

# Tangut uvularization and the devil in the Chinese details

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I critique traditional simplex approaches to Tangut Grade by primary reference to Xun Gong's new suggestion that Grade I/II syllables were contrastively uvularized. Such proposals are rooted in the categories of philological Middle Chinese (MC), but the Grades are at the same time incommensurate with MC in reflecting the effects of apicalization, labiodentalization, and other changes affecting vocalism across northern late medieval Chinese languages (NLMC). Attention to these details suggests that Tangut Grade concerned vowel quality *per se*, not simplex diagnostic segments or features. Gong's correspondence between Tangut Grade I/II K- and Rgyalrong Q- also has parallels in NLMC and will require a narrower solution within proposed Qiangic.

**Keywords:** Tangut, uvularization, grade, division, rank

## 1. Introduction

In the study of historical Chinese, simplex phoneticizations of philological categories – including the so-called Divisions and the related rime table Ranks – are at times instructive. And because Tangut rhyme groups as wholes can be associated with particular of the Divisions or Ranks by reference to transcriptional practice, it is arguably useful to set up parallel discrete categories for Tangut (e.g. Grades I, II, and III in Hwang-cherng Gong 1994) and indeed to represent these categories in parallel simplex phonetic terms (traditional Grade III -j-, Xun Gong's (2020) new Grade I -V<sup>ʁ</sup>, etc.).<sup>1</sup> However, Chinese-to-Tangut transcription features cer-

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1. I reserve the term *Grade* for Tangut to avoid confusion with Chinese *Rank* (1–4) and *Division* (I–IV), categories discussed in slightly more detail just below and in § 3. It bears emphasis that no such category is an explicit feature of the extensive native Tangut philological tradition. Also, to avoid confusion, I write out “Hwang-cherng Gong” throughout such that “Gong” always refers to Xun Gong (2020).

tain exceptions to the general Grade-Rank-Division associations which force us to abandon abstraction and turn instead to the attested substance of northern late medieval Chinese languages (NLMC).<sup>2</sup> This material also offers useful parallels for the proposed Tangut allophony motivating Gong's suggestions.

## 2. A view from northern late medieval Chinese languages

Beginning from his observation that velar onsets K- in Tangut Grades I and II generally correspond to Rgyalrong /Q-/ in cognate items, whereas Gr. III K-: Rgyalrong /K-/, Gong's study offers the extrapolatory proposal that Tangut Gr. I and II syllables were uvularized CV<sup>ʷ</sup> and CʰV<sup>ʷ</sup> (within both of which philologically reconstructed K- is proposed to have been [Q-]) in contrast to Gr. III plain CV (where K- = [K-]).<sup>3</sup> It will be important to consider some implications of this idea for Xixià Chinese (XXC; my term of convenience for the specific variety or varieties of NLMC reflected by Tangut materials), an area treated tentatively by Gong. A more fundamental question concerns the ontological status of Tangut Grades, categories now often designated I, II, and III and posited on the basis of general transcriptional associations linking the rhyme groups of Tangut dictionaries to either Chinese Division I, Division II, or Divisions III/IV, and at the same time to the related standard rime table Ranks 1, 2, or 3/4.<sup>4</sup>

Thanks to the availability of alphabetic transcription, a number of NLMC languages are attested in an unusually explicit manner and have been the subject of detailed study.<sup>5</sup> This material is much more pertinent to Tangut (attested c.

2. My "NLMC" refers not to some single construct but to a range of variously attested Sinitic languages of the late medieval north including Coblin's (1994, etc.) northwestern Shāzhōu 沙州 (= Takata's 1988 Héxī 河西) varieties; specifics follow.

3. Gong (2020) writes (e.g.) Tangut Gr. I qa<sup>ʷ</sup> vs. Gr. III ka to underscore the relationship he has found to Rgyalrong, but because he accepts standard philologically reconstructed Tangut k-, I think it would have been preferable to write simply Gr. I ka<sup>ʷ</sup> vs. Gr. III ka etc., parallel to extrapolatory Gr. I pa<sup>ʷ</sup> vs. Gr. III pa, etc.

4. Some studies including Miyake (2012) retain reference to four Grades after the Chinese situation. Here I write I/II/III following Hwang-cherng Gong 龔煌城 as reflected in Li (1997), an approach motivated by the near complementary distribution of traditional Gr. III vis-à-vis IV. Also, "Division" is not a feature of philological Middle Chinese *per se* but a hybrid scheme derived via associating Qièyùn rimes with later standard rime table Ranks (esp. work of Yǒng Jiāng 江永, 1681–1782). To the degree that Division had straightforward phonetic correlates, these lie not in the medieval period but in Old Chinese, a fact which in itself presents problems for simplex approaches to Tangut Grade; further below.

