Cantonese grammar synopsis

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Purpose: give a skeletal summary of the linguistic structures of Cantonese, cross-referenced with the relevant literature.

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1. Introduction

(1) **Language background** (CRG 1-17, MCP xxxi-xlvii, ethnologue.org)

a. Classification: Sino-Tibetan, Chinese

b. Alternate names: Gwong Dung Wa (廣東話), Gwong Jau Wa (廣州話), Yuhyuh, Yue (粵), Yue Chinese, Yueh, Yuet Yue (粵語), 香港話 (Hong Kong speech), 白話(white/plain speech), 唐話 (Tang dynasty speech)

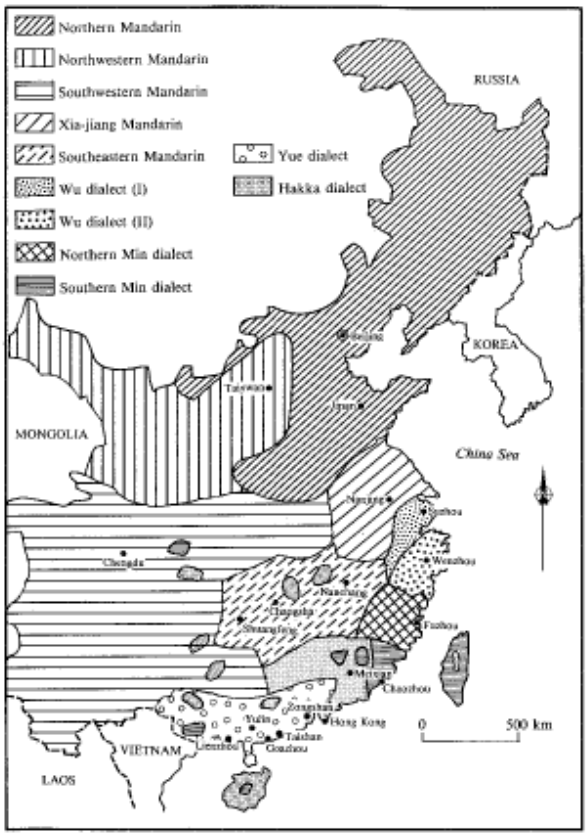
c. Speakers: approx. 40+ million (MCP xxxxi)

d. Locations: spoken primarily in southern Chinese provinces of Guangdong and Guangxi, Hong Kong, Hainan, Hunan, and the areas around Hong Kong and Macau; many additional speakers in Singapore, Malaysia, North America, and Australia

e. Dialects: Bobai, Cangwu, Gaolei (Gaoyang), Guangzhou, Guinan, Ping, Qinlian, Siyi (Hoisan, Schleiyip, Seiyap, Taishan, Toisan), Tengxian, Yangliang, Zhongshan; the Guangzhou variety is considered the standard.

f. Sociolinguistic variation: see CRG 4-6, 19, 36-37 and MCP 327-339; a set of phonological features found in colloquial speech, or 懶音 "lazy pronunciation", as in *n* → *l,* are used to investigate sociolinguistic variables; see section 2.1 for a list of processes and examples.

(2) **Cantonese and other Chinese languages** (Li & Thompson 1990)



Mandarin: official and lingua franca spoken throughout China and concentrated in northern and western areas; 4 tones, no coda stops; closest to written language. Approx. 700m speakers (from 1989 estimate, same source below)

Wu: dialect cluster spoken in the east along the lower Yangzi river, including Shanghai and Wenzhou urban centers; three lexical tones, complex tone sandhi. Approx. 73m speakers

Min: dialects spoken in Taiwan and in the south east; at least 8 tones, coda stops possible, complex tone sandhi. Approx. 55m speakers.

Yue: dialect group mainly spoken in Guangdong and Hong Kong, with Cantonese-speaking diaspora in the U.S., Europe, and South-East Asia; 9 tones, coda stops possible, *m/n* coda contrast. Approx. 40m speakers.

Hakka: dialects sparsely distributed through south eastern China in Guangxi province. Approx. 35m speakers.

Notes on Cantonese within larger Chinese language family:

a. Mutual intelligibility: Cantonese is not mutually intelligible with other Chinese languages; approx. 10% of Cantonese words overlap with Mandarin words in both etymology and Chinese characters (Zhan & Cheung 1989)

b. Tone: differs from Mandarin in having six lexical tones; level and contour tones differ in register (upper vs. lower)

c. Syllables: (C)(V)V(C) syllable template similar to other Chinese languages, but admits /p t k m/ in codas, unlike Mandarin

d. Word size: most morphemes are monosyllabic, though many words are polymorphemic and therefore polysyllabic; differs from Mandarin which has many disyllabic morphemes.

(3) **Significant works on Cantonese grammar (**see acronyms below, used throughout)

a. Matthews and Yip (2011) (CRG henceforth): a 485 page reference grammar covering phonology, morphology, syntax and also some topics in sociolinguistics.

b. Bauer and Benedict (1997) (MCP henceforth): 558 page book incorporating lots of information on syllable structure and tone; rich with examples.

c. Yue Hashimoto 1972: 755 page document investigating all aspects of Cantonese phonology in the traditional of classical generative phonology; contains a syllabary and an appendix that lists morphemes that alternate with a changed tone (see below)

d. Cheung (1986) (Cheung 1986 henceforth): 269 page doctoral dissertation on the phonology of present-day Cantonese. The work is especially informative on the casual speech phenomenon in Cantonese.

(4) **Writing systems** (CRG 10-13, MCP Appendix I)

a. Preamble: Cantonese is usually written in traditional Chinese characters, though there is some lack of standardization for some words, i.e., for some words, more than one character can be given for the same word, e.g., 仲意 vs. 鐘意 'to like'; furthermore, some Cantonese words have no characters at all, e.g., *sœ21* 'to slide' has no character.

b. Phonemic spelling systems: there are a number of sound-based writing systems; MCP Appendix I (471-475) gives a chart showing the sound correspondences for 11 different spelling systems, though some have considerable overlap with others, including the Yale system (most common in North America) and Jyutping/LSHK (the Romanization developed by the government of Hong Kong; LSHK stands for Linguistic Society of Hong Kong); many linguistic articles use IPA inspired transcription systems.

c. Yale system: distinguishes voiced and voiceless consonants, recognizes six different tones by using diacritics in combination with *h,* where *h* denotes low tone register (CRG 11, 27).

d. Tone: marked with an arbitrary number suffix in LSHK or diacritics plus *h* in Yale romanization.

e. Convention used here: we use a phonetic-based system that we developed for sfusedC (SFU Speech Error Database – Cantonese), henceforth dubbed 'sfusedC phonetic system'; it is described in the appendix and Yale/Jyutping equivalents are shown; characters are given when useful

(5) **Dictionaries and other lexical resources**

a. Chik and Ng-Lam (1989): large comprehensive dictionary with both Chinese characters and romanized forms

b. Huang (1970): large comprehensive dictionary (487 pages with approx. 20,000 entries), with forms with Yale romanization and Chinese characters in the Cantonese-to-English entries

c. Recommended dictionaries with Mandarin equivalents: Ouyang (1993) gives Guangzhou Cantonese to Mandarin correspondences: Zeng (1986) gives correspondences between Cantonese, Mandarin, and English; Zhan (1988) gives correspondences for dialects of Guanghou and Hong Kong

d. Specialized dictionaries: Hutton and Bolton (2005) is a fun dictionary for street slang, Lau (1977) is a general dictionary but contains a large number of compounds and special collocations, Cowles (1965) seems to specialize in spoken Cantonese

e. Other dictionaries: Kwan (1991), Kwan et al. (1991), Rao et al. (1981), Lee (1981)

(6) **Texts, annotated corpora, electronic resources**

a. The Hong Kong Cantonese Adult Language Corpus (Fung & Law 2013; Leung & Law 2001; Leung et al. 2004): collection of spontaneous speech from phone-in radio programs; more than eight hours of speech (170,000 characters) from 69 different speakers; transcribed both orthographically and phonetically (syllabary of 753 syllables, independent of tone); interface with FileMakerPro allows one to search for variable realizations of the same character, among other things; frequencies of phonological units have been reported in Leung et al. (2004).

b. The Hong Kong Bilingual Child Language Corpus (Yip & Matthews 2007): recordings, video files and associated annotations of six bilingual children exposed to English and Cantonese; annotations include Chinese characters and a morpheme breakdown, as well as some other commentaries; approximate duration is two years for each child (between 1-4 years of age) recorded at (bi)weekly intervals; recordings are of free play, role playing and reading in both English and Cantonese (about 30 minutes each); speech errors are tagged with a "*" label and classified as to type (e.g., phonological, semantic, morphological error); integrated in the CHILDES database system. Website: http://www.cuhk.edu.hk/lin/home/bilingual.htm

c. Hong Kong Cantonese Child Language Corpus (Lee & Wong 1998): million character corpus of early child language; searchable

d. Mid-20th Century Hong Kong Cantonese (Chin 2013): an annotated spoken corpus of mid-20th century Cantonese; Website: http://www.ied.edu.hk/major_project/project.php?id=95

e. PolyU Corpus of Spoken Chinese: large collection of texts in Chinese, including Cantonese; Website: http://langbank.engl.polyu.edu.hk/indexl.html

f. The Hong Kong Cantonese Corpus (Luke & Wong 2015/to appear): 230,000 word annotated corpus; Website: http://compling.hss.ntu.edu.sg/hkcancor/

g. Cantonese pre-school language development dataset (Fletcher et al. 2000): cross-sectional data from many children (72), part of CHILDES

(7) **Language associations**

a. Cantonese Language Association (http://humanities.byu.edu/cla/cla_homepage, see MCP xlii-xliv): created to help promote interest in Cantonese, as well as to facilitate communication amongst the Cantonese community.

b. Linguistic Society of Hong Kong (http://www.lshk.org/): a linguistic society based in Hong Kong that has an annual workshop on Cantonese.

2. Phonetics and phonology

Goal: give a relatively comprehensive description of the phoneme inventory and conditioned allophones, the natural phonological processes that apply across the board, syllables and tone, and variable phonological processes.

2.1 Segmental phonology

Nota bene: we use IPA phonetic symbols in [ ]-brackets for in-text phonetic illustrations; otherwise, we use the sfusedC phonetic system.

(8) **Consonants** (CRG 18-22, MCP 16-33) (sfusedC phonetic system shown below if different)

labial	lab-dent	dental/alveolar	palatal	velar	glottal
p pʰ (b p)		t tʰ (d t)		k kʰ kʷ kʷʰ (g k) (gw kw)	
	f	s			h
		ts tsʰ (dz ts)			
m		n [~l]		ŋ	
		l			
w			j		

Notes:

a. [t tʰ n]: more anterior that English [t d n]; tongue tip touches the back of the upper teeth.

b. [kʷ kʷʰ]: these sounds are "coarticulated", i.e., the velar sound is articulated simultaneously with the bilabial *w*; here is a tendency to simplify these to their velar counterparts, e.g., *gwok33* 'country' (note: this is sfusedC phonetic notation) can be [kʷɔk33] or [kɔk33], especially by younger speakers; because of labial dissimilation, they tend not to occur as the onset of a syllable containing a labial coda or with round vowels

c. Aspirated/unaspirated contrast (Clumek et al. 1981): it has the expected phonetic properties of a 'long lag VOT' vs. 'short lag VOT' contrast, with approx. mean VOT differences of: 10 vs. 74 ms (*p* vs. *pʰ*), 10 vs. 83 ms (*t* vs. *t ʰ*), and 26 vs. 91 ms (*k* vs. *kʰ*)

d. *n (~l)*: speakers tend to replace initial *n* with *l*, but *l* is a separate phoneme.

e. Unreleased stops: stops in syllable-final position (usually word-final too) are unreleased; thus, there is no distinction between aspirated and unaspirated syllable-finally.

(9) **Palatalization** (CRG 20, MCP 7, 28-29)

a. Hong Kong rule: affricates *ts* and *ts^h* become alveolar-palatal affricates, and *s* becomes an alveolar-palatal fricative *ʃ* (subject to inter-speaker variation), before *y*, e.g., /ts^{h}yn21/ → [tʃ^{h}yn21] 'whole', /sy55/ → [ʃy:55] 'book'. Also, these consonants are "partially palatalized" before *œ*.

b. GuangZhou rule: *s* becomes the alveo-palatal fricative *ɕ* before both *y* and *i*, e.g, [ɕy:55] 'book'

(10) **Simple vowels** (CRG 23-24, MCP 47-48)

	Front		Central	Back	*sfusedC phonetic system*		
	-round	+round					
High	i	y		u	i	y	u
Mid	ɛ	œ		ɔ	e	œ	o
Low			ɐ a:			a a:	

Notes:

a. Long and short *a*: only contrastive in closed syllables and CVV syllables with diphthongs, e.g., *san55* 'new', cf. *sa:n55* 'hill', but vowels also differ in quality; neutralized in open syllables, which have longer duration.

b. Short vowels in checked syllables: the vowels of syllables ending in unreleased stops *p t k* are shorter in duration, e.g., *sik55* 'know' is much shorter than the *i55* of *si55* 'poem'.

c. *œ ~ ɵ*: appears as *œ* before velars *k ŋ* and word-finally, but as *ɵ* before alveolars *t n* and in diphthongs ending in *i* (note that *i* is actually *y* in the diphthong *ɵy*, as shown below).

d. *u ~ ʊ*: *u* is lowered to *ʊ* before velars *k ŋ*.

(11) **Diphthongs** (CRG 24-25, MCG 58)

	Front		Central	Back	*sfusedC phonetic system*	
	-round	+round				
High	iu			uy	iu	ui
Mid	ei ɛu	ɵy		ɔy ou	ei eu œi	oi ou
Low			ɐi ɐu a:i a:u		ai au a:i a:u	

Structure: high vowels may have a second vowel component with the opposite [back] value, unrounded vowels may have both a front and back second vowel component, and round vowels may have a rounded front component transcribed as [y].

