

HOMORGANIC NASAL/STOP ALTERNATIONS IN CANTONESE

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1. Introduction

Cantonese is traditionally considered a phonologically conservative member of the Chinese language family. As in many other conservative members of the Sino-Tibetan language family, nasals and stops are the only possible final consonants in closed syllables, and syllables with stop finals belong to a separate tone category, variously known as entering tone, D-tone, or clipped tone. The possibility of productive morphological derivation by tonal contrast in Chinese has been raised by many authors: Downer (1958), Pullyblank (1962, 1973), Mei (1970), Maspero (1935), Zhao (1958), Yu (1948), Simon (1972), Kam (1977), Wang (1957), and T'sou (1971, 1972). Similar processes have also been reported in languages that are related to, or closely associated with Chinese: Maran (1971), Henderson (1965), Prapin (1977), and Matisoff (1975).

This paper attempts to explore a distinct and sizable class of groups of semantically related monosyllabic words which contrast with each other within each group by means of homorganic nasal/stop alternation of the final consonant. While the same problem may be alternately stated in terms of tonal contrast between D-tone (i.e. the class of syllables ending in -p, -t, -k) and other tones, we shall attempt to show that the homorganicity of the consonantal contrast provides a better basis for contrast by natural classes, and for historical reconstruction.

A narrow phonetic transcription of Cantonese will be used in this paper and tone categories will be cited. The major tone categories are 'ping' (level), 'shang' (rising), 'qu' (departing) and 'ru' (entering), and each may be divided into at least two sub-categories of high and low. There are primarily six tone contours which are listed below next to the tone categories:

A1	High-level (or high falling)	┐ 55 or ㄣ 53
A2	Low-falling	┘ 21 or ㄣ 22
B1	High-rising	┐
B2	Low-rising	ㄣ
C1	Mid-level	┐
C2	Low-level	ㄣ

D1a	High-level	7
D1b	Mid-level	7
D2	Low-level	7

2. The analysis of data

In Tables I to III data on two kinds of word groups are provided. The first will be those all of whose members are not exclusively Cantonese morphemes but are Pan-Chinese morphemes, having established characters, which could be checked against historical sources and reconstructed forms. The second will be groups which have members indigenous to spoken Cantonese only, and for which there are usually no established written characters. These examples of semantically related morphemes are by no means exhaustive.

2.1 The phonological alternation

It is clear from these examples that a covariant of the semantic variation in each pair or group of morphemes is phonological alternation. The most apparent morphophonemic alternation is that between syllabic final homorganic nasals and stops. The alternation in tonal categories between tones A, B and C on the one hand, and tone D on the other, the so-called Yang-Ru Alternation, is readily predictable on the basis of the segmental differences and appears to be subordinate to segmental phonology. This is enhanced by the fact that the majority of examples have similar or matching pitch contours in Cantonese (though of course, Tone D, to which exclusively belong checked syllables, has shorter duration on account of the final unreleased stops). The generalization concerning matching pitch contours cannot be neatly captured by postulating a basic alternation of tonal categories. Other than the fundamental morphophonemic alternation between final nasals and stops, there is also some evidence that aspiration of initial consonants may be a second or secondary feature in the morphophonemic alternation:

Table I	6.b.1	tsɔk
	6.b.2	ts'ɔk
Table II	5.a.1	pin
	5.a.2	p'in
	11.a.1 & 2	tyn
	11.a.3	t'yn
Table III	5.a.1	tsem
	5.a.2	ta'am

Other possible alternations in the initial consonant include [k] ~ [h] ~ [∅] and [k]/[t] ~ [ts']/[ts]:

Table III	14.a	hem	
	14.b.1	hep	
	14.b.2	kep	
Table II	16.b	k'in	
	16.c	k'it	
		kin	(to see, to be visible)
		hin	(to be visible)
		in	(to appear, to reveal, to be visible)
Table II	8.a	kin	
	8.b	ts'it	
Table III	10.a	tim	
	10.b.1 & 2	tsip	

Table I: [-ŋ] ~ [-k] alternations

PAN-Chinese

		<u>Tone</u>	<u>Character</u>	<u>Gloss</u>
1.a	kʷɔŋ	B1	廣	to be wide, big; far-ranging
b	kʷɔk	D1b	擴	to widen, to expand

The more common pronunciation of (1.b) is kʷɔŋ in Cantonese, but kʷo in Mandarin and other dialects which contrast with (1.a).

2.a	maŋ	A2	盲	to be blind
b.	maak	D1b	陌	to be unfamiliar, unclear
3.a	ts'unŋ	A1	匆	to be in a hurry
b	ts'uk	D1a	促	speedy

		<u>Tone</u>	<u>Character</u>	<u>Gloss</u>
4.a	tsɛŋ	C2	鄭	careful, serious
b	tsaak	D2	擲	to throw
<u>Cantonese only</u>				
5.a	t'uŋ	A1	通	through passage (stative verb)
b	tuk	D1a	(擰)	to poke
6.a	tsɔŋ	C1	撞	to strike at an object
b.1	tsɔk	D2	凿	to chisel (i.e. repeated strikes), (n) chisel
b.2	ts'ɔk	D1b	(觸 ?)	to shake loose something with force (i.e. to strike with sudden force)
7.a	fiŋ	C2	(拚 ?)	swinging (stative); to fling away
b	fik	D2	(哂 ?)	swinging (stative); to swing an object without the intention of having it leave the hand

The following pairs are found in the Siyi dialects and in some of the Hakka dialects in Canton province.

8.a	liŋ	A1	(拎 ?)	to carry (by hand)
b	lik	D1a		to carry (by hand)
9.a	ts' iŋ	C1	揸	to pick up manually [< 秤 scale]
b	ts' ik	D1a		to pick up manually

In both (8) & (9) the nasal members (a) are thought to be more basic by native speakers. Their use is less restricted than the obstruent members (b). Thus, in a situation where a complaint has been lodged that an item is too heavy, it is acceptable for the hearer to say *daŋ ɲo liŋ yāt liŋ* or *daŋ ɲo ts' iŋ yāt ts' iŋ* [*yāt* = one] "let me have a try at carrying it/picking it up" but not *daŋ ɲo lik yāt lik* or *ts' ik yāt ts' ik*. Moreover, it is possible if not probable that (8) & (9) are modern reflexes of an earlier morpheme in the archaic language which had initial clusters *kl, *gl, etc. (9.a) also belongs to the same word family as 秤 *ts' iŋ* "scale", the hand-held scale.

10.a	C1	掙	to discard; to throw
b	D1b		to chase away