5. I have in mind especially work of W. South Coblin; see References for a non-exhaustive list. In what I think is Gong's only citation of NLMC data, he points to "highly deviant" [ʰdz] corresponding to MC retroflex nasal ŋ- (Gong 2020: 184–185, Footnote 14). This is not deviant in

11th–13th centuries) than is Middle Chinese, i.e. the system suggested by *Qièyùn* 切韻 (601 A.D.) rime book categories (QYS). In Tables 1–3, I present for each numbered Chinese item a range of northern late medieval forms along with an associated Tangut transcriptional representation. Entries are drawn mostly from the text *Newly collected biographies of parental love and filial piety* (睨𐰇𐰏𐰐𐰑𐰒𐰓𐰔 sjiw<sup>1</sup> ciao<sup>1</sup> nji<sup>2</sup> wə<sup>1</sup> la<sup>1</sup> mjii<sup>2</sup> X, a.k.a. *Xīnjí cíxiào zhuàn* 新集慈孝傳) as presented by Jacques (2007), a suitable amount of data for my purposes and also thoroughly indexed and available in digital format. Neither the Tangut forms shown here nor their relationships to contemporaneous Chinese are mysterious, and the patterns on display may be found within any similar data set: I cross-reference in particular Hwang-cherng Gong's (2002) work based on the bilingual glossary *Fān-Hàn héshí zhǎngzhōng zhū* 番漢合時掌中珠.<sup>6</sup> However, given Gong's (2020) proposals, I want to draw particular attention to problems that the selected NLMC-Tangut transcriptional equations pose for typical approaches to “Grade”. Presented first, in Table 1, are Chinese syllables belonging to Div. III and specifically to *Qièyùn* rime *zhī* 之 (often represented as *-i* [-i]) but distributed across standard rime table Ranks 2, 3, and 4 as well as, more interestingly, across the three Tangut Grades in a manner which defies the general associations noted above.

**Table 1.** MC/QYS sibilant onsets *S* – + rime *-i* 之 [-i] >> Tangut Gr. I/II\*

Char.	QYS	Div./Rk.	CSZ	LMC	CPP	ZYYY	Tangut	Grade	Char.	Num.
(1) 司	<i>si</i>	III/4	*si †	sɿ	[sɿ]	sɿ	sə 1.27	I	𐰇𐰏	2460
(2) 思	<i>si</i>	III/4	*si	sɿ	[sɿ]	sɿ	sə 1.27	I	𐰇𐰏	2460
(3) 姒	<i>zi</i>	III/4	(*si)	zɿ	[zɿ]	sɿ	sə 1.27	I	𐰇𐰏	2460
(4) 子	<i>tsi</i>	III/4	*tsi	tsɿ	[tsɿ]	tsɿ	tsə 1.27	I	𐰇𐰏	5925
(5) 史	<i>ʃi</i>	III/2	*ʃi †	ʃɿ	[ʃɿ]	ʃɿ	ɕə 1.28	II	𐰇𐰏	5442
(6) 使	<i>ʃi</i>	III/2	*ʃi	ʃɿ	[ʃɿ]	ʃɿ	ɕə 1.28	II	𐰇𐰏	5442
(7) 事	<i>dʒi</i>	III/2	*ʃi	zɿ	[dʒɿ]	ʃɿ	ɕə 1.28	II	𐰇𐰏	5442
(8) 士	<i>dʒi</i>	III/2	*ʃi	zɿ	[dʒɿ]	ʃɿ	ɕə 1.28	II	𐰇𐰏	5442
(9) 詩	<i>ʃi</i>	III/3	(*ʃi)	ʃi	[ʃi]	ʃɿ	ɕə 1.28	II	𐰇𐰏	5442
(10) 侍	<i>dʒi</i>	III/3	*ʃi	zɿ	[ʒi]	ʃɿ	ɕə 1.28	II	𐰇𐰏	5442
(11) 時	<i>dʒi</i>	III/3	*ʃi	zɿ	[ʒi]	ʃɿ	ɕə 1.28	II	𐰇𐰏	5442

an NLMC context: as Pulleyblank (1991:7) explains, “[t]he affricated pronunciation of nr- [= *ɲ*-] persisted in some varieties of L[ate] M[iddle] C[hinese], in which nasals were regularly pronounced as prenasalized stops”; cf. Coblin's (1994: 156) *Shāzhōu* [ʔdʒi] 女 ‘woman; MC *ɲjoH*.