(12) **Psycholinguistics effects of segmental phonology**

a. Comprehension: see Kirby and Yu (2007) on the effect of phonological neighborhood on wordlikeness

b. Production: see Yu (2016) on how individual differences impact coarticulation effects; see Wong et al. (2012) on the role of segments and syllables in advanced planning for production

(13) **Sound change**

a. Sound change in syllable final nasals in Chinese (Zee 1985): the paper examines words with nasal finals (-m, -n, -ŋ) in Middle Chinese and compares them to the same words in different modern Chinese dialects. A model for the diachronic change in nasal finals from Middle Chinese to the modern Chinese dialects is then proposed, distinguishing three types of tendencies: major tendencies (-m > -n, -ŋ > -n, -n > -Ṽ), minor tendencies (-m > -Ṽ, -n > -ŋ, -ŋ > -Ṽ) , and rare/sporadic changes (-n > -m, -ŋ > -m), and thus refuting Chen's claim (1972) that the directionality of the merging processes for syllable finals nasal consonants in Chinese dialects is front to back.

b. Syllable-initial and syllable-final consonant sound change (Zee 1999): the syllable-initial stops are stable, except the weakening of /k^h-/ and the delabialization of /k^w-/ before /ɔ/. The phonemic distinction between syllable-initial /ts-/ and /s-/, and their palatalized counterparts have been lost, and the distinction has become an allophonic one. Onset /l-/ and /n-/ have both split into /l-/ and /n-/ onsets. Zero-onset and /ŋ-/ have also both split into zero-onsets and /ŋ-/. For syllable-final stops and nasals, /-t/ and /-k/ have both split into /-t/ and /-k/, and /-n/ and /-ŋ/ have also both split into /-k/ and /-n/. For the above non-labial coda consonant changes, the prevailing direction is alveolization of velar codas.

c. Cantonese loanword phonology and Optimality Theory (Yip 1993): the paper examines consonants of loanwords borrowed from English into Cantonese and argues that foreign input that is not perceived at all by or less salient to Cantonese speakers (e.g., voicing contrast, certain onset/coda clusters) triggers feature change and deletion. Other perceived foreign input is checked by a set of ranked constraints (FAITHFULNESS >> MINWD (bisyllabic Minimal Words) >> PARSE (preserve salient melody) >> FILL (avoid unfilled nodes)) within the Optimality Theory framework to produce the optimal output.

2.2 Prosodic phonology

(14) **Syllable structure** (CRG 25-26, 29, MCP 8-16, chapter 3, Cheung 1986 chaps 5-7)

(C_1) V_1 (V_2) (C_2)

Notes :

a. Onsets: position C_1 can be filled by any consonant, or it may be empty; there are no onset clusters

b. Codas: position C_2 is restricted to the nasals *m, n, ŋ* and unreleased stops *p, t, k*; open syllables lack a C_2

c. Diphthongs: created by filling V_2 with a high vowel; see diphthongs chart above

d. Syllabic nasals: *m* and *ŋ* can be syllabic in certain morphemes, e.g., the negative marker *m21* 'not' and the surname *ŋ21*; syllabic nasals generally occur in their own onsetless syllable (MCP 13, 315)

e. Tone: CVV(C) syllables may have contour tones, but 'checked syllables' ending in unreleased stops are restricted to bearing one of three basic level tones, i.e., high, mid, low, but these may be altered by tone sandhi rules (see below).

(15) **Attested rimes** with V_1V_2 and V_1C_2 in sfusedC phonetic system

	i	**e**	**y**	**œ**	**a**	**aː**	**o**	**u**
V	i	e	y	œ		aː	o	u
V+i		ei		œi	ai	aːi	oi	ui
V+u	iu	(eu)			au	aːu	ou	
V+m/p	im				am	aːm		
V+n/t	in	(en)	yn	œn	an	aːn	on	un
V+ŋ/k	iŋ	eŋ		œŋ	aŋ	aːŋ	oŋ	uŋ

Notes:

a. Labials: rimes ending in *m* and *p* are only attested in syllables with *i* or *a/aː* in the V_1 slot.

b. Rare rimes: *em* is only attested in onomatopoeic speech, e.g. *lem35-lem35-lei22* 'lick one's lips', and *et* and *en* are restricted to loans, as in *hœi33wet55* 'to party' and *fen55* 'friend'; *eu* and *ot* are rare, e.g., *deu22* 'to throw', *fan35got33* 'a type of yam'.

c. History: see Pulleyblank (1997) on the historical developments leading up to this rime structure.

2.3 Tone

(16) **Tone: introduction**

a. Lexical contrast: six lexical tones that differ in contour shape and register are observed in unchecked syllables; checked syllables ending in unreleased stops only have the three level tones, which are typically analyzed as short variants of one of the six lexical tones

b. Neutralization: Cantonese has both tone sandhi and morpho-phonological tone neutralizations in specific constructions (said to have "changed tone")

c. Seven tone system: some speakers, mainly Guangzhou speakers, have seven tones, distinguishing a high level and high falling tone; however most contemporary accounts of Cantonese tone treat it as a six tone system (see note on variation below).

(17) **Tone: basic types**, after Yue-Hashimoto (1972) and Chen (2000)

Level			Contour	
			rising	falling
	CVN	CVq		
high (yin)	33	5q 3q	35	53 ~ 55
low (yang)	22	2q	23	21

Notes:

a. Chao tone letters (Chao 1947): commonly used system to represent tone, giving pitch height on a five point scale, and representing changes in a sequence (see MCP 118)

b. Variation: the high falling tone [53] has a [55] free variant for some speakers, including some speakers from Hong Kong; other speakers simply have [55] and no [53]; most GuangZhou speakers have a contrast between [55] and [53]; however, some lexical items consistently have [53], including adverbial particles *tim53* 'too' and *sin5*3 'first' (CRG 12).

c. History: the high and low registers derive from an ancient contrast between voiced and voiceless obstruents in onset position (MCP 155); see Yu (2003) on the diachrony leading up to the occurrence of contour tones and syllable type

d. Checked syllables: the tones of syllables ending in voiceless stops (CVq above) compare phonetically with the same level tones elsewhere, e.g., [33] and [3q], and are in complementary distribution; however, they are recognized as distinct tone types in descriptive work on Chinese dialects; the tones on checked syllables are sometimes called 'dead tones', which contrasts with the 'live tones' that occur elsewhere.

e. No neutral tone: unlike Mandarin, which has a neutral tone in some environments, Cantonese has no neutral tone; all syllables have one of the tone shapes above.

(18) **Tone in Yale and Chao notation**

	Yale romanization			Chao tone letters		
	rising	level	falling	rising	level	falling
high	á	ā	(à)	a35	a55	(a53)
mid		a			a33	
low	áh	ah	àh	a23	a22	a21

Explanation: the diacritics used in Yale Romanization are described as helpful to learners, as the acute/grave distinction corresponds to the contour pattern, and low register is marked with an 'h'. N.b: Yale Romanization no longer recognizes a distinction between high-level and high-falling; both are high-level *a55*, because high-falling is a stylistic variant of high-level. Many linguistic studies that focus on tone, however, give the Chao tone pattern as a suffix to the syllable.

(19) **Tone: illustration of types** (adapted from Chen 2000: 17)

falling	53 ~ 55	si	'poetry'	wan	'warm'
	21	si	'time'	wan	'cloud'
rising	35	si	'excrement'	wan	'to look for'
	23	si	'market'	wan	'to allow'
level	33	si	'to try'	wan	'to shut/lock up'
	22	si	'affairs'	wan	'to transport'
	5q	sik	'to know'	wat	'twisted'
	3q	sek	'to kiss'	wa:t	'to dig'
	2q	sik	'to eat'	wat	'pit (of fruit)'

(20) **Tone sandhi: /53-5X/ → [55-55]** (MCP 110, 162-163)

a. Description: for speakers with the high falling tone 53, this tone assimilates to a high level 55 tone when before a syllable that also begins with a high tone, i.e., 53, 55, 5q.

b. Exception: one study showed that the speech of Hong Kong Cantonese speakers tends not to exhibit this tone sandhi (Tse 1978)

(21) **Illustration: tone sandhi** (MCP 163)

Environment	Examples
53-53 → <u>55</u>-53	間間房 ga:n53 ga:n53 foŋ35 → ga:n55 ga:n53 foŋ35 'every room' 包醫 ba:u53 ji53 → ba:u55 ji53 'guarantee cure'
53-5q → <u>55</u> 5q	天黑 tin53hak55 → tin55hak55 'dusk'
53-55 → <u>55</u> 55	醫生 ji53saŋ55 → ji55saŋ55 'doctor' 關燈 gwa:n53 daŋ55 → gwa:n55 daŋ55 'put out light'

(22) **Tone: introduction to "changed tone" neutralization** (MCP 166-168, 188)

a. Description: many morphologically complex words or phrases have a tonal neutralization on one syllable, said to contain a "changed tone" (變音), i.e., the tone that is the output of this neutralization; there are three such changed tones: high level [55], high rising [35], and low falling [21]

b. Factors: application of this neutralization depends on morphological (part of a construction) and semantic factors (associated with meanings, e.g., intimacy), but not phonological factors like with tone sandhi; often a characteristic change tone is used in a particular construction, e.g., low-falling tone [21] in reduplicated kinship terms

c. Regularity and optionality: Yue-Hashimoto (1972) cross-classifies the neutralization into regular/irregular cases (basically, whether it applies to specially marked words or in regular constructions) and optional/obligatory cases, i.e., some lexical items are in free variation with the changed tone; some lexical items always undergo the process in lexically marked contexts; there is significant interspeaker variation as to which items belong to which classes.

d. Listedness: some morphemes can be understood as having an underlying tone that alternates in certain environments, like lexical compounds; however, some changed tone neutralizations have resulted in distinct words that don't alternate, e.g., *toŋ21* 'sugar', cf. *toŋ35* 'candy', so there has been a split historically that resulted in two distinct lexical entries.

e. Tonal morpheme: the changed tone neutralization has been analyzed as simple affixation of a floating tone (Chen 2000; Yip 2002), e.g., / a:33+ji22+5/ → a:33 ji35 'number two'.

f. "Near merger": lexical and pinjam tone are realized slightly differently, but reflect a "near merger" scenario in which native listeners can't distinguish the two (Yu 2007)

g. References: see Downer (1959), Kam (1977), Whitaker (1955-56) for further investigation

(23) **Tone: changed tone neutralization, sorted by output**

	[55]	[35]	[21]
Restrictions	Affects all tones, but Yue-Hashimoto claims it applies mostly to [53] and [21]	Affects all tones except [53], but Yue-Hashimoto posits a frequency ordering: [21] > [33] > [24] [44]	Affects all tones, though rather unproductive
Frequency/ productivity	less common	most common	rare
Constructions	nouns, including deverbal nouns, regular: kinship terms, stative verbs and adverbs	nouns, contractions, reduplicated kinship terms, adjectives/stative verbs, reduplicated verbs, replaces *dzo35* perfect aspect	reduplicated kinship terms, adjectives/stative verbs, onomatopoeic phrases
Typical meanings	familiarity, idiosyncratic meanings	familiarity, colloquial register, diminution, slight contempt	

(24) **Illustration: changed tone neutralization, contractions with [35]** (CRG 30-31, 39; MCP 176)

Description	Examples
contraction of *jat55*, first syllable, reduplications of verbs or adjectives	si33 jat55 si33 → si35-si33 試試 'give it a try'
enumerative contraction of second *jat55*, preceding classifier gets high rising [35]	jat55 gœi33 jat55 gœi33 → jat55 gœi35 gœi33 一 句(一)句 'one sentence at a time'
contraction of aspect marker *dzo35*	sik22-dzo35 fa:n22 mei22 a:33? → sik35 fa:n22 mei22 a:33? 食飯未呀 'Have you eaten?'

(25) **Illustration: changed tone neutralization, reduplicated words** (CRG 31, 50, 183, 185)

Description	Examples
high rising [35], second syllable with suffix *-dei35* 地	fei21 fei21 dei35 → fei21 fei35 dei35 肥肥地 'rather chubby'
high rising [35], second syllable of reduplication	ma:n22 ma:n22 ha:ŋ21 → ma:n22 ma:n35 ha:ŋ21 慢慢行 'go slowly'

high rising [35], first syllable of reduplicated adjective	go33 kau21 tsœŋ21 tso23 dou33 <u>mun35</u> mun23 ge33 個球場坐到滿滿嘅 'the seats in the stadium are all filled up'
onomatopoeic words, both syllables	gœt22 gœt22 seŋ55 → <u>gœt21 gœt35</u> seŋ55 噓噓聲 'snoring sound'

(26) **Illustration: changed tone, kinship terms (reduplicated)** (CRG 432-437; MCP 206-207)

Description	Examples
high rising [35], second red syllable	mui22 mui22 → mui21 <u>mui35</u> 妹妹 'younger sister'
high level [55], second red syllable	go55 go55 → go21 <u>go55</u> 哥哥 'older brother'

(27) **Illustration: changed tone, kinship terms (non-reduplicated)** (CRG 432-436; MCP 208-209)

Description	Examples
high rising [35], second syllable	biu35 mui22 → biu35 <u>mui35</u> 表妹 'younger female cousin'
high level [55], second syllable	gu55 la:i23 → gu55 <u>la:i55</u> 姑奶 'husband's older sister'
high rising [35], simplex word	lœi23 → <u>lœi35</u> 女'daughter'
high level [55], first syllable	ji21 dzai35 → <u>ji55</u> dzai35 姨仔 'wife/mother's younger sister'
high rising [35], second syllable with *a:33* 阿	a:33 la:i23 → a:33 <u>la:i35</u> 阿奶 'concubine'
high level [55], second syllable with *a:33* 阿	a:33 dze21 → a:33 <u>dze55</u> 阿姐 'father/husband's concubine'

(28) **Tone: autosegmental analyses**

		level		contour	
a. Chao system		CVX	CVq	rising	falling
	high	33	5q 3q	35	53 ~ 55
	low	22	2q	23	21
b. Chen "LMH"	high	M	Hq Mq	MH	HM (~H)
	low	L	Lq	LH	ML (~M)
c. Bao register+contour	high	L, h		H, lh	H, hl
	low	L, l		L, lh	L, hl

Notes:

a. "LMH" privative tonal targets (Chen 2000): a more descriptive approach that directly characterizes the three pitch levels in CVq syllables with a three way contrast in tonal categories;

Chen (2000: 32-38) also sketches an analysis of the changed tone neutralizations as affixation of a floating <H> tone with 'tonal smoothing' to remove the second tone component of an input contour, e.g., ML<H> → MH (phonetically 21 → 35).

b. Register + contour (Bao 1999; Yip 1980): many recent approaches to tone in Chinese languages cross classify tonal target categories with register, or the pitch range in which the targets are achieved (see Zhang (2010) for review); Bao's system above (uppercase = register, lower = contour) is shown to be consistent with the basic tone sandhi rules and changed tone neutralizations, again, with floating tones; Bao argues that 5q actually derives from 35 instead of 53.

