup>2</sup>University of Southern California

<sup>1</sup>sheilachan@cuhk.edu.hk; <sup>2</sup>tszmingl@usc.edu; <sup>3</sup>kafaiyip@cuhk.edu.hk

## 1. Introduction

The first syllable of a disyllabic verb in Chinese can be separated from the second one, termed ionization (Chao, 1968). A typical case involves a VO-structure, where the verb is separated by an aspect marker.

- (1) *wan-zo-syu*                      溫咗書                      (VO separable verb)  
study-PERF-book  
'have studied'

We observed that the separation of disyllabic verbs is a more general phenomenon.

(i) It is also applicable to non-VO-structures and monomorphemic verbs.

- (2) *ceot-gan-faat*                      出咗發                      (non-VO separable verb)  
depart-PERF  
'have departed'
- (3) *fei-zo-lou*                      肥咗佬                      (ionization of a loanword from English *fail*)  
fa-PERF-il  
'have failed'

(ii) A-not-A formation and verb copying display similar separation possibility, with only the first syllable repeated.

- (4) *fei-m-feilou*    (*dou*    *jap-m-dou*    *daaihok*)                      肥唔肥佬都入唔到大學 (A-not-A)  
fa-NEG-il                      all                      enter-NEG-ablecollege  
'Fail or not, he cannot go to college.'
- (5) *feilou fei-dak*                      *hou*    *citdai*                      肥佬肥得好徹底 (verb copying)  
fail    fa-DEGREE                      very    completely  
'(He) completely failed.'

(iii) Separation is preferred to non-separation.

- (6) a.                      ?*feilou-zo*                      ?肥佬咗  
b.                      ??*feilou-m-feilou*                      ??肥佬唔肥佬

c. \**feilou feilou-dak* ... \*肥佬肥佬得

- These constructions all involve separation of verbs and should be unified.

$AB + X \rightarrow AX / AXB$

- We argue that they could be unified by *syllable deletion*, a kind of subtractive Morphological Length-Manipulation (MLM) (Zimmermann, 2017).

$\sigma\sigma-X \rightarrow \sigma-X$

- The licenser for deletion: **Copying** (lexical identity effects)

- a. V-not-V:                      寄唔寄                      send 唔 send                      \*send 唔寄
- b. V-V 得/到:                      寄(野)寄到                      send(野)send 到                      \*send(野)寄到
- c. V 咗:                      Head movement + Copy theory of movement

- The trigger for deletion:
  - Informally: Cantonese verbs prefer to be shorter  
(cf. the sailence of monosyllabicity in Cantonese, Li et al., 2016)
  - Formally: Avoidance of *superfoot* formation of Cantonese verbs

## 2. Morphological Length-Manipulation

Phonological strategies are often adopted to optimize the phonological structure of a surface form. Some of the length alterations is bound to morphological contexts (Zimmermann, 2017).

(7) Vowel lengthening in Gidabal (Geytenbeek and Geytenbeek, 1971)

Base		Imperative
gida	'to tell'	gida:
ma	'to put'	ma:

(8) Gemination in Wolof (Ka, 1994)

Base	Reversive	
ub	ub:i	'to open'
teg	teg:i	'to remove'

(9) Morphological vowel shortening in Hausa (Schuh, 1989)

Common noun		Proper noun	
ba:ko:	'stranger'	ba:ko	'man's name'
kuma:tu:	'cheeks'	kuma:tu	'name of so. with fat cheeks'

(10) Vowel deletion in Yine (Matteson, 1965)

Underlying	Surface	
neta-ja	netja	‘I see there’
tɕirika-ka <sub>SMLF</sub>	tɕirikaka	‘to ignite’

- (11) Morphological length-manipulation operations (Zimmermann, 2017)

	Additive		Subtractive	
	S → S:	∅ → S	S: → S	S → ∅
<b>Vowel</b>	Vowel lengthening	Epenthesis	Vowel shortening	Deletion
<b>Consonant</b>	Gemination		Degemination	

Multiple MLM operations that constitute a single MLM pattern are allowed as long as they are in complementary distribution or expected to cooccur. Note that all the possible MLM operations are on the segmental level.

### 3. Superfoot.

The notion of “superfoot” refers to a foot containing a disyllabic foot and an extra syllable (Selkirk, 1980).

- (12)  $\sigma\sigma\text{-X} ((\text{SW})\text{W}) \rightarrow \sigma\text{-X} (\text{SW})$  (syllable deletion on verbs or adjectives)

- (13) *bibi-zai* (σσ-X)  
baby-DIM  
‘baby’

### 4. Proposal.

We propose that word length is manipulated for morpho-phonological reasons in (2)-(5):

- (14) a. The smallest manipulatable unit in Cantonese morphology is syllables.  
b. Superfoot is not preferred in Cantonese verbal morphology and triggers subtractive MLM.

(14)a is built on the consensus that Cantonese (and indeed Chinese dialects in general) lacks inflection. Put differently, Cantonese morphology is realized as syllabic suffixes rather than consonantal ones (as plural -s in English) (Tang, 2015).

For instances, nouns may carry a diminutive suffix -zai and verbs (also adjectives) can be attached by a progressive suffix -gan (Matthews & Yip, 2011):

- (15) a. *neoi-zai*

- woman-DIM  
'girl'  
b. *zou-gan*  
do-PROG  
'doing'

## 5. Analysis.

### A-not-A formation and verb copying

The addition of the negation marker *-m-* and/or *-dak* to the disyllabic verb or adjective will form superfect. This will trigger the deletion of the second syllable *lou*.