6. Hwang-cherng Gong (2002) focuses on syllable finals of his “late 12th century northwestern Chinese” by reference to Chinese-Tangut and Tangut-Chinese transcription; i.e., this amounts to a proposal for what I call “XXC”.

Table 1. (continued)

Char.	QYS	Div./Rk.	CSZ	LMC	CPP	ZYYY	Tangut	Grade	Char.	Num.
(12) 李	li	III/3	*li ɿ	li	[li]	li	li 2.09	III	𐽀	1142
(13) 姬	ki	III/3	*ki	ki	[ki]	ki	ki 1.11	III	𐽁	5157
(14) 疑	ŋi	III/3	*ŋi [ʈgi]	ŋi [ʈgi]	[ŋi]	ji	gii 1.14	III	𐽂	3590

\* Tangut spelling plus tone/rhyme, Grade, character, and number (columns 8–11 at right) are from Jacques (2007) except for items (2), (8), (11), and (14), added by reference to Peng (2012) with consultation of West (2008). I have chosen to remove the traditional phoneticizations of Grades II and III, “-i-” and “-j-”, as these are redundant with Roman numeral indications. Chinese data (columns 1–7) are as described below, with indication of lexical tone and of any additional character readings elided. For Table 1 material, cf. rime *zhī* 之 at Hwang-cherng Gong (2002: §2.6a, §2.9a).

- QYS: Here and throughout = Middle Chinese / *Qièyùn* 切韻 system of 601 A.D. after Baxter (1992), but with *ʃ*- for his “*sr*-” etc., and *ʃ*- for “*sy*-”, etc.
- CSZ: Common Shāzhōu 沙洲 of the 9th to 10th centuries after Coblin (1994); see his pp.24–27 for the specific (Tibetan and Brāhmī) transcriptional materials underlying the author’s individual Shāzhōu varieties, in turn based on Takata (1988). Where CSZ is unavailable, “ɿ” = Coblin’s similar Late Táng Cháng’ān (LTCA) based on the Lhasa Sino-Tibetan Treaty Inscription of 821–823; where both CSZ and LTCA are unavailable, “( )” = the form implied by the CSZ: QYS correspondences presented at Coblin (1991a: 121–127).
- LMC: Late Middle Chinese of around the 9th century (?) based on the later *Yùnjìng* 韻鏡 rime tables and related material, after Pulleyblank (1991) with -ɿ for his apical vowels “-z/” “-r” and z- for voiced “*sf*-”, etc.
- CPP: Chinese in the ’Phags-pa alphabet after Coblin (2007); I show Coblin’s phonetic renderings as opposed to transliterations, with -ɿ for his “-ɿ” “-ɿ”. CPP, according to Coblin (1999; 2000a; 2001), may be understood to represent a Kāifēng 開封–Luòyáng 洛陽 area koine of Southern Sòng and Jīn times (c. 12th century) and to be a close sister to the Míng-era “Guānhuà” 官話 centered on the lower Yangtze watershed and attested in Suk-ju Sin’s 申叔舟 Hangul spellings of c. 1450. CPP appears most significantly in the *Ménggǔ zìyùn* 蒙古字韻 (MGZY), surviving edition from 1308.
- ZYYY: *Zhōngyuán yīnyùn* 中原音韻, c. 1300, reflecting a standard markedly different from CPP/MGZY and often associated with the northerly Yuán capital at Dàdū 大都. I show Pulleyblank’s (1991) “Yuán [dynasty]” forms, based centrally on this text. Pulleyblank’s alternative designation “Early Mandarin” is potentially misleading, on which see esp. Coblin (2000b); just as the systems above are not to be regarded as linear synchronic stages of pre-modern northern Chinese, so ZYYY (also CPP, etc.) is not to be regarded as a linear ancestor of the modern standard language.

