

ENGLISH LOANWORDS IN CANTONESE
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A) Introduction

- Cantonese speakers do not have access to English phonological representation
- Cantonese speakers must provide the phonetic string with prosodic structure in accordance with their indigenous phonological system
- When the indigenous phonology is ill-equipped to provide structure, appeals to universally unmarked settings must be made
- Evidence from truncation strategies indicates Cantonese speakers perform multiple scansions on incoming forms
- There is a strong preference for forms to possess two syllables

B) Cantonese Segment Inventory and Relevant Phonotactics

p	t	ts	k	k ^w	i	u	u
p'	t'	ts'	k'	k ^w		oe	o
	f	s					
m	n		ng			a:	
	l						
		y		w			

- The syllable is superficially (C)VX
(no branching onsets, no branching codas (cf. English))
- Acceptable codas are p, m, t, n, k, ng, y, w
- The tonal inventory:

55 (H)	53 (HM)
33 (M)	35 (MH)
22 (L)	24 (LM)
21	
- Contour tones may associate only with -VV and -VS rimes
(i.e. sonorant-final syllables possess two TBUs)
- The relevant surface tones are L, M, H
- The Cantonese morpheme is almost exclusively monosyllabic
- Cantonese has no indigenous operations of
epenthesis/syncope
(morphemes always surface fully intact, even when
concatenated)
- There is a "preference" for bisyllabic words in Cantonese

C) The Analysis of Pitch Contrasts: Stress - to - Tone

- primary stress -> [H] tone
- other syllables -> [M] tone

- 1) a. [gin] -> [tsin[H]] b. [cigar] -> [syɪ[M] ka[H]]
[band] -> [p n[H]] [buffet] -> [pou[M] fei[H]]
[jam] -> [ts m[H]] [guitar] -> [kit[M] t'a[H]]

- English consonant clusters are either truncated ($C_1C_2 \rightarrow C_1$), or repaired via epenthesis ($CC \rightarrow CVC$)

- Derived syllables -> [L] tone

- 2) [stick] -> [si[L] tik[H]] [fluke] -> [fu[L] luk[H]]
[smart] -> [si[L] mak[H]] [cream] -> [kei[L] lim[H]]
[stamp] -> [si[L] tam[H]] [break] -> [bik[L] lik[H]]

- A [H] boundary tone normally attaches form-finally (Yip 1981)

- 3) a. [motor] -> [m [H] ta[MH]]
[soda] -> [s [H] ta[MH]]
[letter] -> [l t[H] t'a[MH]]
[party] -> [p'at[H] t'i[MH]]
b. [lace] -> [lei[H] si[MH]]
[film] -> [fei[H] l m[MH]]
[tips] -> [tip[H] si[MH]]
[file] -> [fai[H] lou[MH]]
c. [cherry] -> [ts [H] lei[M] - tsi[MH]]
[X-ray] -> [ek[H] si[L] kang[H]]

- [L] -> [M] / ____H]_s

- Tonal suffixation applies after word-building operations (c)

- English /s/ is always perceived syllabically before a consonant, and word-finally

- 4) a. [store] -> [si[L] t [H]]
[spare] -> [si[L] p [H]]
b. [bus] -> [pa[H] si[MH]]
[cheese] -> [tsi[H] si[MH]]

- The domain of pitch contrast analysis (PCA domain) is the English free morpheme

PCA domain: <English free morpheme>

- Pitch contrasts are preserved within the PCA domain, within tonological limits

5) [<dock><yard>] -> [t k[H] ja[H]]
 [<floor><show>] -> [f [H] sou[H]]
 [<side><board>] -> [sai[H] put[H]]
 [<hi><fi>] -> [hai[H] fai[H]]

D) Multiple Scansions, and Syllable Structure

- truncation normally reduces a form to a single binary foot

[full form] -> [{single binary foot}]

6) [economics] -> [i[M] k' n[M]]
 [sociology] -> [sou[M] si[M]]

- The PCA domain is established before truncation
 - The boundary tone attaches before truncation
 - Pitch contrasts are neutralized as necessary due to constraints of indigenous toneme inventory

