

Headedness and prominence: A study in tone changes in N+N Cantonese noun phrases

Chow Pui Lun
University of Hong Kong

Previous studies have shown that Cantonese tone changes primarily occur on the second or final syllable and mainly involve alternations between low tones ([22] or [21]) to the high-rising tone [25] (e.g. Matthews & Yip, 2001; Yu 2009 ;Yue-Hashimoto 1972). Further, such tone changes are thought to be a signal of lexicalization. This study re-examines tone change in Cantonese N+N compounds. While affirming the previous findings, these new data show that there is additionally a number of tone changes on the first syllable, apparently involving the ‘reverse’ rules: i.e. high-rising → low.

The data are based on recordings made from stimuli constructed using Cantonese a head-final N+N compounds. First, I created stimuli exhaustive of all tonal combinations for the N+N compounds. 168 N+N phrases were recorded in a carrier phrase (“This word is X”) and the monosyllabic constituents of these compounds were additionally elicited in isolation. Of these 168 tokens, only 33 instances of tone changes were found: 24 involve an input of low tone [21] or [22] changing to high-rising [25], as shown in Set A of the examples in Table 1 below.

Table 1.

Set	Examples	Changed tone Input → Output	Change on head?	Change on final?
A	鑊盆 sing ⁵⁵ pun ²⁵ sink basin 'the basin'	sing ⁵⁵ pun ²¹ → pun ²⁵	+	+
	海味 hoi ²⁵ mei ²⁵ sea taste 'seafood'	hoi ²⁵ mei ²² → mei ²⁵	+	+
	男人 naam ²¹ jan ²⁵ male people 'man'	naam ²¹ jan ²¹ → jan ²⁵	+	+
B	籃球 laam ²⁵ kau ²¹ net ball 'basketball'	laam ²⁵ → laam ²¹ kau ²¹	-	-
	鶴咀 hok ²⁵ zeoi ²⁵ crane mouth 'crane beak'	hok ²⁵ → hok ²² zeoi ²⁵	-	-
	蛋糕 daan ²² gou ⁵⁵ egg cake 'cake'	daan ²⁵ → daan ²² gou ⁵⁵	-	-

For all the set A tokens (24/33 of the elicited sandhi instances), the change from low to rising tone occurs on the final syllable, the head of the compound. The set B, however, (9/33 instances) show an input of a rising tone being realized as a low tone. Furthermore, the changes occur on the non-head, the initial syllable in these N+N phrases.

In this paper, I propose that tone changes in N+N phrase formation are determined by headedness and position of tone change. Following Matthews & Yip (2011), it is argued that this type of tone change is motivated by the need of *prominence* on the head. In N+N noun phrases in which the final head morphemes retain their syntactic prominence, the low tone input gives an output of high rising [25], involving an increase in prominence due to the pitch (cf. Yu 2009:6-7). Yet, the reverse type of tone change rule (rising to low) suggests the possibility of a kind of ‘prominence reduction’. In other words, a lowering of the tone end signals a ‘loss’ of the canonical head status of a morpheme. Therefore, I claim that the low → high-rising and high-rising → low alternation correspond to the different syntactic structure of the noun phrases

This study adds to existing observations about tone changes in Cantonese N+N compounds, and emphasizes the importance of syntactic information and the interaction of syntax and phonology.

References:

- Matthews, S & Yip, V. 2011. Cantonese: A Comprehensive Grammar. London: Routledge, 2nd edition.
 Yu, A. C. L. 2009. Tonal mapping in Cantonese vocative reduplication. BLS35: 6-7.
 Yue-Hashimoto, A. O.-K. 1972. Studies in Yue Dialects: The Phonology of Cantonese. Cambridge: CUP