I set aside here the relative timing including nature of overlap of the various changes reflected by Table 1 NLMC forms.<sup>7</sup> My specific concern is what we should make of the fact that Tangut transcription regularly employs Gr. I/II sylla-

7. These include merger of the historical palatal sibilant onsets with the retroflexes and loss of contrastive voicing (ZYYY and sibilants but not stops of Coblin’s (1994) CSZ); both changes are reflected in Tangut.

bles for MC Div. III (and rime table Rank 2/3/4) *Si*.<sup>8</sup> The *prima facie* facts suggest a preliminary hypothesis. In Table 1, “mismatches” between Tangut Grade and Chinese philological Rank and Division are surely related to an attested piecemeal vowel quality change – apicalization – which gradually separated NLMC languages from their Sinitic ancestors.<sup>9</sup> Thus, in comparing Tangut forms to very similar-looking ZYYY, for instance, it is most economical to understand Tangut Grade as a correlate of vowel quality (at times in conjunction with onset type) rather than to require that, for instance, XXC had developed something akin to noncontrastive uvularization on the relevant vowels such that transcriptional choices happened to be Gong’s (2020) Tangut  $-(\text{ʕ})\text{ə}^*$  (not  $-(\text{ʕ})\text{ə}$ ) in cases like (1)–(11) but  $-i$  (not  $-i^*$ ) in cases like (12)–(14). Arguably corroborative is the fact that apicalization causes comparable realignments within the Chinese rime table tradition itself. In the Southern Sòng *Qièyùn zhǐzhǎng tú* 切韻指掌圖, for instance, while retroflex sibilant onset syllables are maintained in Rank 2 and historical palatal sibilant onset syllables in Rank 3, the new vocalism of plain sibilant onset syllables like Table 1 (1)–(4) leads to their placement in Rank 1 as opposed to 4 (here compare in particular the Table 1 LMC and CPP situations.)<sup>10</sup>

A related case involves NLMC labiodentalization of a subset of bilabial onsets, a change which Coblin (1991b: 105) suggests had affected Sinitic languages of the northwest by as early as 600 A.D. (contrast contemporaneous QYS, with no F-) Coblin’s view from transcription and reconstruction is that the conditioning environment was  $/P-/ + /u/$ , not so different from the opening diphthongal values proposed in Pulleyblank (1984): a representation like  $[P_uV] > [F^wV]$  is arguably suggestive as regards phonetic detail. This process, largely complete across NLMC and reflected in Tangut, is sufficient explanation for the tendency

8. QYS retroflex sibilant onset syllables appear in standard rime table Rank 2, palatal sibilants in Rank 3, and plain sibilants in Ranks 1 and 4. *Pace* Norman (2006: 187), vowel quality remains the core organizing principle of the rime tables given in particular that Ranks 1 and 4, placed at opposite ends of the tables, are indistinguishable by reference to onset distribution.

9. By “piecemeal” I refer to nondiscrete change, to variation across time and space, and to conditions involving onset manner and a range of finals aside from MC/QYS  $-i$ ; see Pulleyblank (1984: 24–26) and Shen (2008) for fuller treatment including theoretical analysis, with Coblin (2000c) on later developments in Nankingese also of interest. Note that the Table 1 picture changes only trivially if we propose some slightly different early medieval value for the rime *zhi* 之.

10. See The Commercial Press 台灣商務印書館 (1983–1986), vol. 231. Shen (2008: 31) makes a similar but less specific remark about this text. The same arrangement is found in, e.g., the Northern Sòng *Huángjí jīngshì* 皇極經世 charts, for which see just below. These facts are useful in reminding us that separation of syllables into “Ranks” did have a descriptive-impressionistic component.

towards transcription of certain Chinese labiodentalized syllables with Tangut Gr. I as opposed to Gr. III, as seen in Table 2.

Table 2. NLMC labiodentalization >> Tangut Gr. I/III\*

Char.	QYS	Div./Rk.	CSZ	LMC	CPP	ZYYY	Tangut	Grade	Char.	Num.
(15) 夫	<i>pju</i>	III/3	*fu	fuṣ	[fu]	fu	xu 1.01	I	𐽄	3118
(16) 府	<i>pju</i>	III/3	(*fu)	fuṣ	[fu]	fu	xu 1.01	I	𐽄	3118
(17) 武	<i>mju</i>	III/3	*mvu <sup>†</sup>	vuṣ	[vu]	vu	u 2.01	I	𐽆	0546
(18) 文	<i>mjun</i>	III/3	*mvun	vun	[vun]	vun	wē 1.15	I	𐽇	2872
(19) 馮	<i>bjuwŋ</i>	III/3	(*vuŋ)	vuwŋ	[vuŋ]	fuŋ	xwī 1.16	III	𐽈	4329
(20) 方	<i>pjaŋ</i>	III/3	*faŋ < *fuaŋ	faŋ	[faŋ]	faŋ	xow 2.43	III**	𐽉	2635

\* Table 1 conventions are continued here. Boldface for QYS -j- emphasizes its notational function, with transcriptional evidence establishing that no such segment was present. Pulleyblank (1991:21) also offers what he considers to be early LMC forms (15) f̥yǎ, (16) f̥yǎ, (17) v̥jǎ, (18) v̥jyn, (19) v̥jywn and (20) f̥yaŋ, with fundamentally notational “-jy-”. I find the idea of opening [u̥V] to allow a more typologically plausible account of the relevant change – and again, we lack transcriptional or comparative support for the role of a high front medial (Coblin 1991b). For Table 2 material, cf. Hwang-cherng Gong (2002: §2.4a, §2.7a, etc.).