- (16) a. *feilou-m-feilou* (SW(W))(SW) → *fei-m-feilou* (SW)(SW)  
b. *feilou feilou-dak* (SW)(SW(W)) → *feilou fei-dak* (SW)(SW)

### Ionization

(2) involves a copied structure, and two deletions occur, one on *lou* at the first copy, another on *fei* at the second copy, schemed in (17) (Fanselow & Cavar, 2002). The surface form here are the result of multiple MLM operations.

- (17) *feilou-zo feilou* (SW(W))(SW) → *fei-zo lou* (SW)(S)

The second copy is a cognate eventive object which can be quantified by an adjunct *saam-ci* 'three times' in (18).

- (18) *fei<lou>-zo saam-ci <fei>lou*  
fail-PERF three-times fail  
'failed for three times'

### Polysyllabic verbs (or adjectives) with more than two syllables

There are often polysyllabic loanwords from English in Cantonese. When A-not-A is formed from these loanwords, only the first syllable is retained with the rest deleted:

- (19) a.  $\sigma$ -X- $\sigma\sigma\sigma$ : *in(\*terview)-m-interview*  
in-NEG-interview  
b.  $\sigma$ -X- $\sigma\sigma\sigma\sigma$ : *a(\*vailable)-m-available*  
a-NEG-available (Li et al., 2016:19)

## 6. Implications.

There are two implications of our proposal:

- (i) MLM not only concerns segments, but also syllables. The smallest manipulatable unit in morphology varies from languages to languages.
- (ii) Languages also vary in the acceptability of superfeet which could be attributed to variation in lexical stress.

## 7. Selected references.

- Chao, Y. R. (1968). *A Grammar of Spoken Chinese*. University of California Press.
- Cheng, L. L.-S. (2007). Verb copying in Mandarin Chinese. In N. Corver & J. Nunes (Eds.), *The Copy Theory of Movement* (pp. 151–174).
- Huang, C. T. J. (1984). Phrase structure, lexical integrity, and Chinese compounds. *Journal of the Chinese Language Teachers Association*, 19(2), 53–78.
- Li, D. C. S., Wong, C. S. P., Leung, W. M., & Wong, S. T. S. (2016). Facilitation of transference: The case of monosyllabic salience in Hong Kong Cantonese. *Linguistics*, 54(1), 1–58.
- Matthews, S., & Yip, V. (2011). *Cantonese: A comprehensive grammar*. Routledge.
- Selkirk, E. O. (1980). The Role of Prosodic Categories in English Word Stress. *Linguistic Inquiry*, 11(3), 563–605.
- Tang, S.-W. (2015). *Lectures on Cantonese Grammar*. The Commercial Press.
- Zimmermann, E. (2017). *Morphological length and prosodically defective morphemes*. Oxford University Press.

## 8. Appendix.

All these constructions involve two identical verbs (i.e. lexical identity effects). We examine the distribution of verbs with more than one syllable.

- 1. V 唔 V: 阿明食唔食飯呀?
- 2. V copying: 阿明食飯食到污糟邋塌
- 3. V 嚟 V 去: 阿明食嚟食去都未食完碗飯
- 4. 唔 V 都 V 喇: 阿明唔食都食咗啦 (你有咩辦法啫)
- 5. V 咗 X: 阿明食咗飯喇
- 6. VV 吓: 阿明食食吓飯就肚痛
- 7. V 還 V: 食還食, 唔好食到一地都係
- 8. V 咩 V 呀: 食乜野食呀, 邊個批准你食呀?
- 9. V 係 V...ge2: 食係食嘅, 不過淨係食少少架咋
- 10. 連 V 都 V: 阿明連食都食埋喇 (仲有咩好講ㄚ)
- 11. 話 V 就 V: 話食就食, 乜阿明咁唔客氣架
- 12. V 就 V 在: 阿明醒就醒在 7 點出門口
- 13. VV 地: 阿明識識地講法文

Section 1A Chan, Lee & Yip  
Syllable deletion and morphological length in Cantonese verbs

WITH SYLLABLE DELETION	Disyllabic verbs				Trisyllabic verbs		Loanwords	
	面試 (NV)	研究 (VV)	肥佬 (mono morph mic)	黑面(?)	數碼化	震騰騰	delete	interview
(1) V copying	OK	OK	OK	OK	OK	OK	OK	OK
(2) V 唔 V	OK	OK	OK	OK	OK	*	OK	OK
(3) V 咗 X	OK	*	OK	OK	*	*	OK	?
(4) 唔 V 都 V 喇	*	?	OK	OK	*	*	OK	OK
(5) V 嚟 V 去	?	?	OK	?	*	*	OK	OK
(6) V 係 V...ge2	*	*	OK	*	*	?	OK	OK
(7) V 還 V	*	*	OK	OK	*	*	*	*
(8) V 咩 V 呀	*	*	OK	OK	*	*	*	*
(9) 話 V 就 V	*	*	OK	OK	*	*	*	*
(10) VV 吓	OK	*	?	?	*	*	?	*
(11) 連 V 都 V	*	*	OK	?	*	*	*	*
(12) V 就 V 在	*	*	OK	?	*	*	*	*
(13) VV 地	*	*	*	OK	*	*	*	*