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Who Moo-ved my Cow? The Lexicalization of Onomatopoeia and Imitative Shift in Mandarin

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Introduction

Building on sound symbolism, which Hinton, Nichols & Ohala (1994: 1) define as 'the direct linkage between sound and meaning', this paper will explore how some lexical items in Mandarin may be derived from imitatives. Imitatives (擬聲詞 nǐshēngcí or onomatopoeia) are a category of lexical sound symbolism (Masuda 2002: 6) in which speech is used to mimic the sounds of the world (e.g. *meow*, *vroom-vroom*, *ding-dong*, *bam*) (Hinton et al. 1994: 3). The process of imitatives departing from their lexical (i.e. these onomatopoeias are well-formed Mandarin syllables and part of the general lexicon to serve an onomatopoeic function) onomatopoeic role and adopting arbitrary semantic functions is what I will call *imitative shift*. Sinitic has a long recorded history of imitatives shifting from the iconic side of the continuum to the more arbitrary (Li 2007: 151). Van Langendonck (2010: 394) states that "iconicity can be contrasted with 'arbitrariness,' or in Pierce's terms, *iconic* is the opposite of *symbolic*." Despite this long history, there has been little research into the iconicity of Mandarin, and even less research on lexemes derived from imitatives. But, before discussing the categories of these shifted and shifting lexical items, I will first stipulate what exactly constitutes the imitatives of Mandarin. Then, through examples, I will elicit the characteristics of the typology of this shift—the two major categories being (1) imitatives that still function both as lexical items and onomatopoeia, and (2) lexical items that may have once been imitative but no longer function as such. I will show that these fully shifted lexical items are not as obvious as they might seem. Finally, I will briefly touch on what impact further findings and typologies may have for the diachronic study of Sinitic dialects.

Imitatives in Mandarin

Imitatives can be easily identified in Mandarin as they are often written in the most 'phonetic' form allowed by Sinitic orthography.[1] This means that if the orthography (i.e. character) is taken out of context, it usually has no independent meaning or purpose apart from its sound. There are four contour tones in Mandarin (high level, high-rising, falling-rising, and falling). As seen in the *Xiangshengci*

[1] Most, but certainly not all, of these characters are written with a *kǒu* (mouth radical) on their left-hand side. Not all mouth radical characters denote Mandarin imitatives (e.g. eat, leaf, sing).

Cidian (Gong 1991), one salient characteristic of imitatives is that they are generally pronounced with high or high-rising tones (with the high level tone being most common), few take the falling (a.k.a. fourth) tone. As they are so marked, further research may show that the limited number of imitatives expressed in the falling tone exhibit certain commonalities. If monosyllabic, imitatives often can be reduplicated. However, set polysyllabic imitative forms (up to four syllables) also exist (Chan 1996: 19). Reduplication does not only indicate repetition or duration, but can also completely alter the imitative's meaning (cf. Table 1 where each pair is homographic).

xɑ	a burst of laughter (durative)
xá.xá	sound of laughter or laughing (iterative)
tʂʰá	rubbing or chopping sound (of a knife) (durative)
tʂʰá.tʂʰá	sound of people whispering or talking (iterative)
pá	firing of a gun (durative)
pá.pá	sound of big raindrops hitting a window (iterative)

Table 1 Imitative reduplication

Unlike English, Mandarin imitatives are not confined only to the realm of comic books. Mandarin imitatives are used in both formal literature and casual conversation. According to (Li 2007: 134–139), when used descriptively, imitatives are often followed by the adverbial marker tə[2] and then a sound-related verb, e.g. tɕiɑ̌ʊ 叫 'to call', ɕiɑ̀ŋ 響 'to emit sound', ɕiɑ̌ʊ 笑 'to laugh', kʰú 哭 'to cry' (cf. (1)).

(1) 紅旗 被 風 吹 得 呼啦 地 響
xʊ̌ŋ.tɕʰǐ pêɪ fɤ́ŋ tʂʰwéɪ tə xú.lá tə ɕiɑ̀ŋ
red-flag PASS wind blow PART IMITATIVE ADV emit-sound

'The red flag flaps in the wind.'