\*\* In Hwang-cherng Gong (2002:341–342, 348), I find two XXC analogues of MC *Pjaŋ/k* transcribed into Tangut Gr. I (*mjaŋ* 網 >> wo<sup>2</sup> and *pjak* 縛 >> xu<sup>1</sup>), to which contrast Gr. III here from Jacques (2007:137). Such transcriptional unevenness, unsurprising given the nature of the Chinese shift underway, itself points up the kinds of difficulties facing binary solutions to Grade.

As above, certain late medieval Chinese descriptions reflect this change in a similar manner. For example, Pulleyblank (1984:86–88) observes that the phonological charts within Shào Yōng’s 邵雍 (1011–1077) astrological treatise *Huángjī jīngshì* 皇極經世 move labiodental-onset syllables from Rank 3 (their home in the standard rime tables) to Ranks 1, 2, and 4 by reference to vowel quality.<sup>11</sup> In particular, items which had merged into the northern simple vowel /u/ (cf. esp. Table 2 ZYYY) appear in Rank 1, to which compare Tangut (and vowel qualities of modern Mandarin reflexes). On approaches like Gong / Hwang-cherng Gong, which lack recourse to gradual diachronic change on a vowel space continuum, we must again explain this situation by stipulating the (dis)appearance in XXC of single segments or features like “-j-” and “-◌̥” in the required cases.<sup>12</sup>

11. Found within the *Zhèngtǒng dàoàng* 正統道藏 (comp. 1445); #1034 in the Harvard-Yenching index (Weng 1935).

12. For instance, Hwang-cherng Gong (2002:350) addresses such a situation as follows: “syllables belonging to the [MC] rimes -ju 虞 and -juw 尤 in principle develop to -ju [in XXC], but after labial onsets alone, medial -j- disappears, yielding merger with -u” 虞、尤二韻字原則上變成 -ju, 只有在唇音字後 -j- 介音消失而與 -u 合併.

Similarly, among other parallel mergers less well attested in the data I have examined, QYS *-æw* (with its “Div. II” vowel) moves towards merger with (Div. I) *-aw* in NLMC with the exception of guttural onset *Kæw*, which is affected by vowel breaking (thus modern Mandarin *bào* 抱 QYS *bawX*=(21)/(23) *bào* 鮑 QYS *bæwX* of Table 3, but contrast (27) *xiào* 校, etc.)<sup>13</sup> This NLMC change in progress explains intermittent reflection of Tangut Gr. I as opposed to II in transcription. Again, Gong’s (2020) proposed values Gr. I *-V<sup>h</sup>* and Gr. II *-fV<sup>h</sup>* do not offer a targeted means of understanding the odd Grade-Rank-Division “mismatch” here; analogously, Hwang-cherng Gong (2002: 344) must specify insertion of traditional simplex *-i-* for his XXC in cases of Gr. II transcription (“*-au* > *-io*”, etc.).<sup>14</sup>

**Table 3.** QYS *-æw* 肴 > NLMC *-aw* (etc.) at times >> Tangut Gr. 1 \*

Char.	QYS	Div./Rk.	LMC	CPP	ZYYY	Tangut	Grade	Char.	Num.
(21) 鮑	<i>bæw</i>	II/2	ba:rw	[baw]	paw	pho 2.62	I	𐰇	1426
(22) 龐	<i>bæwŋ</i>	II/2	ba:wŋ	[baŋ]	p <sup>h</sup> aŋ	pho 2.62	I	𐰇	1426
(23) 鮑	<i>bæw</i>	II/2	ba:rw	[baw]	paw	pho 2.48	II	𐰇	1961
(24) 包	<i>pæw</i>	II/2	pa:rw	[paw]	paw	pow 1.55	II	𐰇	1376
(25) 朔	<i>ʂæwk</i>	II/2	ʂwa:wk	[ʂwaw]	ʂwaw	ɕo 1.50	II	𐰇	4507
(26) 樂	<i>ŋæwk</i>	II/2	ŋja:wk [ <sup>ʈ</sup> gja:wk]	[jaw]	jaw	goo 1.53	II	𐰇	5086
(27) 校	<i>hæw</i>	II/2	yjaw	[yjaw]	xjaw	xa 1.30	II	𐰇	0683

\* CSZ is available for very few of these items in Coblin (1994), so I leave it out. Note that we should probably never expect guttural onset items like (26) or (27) to be transcribed into Tangut Gr. I rhymes.

