

Diachronic changes in loanword adaptation: Loan doublets in Cantonese

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Background:

For more than 20 years, the literature on loan words has been revolving around the question whether loan adaptations happen in perception, in phonology, or in both (for an overview, see Kang 2011). In a recent paper, Boersma and Hamann (2009) argue that speech perception *is* phonological, since it is influenced by phonotactic restrictions (as evidenced by psycholinguistic experiments such as those by Dupoux et al. 1999), and that perceptual adaptations are thus always phonological. By formalizing such adaptations in an Optimality-theoretic perception grammar with the same phonotactic constraints also applying in phonological production (BiPhon model, Boersma 2007), Boersma and Hamann account for discrepancies between loan adaptations and native phonological processes (so-called *divergent repairs*; Kenstowicz 2005) in Korean.

Minimal word requirement in Hongkong Cantonese:

In this talk we take up the observation that in Hongkong (HK) Cantonese, loan adaptations seem to be restricted by a minimal word requirement (MINWORD). Silverman (1992) and Yip (1993) employ such a word restriction to account e.g. for the difference in borrowings of English *print* as /p^hi:li:n/ and *printer* as /p^hɛ:n.t^ha:/ (Silverman 1992: 290), where in the first case the consonant cluster is rescued by an epenthetic vowel, but this rescue mechanism cannot be applied in the second case as the resulting word form would have more than two syllables. Instead, the liquid is deleted.

In later work, Yip (2006) revises her earlier assumption and proposes that MINWORD *cannot* hold for HK Cantonese loan adaptations, since recent loan data show no influence of such a phonological restriction.

Our proposal:

Rather than categorically refusing a role of MINWORD in HK Cantonese loan adaptations, we propose that the lack of influence of this constraint in recent loans is due to a diachronic change in the perception (and production) grammar of the adaptors, as illustrated with the loan doublets from English in (1) and (2) (Yip 2006; Bauer & Wong 2008):

- | | | | | |
|--------|-----------------------------------|---|-----------------------------|---|
| (1) a) | get ⁶ lim ¹ | /kej.li:m/ | bakery cream | early borrowing |
| | b) | kwim ¹ | /k ^{wh} i:m/ | facial/drinkable cream recent borrowing |
| (2) a) | pej ¹ si ² | /p ^h ej.si:/ | place | early borrowing |
| | b) | pej ¹ lej ¹ si ² | /p ^h ej.lej.si:/ | place recent borrowing |

Both earlier borrowings of these doublets are in accordance with a high-ranked MINWORD constraint but show different rescue mechanisms: vowel epenthesis in (1a) and liquid deletion in (2a). The recent borrowings both indicate a low-ranking of MINWORD, since the form in (1b) is monosyllabic and that in (2b) consists of three syllables, though both preserve perceptual cues to the two consonants in the original English onset cluster.

We propose that the diachronic change in the perception grammar, i.e. the change in the ranking of MINWORD, is due to greater exposure to English (including HK Cantonese English) in the younger generation(s) of HK Cantonese native speakers.

Formal account:

The difference between the two perception grammars and thus in the adaptation patterns of older and younger generations of HK Cantonese speakers are formalized as illustrated with tableaux 1 and 2 for the two adaptations of *place*.

Tableau 1: Earlier adaptation of English word *place* by HK Cantonese listeners: high-ranking of MINWORD



$[_\text{plejs}]_{\text{Auditory}}$	* /.CC/	* /+fric./	MIN WORD	*[s] //	*[^p] //	*[l] //	*[] /V/
/ .plejs. / _{SF}	*(!)	*(!)	*(!)				
/ .plej.si: / _{SF}	*!						*
/ .lej.si: / _{SF}					*!		*
 / .pej.si: / _{SF}						*	*
/ .pej.lej.si: / _{SF}			*!				**

Tableau 2: Recent adaptation of English word *place* by HK Cantonese listeners: low-ranking of MINWORD

$[_\text{plejs}]_{\text{Auditory}}$	* /.CC/	* /+fric./	*[s] //	*[^p] //	*[l] //	*[] /V/	MIN WORD
/ .plejs. / _{SF}	*(!)	*(!)					*
/ .plej.si: / _{SF}	*!					*	
/ .lej.si: / _{SF}				*!		*	
/ .pej.si: / _{SF}					*!	*	
 / .pej.lej.si: / _{SF}						**	*

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