(29) **Tone: phonetic studies**

a. Perceptual dimensions of tone in Cantonese (Gandour 1981): multidimensional scaling procedures with the INDSCAL model (Individual Differences Scaling) were employed to explore the underlying perceptual dimensions of Cantonese tone. A listening-identification experiment revealed that Cantonese tones were perceived in terms of separate dimensions (contour, direction, and height) independent of each other. The findings also revealed that the height dimension had a comparatively weaker perceptual saliency, suggesting that the most important dimensions underlying the perception of Cantonese tones were contour and direction.

b. Tone and syllable duration in Cantonese (Kong 1987): analysis on the pronunciations of 3 Cantonese speakers were done to study how tones affect the duration of a syllable in Cantonese. Results show that among the contour tones, a syllable with Tone 2 (High-rising, 35) is the longest in duration. With the level tones, the the duration effect is symmetrical, where the mid-level tone (Tone 3) is the longest in duration, and the higher or lower it gets, the shorter the syllables.

c. Tonal downdrift in Cantonese (Wong 1999): a production and perception experiment shows there is tonal downdrift in Cantonese sentences. The perception results show that when listeners hear a normal downdrift sentence, they use the most recent F0 context to determine the tone of the target word. However, irregular sentences that violate the tonal downdrift would interfere with the usage of the recency strategy, and listeners would rely less on the recent context.

d. F0 Context and Tone Perception in Cantonese (Wong & Diehl 1998): the Cantonese syllable /si/ was used in 4 identification experiments. The first two experiments show that Cantonese tone is difficult to identify in isolation. In the following two experiments, participants were given resynthesized Cantonese and English F0 contexts respectively, along with the target /si/ with mid-level tone. With context, listeners relied on the context to perceived the target tone.

e. Tone and intonation in Cantonese (Vance 1976): a reading experiment indicates that there is a gradual fall in F0 in ordinary declarative sentences, while contrastive stress does not significantly affect F0. A separate listening-identification task reveals that although final tone lowering impairs intelligibility to some extent, tonal distinctions are not neutralized in final position; see also Ma et al. (2006a), Ma et al. (2004), Ma et al. (2008)

f. Tonal distinctions in Cantonese (Vance 1977): sixty-four different F0 contours were applied to the synthetic syllable [jau] to investigate the range of acceptable variation in height and contour shape of Cantonese tones. A listening-identification experiment revealed that Chao's tone-letter representations (1947) were generally closer to the actual F0 contours of Cantonese tones than Yue-Hashimoto's representations (1972).

(30) **Tone: psycholinguistics of perception**

a. Perception of tone vs. segments (Cutler & Chen 1997): a speeded response lexical decision experiment and a 'same-different' experiment showed that tone is processed slower and less accurately than segmental information in the onset and rime of Cantonese syllables; similar performance for non-Cantonese speakers on the same different task suggests tone processing involves perceptual processes rather than linguistic knowledge; see also Khouw and Ciocca (2007), Wong (2006)

b. Memory decay of tone (Francis & Ciocca 2003): an auditory 'same-different' experiment with minimal F0 differences showed that tone memory decays downwards for Cantonese speakers. The same experiment conducted on English speakers without tonal language experience suggest that the downward decay is tied to the Cantonese linguistic experience, and it was not found in non-linguistic acoustic perception.

c. Categorical perception of tone (Francis et al. 2003): five experiments, each involving an identification task and a discrimination task, revealed that contrasts between falling and rising contours and contrasts between high-rising and high-level tones were perceived categorically, while contrasts between level tones and contrasts between low-rising and high-rising tones were not perceived categorically. Presenting the stimuli in context had no effect on the perception of level tones and a low-falling to high-rising continuum, but it sharpened the category boundary along a rising-to-level continuum; see also Yu and Lam (2014),

d. Perceptual weighting of tone (Francis et al. 2008): identification and discrimination tests on Cantonese tones were done before and after training on English and Mandarin speakers with no prior Cantonese experience. Results show that F0 tones or intonation in L1 (first language) can be mapped onto L2 (second language) perception when the corresponding tones are similar. For cases where the L2 tone cannot be mapped onto the L1 F0 space, language experience will affect the listener's perceptual weighting on the F0 space. Mandarin speakers pay more attention to the direction of tones, while English speakers pay more attention to the F0 height.

e. Perception of merging tones in Cantonese (Mok & Wong 2010): in a perception experiment, 16 adult potential mergers (who showed signs of merging tones in an earlier production experiment) had a lower accuracy rate and a longer reaction time in discriminating merging tone pairs when compared to a control group. In spite of this apparent difficulty, the potential mergers were still able to distinguish the merging tone pairs with above 90% accuracy. The study concluded that the tone merger phenomenon in Cantonese is still in progress.

f. Native language input and the perception of tone (Yeung et al. 2013): two experiments that measured tone discrimination and tone preference showed that English-learning infants displayed declines in Cantonese tone discrimination from 4 to 9 months of age. The results also revealed that, while both Mandarin-learning infants and Cantonese-learning infants were able to discriminate the two Cantonese tones in the study, the two groups consistently displayed language-specific differences in tone preference at the age of 4 months and 9 months; see also Tong et al. (2014), Ciocca and Lui (2003), Ciocca and Ip (2008), Sze (2004), Wong et al. (2017), Lee et al. (2002)

(31) **Tone: acquisition**

a. L1 Phonological Acquisition in Cantonese (So & Dodd 1995): a cross-sectional picture-naming experiment and a longitudinal object-naming experiment on Cantonese-speaking Hong Kong

preschool children showed that the functional load of phonological features affect order of acquisition. By comparing it with acquisition in English-speaking children, the results show earlier acquisition of phonemes, especially consonants, in Cantonese-speaking children. The pronunciation errors involved similar universal processes, but the age when children stop producing those errors reflect their understanding in the language-specific phonological structure.

b. Phonologically disordered Cantonese-speaking children (So & Dodd 1994): speech samples from 17 Cantonese-speaking speech disordered children were collected through picture naming tests, story retelling, and spontaneous speech. Analyses of their speech error patterns revealed four sub-groups among the children: articulation disorder, delay, consistent use of non-developmental rules, and inconsistent errors. The study observed that these four groups have also been identified in the English-speaking speech disordered population and called for research on remediation approaches for each subgroup of phonological disorder.

(32) **Tone: intonation**

a. Tone and intonation (CRG p. 34, see also Vance and Walker (1976), Fox et al. (2008), Xu and Mok (2011), Ma et al. (2006b), Zhang (2014)): Although the pitch level of a syllable tends to decline during an utterance, this declination does not affect the recognition of the tones, which is relative to the surrounding tones rather than absolute. Intonation at the level of the sentence is restricted in Cantonese. For instance, a rising question intonation observed in English cannot be superimposed on a Cantonese question, especially if the question ends with falling lexical tones.

b. Intonation in Cantonese (Flynn 2003): The study gives a phonetic account of Cantonese intonation. An intonation contour at the utterance level is divided into foot, intonation group, and major intonation group for acoustical analysis. The study also explores the co-occurrence of tone and intonation, and concludes that prominence in Cantonese is realized in terms of duration rather than pitch, which already carries heavy function load in the identity of phonological tones

c. Perception of intonation (Ma et al. 2011): a production and perceptual identification experiment shows that the rising intonation in question-final positions can be misinterpreted as a 25 tone rather than its canonical form, and the identification is more accurate in context than in isolation.

2.4 Casual speech and variable phonology

Preamble: like all languages, Cantonese is very dynamic in exhibiting a host of variable phonological rules and rules of 'casual speech', where different speakers have different pronunciations of the same form, and also some speakers have different pronunciations at different times and contexts (see CRG, MCP, Cheung 1986, and Bauer 2013 for detailed descriptions). Many of these rules represent change in progress, where speakers systematically deviate from prescribed norms. Such deviations are sometimes dubbed 'lazy pronunciation' (懶音) by prescriptivists, and indeed some speakers hypercorrect forms that could be the output of these rules in an attempt to 'speak correctly'. Other rules are the result of assimilation or reduction of whole syllables and subsyllabic units, and are best characterized as fast speech phenomena.

(33) **Segmental variable rules**

a. Onset /n/ → l, e.g., /nei23/ → lei23 你'you', /nuŋ21/ → luŋ21 濃 'rich', subject to hypercorrection in older speakers (CRG 4, 21, MCP 329, Cheung 1986: 208).

b. Onset /ŋ/ → ∅, e.g., /ŋo23/ → o23 我'1.sg pronoun', /ŋau21/ → au21 牛'cow', subject to hypercorrection in older speakers (CRG 21, 37, MCP: 332, Cheung 1986: 208).

c. Onset /gw, kw/ → g, k /__ o, e.g., /gwok33/ → gok33 國 'nation', /kwoŋ33/ → koŋ33 擴 'expand' (CRG 19, 36, MCP: 335).

d. Onset /k/ → h in 3.sg, i.e., /kœi23/ → hœi23 佢 'he/she/it' (CRG 21, 37, MCP: 332, Cheung 1986: 208).

e. Onset /d/ → ɾ /V_V (lenition), e.g., /go35di55/ → go35ɾi55 嗰啲 'those' (Cheung 1986: 236).

f. Coda /ŋ/ → n, e.g., /saŋ55/ → san55 生(命) 'life', /leŋ/ → len33 靚 'pretty' (CRG 5, 21, 37, MCP 337, Cheung 1986: 214-215).

g. Coda /k/ → t → ʔ, e.g., /ba:k33/ → ba:t33, ba:ʔ33 百 'hundred', /bat55/ → baʔ55 筆 'pen' (CRG 21, 37, MCP 338).

h. Syllabic ŋ → m, e.g., ŋ23 → m23 五 'five' (MCP: 336, Cheung 1986: 219).

(34) **Assimilation rules**

a. Regressive assimilation: coda assumes the place of the following stop, e.g., /tsa:m21 dau35/ → tsa:n21 dau35 蠶豆 'broad bean', /jat55 go33 gam55/ →jak55 go33 gam55 一個柑 'a mandarin orange' (MCP 318, Cheung 1986: 233).

b. Progressive assimilation: onset assimilates totally to preceding bilabial coda, e.g., /gam55 jat22/ →gam55 mat22 今日'today', /m21 hou35/ → m21 mou35 唔好 'do not' (MCP 318, Cheung 1986: 233).

(35) **Syllable reduction patterns**

a. Rime reduction to schwa: the rime in sound symbolic and colloquial words can be reduced to schwa before *l*; in fast speech, the tone disappears, e.g., /gak33 la(:)k55 dai35/ → gə(33) la(:)k55 dai35 'armpit' (MCP 320, Bauer 2013: 40)

b. Rime deletion and merging: in sound symbolic and colloquial words, the rime of a syllable beginning with a voiceless velar or bilabial may delete before *l*, resulting in a Cl cluster in the next syllable, e.g., /dzik22 bat55 lat55/ → dzik22 blat55 直筆甩'ramrod straight' (Bauer 2013: 40, MCP 320).

c. Bisyllabic reduction: in bisyllabic words, the first syllable may lose its coda or second part of a diphthong and the second syllable loses its onset, e.g., /jat55 dzan22/ → ja55 an22 一陣'a moment' (MCP 324, Cheung 1986: 242).

d. Deletion of onset and coda: the numeral sap22 'ten' can be reduced to a:22 when in combination with other numerals, e.g., /sa:m55 sap22/ → sa:55 a:22 三十'thirty', cf. /sap22/ → sap22, *a:22 'ten'.

e. Bisyllabic merger: two syllables can be merged into one by retaining the onset of the first and the rime and tone of the last, e.g., / hai22 m21 hai22/ → hai22 mai22 'is it or is it not?' (MCP 319).

3. Morphology

(36) **Introduction**

a. Classification: Cantonese is typologically an isolating language because it has very little inflection, and almost every syllable corresponds to a morpheme

b. 'Monosyllabic myth': it is not correct however to say that every syllable is a word, because reduplication, affixation, and compounding results in a large number of polysyllabic words that are morphologically complex; reduplication and compounding are especially productive

3.1 Reduplication

(37) **Reduplication: introduction**

a. Productivity: reduplication is a characteristic feature of Cantonese morphology and considered productive in many constructions

b. Domains: reduplication applies to most word classes and has a variety of functions; it is very common in modifying adjectives

c. Format: typical to represent reduplication with AB format, where letter corresponds to an entire syllable, e.g., AAB means reduplication of first syllable; may have a pinjam tone inserted or not (see Yu (2009) on the different tonal transfer effects)

(38) **Reduplication: nouns and classifiers** (CRG 39)

Pattern	Description	Example
a. N-N	double noun means 'every Noun'	jan21 'person' → jan21-jan21 'everyone'
b. Cl-Cl N	double classifiers mean 'all/every'	dzek33-dzek33 ma:u55 dou55 leŋ33 cl-cl cat all pretty 'The cats are all pretty'

(39) Reduplication: verbs and adjectives (CRG 39-41)

Pattern	Description	Example
a. V-V-*ha:23*	past progressive 'while I was Verb + ing.'	ha:ŋ21 'walk' → ha:ŋ21-ha:ŋ21 ha:23 'walk around'
b. V-*jat55*-V → V-V	contraction	boŋ22 jat55 boŋ22 → boŋ35-boŋ22 'weigh'
c. Adj-*jat55*-Adj → Adj-Adj	contraction	je22 jat55 je22 → je35-je22 'very late at night'
d. VV: AB → AABB (directional verbs)	continuous	sœŋ23-lok22 'rise-fall' sœŋ23-sœŋ23-lok22-lok22 'going up and down repeatedly'
e. Adj: AB → AABB	intensifier	tsiŋ55-tso35 'clear' → tsiŋ55-tsiŋ55-tso35-tso35 'nice and clear'

f. V-V-*dei35* / Adj-Adj-*dei35*	diminutive	sik55 'know' → sik55-sik55-dei35 'know a little' so21 'silly' → so21-so35-dei35 'rather silly'

Notes:

a. Tone: (c) reduplication will change the first tone, (f) will have a changed tone on second reduplicated syllable (except with high level tone).

b. Intensives (e): some two-syllable adjectives can be reduplicated as AABB and AAB, with two separate meanings, e.g., *sap55 sap55 sœi33* 'trivial', and *sap55 sap55 sœi33 sœi33* 'miscellaneous'

(40) **Reduplication: onomatopoeic and sound-symbolic reduplication** (CRG 41)

a. Rule: onomatopoeic expressions are formed by reduplicating a verb and adding the noun *seŋ*55 'sound'; this process forms different word classes, and often there will be a tone change on the second syllable, as shown below.

b. Verb output: lei23 dzou22 mat55 hai35dou22 ŋaŋ21-ŋaŋ35-seŋ55 a33? 'What are you mumbling for?'

c. Noun output: ŋo23 je22ma:n23 teŋ55 dou35 di55 gok22-gok35-seŋ55. 'I heard a knocking sound at night.'

d. Adjective output: kœi23 ŋaŋ21-ŋaŋ35-seŋ55 gam35 ha:ŋ21 jap22 lai21. 'He came in making a mumbling noise.'

