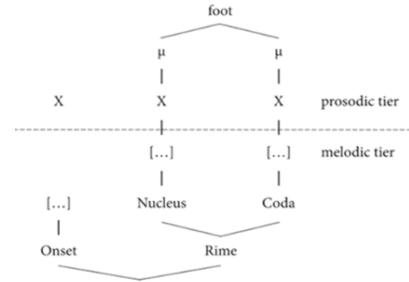


Contractions are not the same: syllable merger at the interfaces of phonology

Introduction. Contraction frequently appears in Chinese languages, with a wide complexity of its patterns. As the standard prosodic word (PW) in Chinese is disyllabic (Duanmu, 1999), contraction is defined as two syllables merging into one (Chuang, 2023; Duanmu, 2000). On account of the complexity and opacity of contractions, the study examines types of contractions, arguing that variations of contractions in Chinese languages are not the same but different from the generative processing.



Data. A standard Chinese syllable is C(G)VX, with 2 moras prosodically linked to VX and 3 skeletal slots attached with C, V, and X (Liang & Wee, 2022; Srinivas, 2016)¹. Not considering languages but the language facts, we find that contractions in Chinese languages can be classified into two major types, based on the transitional continuity in their contracted forms. **Type A:** two syllables ($\mu\mu+\mu\mu$; $3X+3X$) are reduced into an atypical disyllabic construct ($\mu\mu+\mu\mu$ or $\mu+\mu\mu$; $3X+2X$ or $2X+2X$), and sometimes even one ($\mu\mu$; $3X$). **Type B:** two syllables are fused into one, with a lack of a transitional stage. The surface representations and gradient transitions of the two types are divergent, while previous studies usually put them together in discussions.

	Uncontracted	Incomplete contraction	Complete contraction	Gloss	Language	
		$\mu\mu+\mu\mu$	$\mu+\mu\mu$			
	XXX+XXX	XXX+XX	XX+XX	XXX		
	CVX+CVX	CVX+VX	CV+VX	CVX		
(1) a.	tein + thjen	tein.jen	teĩ.jen	tejen	‘today’	TM
b.	bet + go:	—	bɛ.ɔ:	bɔ:	‘however’	Cantonese
(2) a.	tʂa + kow	—	—	tsaw	‘this’	Rugao
b.	tsai + k ^h i:	—	—	tsai	‘morning’	TSM
(3)	lai + te:	lai.e:	—	—	‘the interior’	

Observations

1. Occurrence of two types. Contractions in dialects like Taiwan Mandarin (TM) in (1a) and Cantonese in (1b) are mostly Type A, named as Type A languages; Type B appears in Rugao in (2a) and Taiwan Southern Min (TSM) in (2b), considered to be Type B languages. However, Type A contractions can sometimes emerge in Type B language, for intimate language contact. For example, Type A contractions are frequently found in TSM young speakers in Taiwan in (3), who are bilingual, TM and TSM (cf. Myers & Li, 2009). Type A can be brought from Type A languages to Type B languages, making the patterns much more intricate. The complexity actually signifies the importance of the classification.

2. What to contract. In addition, discussions about what to contract usually report that categories and lexical frequency effects are correlated with the occurrence rate. (I). Function words and less emphasized expressions are easy to contract in TM (Type A language) (Chung, 2006), which are prosodically less emphasized. (II). high-frequency lexical items are prone to contraction (Myers

¹ The standard syllable structure of Chinese is CGVX (C=onset; G=pre-nuclear glide; V=nucleus vowel; X=coda consonant, glide, or vowel). The status of pre-nuclear glide is differently argued and remains unclear. For the convenience of discussion, we neglect G but take CVX as the basic template.

& Li, 2009) in TSM (Type B Language but Type A cases). (III). Aside from these, we observe that Type A appears more widely with more variations for the scope of contraction. For example, (4) may have a contraction within a prosodic word, the disyllabic compound verb [tʃi: tau] *zhi-dao* ‘know’ or within a DP+VP [wɔ: tʃi: tau] *Wo zhi-dao* ‘I know’. The DP+VP set can have two contracted variants, [wɔ.i: tau] and [wɔ: tʃi.au]. Either the first or the last two syllables can be contracted together. By contrast, Type B cases are conventionalized in fixed expressions. For example, (5a) and (5b) have only one possibility for contraction. No matter [tsa: hɿ] is in the first or last two syllables within the expressions, [tsaɿ] is the only contracted alternative.

- (4) Wo zhi-dao shuo ming-tian bang-wan hui xia-yu (TM)
 I know that tomorrow evening will rain
 ‘I know that it will rain tomorrow evening.’
- (5) a. tsa: hɿ tsai → tsaiɿ tsai / tsa hai* ‘tomorrow morning’ (TSM)
 b. kau tsa: hɿ → ka.a: hɿ*/ ka.ua hɿ*/kau tsaiɿ ‘until tomorrow’

3. Non-circumvention of meaning redundancy. In Type B language, some Type B cases can follow or precede morphemes with the same meaning. Despite semantically overlapping parts, both can be preserved in the final output. For example, the contracted case [sjaɿ] ‘identical’ is the combination of [sjo:] ‘each other’ and [kaɿ] ‘the same,’ as in (6a); [sjo + sjaɿ] can be a new prosodic word with full productivity, which is constrained by the repeated meaning existing in [sjo] and [sjaɿ]. The phenomenon is limited to Type B, with no cases found in Type A. Such cases further identify the difference between Type A and Type B.

- (6) a. sjo: + kaɿ → sjaɿ ‘identical’ (TSM) (Hsu, 2003)
 each other the same
- b. sjo: + sjaɿ ‘identical’
 each other identical (the same with each other)

Analysis: level of operation. The divergence between Type A and B evokes the consideration that they are generated at different processes. The significant difference is the existence of the transition from uncontracted forms to complete contractions. Gradient changes and variations of Type A suggest it may be to some degree phonetically conditioned and decided by the interaction of its phonetics and phonology. Type A is sensitive to lexical frequency and prosodic emphasis, which is close to the post-lexical process. Gradient effects of manner of intervocalic consonants (...X+C...) on the degree of contraction also contribute to the insight that Type A should be the result of the interaction between phonetics and phonology (cf. Myers & Li, 2009), which happens after the spell-out (narrow syntax) and at the terminal phonological operation. On the other hand, Type B should be morphologically conditioned. No transitions caused by phonetically-based gradient effects are strong evidence that the operation of Type B is not post-lexical but more like pre-lexical or lexical. Type B cases are usually set in regular templates; this is, two contracted morphemes are inseparable and derivationally bound together, which will not vary from one position to another within a prosodic unit. Type B is thus better considered as a process of word formation, of which the output is a new lexical item or inseparable morpheme. Its generative process should occur before the projection principle, at least as a pre-syntax operation.

Conclusion. The study analyzes patterns of disyllabic contractions in Chinese languages by scrutinizing various variants and the representation of contracted forms and prosodic units. We suggest contractions have at least two types: one is phonetically sensitive and post-lexical; the other is morphologically conditioned and occurs before/in word formation.