When not employed descriptively, imitatives can also be used as verbs to denote an action (which they would otherwise describe). In this case, as Table 2 shows, the imitative in question does not require the adverbial particle tə, but tʰà, a pre-determined verb. These pre-determined verbs indicate the initiation of the action described by the imitative.

xú.lú	snoring sound
tʰà xú.lú	to snore (to initiate + snoring sound)

Table 2 Initiation verb plus imitative

This ability to be either descriptive or verbal is definitely an indication that the imitative has begun to shift on the continuum from iconicity toward arbitrariness.

[2] tə = 地、得、or 的 (context dependent).

The Shifting and Shifted

The process of imitatives departing from their onomatopoeic role and adopting arbitrary semantic functions is imitative shift. In Section 3, I will typologize imitative shift into four categories. Section 3.1 focuses on nouns. Section 3.2 focuses on verbs.

Imitative → Noun

Section 3.1 focuses on imitatives which have shifted to become nouns. These nouns are divided into four categories. Depending on their depictive function, imitatives can shift to become either nouns or verbs. Chan's (1996) research supports this, citing several examples of echoic animal names (Chan 1996: 20).

Imitative	English	Lexeme	English
咕 kú	cooing (of a pigeon)	鵠 kú	a kind of pigeon
喵 mjáʊ	meow	貓 ʊmÁʊ	cat
潺潺 tʂʰǎn.tsʰǎn	chattering	蟬 tʂʰǎn	cicada
知了 ʈʂʐ̍.ljàʊ	whining (of a cicada)	知了 ʈʂʐ̍.ljàʊ	cicada

Table 3 Examples of echoic naming convention

Chan (1996) posits that a large number of bird and mammal names are, in fact, derived from imitatives. But, unlike those of Table 1, some lexemes may no longer resemble the imitative to which they are diachronically associated. Through historical documentation dating as far back as the pre-Qin period (221 BCE), we know that some seemingly arbitrary present-day words were once considered iconic (Li 2007: 151), e.g. tɕí 'chicken', njǒʊ 'cow', and já 'duck'. The documentation literally states: "chicken is called chicken because of the sound it makes" (Li 2007: 151). I shall call these lexemes *ex-imitatives*. Due to diachronic change, the ex-imitative no longer resembles its former imitative component. Their once iconic relationship has been compromised due to sound change (cf. Table 4 below). Furthermore, after the lexicality of the ex-imitative has been established, present-day onomatopoeias have sprung up. The appearance and motivation for these present-day onomatopoeias (e.g. móʊ and ká) is beyond the scope of this article as it deserves further investigation.

Early Middle Chinese	Ex-Imitatives	English	Present-day Onomatopoeias	English
ŋwu	njǒʊ	cow	móʊ	moo
ʔaɨp	já	duck	ká	quack

Table 4 Ex-Imitatives vs. Present-day Onomatopoeias (adapted from Chan 1996: 20)

Imitative Shift, Categories 1 & 2

Now we have observed the first division in the typology of Mandarin's imitative shift:

- *Category 1*: lexemes which still resemble their original onomatopoeic counterpart
- *Category 2*: lexemes which no longer resemble their original onomatopoeic counterpart (i.e. ex-imitatives)

Imitative	English	Category 1 Lexeme	English
pwɔ́	bubbling	pwɔ́	wave (of water)
tíŋ.líŋ.líŋ	ringing (iterative)	líŋ.tɑŋ	small bell
tɑŋ	sound of striking metal	líŋ.tɑŋ	small bell
tíŋ	sound of hammering	tíŋ	nail (tool)
wá.wá	child crying or talking	wǎ.wɑ	small child

Table 5 Imitatives and Category 1 Nouns

There are many possible reasons for such a division, e.g. sound change, language contact etc. In terms of iconicity, we can posit that Category 2 lexemes have reached the ultimate level of arbitrariness (e.g. *cow, duck,* and *chicken*), and therefore are furthest from iconicity on the continuum. While Category 1 lexemes are still in the process of shifting (e.g. *pigeon*, *cat*, and *cicada*), and are therefore closer to iconicity on the continuum. Animal names aside, imitative shift is highly productive in the creation of other nouns (cf. Table 5).

Imitative Shift, Categories 3 & 4

Next, we will examine two additional categories of imitative shift:

- *Category 3*: lexemes comprised of an imitative plus another lexeme
- *Category 4*: lexemes comprised of an imitative plus a syntactic element

Like their aforementioned verbal counterparts (cf. Table 2), we can assume that the lexemes which belong to Category 3 and Category 4 (see Table 6) are more arbitrary than those of Category 1.