13. Some MC *Kæ(C)*, including Table 3 (26)/(27), could absolutely have had something like *-j-* in XXC, and in one case in Jacques (2007) this is arguably suggested by Tangut Gr. III: MC *ŋæn* 顏, LMC *ŋja:n* / CPP [jan] / ZYYY *jan*, is shown transcribed as *ŋjaa*<sup>2,20</sup> = this study’s *ŋaa*<sup>2</sup> III (綴 #3323). This conditional breaking, a well-known feature of northern Chinese, explains why medial *-i-* was proposed as unifying property of Rank 2 on early approaches to the rime tables (e.g. Schaank’s 1897–1898 Rank 2 *-y-* / 3 *-yj-* / 4 *-j-*), an idea abandoned by Karlgren (1922) only following Maspero (1920). This element remains reflected in traditional Tangut transcription (see Footnote 14 below).

14. See Hwang-cherng Gong (2002: 375 Table VIII) and Footnote 13 above. This proposed development again underscores difficulties with single-segment devices, as the left side of the change reflects a 1920’s and forward approach to Chinese Div. II (i.e. characteristic low vowels; the author follows Fang-Kuei Li’s 1971 revisions of Karlgren) while the right side retains a Schaank-style approach (diagnostic “*-i-*”).

If it is uneconomical to accommodate proposed Tangut Gr. I/II contrastive uvularization by, e.g. requiring that local Chinese had subphonemic uvularization attendant to each of the necessary vowel qualities considered in turn above, it is even more awkward to retain Gong's tentative suggestion of cognancy between Tangut uvularization and Baxter & Sagart's (2014) Old Chinese (OC) Type A (i.e. Div. I/II/IV) pharyngealized onsets. To connect such an OC to what is implied for XXC by Gong's Tangut, we must first suppose that OC  $\pm^{*s}$  or the like persisted to certain NLMC languages despite its demonstrable non-distinctiveness as of Hàn, and further that this hidden feature's distribution happened to shift in (at least) XXC in lockstep with individual manifestly attested changes like apicalization and labiodentalization. On top of Tables 1–3 etc., there is the problem of Chinese Div. IV: to provide for hypothetical deep cognancy, we must suppose that these historically Type A (= "pharyngealized") syllables shifted to (non-contrastive) "plain" in XXC in order to account for regular transcription into Tangut Gr. III (= contrastive "plain"). Far better to regard the failure of Tangut transcription to suggest a phonemic contrast between rime table Rank 3 and 4 syllables as another straightforward reflection of well-understood vowel quality changes in northern Chinese of this late period (on this point further below). Whether dealing with XXC, OC, or something in between, then, we should avoid stipulation of redundant covert features and intricate category shifts which are unprovable in the plentiful Sinitic data. Barring other compelling evidence, the fact that "Grade" reflects a series of highly particular and nondiscrete vowel quality changes distinguishing NLMC from earlier medieval Chinese should be taken to suggest that the vowel spectrum as such underlies this partly epiphenomenal Tangut philological category.

### 3. Discussion

#### 3.1 "Rank" and "Division"

I disagree that Gong's use of MC/QYS is immaterial to his discussion (see Gong 2020: 176–177, Footnote 4), and regard the uvularization hypothesis as a product of the same traditional mold that produced Gr. III -j-, etc. When we consider Chinese data relating more meaningfully to Tangut, it becomes clear first of all that rime table Rank served to discretize a complex and evolving vowel space and is not amenable to analysis in terms of, as Branner (2006: 156) puts it, "the



gross presence or absence of a single phonological feature”.<sup>15</sup> Further, contrary to implications in Gong (2020: 180–181), the philologically recovered binary contrast underlying Chinese “Division”, traditionally represented -Ø- (= “Type A”) vs. -j- (= “Type B”), has direct implications not for medieval Sinitic but for first millennium B.C. OC.<sup>16</sup> By early medieval times, in light of transcriptional evidence, internal phonological changes, and *fǎnqiè* spellings, OC A vs. B (for now best represented abstractly) is thought to have developed into onset-final cooccurrence restrictions across an MSEA-like spectrum of onsets and vowels: “A” t- + -a but “B” t- (> tɕ-) + -ie; “A” g- (> ɦ-) + -an but “B” g- + -ian; “A” p- + -ou but “B” p- (> f-) + -uo, etc. (cf. Schuessler 2006). This newer, fundamentally Pulleyblankian paradigm, pushed further by Schuessler as well as authors like Chan (2004), exposes Div. III -j- of QYS as at best an anachronistic category-transcriptional convenience. No such element or simple equivalent ought to be used in literal descriptions of medieval Sinitic varieties, still less transferred wholesale into representations of Tangut.