--> The full form is scanned before truncation applies

7) a. [marketing] -> [ma k' t]
 [political science] -> [pou lit]
 b. [composition] -> [k' m pou]
 [psychology] -> [sai k']

- Syllabification is maximal up to well-formedness

--> Within the indigenous phonology, there are no syllable restructuring operations. Therefore, appeals to UG must be made for syllable-building operations on loanwords

- English stop-liquid cluster repair strategy is crucially dependent upon a full syllable count

8) [printer] -> [p n t'a] [print] -> [pi lin]
 [broker] -> [puk k'a] [break] -> [pik lik]

9) [printer] [print] [jam]

a. s s s s
 | | | |
 [p'lint'a] [p'lin] [ts m]

b. s s s s s
 /|\ /| /|/|\ /|\
 [p' nt'a] [p'ilin] [ts m]

- > On the initial scansion, syllable nodes are provided for sonority peaks within the phonetic string.
- > Monosyllabic English forms will achieve bisyllabicity whenever possible
- > Final obstruents in form-final clusters presumably are not represented by Cantonese speakers

10) a. [pleat] -> [pi lit] [band] -> [p n]
 b. [fluke] -> [fu luk] [length] -> [l n]
 c. [shaft] -> [s p]
 d. [film] -> [fei l m]
 [kiln] -> [ki loen]

--> Bisyllabicity is preferred.

- If the input has more than two sonority peaks, bisyllabicity is forfeited ([professor] ->

[pou fa sa], [office] -> [fi si], [physics
 chemistry biology] -> [fi k' m pai])

- If a monosyllabic input can be fully accommodated, bisyllabicity is forfeited ([card] -> [kat],
 [game] -> [k m])

- If a monosyllabic input possesses consonants which lack sufficient phonetic salience to be perceived, bisyllabicity is forfeited ([band] -> [p n],
 [sink] -> [sing])

E) Sample Derivations

11) Input:

[printer] [print] [economics] [floorshow]

Initial Scansion:

$\begin{array}{c} S \quad S \\ \quad \\ <p'l \quad nt'a> \\ \quad \\ H \quad M \end{array}$	$\begin{array}{c} S \\ \\ <p'lin> \\ \\ H \end{array}$	$\begin{array}{c} S \quad S \quad S \quad S \quad S \\ \quad \quad \quad \quad \\ <ik' \quad namiksi> \\ \quad \quad \quad \quad \\ M \quad M \quad H \quad M \quad L \end{array}$	$\begin{array}{c} S \quad S \\ \quad \\ <fl \quad ><sou> \\ \quad \\ H \quad H \end{array}$
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Second Scansion:

$\begin{array}{c} S \quad S \\ / \backslash \quad / \\ p' \quad n \quad t'a \\ \quad \backslash \\ H \quad MH \end{array}$	$\begin{array}{c} S \quad S \\ / \quad / \backslash \\ p'i \quad lin \\ \quad \\ L \quad H \end{array}$	$\begin{array}{c} S \quad S \quad S \quad S \quad S \\ \quad / \quad / \quad / \backslash \quad / \\ i \quad k' \quad na \quad mik \quad si \\ \quad \quad \quad \quad \backslash \\ M \quad M \quad H \quad M \quad LH \end{array}$	$\begin{array}{c} S \quad S \\ / \quad / \backslash \\ f \quad sou \\ \quad \\ H \quad H \end{array}$
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Truncation:

$$\begin{array}{c} \{F\} \\ / \quad \backslash \\ S \quad S \\ | \quad /| \backslash \\ \{i \quad k' \quad n\} \\ | \quad | \\ M \quad M \end{array}$$

Surface:

[p' n[H] t'a[MH]]
 [p'i[L] lin[H]]
 [i[M] k' n[M]]
 [f [H] sou[H]]

F) General Conclusions

- Cantonese speakers do not have access to English phonological representation
- Appeals to universally unmarked settings are made when the indigenous phonology is ill-equipped to licence material
- Multiple scansions are performed on loanwords
- The binary foot may play a limited role in Cantonese

phonology