It should also be noted that many of these lexemes derived out of imitative shift have synonyms which exhibit no relationship with any onomatopoeic devices (cf. Table 7).[3]

Further investigation is required to find out the differences in contextual usage for these synonymous pairs. Are the imitative derived lexemes considered

[3] mwɔ̌.tʰwɔ́.tʂʰɤ́ from English 'motor'.

Lexeme	Components	English	Category
péɪ.ái	sorrow + imitative	sadness	*3*
kʰə̌.soʊ	imitative + cough	cough	*3*
pɤ̂ŋ.pɤ̂ŋ.tʂʰə́	imitative + vehicle	motorcycle	*3*
ʂâʊ.tsɨ	imitative + NOMINALIZER	whistle (device)	*4*

Table 6 Category 3 and Category 4 Nouns

Non-imitative Lexeme	Gloss	Imitative Derived Lexeme	English
tʂʰə́.lwə̌n	vehicle.wheel	kú.lu (rolling sound)	wheel
mwə̌.tʰwɔ́.tʂʰə́	LOANWORD.vehicle	pɤ̂ŋ.pɤ̂ŋ.tʂʰə́	motorcycle
ɕiàʊ.xǎɪ.tsɨ	small.child.NMLZ	wǎ.wɑ	small child

Table 7 Non-Imitative Lexemes vs. Imitative Derived Lexemes

more childish (motherese), colloquial, and/or informal than their non-imitative synonyms? Would a speaker use the imitative derived lexeme to provide the listener with a more 'depictive' description similar to that of ideophones (Dingemanse 2012: 658)? Expressing (in)formality and descriptiveness seem likely motivations for synonyms like those of Table 5.

Imitative ⟶ Verb

The divisions and categories discussed above can also be applied to verbs derived from imitative shift. However, unlike Mandarin's echoic naming convention (cf. Table 1), it is much less obvious which verbs belong to Category 1. First I examined which actions Mandarin imitatives describe, and then if there are verbs which bear a semantic and phonological relation (sound and tone) to the imitative in question. It turns out there are many Mandarin imitatives which describe sounds related to the vocalization (e.g. breathing, screaming, muttering sighing, calling, whining) and friction (e.g. colliding, rubbing, hitting, brushing). Many of these imitatives have also shifted in one way or another to become fully-fledged verbs.

Imitative	English	Verb	English
kú.lu	rolling	kú.lu	to roll
tsʰá	rubbing	tsʰá	to rub, to wipe
ʂwá	brushing	ʂwá	to brush
pʰáɪ	hacking	pʰáɪ	to beat, to hit, to pat
tsʰɨ́.lióʊ	slipping, sliding	tsʰɨ́.lióʊ	to slip, to move quickly

Table 8 Imitatives and Category 1 verbs (not always homographic)

There are significantly more verbs formed of imitative and lexical compounds (Category 3 & 4) than those verbs which mirror their associated imitatives (Category 1), meaning that verbs may be more advanced in the process of imitative shift. My data collection was unable to ascertain any ex-imitative verbs (Category 2). As we have seen with the nouns above, verbs can also be subdivided into two more groups (Tables 9 and 10). These are easily encompassed by Category 3 and Category 4 respectively.

Verb	English	Imitative Component	English
tʰà.kǎ	to hiccup	kǎ	hiccupping, burping
tʰà.xán	to snore	xán	snoring
tʰà.xá.tɕiɛn	to yawn	xá.tɕiɛn	yawning
tʰà.tʂʰá.tʂʰá	to whisper	tʂʰá.tʂʰá	talking all at once
tʰà.tí.lióʊ̌	to twirl, to whirl	tí.lióʊ̌	spinning, whirring
tʰà.pʰú.tʰɤŋ	to flop, to palpitate	pʰútʰɤŋ	thud

Table 9 Category 4 verbs and imitative components

Verb	English	Imitative Component	English
xʊ́ŋ.tʂʰwǎn	to circulate widely (rumours)	xʊ́ŋ	hubbub, roaring laughter
xú.ɕiâʊ̌	to whistle, to scream	xú	exhaling, whistling, breathing
xú.ɕí	to breathe	xú	exhaling, whistling, breathing
xǎʊ̌.kʰú	to howl (while crying)	xǎʊ̌	yelling, roaring
xʊ́ŋ.ɕiàŋ	to rumble	xʊ́ŋ	boom
ɕúɛn.hwǎ	to make a lot of noise	xwǎ	crashing sound
nâʊ̌.tɤŋ	to disturb, to lose one's temper	tɤ́ŋ	galloping, prancing