### 3.2 Tangut /K-/ as Grade I/II [Q-] vs. Grade III [K-]

The idea of phonetic uvular vs. velar allophones of the Tangut velars, based on Gong’s (2020) discovery of the correspondences Tangut Gr. I/II K- : Rgyalrong /Q-/ and Tangut Gr. III K- : Rgyalrong /K-/, is the substantive core of the author’s uvularization hypothesis. *Qièyùn*-tradition *fǎnqiè* spellings are well-known to suggest a similar allophonic separation for early medieval Chinese – we might write [K] or [Q] vs. advanced [K̠] – associated with Type A (= Div. I/II/IV) vs. Type B (= Div. III) syllables respectively. In the most concrete trace of this situation, retracted [g̠] is reflected as MC/QYS ɦ – (i.e. *xiá* 匣, found in Div. I/II/IV rimes), in complementary distribution with MC g – (*qún* 群; Div. III rimes only) and proceeding to novel /h-/ in northern and prestige varieties. Csongor

15. Branner is referring here specifically to Schaank’s (1897–1898) algebraic approach to certain later rime tables.

16. The medieval syllable flavors suggesting a minimal bifurcation on the “OC” framework (e.g. \*kan<sup>A</sup> vs. \*kan<sup>B</sup>, etc.) were first recognized within the native *Qièyùn* studies tradition (esp. Lǐ Chén’s 陳澧 *Qièyùn kǎo* 切韻考 of 1842; see Shen 2017). Pertinent later works include Karlgren (1915), Yúnqiān Zēng 曾運乾 (1927), Chao (1941), and Róng Lǐ 李榮 (1952). Zēng, for instance, referred to two onset types *hóng* 鴻 [a.k.a. 洪] ‘broad’ vs. *xì* 細 ‘narrow’ and to two associated final types *chǐ* 侈 ‘lax’ vs. *yǎn* 弇 ‘constrained’. Pulleyblank (1977–1978) termed these “Type A” and “Type B” syllables, having recognized earlier that a simplex Type B/Div. III *yod* could not have been part of real medieval Sinitic: see his remarks on the necessity of seeing at least open and close variants of *yod* (Pulleyblank 1962: 100) and later regarding “various semi-vowels which are included [in *yod*]” (Pulleyblank 1965: 201).

(1952; 1962) discusses the related separations revealed by later Táng-era (but not by Sòng and forward) Uyghur transcription of Chinese, while Pulleyblank (1965), adding parallels from Táng Chinese transcription of Sanskrit and Turkish, makes the crucial point that as of this period, the allophonic separation had become Chinese Div. I/II /K-/ ≈[Q-] vs. Div. III/IV /K-/ = [K-] due to changes affecting Div. IV syllables (that author's [e] > [ie]).<sup>17</sup> It is this arrangement and not historical A vs. B which is pertinent for Tangut, with Grade again appearing to reflect developmental tendencies within late medieval Chinese in a basically unsurprising way.

Medieval Chinese [K̤] vs. [K̚] or the like, shifting over time and in most respects ephemeral, was also generally northern, for which see just below. This is suggestive of an areal affinity to Turkic, natural enough in light of the Táng-era cultural milieu (see, e.g., Vovin & McCraw 2011) and an alignment in which Tangut could well have come to participate. If the Tangut allophones proposed by Gong can be substantiated internally by reference to the philological tradition, one might proceed to consider whether these should be resolved at “proto-Qiangic” via /Q-/ vs. /K-/ (the Rgyalrong situation), a single /K-/, or some other means. Among other benefits, such a solution will allow us to avoid the sticky problem of extending Gong's uvularization across all Tangut syllable types.

### 3.3 Old Chinese Type A “pharyngealized” onsets

Baxter & Sagart's (2014) OC pharyngealized onsets \*C̤- (“Type A”) vs. \*C- (“Type B”), largely based on Norman (1994), are only an undercurrent in Gong's study; however, as the connection has been lit upon by some readers and the author does mention potentially “revolutionary implications” for Sino-Tibetan (Gong 2020: 205), the proposal calls for brief comment.

