Fanqie Secret Languages and Reduplication (Revisited)

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1. Background and introduction

• *fănqiè* = a spelling trick from the Chinese literary tradition

Suppose you have only a syllabic writing system, but you want to explain the pronunciation of an unfamiliar character to your reading audience. You can tell them, "This character has the same onset as Familiar Character X, and the same rime as Familiar Character Y."

• Fanqie secret languages (FSLs) follow the same principle.

(1)	Examples:	May-ka (Mandarin)	<u>ma</u>	\rightarrow	<u>m</u> ay-k <u>a</u>	'mother'
			<u>pen</u>	\rightarrow	<u>p</u> ay-k <u>en</u>	'book'
		La-mi (Guangzhou)	<u>ma</u>	\rightarrow	l <u>a-m</u> i	'mother'
			<u>yat</u>	\rightarrow	l <u>at-y</u> i <u>t</u>	'one'

• Previous treatments of fanqie secret languages: Is it reduplication?

- (2) Chao (1931) <u>Divide the source syllable</u> into 'initial' and 'final'. "NO" Add a prespecified final after the initial, and vice-versa.
- (3) Yip (1982) The morphemes of a Chinese language are only melodies -- no CV skeleton.
 "YES" A given Chinese language has one fixed skeleton: ex., CVGC for Mandarin. (Not all morphemes fill all the skeletal slots.)
 - A FSL word has a bisyllabic template with some prespecified material.

May-ka:	CGVC CGVC
	ay k

<u>The melody doubles</u> because there are extra slots, and associates. Prespecified material takes precedence.

$$p (e n) (p) e n$$

$$| \qquad | |$$
May-ka: CGVC CGVC \rightarrow pay-ken
$$|| \qquad |$$
a y k

(4) Bao (1990) <u>Reduplicate the source syllable.</u> "YES" Perform constituent-replacement operations.

2. W	hich road to take? (or, Finding the True Tao)	The mind that does not understand is the Buddha. There is no other <i>Ma-tsu</i>
(5)	Why FSL formation looks like reduplication	
	• Some segments show up in both syllables.	
	 (a) Medial glides in May-ka (Mandarin): (b) The nuclear vowel in Man-t^ha (Mandarin): (c) The coda (!) in La-Mi (Guangzhou): 	xwey $\rightarrow \underline{xw}ay-k\underline{wey}$ 'return' pey $\rightarrow \underline{pen-t^{h}ey}$ 'north' yat $\rightarrow l\underline{at}-\underline{yit}$ 'one'

(6) Why FSL formation doesn't look like reduplication

• There is no morphological or semantic evidence for the presence of RED in the input. The presence of the prespecified material is enough to identify a *fanqie* word.

The traditional description of *fanqie* has always been that the source syllable is divided, not copied.

Yip (1982): "Secret languages differ from the base language in one major way: they have a different skeleton. The skeleton is always bisyllabic, and one or more of its slots may be wholly or partially filled. Following McCarthy and Marantz, I assume that reduplication of the melody is automatically triggered by this new skeleton."

- Why are *both* copies overwritten? Which is the base, and which the reduplicant?
- Classic Correspondence-Theory treatments of reduplication can not explain why, despite all this overwriting, *all input segments* surface somewhere. (But see below.)

3. The double-copy problem

• Proposal: All cases of double-copy in FSL words are non-reduplicative copying (violations of IO-INTEGRITY). There is no RED in the input.

A. Double-copy glides in May-ka (Mandarin)

(7)	May-ka examples:	(a) pey \rightarrow		<u>p</u> ay-k <u>ey</u>	'north'
		(b) xwey	\rightarrow	<u>xw</u> ay-k <u>wey</u>	'return'

(8) *Summary of analysis:* In a sequential *fanqie* pattern, ANCHORING constraints (McCarthy & Prince 1995) for the base are undominated. Therefore, the base material splits apart to stand at each edge of the output. But this causes I-CONTIGUITY violations. Copying a medial glide, when available, simply reduces the number of I-CONTIGUITY violations.

(9) Relevant constraints:

ANCHOR-L, ANCHOR-R	These derive the base-to-edges "sequential" pattern.
MAX _{IO}	Input segments are never deleted.
DEP _{IO} , *COMPLEX	These ensure that the output is only bisyllabic.
>>	
I-Contiguity	Segments that are adjacent in the input must have correspondents that are adjacent in the output. (Minimally violated; copying glides helps.)
>>	
INTEGRITY	No input segment has multiple output correspondents (Urbanczyk 1998 also discusses non-reduplicative copying that violates IO-INTEGRITY.)

(10) Medial glide: /xwey/ 'return' \rightarrow xway-kwey

$/\underline{xwey} + ayk/$	[MAX,	ANCH-L,	Anch- R] >>	I-CONTIG >>	INTEGRITY
a. <u>xwey</u> -kay			*!	*(yk)??	
b. <u>x</u> ay-k <u>wey</u>				*(xw)!	
c. <u>xw</u> ay-k <u>ey</u>				*(we)!	
r≋ d. <u>xw</u> ay-k <u>wey</u>					*

• CONTIGUITY is better satisfied when the input /w/ has two output correspondents.

B. Double-copy nucleus in Man-t^ha (Mandarin)

• Basically the same story. The difference is that that affix has no vowel, so there is room for the vowel of the source syllable to copy. (Medial glides copy when present, as in May-ka.) Here, because DEP is high-ranking, a copied vowel is better than an epenthetic one.

(11) Nu	cleus:	/pey/	'north'	\rightarrow	<u>pe</u> n-t	" <u>ey</u>
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$/\underline{pey} + nt^{h}/$	[Dep ,	ANCH-L,	Anch- R] >>	I-CONTIG >>	INTEGRITY
a. <u>pey</u> -nt ^h			*!		
b. <u>p</u> an-t ^h ey	*!			*(pe)	
r c. pen-t ^h ey					*

(Note: I am not claiming that all Mandarin-based FSL have exactly the same ranking of constraints. For example, faithfulness for the /ay-k/ affix of May-ka must be ranked somewhere lower in the hierarchy than the /ey-k/ affix of Mey-ka, because Mey-ka forms resist more allophonic alternations.)

C. Double-copy coda in La-mi (Guangzhou)

• Here, things are a little different. This is an "inverting" FSL, so the basic schema is:

4. Rethinking Correspondence (Struijke 1998)

() Kwakwala reduplication and syllable weight

/RED + BASE + -mu:t/ (RED+kən+mu:t \rightarrow kən.kə.mu:t)

Feet are iambic. High-ranking NOCLASH rules out a (H)(H)(H) sequence, so the base undergoes mora-deletion to produce (H)(LH) feet.

Crucially, material can only delete from the base *if it is copied* in the reduplicant. And material can only fail to be copied into the reduplicant *if it survives* in the base.

A situation where *either* the base or the reduplicant shows alternations is not predicted by the classical (McCarthy & Prince 1995) model of Correspondence.

() "Broad Input-Output Faithfulness" (Struijke 1998:151)

input:

/Af_{RED} + Root/

IO-FaithRoot Faithoutput:|Reduplicant <--> Base|BR-Faith|+-----+||

• This conception of IO Correspondence may make a reduplicative analysis of FSL more attractive ... ?

References

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