(41) **Reduplication: baby talk register** (CRG 42)

Output	Pattern	Example
a. Verb-object compounds	Verb-Obj-Obj	hœi33 ga:i55-ga:i55 'go out (go street-street)'
b. Common nouns (onomatopoeic)	AAB	wou55-wou55-gau35 'doggie (woof-woof-dog)'
c. Kinship terms	Noun-Noun	ji55-ji55 'auntie (auntie-auntie)'

(42) **Reduplication: residual word formation patterns** (CRG 42-43)

Output	Patterns	Example
a. Complex adjectives (sound symbolic)	Adj-BB	duŋ33-biŋ55-biŋ55 'ice cold (cold ice-ice)'
b. Idiomatic reduplication (rhetorical "how could …?")	Verb+*gwai35*+Verb+*ma:23* Adj+*gwai35*+Adj+*ma:23*	sik22-gwai35-sik22-ma:23 me55? lin21 jat55 eat-devil-eat-horse SFP even one man55 dou55 mou23 dollar also not-have 'How can (I) eat when (I) haven't got a dime?'

Complex adjectives (a): typically the adjective is mono-syllabic; pattern is unusual because normally modifiers precede modified stem; also the B element is often a bound morpheme (though *biŋ*55 is not).

3.2 Affixation

Preamble: while fewer in number than languages like English, Cantonese has a number of prefixes and suffixes, listed below. Affixes are sometimes characterized as 'flexible' (e.g., CRG: 43), in that they can appear as independent words in some contexts.

(43) **Affixation: prefixes** (CRG 43-44)

Prefix	Input	Output	Denotes	Example
a. *a:33-*	kinship terms, names	*same*	familiarity	a:33-lai35 'Mr. Lai'
b. *fa:n55-*	verb, adj	*same*	cf. *re-*	fa:n55-tsa:u35 're-use'
c. *fa:n35-*	verb, nouns	verbs, adj, nouns	cf. *anti-, counter-*	verb - fa:n35-gik55 'counter-attack'
d. *ho35-*	verb, adj	adj	cf. *-able*	ho35-lin21 'pitiable'
e. *hou35-*	verb of perception	adj	good X	hou35-teŋ55 'good to hear'
f. *la:n21-*	verb of perception	adj	difficult X	la:n21-teŋ55 'bad-sounding'
g. *la:n21-*	verb	adj	unXable	la:n21-tsa:k55 'unpredictable'
h. *ji22-*	verb	adj	easy X	ji22-wan35 'easy to find'
i. *lou23-*	noun	*same*	familiar, address	lou23-jau23 'mate, buddy'
j. *m21-*	adj, verb	*same*	negative	m21-sy55fuk22 'uncomfortable, sick'

Notes:

a. Prefix *a:33-* may result in a change of tone (for example lai21 → a33-lai35)

b. Prefixes *hou35-* and *la:n21-* have opposite positive and negative connotations for verbs of perception.

c. Prefixes *la:n21-* and *ji22-* have opposite meanings of easy and difficult. Example: *la:n21-wan35* 'hard to find', *ji22-wan35* 'easy to find'

d. Prefix *m21-* can be difficult to distinguish from negative *m21* which marks sentence negation (but is pronounced the same as *m21-*), but verbs with *m21-* can take aspect marker *dzo35* (marking completed action) which is incompatible with *m21*.

(44) **Affixation: noun-forming suffixes** (CRG 45-50)

Suffix	Input	Output	Denotes	Example
a. *-dei22*	pronoun	*same*	plurality	ŋo23-dei22 'we/us'
b. *-dou22*	adj	noun (measure)	degree	gou55-dou22 'height'
c. *-fa:t33*	verb	nouns	way, method	goŋ35-fa:t33 'way of speaking'
d. *-ga:55*	noun	*same*	specialist	jam55ŋok22-ga:55 'musician'
e. *-ga:u33*	noun	*same*	names of religions, cf. *-ism*	fat22-ga:u33 'Buddhism'

f. *-hok22*	noun	*same*	fields of studies	se23wui35-hok22 ‘sociology’
g. *-dzai35*	noun	*same*	diminutive	sy55-dzai35 ‘booklet’
h. *-dzai35*	name	*same*	intimacy, familiarity	fa:t33-dzai35 (film star Chow Yun-Faat)
i. *-dze35*	verb	noun	agentive	tau21dzi55-dze35 ‘investor’
j. *-dzi35*	noun	*same*	2 syllable template	dzuŋ35-dzi35 ‘seed’
k. *-dzy35ji33*	noun, adj	*same*	ideologies, principles	gei55wui22-dzy35ji33 ‘opportunism’
l. *-lœi35*	noun (fem, human)	*same*	diminutive	bi21bi55-lœi35 ‘baby girl’
m. *-lou35*	noun, adj	*same*	colloquial suffix for males	jau23-tsin35-lou35 ‘rich guy’
n. *-po21*	noun, adj	*same*	colloquial suffix for females	gwai35-po21 ‘foreign (Western) woman’
o. *-se23*	noun	*same*	an organization	tsœt55ba:n35-se23 ‘publisher’
p. *-si55*	noun, verb	*same*	master of a skill/profession	ga:u33-si55 ‘teacher’
q. *-siŋ33*	adj, verb, noun	noun (abstract)	nature, state of being of the stem	noun: jan21-siŋ33 ‘human nature’ verb: gei33-siŋ33 ‘memory’ adj.: dzuŋ22jiu33-siŋ33 ‘importance’
r. *-tau21*	noun	noun	2 syllable template	sek22(-tau21) ‘stone’
s. *-tau21*	Det, prep	noun	place expressions, localizers	li55-tau21 ‘this end, here’

Notes:

a. Suffix *-dei22* cannot be used with nouns, except *jan21* ‘person’. *jan21-dei22* → ‘(other) people’.

b. Suffix *-dou22* ‘degree’ also occurs as a separate word notably with *gei35 (do55)* ‘how many’. For example, *lei23 gei35 do55 dou22 gan22si22 a:33?* ‘How short-sighted are you?’

c. Suffix *-fa:t33* also occurs with *dim35 (jœŋ35)* ‘how’ and *gam35 (jœŋ35)* ‘this way’, in a discontinuous sequence. Used to describe a state of being or the way an action is performed, as in *kœi23 dim35 dziŋ35gu35 lei23 fa:t33 a:33?* ‘In what way did he trick you?’

d. Suffix *-ga:55* denotes a certain measure of distinction and is not used lightly. Sometimes *dzyn55-ga:55* ‘specialist’ follows the field of expertise.

e. Suffix *-dzai35* is sometimes used with names of celebrities.

f. The agentive suffix *-dze35* works similarly to Mandarin *-zhe*.

g. Suffix *-dzi35* is the cognate of Mandarin *-zi* (but not as widely used as in Mandarin). It is either obligatory or optional with different words, and it may change the tone of the word.

h. Suffix *-lœi35* is the female counterpart of *-dzai35* for human terms, e.g., *bi21bi55-lœi35* ‘baby girl’, *bi21bi55-dzai35* ‘baby boy’

i. Suffix *-po21* is the female counterpart of *-lou35* (m), it may have a changed tone from a low falling to a high rising, as in *-po35*, e.g., *jau23-tsin35-po35* 'rich woman'

j. Suffix *-siŋ*33 can occur as an independent word meaning 'nature' or 'sex', and *-siŋ33* can also form adjectives (see below table).

k. Suffix *-tau21* (r) corresponds to Mandarin *-tou*, though these suffixes are not used in all the same contexts; these forms are related to *tau21* 'head' and apply to various head-shaped items. *-tau21* may change tone from low falling to high rising. Example: *wu22-tau35* 'taro'. Mandarin makes more use of the suffixes *-zi* and *-tou*, possibly because Mandarin has a more severe problem with homophony than Cantonese, and the suffixes compensate for this.

l. Suffix *-tau21* (s) forms place expressions/localizers as an alternative to *min22/bin22*; *-tau21* can form adjectives when combined with *jau23*. Example: *jau23 pa:i55-tau21* (have style-head) 'stylish, classy'.

(45) **Affixation: adjectival suffixes** (CRG 50)

Suffix	Input	Output	Denotes	Example
a. *-dei35*	redup adj, stative verb	*same,* adverbs	diminutive	huŋ21-huŋ35-dei35 'reddish'
b. *-siŋ33*	misc.	adj	cf. *-y, -al* (lucky/seasonal)	ma:n22 'slow', ma:n22-siŋ33 beŋ22 'chronic disease'

Note: -dei35 may cause a tone change on the second reduplicated element (unless it is a high level tone). These forms may also be used as adverbs, as in *ŋa:m*55-*ŋa:m*55-*dei35* 'king of right'.

(46) **Affixation: verbal suffixes** (CRG 51-52)

Suffix	Input	Output	Denotes	Example
a. *-fa:33*	noun, adj	verbs	causative, cf. *-ize, -ify*	din22lou23-fa:33 'computerize'
b. *-fa:33*	verb	noun	nominalization	dzuŋ55gwok33 ge33 jin22doi22-fa:33 'China's modernization'

Notes: suffix *-fa:33* is used mostly in formal registers (broadcasting), often with the *dzœŋ55* construction.

Example: ha:u23dzœŋ35 jiu33 dzœŋ55 da:i22hok33 gwok33dzai33-fa:33
principle want put university international-ize
'The vice chancellor wants to internationalize the university.'

(47) **Affixation: 'infixes' (colloquial)** (CRG 52-54)

Infix	Position	Denotes	Example
a. *-gwai35-*	within a morpheme	emphasizes adj	lœn22dzœn22 'clumsy', lœn22-gwai35-dzœn22 'downright clumsy'
	between a stem and another affix	casual speech	kœi23 sei35-gwai35-dzo35 hou35 loi22 la:33 s/h die-devil-PFV very long SFP 'He died a long time ago. (Didn't you know?)'

	inside compound	casual speech	mat55-je23, mat55-gwai35-je23 lei21ga:33? what-stuff what-devil-stuff SFP 'what' 'what on earth is this?'
b. *-mat55je23-*	inside compound (usually verb-obj)	rhetorical effect: 'what do you mean?	pin55-sam55 'biased', pin55-mat55je23-sam55 a:33? 'What do you mean, biased?'

Notes:

a. Other infixes that are more offensive than *-gwai35-* may be used.

b. Infix *-gwai35-* may be used in negative wh-questions and rhetorical questions
E.g., *gwai35 dzi55 me55?* 'Only the devil knows.' (i.e. I don't know.)

c. Infix *–mat55je23-* is often shortened to *me55/53* or *mat55*.
-gwai35- can follow *-mat55je23-* or occur between *mat55-* and *-je23*, as in *tsœŋ33-mat55-gwai35-(je23)-go55?* 'What do you mean, singing?'

d. *-gwai35* can be substituted for *mat55je23* in some rhetorical expressions (changes the sentence-final particle), e.g., *gwa:n55 lei23 mat55je23 si22 a:33?* or *gwa:n55 lei23 gwai35 si22 a:21?* 'It's none of your business.'

3.3 Compounding

(48) **Compounding: Introduction**

a. Preamble: compounding in Cantonese is a productive means of forming adjectives, nouns, and verbs, these compounds do not always have a predictable meaning. Verb-object compounds behave like single words and are not always easy to distinguish from a phrase consisting of a verb and direct object.

b. Compounds vs. phrases: whether an expression is a compound or phrase is sometimes determined by its distribution (e.g., subject-verb and compound adjectives can only appear in one slot), but compound vs. phrase status is important in verb object compounds because they appear in the same slots and both allow aspect markers and verbal particles to intervene between the noun and verb; in this context, compound status is usually determined through idiomatic meanings and whether the compound has a corresponding intransitive in English with a diminished meaning for the noun, e.g., dzau33mei21tau21 'frown (lit. wrinkle-eyebrow)'.

(49) **Compounding: overview of the types**

	constituents	notes
Nouns (N)	2-3 words	input part of speech varies, all adj, noun, verb possible
	[σσ] from two σσ nouns	i.e., a blend taking a syllable from each disyllabic noun
Adjective (A)	A + N	
	A + A	
	N + A	
	V + N	
Verb (V)	V + N_{obj}	
	N_{subj} + V	

(50) Compound nouns (CRG 55-57)

	Input	Output	Example
a.	Varies (Adj, N, V)	Noun	dzau35-dim33 'hotel (wine-shop)'
b.	1 σ , two σσ nouns	Noun	hœŋ55goŋ35 da:i22hok22 → goŋ35-da:i22 'Hong Kong University'

Notes:

a. Compound nouns are either head final or head initial, e.g., some animal and food terms are head initial compound nouns; in Mandarin the opposite is true for animal nouns.

b. Size: some compound nouns combine three words, e.g., *sai35-ji55-gei55* 'washing machine (wash-clothes-machine)', and four words: *gou55-lau21-dai22-ha:22* 'skyscraper (tall building big building)'

c. Tone change: If the second element has a low-register or mid level tone, it changes to the mid/high rising tone.

d. Truncation: in some compounds, one syllable is taken from each noun to form the compound, not necessarily the first; this compounding is used primarily in written Chinese and in political contexts, ***dzuŋ55****gwok22* 'China' + *hœŋ55****goŋ35*** 'Hong Kong' -> ***dzuŋ55goŋ35*** *man22tai21* 'the China-Hong Kong question'.

