

# The ʃayn theory of Grade II in Middle Chinese

## 中古漢語二等爲ʃayn介音說

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## Introduction

- We already *know* much about OC; sometimes we know OC better than MC.
- In such cases, we can leverage knowledge about OC to give better hypotheses about MC.
- example: What's Grade II 二等?
  - OC: type A (B-S \*-ʃ-) + \*-r-
  - MC: hmmm...

## Grade II

The existing reconstructions of Grade II by scholars:

	Grade II		cf. Grade I
	*-ʃra-	*-ʃre-	*-ʃa-
高本漢 Karlgren (1957)	<i>a</i>	<i>ǎ</i>	<i>a</i>
蒲立本 Pulleyblank (1984)	<i>a̯</i>	<i>ɛ̯</i>	<i>a</i>
白一平 Baxter (1992)	<i>æ</i>	<i>ɛ</i>	<i>a</i>
鄭張尚芳 Zhèngzhāng (2003)	<i>ʏa</i>	<i>ʏɛ</i>	<i>a</i>
潘悟雲 Pan (2000)	<i>ua</i>	<i>uæ</i>	<i>a</i>

Despite their disparity, they reflect a set of valid observations and intuitions that, once all accounted of, actually point to a direction different from the current solutions.

## 1. Origins

The origin of Grade II syllables is now uncontroversial.

Grade II < type A + \*-r-

## 2. Phonological nature

As is reflected in the different reconstructions, the nature of the Grade II is deeply ambiguous between a medial and a vowel quality.

## 3. æ-ness

Grade II is associated with both **low vowel height** and **frontness**. Hence, it is often represented in reconstructions with a vowel like [æ] or [a].

### Low vowel height

The low vowel height is especially visible as a diachronic development from Old Chinese : every OC vowel under Grade II changes into some kind of *a* in Late Middle Chinese.

- The final merger of the two Grade-II vowels: why did ʎa and ʎɛ (Zhèngzhāng) merge together?
- Extreme case : \*-<sup>ʰ</sup>ruk, \*-<sup>ʰ</sup>rok in 'Phags-pa Chinese 蒙古字韻.
  - 角 \*C.[k]<sup>ʰ</sup>rok: kjaw, distinct from 腳 \*[k]ak, pronounced kew.
  - cf. 穀 [k]<sup>ʰ</sup>ok: ku.

### Frontness

- Directly reflected in Southern Chinese and Chinese borrowings in other languages:

– Southern Mǐn *æ:	<table border="0"><tr><td>泉州 Quánzhōu</td><td>e</td><td>ue</td></tr><tr><td>漳州 Zhāngzhōu</td><td>ɛ</td><td>ua</td></tr></table>	泉州 Quánzhōu	e	ue	漳州 Zhāngzhōu	ɛ	ua
泉州 Quánzhōu	e	ue					
漳州 Zhāngzhōu	ɛ	ua					

  - Goon 吳音 : e.
  - (Roughly) Second wave of Chinese words in Vietnamese 古漢越音: e [ɛ].  
畫 \*C-g<sup>wʰ</sup>rek-s: Southern Mǐn ōe, Japanese 絵 糸, Vietnamese 𩇛 vē [vɛʔʔ]
- Palatal excrescence(?) / breaking (?) after velars and laryngeals in current Northern Chinese and Sino-Xenic readings: 家 \*k<sup>ʰ</sup>ra > jiā, Vietnamese gia etc.
- Sogdian (Yoshida, 1994): 界 \*k<sup>ʰ</sup>r[e][t]-s Sogd. ʎyʔy [qiai], 更 \*k<sup>ʰ</sup>raŋ Sogd. ʎyʔnk [qiang]
  - Probably a Sogdian way to write the unfamiliar sound combination qæ, cf. Japanese rendering of English キャット etc.

## 4. philoretroflexity

Grade II has an affinity with retroflexes.

- Distribution of initial consonants.
- 莊三化二: MC retroflex fricatives/affricates (莊組) in Grade III loses the Grade III yod and end up with a rhyme that is reflected as akin to Grade II in rime tables 韻圖, Shào Yōng 邵庸 and Tangut transcription.
- Nánjīng-type (南京型, Xióng, 1990): MC retroflex followed by a vowel that is not the Grade-II vowel in Proto-Southern Mandarin loses its retroflexity: Sichuanese 師 \*srij > sī, 責 \*s-tʳek > zê, but 沙 \*sʳaj > shā etc.
  - In the ancestor of Nánjīng-type dialects, retroflexity becomes a strict allophonic feature of the Grade-II vowel.

## ɑ-colour and æ-colour

There is a lot of terminological confusion concerning uvularization, pharyngealization. Sylak-Glassman (2014) demonstrated that at least phonologically there are two major types of gutturalish consonants and secondary articulations:

- **uvulars & uvularization** 小舌音與小舌化: pulls the vowel quality back to ɑ
- **pharyngeals & pharyngealization** 咽音與咽化: pulls the vowel quality front to æ

Under this scheme, Baxter-Sagart pharyngealization is rather uvularization.

Arabic is the best example to illustrate the difference between uvularity-ɑ and pharyngeality-æ. Compare the æ-colouring consonant *ḥ* with the ɑ-colouring consonants *q* and *tʳ*, data from Cairene Arabic (Watson, 2002, 272).

- *ḥadd* → [ḥadd] “someone”
- *balah* → [belah] “dates”
- *qatal* → [qatəl] “he killed”
- *tʳalab* → [tʳalab] “he demanded” (in fact *tʳ*, unlike traditional unifying analysis of all emphatic consonants as pharyngealized)

Pharyngeals often have a fronting effect to the vowel, a phenomenon first noticed in Trubetzkoy (1931) as “Emphatische-mouillierung”.

In Avar (Charachidzé, 1981, 17 cited from Sylak-Glassman, 2014):

- /goḥ/ → [gøḥ] “mountain”
- /hor/ → [hør] “lake”
- /hundul/ → [hýndul] “testicles”

## The ʕayn hypothesis

The hypothesis:

- In Pre-Middle-Chinese ( $\sim 200\text{CE}$ ), Grade-II syllables had a  $\text{ɿ}$  medial.
- The  $\text{ɿ}$  medial continuously dragged the vowels towards  $a^{\text{ɿ}}$ , so that in the Táng dynasty, Grade-II vowels have mostly merged into the single Grade-II vowel  $(\text{ɿ})a^{\text{ɿ}}$ .

	*-r <sup>ɿ</sup> e-	*-r <sup>ɿ</sup> a-	*-r <sup>ɿ</sup> ə-
Late OC 建安	ɿe	ɿa	ɿə
Qièyùn 切韻	ɿæ <sup>ɿ</sup>	ɿa <sup>ɿ</sup>	ɿæ <sup>ɿ</sup>
Late MC	(ɿ)a <sup>ɿ</sup>	(ɿ)a <sup>ɿ</sup>	(ɿ)a <sup>ɿ</sup>

## Discussion

### Origin

Grade II < type A + \*-r-

One possibility: \*-r<sup>ʰ</sup>- > \*-ʁ- > -ɿ-

- cf. French, German, Hebrew

Other possibility: English-type pharyngealized *r* with only pharyngealization left.

### Philoretroflexivity

- Classical account (cf. manuals of phonetics like Catford, 1977 or Trask, 1996: retroflex always involves something at the back of the mouth (uvular/pharyngeal constriction).
- Bhat (1974): Hey, there **are** languages with retroflexion but not retraction!
- Hamann (2003): No, there are not.

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