Table 10 Category 3 verbs and imitative components

Conclusion

After examining all the data above, it seems unreasonable to claim that language development is purely arbitrary without any involvement of iconicity. Likewise, it seems just as unreasonable to posit that the imitatives are derived from lexemes (as opposed to the other way round). More research into Mandarin and other branches of Sinitic could show an even greater influence of imitative shift on the lexicon. Different branches of Sinitic may also show varying degrees of imitative shift. In

this paper, I have drafted the following categories of imitative shift: total arbitrary shift (Category 2: the lexeme no longer resembles the diachronically related imitative), partial shift (Category 3 and Category 4: an imitative aspect is preserved in a shifted lexeme), and total lexical shift (Category 1: the lexeme retains its total imitative form). More research could tell us whether the more conservative branches of Sinitic (e.g. Yue, Min, and Wu) are further along the continuum of iconicity or arbitrariness, thus shedding some light on sound symbolism's role in language change and how imitative shift has occurred diachronically. Within that, more diachronic investigation is needed to ascertain imitatives' involvement with Mandarin verbs, as no Category 2 verbs are attested here. On a phonological note, future investigation should also examine the segmental (many imitatives in this data have /x/, /t/, or /p/ in initial position) and tonal characteristics of Mandarin imitatives (mostly high level or 'first tone'). It would be interesting to see how tonal characteristics of imitatives might vary (or not) across branches of Sinitic.

Throughout this paper, I have shown the more general ways in which imitative shift occurs, albeit with little display of phonological change. The role of sound symbolism in the development and construction of arbitrary lexemes has been established accordingly. We have seen that certain lexemes resemble their onomatopoeic counterpart completely, others only partially, and some not at all. I have typologized the categories of how imitative shift manifests itself in Mandarin, however, there is definitely more to be discussed about which classes (i.e. verbs, nouns, adjectives) and types (e.g. words related to vocalization, breathing, forms of physical movement etc.) of lexemes tend to have a relationship with iconicity. Moreover, the usage of these iconic and arbitrary parallel forms (*child, wheel, motorcycle* etc.) should be examined. Imitative shift is not limited to Mandarin, how this process interacts with other varieties of Sinitic could lead to some insights on the historical development of Sinitic.

References

Chan, Marjorie K. M. 1996. Sound symbolism and the Chinese language. In Tsai Fa Cheng, Yafei Li & Hongming Zhang (eds.), *Proceedings of the 7th North American conference on Chinese linguistics and the 4th international conference on Chinese linguistics*, 17–34. Los Angeles, CA: GSIL Publications, University of Southern California.

Dingemanse, Mark. 2012. Advances in the cross-linguistic study of ideophones. *Languages and Linguistics Compass* 6(10). 654–672.

Gong, Liangyu (龔良玉). 1991. *Xiàngshēngcí cídiǎn* 象聲詞詞典 *[Onomatopoeia Dictionary]*. Guizhou: Guizhou Education Publishing.

Guo, Yakun (郭雅坤). 1987. *Rì hàn xiàngshēng xíngtài fùcí cídiǎn* 日漢象聲形態副詞詞典 *[Japanese-Chinese dictionary of onomatopoeic adverbs]*. Beijing: Zhi shi chu ban she.

Hinton, Leanne, Johanna Nichols & John J. Ohala. 1994. Introduction: Sound-symbolic processes. In Leanne Hinton, Johanna Nichols & John J. Ohala (eds.), *Sound symbolism*, 1–12. Cambridge: Cambridge University Press.

Li, Jing'er. 2007. *Xiàndài hànyǔ nǐshēngcí yánjiū* 現代漢語擬聲詞研究 *[Onomatopoeias in Modern Chinese]*. Shanghai: Xue lin chu ban she.

Masuda, Keiko. 2002. *A phonetic study of sound symbolism*: University of Cambridge dissertation.

van Langendonck, Willy. 2010. Iconicity. In Dirk Geeraerts & Hubert Cuyckens (eds.), *The Oxford handbook of cognitive linguistics*, 394–418. Oxford: Oxford University Press.

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