(51) **Compound adjectives** (CRG 57-58)

	Input	Output	Example
a.	Adj + N	Adj	tsi55-sam55 'infatuated (crazy-heart)'
b.	Adj + Adj	Adj	gou55-sam55 'profound (high-deep)'
c.	N + Adj	Adj	dzi22-da:i22 'arrogant (self-big)'
d.	V + N	Adj	jau23-tsin35 'rich (have-money)'

Notes:

a. Noun *sik55* 'style/color' in compounds is used to describe food/furniture/etc, e.g., *dzuŋ55-sik55* 'Chinese-style'; with colour adjectives, *sik55* denotes colours (as opposed to metaphorical usages), e.g., *hak55* 'dark, secret', *hak55 si22* 'black market', *hak55-sik55* 'black'.

b. Modifiers: V+N compounds can be preceded by degree modifiers, for example, *hou35* 'very', as in, *hou35-jau23-tsin35* 'very rich'.

(52) **Verb-object compounds** (CRG 58-62)

Input	Grammatical function	Example
V + Object	Intransitive Verb, Noun Phrase	duk22-sy55 'study (study-book)'

Notes:

a. Description: similar to English intransitives; verb + noun combination mirrors the verb object order, though the resulting meaning is not always semantically transparent and can have an idiomatic meaning, e.g., *jam35-tsa:21* 'have dim sum (drink-tea)'.

b. Interruptions: verb-object compounds are different from verb-verb compounds in that they allow a host of elements to separate the main elements of the compound, including aspect markers, verbal particles, nominal modifiers, determiners expressing duration, and preforms (limited), e.g., *duk22-gan35-sy55* '(be) studying (study-PROG-book)'; when the verb and object are separated by classifiers and measure phrases, their idiomatic meanings are lost, e.g., *jam35-tsa:21* 'have dim sum', cf. *ŋo23dei22* ***jam35****-dzo35 hou35 do55 bui55* ***tsa:21*** 'We drank many cups of tea'

c. *tsiu21jy23* 'trendy language': compounds forming slang expressions by combining a Cantonese verb with an English or Japanese noun, as in: *siŋ55-le55* 'level-up (rise-level)' (*le55* is the first syllable of English 'level').

(53) **Subject-verb compounds** (CRG 62)

Input	Output	Example
Subject + Intransitive V	Verb (stative)	tau21-tuŋ33 'have a headache (head-hurt)' ŋa:n23-fan33 'sleepy (eye-sleep)'

Description: merging of subject noun and verb is less common that verb-object compounds, tend to denote bodily feelings, e.g., headache example; they can be modified by *hou35* like adjectives and used with *mei22* 'not yet' like verbs.

4. Word classes: lexical and functional categories and pronouns

Goal: identify all the lexical and functional categories of Cantonese, their underlying morphological categories, the morpho-syntactic properties that characterize them, and the subclasses of nouns and verbs.

(54) **Morphological categories**

a. Word (CRG 38): mono-morphemic or polymorphemic unit with relatively free distribution; most polymorphemic words are compounds; morphemes typically consist of one syllable and an associated tone.

b. Compound (CRG 54): combination of two or more words to form a new word, with both transparent and opaque meanings.

c. Clitic (a.k.a. particle, CRG 225-262): verbal or sentence-final closed class items, sometimes prosodically bound to a host; verbal particles behave similarly to suffixes except they can be separated from the stem by the negative *m21* or the modal *dak55*; sentence final clitics may occur in a sequence and have a fixed order.

d. Stem: base for affixation, typically a free morpheme composed of a single syllable, e.g., *mou23-siŋ33* 'motherly nature (stem-suffix)'.

e. Affix (CRG 43): morphological bound morphemes mostly used in word derivation; sometimes also have independent forms; Cantonese has few affixes, approximately 22 suffixes and 10 prefixes.

4.1 Lexical categories

Preamble: Cantonese has many lexically ambiguous words that differ in word class, but do not change form, making it hard to distinguish lexical categories with similar characteristics, e.g., verbs and adjectives.

(55) **Nouns** (CRG 104)

a. Definition: head of the noun phrase; also appear phrase-finally as [(cl) __].

b. Subcategorization frame (all optional): [Det Num cl Adj (*ge33*) _]

c. Classifiers: a classifier is obligatory when a determiner accompanies a noun.

d. Illustration: [$_{NP}$ li55 lœŋ23 dzuŋ35 gwo33-si21 ge33 lam35-fa:t33]
this two kind past-time lp think-way
'These two outdated ways of thinking'

(56) **Verbs** (CRG 144)

a. Definition: head of the verb phrase, differing in the three basic subcategorizations shown below.

b. Intransitive: [___ (Asp)] e.g. fan33 'sleep'

c. Transitive: [___ (Asp) NP] e.g. sau55 tsin35 'receive money'

i. [___ (Asp) CP] e.g. gei33dak55 [kœi23 gei35 lek55] 'remember she is quite smart'

d. Ditransitive: [___ NP NP] e.g. ga:u33 kœi23 dzuŋ55man35 'teach 3SG Chinese'

(57) **Adjectives** (CRG 179)

a. Definition: attributive adjectives modify a noun and can be modified by an adverb of degree; predicative adjectives behave like verbs and do not require a copular verb but do require an adverb of degree.

b. Subcategorization frame of adjectives: [(Adv) ___]$_{AP}$

c. Illustrations: (giŋ22) sy55fuk22 '(very) comfortable'

4.2 Functional categories

(58) **Classifiers** (cl, CRG 72, 124)

a. Definition: an obligatory grammatical morpheme occurring before the noun, serving to classify nouns loosely based on shape, natural kind and function; two or more alternative classifiers are available for some nouns (e.g. *syn21* 'ship' can occur with the classifiers *ga:33* or *dzek33*).

b. Illustration: sa:m55 dzek33 gau35 'three dogs'
three cl dog

(59) **Linking particle *ge33*** (lp, CRG 104)

a. Definition: grammatical morpheme linking modifying expressions and head nouns; may be omitted in certain environments, including with kinship terms and other nouns with a close link between the possessor and the noun.

b. Illustration: dza:55-tse55 fa:n55 hok22 ge33 hok22sa:ŋ55 'students who drive to school'
drive-car return school lp student

(60) **Coverbs** (cv, CRG 69)

a. Definition: grammatical morpheme that functions something like a preposition, but also exhibits properties typical of verbs, e.g., can take an aspect marker or verbal particle; may occur without a following verb, but the coverb and its arguments usually modify the verb phrase it follows.

b. Subcategorization frame: [___ (Asp/V_{Part}) N]

c. Illustration: hai35 hok22ha:u22 jiŋ35-sœŋ35 'Taking a photo at school.'
at school take-photo

(61) **Localizers** (CRG 71)

a. Definition: grammatical expressions that either function as adverbs of location or postpositions

b. Template: [direction + *min22* 'face' / *bin22* 'side'], i.e., the first syllable of a disyllabic localizer, the first syllable indicates the direction, and the second must be one of either *min22* or *bin22*.

c. Subcategorization as postposition: [___ (typically *hai35* 'at') + noun + localizer]

d. Illustration: hai35 lei23 hau22bin22 'behind you'
at you behind

(62) **Verb phrase adverbs** (CRG 73, 203)

a. Definition: de-adjectival adverbs that modify the verb phrase, following the syntactic frames given below:

b. [Verb + *dak55* + Adj] (adverb of manner), e.g., kœi23 hok22 dak55 hou35 fa:i33 'He learns fast.'
s/he learn Adv very fast
[Adj + *gam35* + Verb], e.g., ŋo23 jiŋ22dzan55 gam35 hok22 'I'm studying (it) seriously.'
I serious thus learn

c. [reduplicated adjective + (*gam35*) + verb], kœi23 sai33-sai33 seŋ55 gam35 goŋ35 je23
3SG small-small voice so speak things
'She talked in a quiet voice.'

(63) **Sentence adverbs** (CRG 213)

a. Definition: adverbs with a variety of functions (expressing quantity, time, frequency, etc.) that modify the whole sentence; appear in three canonical positions: sentence initially, sentence finally, and between the subject and verb.

b. Illustration: ŋo23 wa:k22dze35 m21 lai21 dak55 'I might not be able to come.'
I perhaps not come able

(64) **Conjunctions** (CRG 75)

a. Definition: grammatical morpheme that conjoins two words or phrases of the same class; can be overt or null.

b. Illustration: ma:i23 ∅ ma:i22 ga:33 'buying and selling prices'
buy Conj sell price

(65) **Complementizers**: Cantonese does not make use of complementizers, though relative clauses use closed class morphemes *ge33* and *go35* to delimit clause boundaries.

4.3 Pronouns

(66) **Personal pronouns** (CRG 92)

a. Definition: pronouns that occupy subject and object positions; marked for person, number (with suffix *-dei22*); 3sg pronoun *kœi23* can replace animate, inanimate, and abstract entities.

b. Illustration: ŋo23 sœŋ35 tai35 sa:i33 kœi23 sin55 wa:n21
1SG want read all 3SG first return
'I want to finish reading it before I return it.'

(67) **Paradigm of personal pronouns**

	singular	plural
1	ŋo23	ŋo23dei22
2	lei23	lei23dei22
3	kœi23	kœi23dei22

(68) **Possessive pronouns**

a. Explanation: no separate form for possessives; possessive pronouns occur before the possessed noun as follows: [__ *ge33*/cl + noun]

b. Illustrations: lei23 ge33 gin22hoŋ55 'your health'; kœi23 dzi55 bat55 'his pen'.

(69) **Reflexive pronoun** (CRG 99)

a. Definition: the reflexive pronoun *dzi22gei35* is a long distance anaphor that can have local or long distance antecedents; uninflected and serves all person and number categories; occurs in multiple positions: matrix object, embedded subject and embedded object.

b. Illustrations: i. ŋo23$_i$ liu23ga:i35 dzi22gei35$_i$ 'I$_i$ understand myself$_i$.'
I understand self
ii. wa:21-dzai23$_i$ wa:22 [dzi22gei35$_i$ wui23 ga:u35-dim22]
Wah say [self will manage]
'Wah$_i$ says he$_i$ will manage (it).'
iii. a:33-ma:21$_i$ wa:22 [miŋ21-dzai35$_j$ m21 sik55 dziu33gu33 dzi22gei35$_{i/j}$]
grandma say [Ming-boy not know take-care self]
'Grandma says Ming doesn't know how to take care of her.'
or 'Grandma says Ming doesn't know how to take care of himself.'

c. Note: CRG (99) states that *dzi22gei35* is subject-oriented. However, recent experimental work has shown that *dzi22gei35*'s tendency to select a subject antecedent is modulated by other logophoric conditions and that non-subject antecedent potential is possible (Chan 2017).

(70) **Reciprocal pronouns**

a. Explanation: there is no pronoun for reciprocal forms; rather the clause is repeated with an inverted subject-object ordering.

b. Illustration: ŋo23 bei35-min35 kœi23 kœi23 bei35-min35 ŋo23 'He and I respect each other.'
I give-face him he give-face me

4.4 Verb subcategories

(71) **Copular verbs** (ev, CRG 144)

a. Definition: the copula is *hai22* 'be', which is mainly used to join a subject and nominal predicate; it is not used when the predicate is an adjective

b. Illustration: go35 di55 jan21 hai22 ŋo23 ge33 paŋ21jau23 'Those people are my friends.'
that CL people are my LP friend

(72) **Stative verbs** (sv)

a. Definition: stative verbs share properties with adjectives and verbs; they may take objects like transitive verbs and be modified like adjectives.

b. Illustration: ŋo23 geŋ55-geŋ55-dei35 dzek55 'I'm a bit afraid.'
I afraid-afraid-ish sfp

(73) **Serial verbs**

a. Definition: a sequence of unconjoined verbs referring to a single event; may include directional verbs expressing motion.
Frame: [subject + verb + (verb) + (verb) + object]

b. Illustration: ŋo23 tiŋ55jat22 fei55 hœi33 gin33-guŋ55 'I'm flying to an interview tomorrow.'
I tomorrow fly go see-work

(74) **Auxiliary verbs** (av) (CRG: 68)

a. Definition: appear before the first verb and function similarly to other verbs; auxiliaries do not take aspect markers or verb particles, and they do not carry tense, aspect or mood; when the main verb is clear, it can be dropped with auxiliary support.

b. Illustration: bin55go33 **wui23** dzuŋ55ji33 li55 dzuŋ35 jan21 ge33 dzek55?
who would like this kind person sfp sfp
'Who would like a person like that?'

(75) **Verbs of perception**

a. Definition: denotes a perceptual activity when combined with a verbal particle (e.g., *dou35* or *gin33*); typically dak55 is optional.

b. Illustration: hou35 jyn23 dou55 man21 (dak55) dou35 'You can smell it a long way off.'
very far also smell (can) PRT

(76) **Verbs of cognition**

a. Definition: verbs denoting a mental activity or perception; can take clausal complements.

b. Illustration: ŋo23 gok33dak55 [lei23 jiŋ55goi55 siu35sam55 di55]
I think you should careful little
'I think you ought to be more careful.'

(77) **Passives** (CRG 168)

a. Definition: verb used in passive construction (see frame below); an unknown or generic agent may be replaced by *jan21* 'person' or *je23* 'thing'.

b. Frame: [$NP_{patient}$ *bei35* NP_{agent} V (asp)]$_S$

c. Illustration: di55 tsa:ŋ35 bei35 jan21 ma:i23 sa:i33 'The oranges have all been bought.'
CL oranges by people buy all

(78) **Postverbs** (pv)

a. Definition: a word suffixed to a functive (main) verb to provide relational information; requires an object; common postverbs are *hai35*, *bei35*, and *dou33*.

b. Illustration: kœi23 dzy22-**hai35** hœŋ53-goŋ35 'He lives **in** Hong Kong.'
he live-at hong-kong

(79) **Resultative verbs** (rv)

a. Definition class 1: a sequence of two verbs used to form a transitive verb that indicates an action and its result.

b. Illustration: go33 bi21bi55 ha:m33 seŋ35 kœi23 ma:21ma:55
cl baby cry wake her mother
'The baby cried and woke her mother up.'

c. Definition class 2: a resultative construction can also involve a main verb followed by *dou33* 'until', which introduces an adjective or a clause expressing a result.

d. Class 2 frame: [NP V *dou33* AdjP/CP]

e. Illustration: bui55 sœi35 dou35 dou33 mun23-se35-dzo35
CL water pour until full-flow-PFV
'The glass of water is overflowing as a result of the pouring.'

4.5 Noun subcategories

Preamble: Each noun in Cantonese co-occurs with a particular classifier. Classifiers are used to 'classify' things in the word according to distinctive features of shape, natural kind and function. Therefore, a useful way of distinguishing between different types of nouns is to distinguish between the types of classifiers they take. (CRG 109)

(80) **Nouns taking collective classifiers** (CRG 114)

a. Definition: these nouns denote a group of people or objects.

b. Classifier: take collective classifiers such as *ba:n55* 'class/group', *dœi55* 'pile/heap', and *tsau55* 'string'.

c. Illustration: li55 ba:n55 hok22sa:ŋ55 'This class of students'
this class student

(81) **Nouns taking container classifiers** (CRG 117)

a. Definition: these nouns usually denote commodities and products.

b. Classifiers: these nouns take their appropriate container as their classifier, such as *bui55* 'cup' and *doi33* 'bag'. These container classifiers often function as independent words with the same meanings.

c. Illustration: jat55 doi22 min22fan35 'one bag of flour'
one bag flour

(82) **Nouns taking generic classifiers** (CRG 118-9)

a. Definition: these nouns usually denote types or kinds.

b. Classifiers: classifiers that denote types/kinds/species accompany these nouns (e.g. *dzuŋ35* 'kind', *lœi22* 'genre, species' and *jœŋ22* 'kind').

c. Illustration: sa:m55 jœŋ22 suŋ33 'three dishes'
three cl dish

(83) **Nouns taking sortal classifiers** (CRG 120)

a. Definition: these nouns denote their intrinsic features through their classifiers.

b. Classifiers: classifiers are greatly varied. E.g. *fuk55* applies to rectangular items that are typically vertically oriented, *gau22* denotes a lump-like object and *fa:i33* denotes flat-surfaced objects.

c. Illustration: go35 fa:i33 bo55lei55 'that window pane'
that cl glass

(84) **Nouns that do not take classifiers** (CRG 112)

a. Definition: these nouns denote abstract entities.

b. Illustration: man21dzy35 'democracy'

5. Syntactic overview

Goal: to give a rough sketch of basic sentences in Cantonese, as well as the main alternate word orders.

(85) **Basic word order: introduction**

a. Topic-comment structure (see Li and Thompson (1976) and Chao (1968) for related discussion on Mandarin): topic (particle/pause) comment; 'subjects' are just one kind of sentence topics, which in essence sets the spatial-temporal framework in which the comment is asserted; many alternate word orders can be understood as instantiating topic-comment word order.

b. Default SVO: NP_{Sub} (Adv) Verb (Asp) (V_{part}) (Adv) NP_{Object}

c. Lack of case morphology: word order codes grammatical relations in default SVO order

d. Alternate orders: a host of syntactic shifting processes may result in non-default order, including SOV, VS, right-dislocated constituents and fronted constituents through topicalization; see Cheung (2009), (Law 2003)

(86) **Illustration: basic sentences**

SVO with transitive verb	ŋo23 duk22 jy23jin21 hok22 'I study Linguistics.' I study language studies
SV with intransitive	ŋo23 tuŋ21ji33 'I agree.' I agree
NP_{Sub} Adv V	ŋo23 ha22 go33 siŋ55kei21 foŋ33-ga:33 'I am taking leave next week.' I next cl week take-leave
NP_{Sub} V V_{part} NP_{Obj}	ŋo23 sau55 dou35 tsin35 'I have received the money.' I receive prt money
NP_{Sub} V V_{part} Adv NP_{Obj}	ŋo23 dzou22-ma:i21 tiŋ55jat22 fan22 guŋ55fo33 I do-prt tomorrow cl homework 'I finished the homework for tomorrow too.'

(87) **Illustration: alternate SOV word order** (CRG 79)

Secondary topicalization	ŋo23 **jing55gwok33** mei22 hœi33-gwo33 'I haven't been to England.' I England not-yet go-EXP
Constructions with *dou55* (object is quantified)	ŋo23 **fuk55-fuk55 wa:35** dou55 sœŋ35 ma:i23 'I want to buy every picture.' I cl-cl picture all want buy

(88) **Illustration: alternate VS word order** (CRG 80-81)

Intransitive verb type:	Example:
a. Verbs of motion	gam55jat22 lai21-dzo35 hou35 do55 da:i22lap55-lou35 today come-PFV very many big shot-guys 'A lot of big shots came today.'
b. Weather verbs	ji21ga:55 lok22-gan35 jy23 'It's raining now.' now fall-PROG rain

c. Verbs of appearance/disappearance	gam55jat22 tsœt55jin22-dzo35 jat55 tiu21 sa:55jy35 today appear-PFV one cl shark 'A shark appeared today.'
d. Verb *sei35* 'die'	sei33tsyn55 dei22dzan33 sei35-dzo35 hou35 do55 jan21 Szechuan earthquake die-PFV very many people 'Many people died in the Szechuan earthquake'

Notes:

a. Description: the alternate VS word order is only allowed with certain intransitive verbs. These verbs denote a change of state or location and are known as ergative or accusative verbs.

b. Default SV order: If introduced by the existential marker *jau23*, the NP can appear before the verb, giving the basic SV order, e.g. *gam55jat22 jau23 jat55 tiu21 sa:55jy35 tsœt55jin22-dzo35* 'A shark appeared today', cf. (c) above.

c. Verbs of motion: the subject may appear before the verb without the existential marker *jau23*. e.g. *gam55jat22 hou35 do55 da:i22lap55-lou35 lai21-dzo35* 'A lot of big shots came today.', cf. (a) above.

d. Verb *sei35* 'die': when used as an emphatic verbal particle, the alternate VS word order is applied, e.g. ŋo22 sei35 kœi23 la:33! 'She's starving!'
hungry die her sfp

(89) **Illustration: alternate word order with right-dislocation** (CRG 82-83)

a. Subject dislocated	hou35 lek55 wo33, lei23! 'You're so smart!' very smart sfp you
b. Object dislocated	jau23-mou23 ma:i23 a:33, ga:33 tse55? 'Did you buy it, that car?' have-not-have buy sfp cl car
c. Modal verb dislocated	kœi23 ŋa:m55-ŋa:m55 dzuŋ33-dzo35 tau21-dzœŋ35, sat22 ma:i23 ga:n55 s/he just-just win-PFV first-prize sure buy cl da:i22 uk55 la:55, wui23 big house sfp will 'She just won the first prize; she will surely buy a big house.'
d. Adverb dislocated	fa:n55-dzo35 uk55kei35, do55sou33 'Gone home, probably.' return-PFV home probably
e. Multiple constituents	siŋ21jat22 man22 di55 kei21gwa:i33 man22tai21, kœi23 wui23 always ask cl strange question s/he will 'Always asks strange questions, he does.'

Description: a constituent is moved to the end of the sentence, after the sentence particle. This process can give emphasis, as in the dislocated subject in (a), or the dislocations can be more of an afterthought, without special emphasis, as in (c, d). More than a single constituent within a sentence can be dislocated, as in (e), which can be reconstructed to the basic SVO order by moving the pronoun and modal to the front.

(90) **Topicalization: introduction** (CRG 83-84)

a. Assumption: the topic-comment structure of Cantonese requires a sentence topic (cf. discourse topic in a text).

b. Definiteness: a topic is restricted to be a definite NP. In cases where the topic is an indefinite NP, the NP is introduced by the existential marker *jau23*.

c. Grammatical relations: the topic can bear a grammatical relation with the predicate and become the topic of the chain of clauses that follows it. However, this grammatical relation is not mandatory, as a topic does not always have to bear a grammatical relation to the predicate (see below).

d. Topics without a grammatical relation: a constituent that does not bear a grammatical relation to the predicate can be made the topic of a sentence if it indicates the circumstance or sets the frame; loosely glossed as '*as for'* or *'as far as… is concerned'*.

(91) **Topicalization of constituents with grammatical relation to predicate** (CRG 84-85, 88-89)

a. Topicalized objects:

Output:	Function:	Example:
OV	Passives (subject is unknown)	ga:33 tse55 dziŋ35 hou35 la:33 cl car make good sfp 'The car's been repaired.'
OSV	To contrast topicalized word with another that is mentioned or implied.	**sy55ba**:**k33dak22** ŋo23 seŋ21jat22 teŋ55 ge33, **sy55ma**:**n22** Schubert I always listen sfp, Schumann dzau22 siu35 di55 la:33 then little-er sfp 'Schubert I listen to a lot, Schumann rather less.'
[RC-O]SV	To avoid grammatical but clumsy sentences	**tiŋ55jat22 goŋ35 go35 di55 je23** lei23 dzœn35bei22 hou35 mei22? tomorrow talk that cl stuff you prepare finish not-yet 'Have you finished preparing the stuff you're talking about tomorrow?'

b. Topicalized verbs:

Output:	Function:	Example:
V *dzau22*-VP	Part of a response. Fronted verb is repeated in its normal position in clause.	**moŋ22** dzau22 (hai22) gam35 moŋ22 la:55 hope then (is) so hope sfp 'Well, that's what we hope.'
V_1 *dzau22*-V_1P, V_2 *dzau22*-V_2P	To constrast two verbs. The fronted verb is repeated.	gam35 dzau22 gam35, sœŋ35 dzau22 m21 sœŋ35 la:k33 dare then dare want then not want sfp 'I dare, but I don't want to.'

(92) **Illustration: Double subject constructions** (CRG 86-87)

Topic-comment association:	Position:	Example:
a. Part-whole relationship	i. Front of the sentence	tsiu21dzau55-wa:35 ŋo23 jat55 gœi33 dou55 m21 sik55 ga:33 Chiuchow-ese I one phrase also not know sfp 'I don't know a single word of Chiuchow (dialect).'
	ii. After the	kœi23 hœŋ55goŋ35 dziŋ22hai22 sik55 gau35luŋ21

	subject	s/he Hong Kong only know Kowloon 'As far as Hong Kong is concerned, she only knows Kowloon.'
b. Type-token relationship	Front of the sentence	be55dzau35 lei23 dzœi33 dzuŋ55ji33 jam35 bin55 dzek33 a:33? beer you most like drink which cl sfp 'Which kind of beer do you like?'

Notes: patterns (ai, b) are known as "hanging topics" or "double subjects", while type (aii) is known as "secondary topicalization", where the topic comes after the subject.

(93) **Illustration: Definite forms that can occur as the topic** (CRG 89-90)

Definite noun phrase:	Example:
a. [*jau23* + indefinite NP]	tau21sin55 jau23 (jat55) go33 jan21 jap22-dzo35 lai21 'Someone came in just now.' just-now have (one) cl person enter-PFV come
b. Generic NP	ma:u55 hou35 dzuŋ55ji33 sik22 jy35 ge33 'Cats like to eat fish.' cat much like eat fish sfp
c. CL + NP	dzek33 ma:u55 dzau35-dzo35 jap22-lai21 'The cat came in.' cl cat walk-PFV enter-come

Notes: some NPs are understood as generic when they do not have a classifier, e.g., *ma:u55* 'cat', as in (b). The combination CL+noun indicates a definite noun phrase when in the subject position, in the object position this construction can indicate a definite or indefinite noun phrase.

(94) **Topic chains**

Preamble: a series of sentences/clauses may share a topic. topic may then be the subject or object of following clauses; an indefinite NP is first introduced by the existential marker *jau23*. It then serves as the topic of the following chains of clauses.

Form:	Example:
a. [sentence topic] + connected clauses	**gin22 sa:m55** hou35 leŋ33 a:33, ŋo23 dzuŋ55ji33 dou33 bei33, cl blouse very pretty sfp I like until paralyzed lei23 ma:i23-m21-ma:i23 bei35 ŋo23 dzek55? you buy-not-buy for me sfp 'That blouse is really to die for. Will you buy (it) for me?'
b. [jau23 + indefinite NP] + connected clauses	**jau23 go33 hok22sa:ŋ55** hou35 siŋ35 ge33, seŋ21jat22 man22 je23, have cl student very bright sfp always ask things tsi33-tsi33 ha:u35-si23 dou55 lo35 hou35 gou55 fan55 ge33 time-time take-exam also get very high mark sfp 'There's a student who's really bright, always asking questions, (she) gets high marks every time (she) takes an exam.'

Notes:

a. Case (a): the topic is the subject of *hou35 leŋ33* 'very pretty' and the object of *dzuŋ55ji33* 'like' and *ma:i23* 'buy'.

b. Case (b): the topic is the subject of *man22 je23* 'ask things', *ha:u35-si23* 'take an exam', and *lo35 hou35 gou55 fan55* 'get high marks'

6. Syntax: NPs

(95) Simple NPs: introduction

a. Basic structure: (((dem) num) cl) N

b. Adjectival modifiers: <deg> Adj <*ge33*> N (i.e., deg and *ge33* co-occur)

c. Summary: Cantonese NPs are head-final and can combine with preceding determiners, classifiers, and adjectival modifiers to create the range of simple NPs shown below.

(96) **Illustration: simple NPs** (from Cheng and Sybesma (1999), p. 512)

Pattern	Example
a. Generic: N	ŋo23 dzuŋ55ji33 [$_{NP}$ ma:u55] 'I like cats.' 1SG like cat
b. Definite subject: cl N	[$_{NP}$ dzek33 ma:u55] dzuŋ55ji33 sik22 jy35 cl cat like eat fish 'The cat likes to eat fish.'
c. Def/Indefinite object: cl N	ŋo23 ha:k33 dzau35 dzo35 [$_{NP}$ dzek33 ma:u55] 1SG scare go PFV cl cat 'I scared away a cat/the cat.'
c. Indefinite: num cl N	ŋo23 gin33 dou35 [$_{NP}$ sa:m55 dzek33 ma:u55] 1SG see PRT [three cl cat] 'I saw three cats.'
d. Definite: dem num CL N	ŋo23 gin33 dou35 [$_{NP}$ go35 sa:m55 dzek33 ma:u55] 1SG see PRT [those three cl cats] 'I saw those three cats.'

Note: cl N can only be singular, and can never have a generic interpretation.

(97) **Illustration: adjectival modifiers**

Pattern	Example
a. Adj N	fei21 ma:u55 'fat cats' fat cat
b. deg Adj *ge* N	hou35 fei21 ge33 ma:u55 'A very fat cat' very fat lp cat

Notes:

a. In [$_{NP}$ Adj N], a demonstrative and classifier can appear before the adjective: NP → (dem) cl Adj N

b. In [$_{NP}$ deg Adj *ge*33 N], a demonstrative and classifier can appear either before the degree verb, as in [$_{NP}$ (dem) CL deg Adj *ge33* N], or between *ge* and the noun, e.g., [$_{NP}$ deg Adj *ge33* dem CL N]. In the latter case, the demonstrative is obligatory.

(98) **Possessive constructions** (CRG 127-128)

Description with pattern	Example
a. Nominal possessor N_{poss} cl N	a:33-miŋ21 dzi55 bat55 'Ming's pen' Ming cl pen

b. Nominal possessor, referential head noun N_{poss} dem cl N	a:33-miŋ21 go35 dzi55 bat55 'that pen of Ming's' Ming that cl pen
c. Pronominal possessor, excluding kinship relations Pro cl N	lei23 ga:33 tse55 'Your car' 2SG cl car
d. Pronominal possessor, kinship relations Pro (cl) N	ŋo23 (go33) ga:55dze55 'My (older) sister' 1SG (cl) sister
e. Referential possessor dem cl N_{poss} cl N	go35 go33 lœi23jan35 ba35 seŋ55 'That woman's voice' that cl woman cl voice
f. Non-referential possessor, part-whole relations N_{poss} N	lœi23jan35 seŋ55 'A female voice' woman voice
g. Referential head noun, part-whole relations dem cl N_{poss} N	go35 ba:35 lœi23jan35 seŋ55 'That female voice' that cl woman voice

Notes:

a. Description: complex NP containing both a N_{poss} (possessor), followed by the head noun

b. In type (d) constructions, the linking particle *ge33* can sometimes substitute a classifier and intervene between the possessor and the head noun.

c. Possessor phrases in (b) without a head noun can still function as NPs,

e.g. lei23 dzi55 bat55 leŋ33, da:n33hai22 **a:33-miŋ21 go35 dzi55** leŋ33 di55

2SG cl pen pretty but Ming that cl pretty more

'Your pen is pretty, but Ming's is prettier.'

(99) **Relative clauses: Introduction** (CRG 326)

a. Description: relative clauses precede the noun it modifies, and may contain a gap or a resumptive pronoun

b. Linkers: the relative clause is linked to the modified noun by the particle *ge33* (formal register), or a demonstrative and a classifier (colloquial register)

(100) **Relative clauses with gap**

a. NP → RC *ge* N (formal)	[__ sik55 ŋo23] ge33 jan21 'people that know me' know 1SG lp people [ŋo23 sik55 __] ge33 jan21 'people that I know' 1SG know lp people
b. NP → RC dem CL N (colloquial)	[ŋo23dei22 tai35 __] go35 tou33 hei33 'The movie we are seeing' 1PL see that cl movie

(101) **Relative clauses with a resumptive pronoun**

Description: when the head noun is not the subject or direct object of the predicate in an RC, a resumptive pronoun is normally used in the RC to refer forward to the head noun. Similar to RCs with gap, an RC and N can be linked by either *ge33* or a demonstrative and classifier.

Syntactic role of head noun in RC	Example
a. Object of a verb taking a complement clause	[ŋo23 tseŋ35 (**kœi23dei22**) sik22-fa:n22] ge33 paŋ21jau23 [1SG invite (3PL) eat-food] lp friend 'friends that I invite for dinner'
b. Indirect object	[ŋo23dei22 suŋ33 fa:55 bei35 **kœi23**] go35 go33 beŋ22jan21 [1PL send flower to 3SG] that cl patient 'The patient we sent flowers to'
c. Object of a coverb	[ŋo23 tuŋ21 **kœi23dei22** kiŋ55gai35] ge33 hok22sa:ŋ55 [1SG with 3PL chat] lp students 'the students that I chat with'
d. Possessor of a noun with the RC	[ŋo23 ma:i23-dzo35 **kœi23dei22** tsaŋ21 lau35] go35 [1SG buy- PFV 3PL cl apartment] that dœi33 fu55-fu23 pair couple 'The couple whose apartment I bought'

(102) **Headless relative clauses** (CRG 333)

Description: relative clauses without a modified noun and referred to as headless relative clauses; what the relative clause refers to is left unspecified.

a. Without question words	[hœi33 hoi55-wui23] ge33 ji23giŋ55 dzau35 sa:i33 [go have-meeting] lp already leave all 'Those who are going to the meeting have all left'
b. With question words	lei23 sœŋ35 bei35 [gei35 do55] dzau22 bei35 [gei35 do55] 2SG want pay how much then pay how much 'You pay however much you want'

Note: The use of question words in type (b) corresponds to the English forms *whoever, whatever*, etc. in a correlative construction. The question word is used in the RC and repeated in the main clause, giving a parallel sentence structure.

7. Syntax: VPs

(103) **Simple VPs: introduction**

a. Basic structure: VP → V (NP_1) (NP_2 / *bei35* NP_2)

b. Adverbial modifiers: VP → ($AdvP_1$) ($AdvP_2$) VP, where $AdvP_1$ = temporal, frequency or manner adverbs, $AdvP_2$ = Adj. *gam35* or Adj.-Adj. *dei35*.

c. Negation: VP → Neg VP

d. Aspect markers/ verbal particles: VP → V (Asp / V_{part}) (NP_1) (NP_2 / *bei35* NP_2)

e. Summary: VP → ($AdvP_1$) (neg) ($AdvP_2$) V (Asp / V_{part}) (NP_1) (NP_2 / *bei35* NP_2)

(104) Illustration: simple VPs (CRG 154-5)

Description with pattern	Example
a. Intransitive VP → V	dzau35 'leave' leave
b. Transitive VP → V NP	hok22 jiŋ55man35 'learn English' learn English
c. Ditransitive (i) VP → V NP_{DO} NP_{IO}	bei35 tsin35 lei23 'give you money' give money you
(ii) VP → V NP_{DO} *bei35* NP_{IO}	gei33 tsin35 bei35 lei23 'send money to you' send money to you

Notes:

a. Description: Cantonese verbs can be intransitive, transitive or ditransitive.

b. In (ci), *bei*35 is the main verb, but in (cii), *bei35* is a coverb, which functions like a preposition but exhibits properties typical of verbs (cf. §4.2).

c. In (ci), the indirect object can precede the direct object when it is a very long string; the non-native NP_{IO} NP_{DO} order is becoming more prevalent due to the increasing influence of Mandarin (Chin 2009).

(105) **Illustration: other VPs** (CRG 160-1, 173-4; Matthews 2006: 72-4)

a. Serial Verb Construction (SVC) (i) VP → V_1 V_2	fa:n55 lai21 'come back' return come
(ii) VP → V_1 V_2 NP	hœi33 tai35 hei33 'go and see a movie' go see movie
(iii) VP → V_1 NP V_2	giu33 kœi23 dzau35 'tell him to leave' tell him/her leave
(iv) VP → V_1 NP V_2 NP	pui21 lei23 sik22 fa:n22 'have dinner with you' accompany you eat rice
b. Causative/resultative construction VP → V Adj NP	dziŋ35 jit22 wun35 toŋ55 'heat up the bowl of soup' make hot bowl soup (causative) dzœk33 la:n22 dœi33 mat22 'wear out the pair of socks' wear broken pair sock (resultative)

Notes:

a. Description: serial verb constructions contain two or more verbs that represent a single predicate and form a single clause (cf. §4.4).
b. In (a), V_2 can be transitive (as in (aii, iv)) or intransitive (as in (ai, iii)).
c. In (b), the V + Adj construction is always transitive.

(106) **Illustration: adverbial modifiers formed from adjectives** (CRG 203-209)

Description with pattern	Example
a. *Dak55* construction VP → V *dak55* Adj	dzy22 dak55 sy55fuk22 'live comfortably' live adv comfortable
b. *Gam35* construction VP → Adj *gam35* V (NP)	jiŋ22dzan55 gam35 hok22 'learn seriously' serious adv learn
c. Reduplicated adj. construction VP → Adj-Adj *dei35* V (NP)	dziŋ22dziŋ35 dei35 dzau35 'leave quietly' quiet-quiet -ish leave

Notes:

a. In (a, b), reduplication for adjectives (AB → AABB) as outlined in §3.1 can apply.
b. In (a), a transitive V with an NP complement needs to be reduplicated: VP → V NP V *dak*55 Adj.
c. In (b, c), a transitive V immediately precedes its NP complement.
d. In (c), the reduplicated adjective must be monosyllabic.

(107) **Illustration: other adverbial modifiers** (CRG 215-222)

Description with pattern	Example
a. Temporal VP → AdvP V (NP)	sœŋ22go33 lai23bai33 bun55 uk55 'moved house last week' last week move house
b. Frequency VP → AdvP V (NP)	siŋ21jat33 tseŋ35 ga:33 'always take leave' always take leave
c. Manner VP → AdvP V (NP)	dak22daŋ55 tsa:i35 kœi23 'deliberately step on him' deliberately step 3SG

Notes:

a. The transitivity of the main V decides whether an NP complement follows.
b. Temporal adverbial phrases can precede the subject.

(108) **Illustration: aspect markers** (CRG 228-236)

Description with pattern	Example
VP → V Asp (NP)	dzou22 gan35 guŋ55fo33 'doing homework' do PROG homework

Notes:

a. Description: aspect markers are bound form and behave essentially like suffixes; they cannot be separated from the verb.

b. Aspect markers in Cantonese are: progressive *gan35*, continuous *dzy22*, perfective *dzo35* and experimental *gwo33*.

(109) **Illustration: verbal particles** (CRG 243)

Description with pattern	Example
VP → V V_{part} (NP)	foŋ33 dai55 go33 bi21bi55 'put down the baby' put down cl baby

Notes:

a. Description: a verbal particle follows the main verb; it indicates results, direction, adversaries or habits.

b. A syntactic difference between verbal particles and aspect markers is that the former can be separated from the verb by a modal or a negative marker, while the latter cannot.

c. See CRG 243 for a full list of verbal particles (which have a much wider range than aspect markers).

(110) **Illustration: negation** (CRG 284, 287, 293)

Description with pattern	Example
a. Lexical negation VP → *m21*-V (NP)	m21-dzi55dou33 go33 da:p33ŋon33 'do not know the answer' not -know cl answer
b. Verbal negation (present or future) VP → AdvP *m*21 V (NP)	gam55jat22 m21 gin33 ha:k33 'not seeing any clients today' today not see client
c. Verbal negation (past) VP → AdvP *mou23* V (NP)	gam55dziu55 mou23 tsa:t33 ŋa:21 this morning not brush teeth 'did not brush teeth this morning'
d. Negative imperative VP → *m21hou23* V (NP)	m21hou23 da:p33 kœi23 'do not answer him' don't answer him/her

Notes:

a. Description: for lexical negation, the negative marker *m21* is prefixed to the verb.

b. Description: for verbal negation, *m21* precedes the verb for present/future events and *mou23* precedes the verb for past events.

8. Syntax: constructions and other miscellany

8.1 Coordination and subordinate clauses

(111) **Coordination: introduction**

a. General rule: XP → XP *tuŋ21ma:i21* XP

b. Coordination with emphasis (excluding NPs): YP → *jau22* YP *jau22* YP (emphatic)

(112) **Illustration: coordination** (CRG 335-340)

Conjuncts	Example
a. NPs	ŋo23 jiu33 ma:i23 [$_{NP}$ dau22fu22] [$_{NP}$ tsoi33] **tuŋ21ma:i21** [$_{NP}$ jy35] I need buy tofu vegetables and fish 'I need to buy tofu, vegetables and fish.'
b. VPs	ŋo23 **jau22** [$_{VP}$ oi33 (kœi23)] **jau22** [$_{VP}$ han22 kœi23] I both love (him) and hate him 'I both love and hate him.'
	ŋo23dei22 [$_{VP}$ ha:ŋ21ga:i55] **tuŋ21ma:i21** [$_{VP}$ tai35 hei33] we walk-street and see film 'We will go shopping and see the movie.'
c. Adjs	di55 tau21fa:t33 **jau22** [$_{Adj}$ jyn23] **jau22** [$_{Adj}$ jau23-da:n22siŋ33] cl hair both soft and have-bounce 'The hair is soft and bouncy.'
	go35dou22 di55 je23 [$_{Adj}$ leŋ33di55] **tuŋ21ma:i21** [$_{Adj}$ peŋ21di55] there cl stuff nicer and cheaper 'They have nicer and cheaper things there.'
d. Advs	kœi23 dza:55 tse55 dza:55 dak55 **jau22** [$_{Adv}$ fa:i33] **jau22** [$_{Adv}$ *ŋon55tsyn21*] she drive car drive adv both fast and safe 'She drives fast and safely.'
	kœi23 dza:55 tse55 dza:55 dak55 [$_{Adv}$ hou35 fa:i33] **tuŋ21ma:i21** [$_{Adv}$ *hou35 ŋon55tsyn21*] she drive car drive ADV very fast and very safe 'She drives very fast and very safely.'

Notes:

a. For the conjunction *tuŋ21ma:i21*, the first syllable *tuŋ21* is a coverb (see §4.2), while the second syllable *ma:i21* is a verbal particle (see §7); the second syllable can always be omitted—*tuŋ21* and *tuŋ21ma:i21* can be used interchangeably.

b. In some cases, coordination can be expressed by juxtaposition without any overt conjunction; above, omitting the conjunction *tuŋ21ma:i21* is grammatical; however, in NPs, as in (a), *tuŋ21ma:i21* cannot be omitted if at least one of the conjuncts is a pronoun or person's name.

(113) **Subordinate clauses: introduction**

a. Definition: subordinate clauses are peripheral to the main clause, usually occurring before the main clause and often with a special kind of relator expression that links the clause to the main clause

b. Sentence frame: X … Y [Z …], where [Z …] denotes the main clause, and X … Y the subordinate clause

c. Relator types: relator expressions can be discontinuous, either occurring at the beginning of the subordinate and the main clauses (X … [Z …) or at the beginning and end of the subordinate clause (X … Y […), or they occur as simple expressions at the beginning (X) or end (Y) of the subordinate clause. Implicit conditions have an initial subordinate clause, but no relator expression in either clause.

(114) **Illustration: subordinate clauses** (CRG 341-354)

a. X … [Z …	
jan55wai22…so35ji23 'because…therefore'	**jan55wai22** gon35 si21ga:n33 [**so35ji23** ŋo23 wui23 dzœn22 fa:i33] because rush time so I will most fast 'Since time is short, I'll be quick.'
jat55…dzau22 'as soon as…then'	ŋo23 **jat55** jau23 siu55sik55 [**dzau22** tung55dzi55 lei23] I once have news then inform you 'As soon as I have any news, I'll inform you.'
sœi55jin21…da:n22hai22 'although…nevertheless'	**sœi55jin21** go33 ha:u35si23 hou35 ji22 [**da:n22hai22** kœi23 dou55 fei21lou35] although cl exam very easy however he still fail 'Although the exam was easy, he still failed it.'
b. X … Y […	
tsœi21dzo35…ji55ŋoi22 'apart from'	**tsœi21dzo35** li55 jœŋ22 **ji23ŋoi22** [dzuŋ22jau23 mat55je23 man22tai21 a:33?] apart-from this cl outside also-have what problem sfp 'Other that this, what problems are there?'
c. X … […	
jy21guo35 'if'	**jy21gwo35** jau23 si21ga:n33 [ho35ji23 hœi33 tai35 ha:23] if have time can go look DEL 'If there's time, we can go and take a look.'
gei33jin21 'since'	**gei33jin21** lei23 kyt33diŋ22 dzo35 [ŋo23 mou21wai22 do55 goŋ35] since you decide PFV I no-point more say 'Since you've already decided, there's no point in my saying more.'
d. … Y […	
go35dzan22si35 'when'	ŋo23dei22 jat55tsai21 **go35dzan22si35** [dou55 hou35 hoi55sam55 ge35] we together that-time also very happy SFP 'We were happy when we were together.'
dzi55tsin21 / dzi55hau23 'before' / 'after'	ŋo23 tsa:t33ŋa:21 **dzi55tsin21/dzi55hau22** [sik22 dzou35tsa:n55] I brush-teeth before / after eat breakfast 'I eat breakfast before/after brushing my teeth.'
e. No relator	hœŋ55goŋ35 jau23 tsin35 mat55je23 dou55 ma:i23 dou35 Hong Kong have money what all buy prt 'In Hong Kong, if you have money, you can buy anything.'

8.2 Questions

(115) Questions: introduction

a. Four types of yes/no questions:
   i. Inclusion of a SFP, e.g., *a:21*
   ii. A-not-A pattern with a verbal form, e.g., *hai22-m21-hai22*, 'be-not-be'
   iii. Perfective verbal particle, e.g., *mei22* 'not yet'
   iv. Tag question, like *hou35m21hou35* 'good not good'

b. Wh-questions via in-situ wh-pronouns: wh-element based generated and does not move, questions can be formed of subjects, direct objects, indirect objects or adverbials.

(116) **Illustration: yes/no questions** (CRG 359-367)

Description with pattern	Example
a. SFP question CP → S **SFP**	lei23 ha:22 go33 lai23ba:i33 foŋ33ga:33 a:21? you next cl week take-leave **sfp** 'You're going on leave next week?'
b. A-not-A i. Canonical CP → NP [$_{VP}$ V-neg-V (NP)] (SFP)	gin22 sa:m55 leŋ33-m21-leŋ33 (a:33)? CL clothes pretty-not-pretty sfp 'Does the shirt look good?'
ii. Copular CP → NP [$_{VP}$ *hai22*-neg-*hai22* S] (SFP)	lei23 hai22-m21-hai22 gam35 lam35 (ga:33)? you be-not-be so think sfp 'Do you think that way?'
iii. Existential CP → NP [$_{VP}$ *jau23*-neg NP/S] (SFP)	lei23 jau23-mou23 man22tai21 (a:33)? you have-not-have problem sfp 'Do you have any problems?'
c. Perfective CP → NP [$_{VP}$ V (Asp) (NP) *mei22*] (SFP)	lei23 sik22 dzo35 fa:n22 mei22 (a:33)? you eat PFV rice not-yet sfp 'Have you eaten yet?'
d. Tag CP → V-neg-V (SFP)	ŋo23dei22 dzou35di55 dzau35 hou35m21hou35 (a:33)? we early-ish leave okay sfp 'Let's leave early, shall we?'

Notes:

a. In the A-not-A pattern, if a verb is disyllabic ($\sigma_1\sigma_2$), only the first syllable is repeated to form an A-not-A question, i.e., σ_1-neg-$\sigma_1\sigma_2$.
b. *hai22-m21-hai22* can be contracted to *hai22mai22*.
c. The Neg marker *m21* is used in many A-not-A constructions and tag questions, but A-not-A questions with existential verbs use *mou23* and the verb is not repeated.
d. Acceptable tag questions: *hou35m21hou35* 'okay, not okay?'; *hai22m21hai22* confirms the truth of a proposition; (iii) *dak55m21dak55* elicits consent or approval.

(117) Wh-words (CRG 374)

a. *bin55go33* 'who'
b. *mat55je23* 'what'
c. *gei35si21* 'when'
d. *bin55dou22* 'where'
e. *dim35ga:i35* 'why'
f. *dim35jœŋ35* 'how'
g. *bin55* + cl 'which'

(118) **Illustration: wh-questions** (CRG 373-384)

a. Subject question	**bin55go33** wan35 ŋo23 (a:33)? 'Who is looking for me?' who seek me sfp
b. Direct object question	lei23 wan35 **mat55je23 (**dzek55)? 'What are you looking for?' you seek what sfp
c. Indirect object question	lei23 bei35 bun35 sy55 **bin55go33**? 'Who are you giving the book to?' you give cl book who
d. Adverbial question i. Time	go33 biu35jin35 **gei35si21** hoi55tsi35? 'When does the show start?' CL show when start
ii. Location	ga:n55 tsa:n55teŋ55 hai35 **bin55dou22 (**ga:33)? 'Where is the restaurant?' CL restaurant at where sfp
iii. Reason/purpose	lei23 **dim35ga:i35** ŋa:k55 ŋo23? 'Why did you lie to me?' you why lie me

8.3 Imperatives

(119) **Imperatives: introduction**

a. Definition: imperatives make requests and give commands and directions.
b. Four types of imperatives: first person, second person, third person and negative.
c. Person and subjects: first and third person imperatives typically include the subject pronoun; second person imperatives typically drop the subject pronoun.
d. Negative imperatives have optional subject pronoun.

(120) **Illustration: imperatives** (CRG 414-419)

Type	Subject pronoun?	Example
a. First person	Yes	ŋo23dei22 hœi33 go35dou22 a:55 'Let's go over there.' we go there sfp
b. Second person	Typically no	dzam55 bui55 tsa:21 bei35 ŋo23 a:55 pour cl tea for me sfp '(You) pour me a cup of tea.'
c. Third person	Yes	daŋ35 kœi23 dzi22gei35 kyt33diŋ22 la:55 let him self decide sfp 'Let him think for himself.'
d. Negative	Optional	(lei23) m21hou35 tsou21 a:33 '(You) be quiet.' you don't noisy sfp

8.4 Sentence final particles

(121) Sentence final particles: introduction

a. Definition: sentence final particles (SFPs) serve three major pragmatic functions: indicating speech-act types, conveying evidentiality and adding emotional colouring

b. Distribution: FPs appear at the end of a topic or a clause (sentence).

(122) **Classification: sentence final particles** (CRG 389)

Function	Particle type	Particles
a. Speech act	i. Interrogative	a:21 呀, a:23 呀, a:33 呀, ga:21㗎, ha:35 吓, ho35 呵, le23 咧, le55 呢, me55 咩
	ii. Assertive	a:k33 呃, ge33 嘅, ge35 嘅, la:33 喇, la:k33 嘞, lei21ga:33 嚟㗎, lei21dze55 嚟啫
	iii. Suggestive	a:55 吖
	iv. Requesting	la:55 啦
b. Evidentiality	Evidential	a:33ma:23 吖嘛, a:55ma:23 吖嘛, a:55ma:33 吖嘛, gwa:33 啩, lo55 囉, lo33 囉, lok33 咯, wo33 喎
c. Emotional colouring	i. Appreciative	bo33 嘅
	ii. Affective	dzek55 卿
	iii. Downplaying	dze55 啫, la:55 啦

Notes:

a. Distribution: some of the interrogative particles can only attach to SFP questions, while some can attach to all types of questions.
b. Assertive particles are used to contradict a statement or accept a suggestion (*a:k33* 呃), express puzzlement or reservation (*ge33* 嘅), assert facts (*ge35* 嘅), emphasize current relevance (*la:33* 喇, *la:k33* 嘞) or mark an explanation (*lei21ga:33* 嚟㗎, *lei21dze33* 嚟啫).
c. Suggestive particles and requesting particles accompany suggestions and requests respectively.
d. Evidential particles indicate the source and nature of knowledge expressed in the sentence, such as checking assumptions, expressing uncertainty and suggesting obviousness.
e. Particles that add emotional colouring do so by expressing appreciation, affection (that suggests a degree of intimacy) or downplaying an idea.

(123) **Illustration: sentence final particles** (CRG 397-408)

Particle type	Example
a. i. Interrogative	mat55 jiu33 bei35 tsin35 **ga**:**21**? 'I/you/we have to pay?' what need pay money sfp
ii. Assertive	li55 bou22 gei55 hou35 ho35ka:u33 **ge33** 'This machine is very reliable.' this CL machine very reliable sfp
iii. Suggestive	lei23 da:35 bei35 kœi23 **a**:**55** 'You should call him.' you call to him sfp
iv. Requesting	lei23 bei35 do55 di55 si21ga:n33 ŋo23 **la**:**55**! you give more some time me sfp 'Give me some more time, won't you?'
b. Evidential	lei23 sik55 juŋ22 din22lou23 **a**:**55ma**:**23**? you know use computer sfp 'You know how to use the computer, right?'
c. i. Appreciative	hou35 je23 bo33! 'Well done!' good stuff sfp
ii. Affective	ŋo23 gam55jat22 leŋ33-m21-leŋ33 **dzek55**? (wife to husband) I today pretty-not-pretty sfp 'Do you think I look good today?'
iii. Downplaying	hou35 peŋ21 **dze55**! ma:i23 bei35 ŋo23 **la**:**55** very cheap sfp buy for me sfp 'It's a bargain! Why don't you buy it for me?'

Appendix – Phonetic symbols

Obstruents

Phonetic Description	Yale	Jyutping (LSHK)	Phonetic	IPA	Example (phonetic)
bilabial unaspirated stop	b	b	b	p	爸 ba:55 ‘father’
bilabial aspirated stop	p	p	p	p^h	爬 pa:21 ‘crawl’
dental unaspirated stop	d	d	d	t	大 da:i22 ‘large, great’
dental aspirated stop	t	t	t	t^h	頭 tau21 ‘head’
velar unaspirated stop	g	g	g	k	家 ga:55 ‘family, home’
velar aspirated stop	k	k	k	k^h	球 kau21 ‘ball’
labial-velar unaspirated stop	gw	gw	gw	k^w	軍 gwan55 ‘army, troops’
labial-velar aspirated stop	kw	kw	kw	k^{wh}	裙 kwan21 ‘skirt’
labial-dental fricative	f	f	f	f	肥 fei21 ‘fat’
dental fricative	s	s	s	s	時 si21 ‘time’
glottal fricative	h	h	h	h	下 ha:22 ‘below, to descend’
dental unaspirated affricate	j	z	dz	ts	姐 dze35 ‘older sister’
dental aspirated affricate	ch	c	ts	ts^h	車 tse55 ‘car’

Nb:: [tʃ] and [tʃʰ] are the conditioned allophones of [ts] and [tsʰ], respectively, occurring before [y œ].

Sonorants

bilabial nasal	m	m	m	m	媽 ma:55 ‘mother’
dental nasal	n (~l)	n	n	n	年 nin21 ‘year’
velar nasal	ng	ng	ŋ	ŋ	牙 ŋa:21 ‘teeth’
bilabial glide	w	w	w	w	畫 wa:35 ‘painting’
dental lateral approximant	l	l	l	l	籃 la:m21 ‘basket’
palatal glide	y	j	j	j	兒 ji21 ‘son, infant’

Vowels

Phonetic Description	Yale	Jyutping (LSHK)	Phonetic	IPA	Example
High Front unrounded	i	i	i	i	撕 si55 ‘to tear’
High Front rounded	yu	yu	y	y	瘀 jy35 ‘bruise’
High back rounded	u	u	u	u	湖 wu21 ‘lake’
Mid front unrounded	e	e	e	ɛ	笛 dek22 ‘flute’
Mid front rounded	eu	œ	œ	œ	樣 jœŋ22 ‘kind, sort’
Mid back rounded	o	o	o	ɔ	菠 bo55 ‘spinach’
Low central short	a	a	a	ɐ	龜 gwai55 ‘turtle’
Low central long	aa	aa	a:	a:	爸 ba:55 ‘father’

Nb: [a] and [a:] are only contrastive in V1 position of a diphthong or in a CVC syllable closed by an unreleased [p t k] or [m n ŋ].

Diphthongs

Phonetic Description	Yale	Jyutping (LSHK)	Phonetic	IPA	Example
High front unrounded +u	iu	iu	iu	iu	笑 siu33 ‘laugh’
High back rounded +i	ui	ui	ui	uy	會 wui35 ‘meeting’
Mid front unrounded+i	ei	ei	ei	ei	四 sei33 ‘four’
Mid front unrounded +u	ew	eu	eu	ɛu	掉 deu22 ‘throw’
Mid front rounded +i	eui	eoi	œi	ɵy	水 sœi35 ‘water’
Mid back +i	oi	oi	oi	ɔy	菜 tsoi33 ‘vegetable’
Mid back +u	ou	ou	ou	ou	好 hou35 ‘good’
Low central +i	ai	ai	ai	ɐi	西 sai55 ‘west’
Low central +u	au	au	au	ɐu	夠 gau33 ‘enough’
Low central long +i	aai	aai	aːi	aːi	唏 saːi55 ‘waste’
Low central long +u	aau	aau	aːu	aːu	教 gaːu33 ‘teach’

Tone:					BB tone diacritics*	
high rising	á	a2	a35	a35	á	使 si35 ‘to cause, make’
high level	ā	a1	a55	a55	ā	詩 si55 ‘poem’
(high falling)*	(à)	a1	(a53)	(a53)	à	(絲) si53 ‘silk’
mid level	a	a3	a33	a33	a	試 si33 ‘to try’
low rising	áh	a5	a23	a23	â	市 si23 ‘city, market’
low level	ah	a6	a22	a22	a|*	事 si22 ‘matter, affair’
low falling	àh	a4	a21	a21	a+*	時 si21 ‘time’

Nb: The high falling tone appears mostly in GuangZhou speech. Most Hong Kong speakers of Cantonese only have the high level tone.

*The BB diacritic for a22 is a small vertical line above the vowel, the a21 is an unside down “T” over the vowel.

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