First, Baxter & Sagart (2014: 70) suggest that the medieval Chinese allophony discussed just above might support their OC \*K̤- vs. \*K- in particular. To me, this looks contrary to normal comparative practice, according to which early medieval velar allophones [K̤]~[K̚], alongside colloquial Mǐn, Hakka, and Wú plain velars corresponding to MC *h*- as well as Southern Dynasties transcriptional practice suggesting that “the distinction between front and back [velar] allophones may not have been present in the south” (Pulleyblank 1984: 167–168 on Sanghabhara 僧伽婆羅 and see also Pulleyblank 1979 and Coblin 1990), ought to be taken to indicate standard unitary OC velars \*K-. This is one part of a maximally parsimo-

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17. For example, Pulleyblank (1965:201) notices that the *k*- Div. IV syllable *ket* transcribes Turkish *qyr-* of the name *Qyrqyz* in early Táng, but is replaced by Div. II *ket* for this purpose following Chinese *ket* > *kiet*, etc. For the Tangut reflection of this merger, see, e.g., Hwang-cherng Gong (1994: 306).

nious, non-circular, typologically plausible and vowel-driven account of a range of Hàn and later changes including velar backing (in “A”) vs. fronting (in “B”) as well as palatalization of dentals, velars, and /l-/ (only certain “B”), fortition /l-/ > /d-/ (“A”), labiodentalization (only certain “B”), etc. (see Schuessler 2006 and the suggestive early medieval syllable types provided above.)

More generally, the real weakness of \*C<sup>ʕ</sup>- in all OC Type A syllables, as with Gong’s approach to Tangut Grade, is in my view not that it is typologically audacious but that it is old-fashioned, a philological-category-level expedient which does not engage at the necessary level of detail with the Hàn through medieval Chinese evidence. As Pulleyblank (1996: 105) points out, proposals for Type A pharyngealization explicitly incorporate, rather than scrutinize and revise, Karlgren’s old view that palatalization is a valid universal characterization of post-OC Type B changes (that is, the former feature is now held to block the latter process; see Norman 1994: 403; Baxter & Sagart 2014: 76.) This means that, to take one ready example, the awkward interposition of -j- within the environment meant to condition labiodentalization (see Table 2) is left unaddressed on this new model. Reserving consideration of particulars for another occasion, here I would refer those inclined to remove traditional \*Cj- in all OC “B” in favor of \*C<sup>ʕ</sup>- in all OC “A” to the tale of “three at dawn” (*zhāo sān* 朝三), in which trivial isomorphy likewise passes for decisive improvement.<sup>18</sup>

#### 4. Conclusions

Premodern Chinese and Chinese-derivative lexicographical texts group like syllables with like across a wide range of properties, but because the resultant categories often stand at levels of analysis coarser than the phoneme and may also carry abstract and thus now-obscure designations, they require elucidation by reference in part to realer language data. On top of this, the analytical tradition has introduced hybrid diachronic categories (Chinese “Division”) and indeed categories which are entirely inferred rather than explicitly present in the texts under study (Tangut “Grade”), cases regarding which the past century of work in historical Chinese suggests it will be especially hazardous to lose sight of evidence of a more concrete kind.

As has been noted, Edwin Pulleyblank deserves primary credit for deconstruction on these grounds of the Karlgrenian binary approach to Chinese Division as of the medieval period (i.e. -Ø- vs. -j-). Just as Gong (2020: §2.3–§2.4) discovers for the Tangut case, a simplex separation of this kind becomes impossi-

18. *Zhuāngzǐ* 莊子, “Qíwù lùn” 齊物論; see Lau et al. (2000: 5, lines 4–5).

ble to sustain in light of transcriptional and modern dialectal (among other) evidence. Gong's new Tangut C[ʕ]V<sup>ʷ</sup> vs. CV remains doubtful for the same reasons: while we may argue that such an arrangement passes muster from the standpoint of an areal typological profile (cf. Gong (2020: § 4.2) on guttural secondary articulations in Qiangic), this virtue counts for little if the binary contrast in question is a simulacrum of MC/QYS Division/Rank which finds concrete reflection neither in closely contemporaneous transcriptional materials nor in the primary sources themselves (and note that given historical lexicographical treatment of tone, tonal register, retroflexion, and the like, we should not imagine such reflection to be less likely simply because Gong's hypothesis involves what could be taken to be a suprasegmental contrast.) I think we can acknowledge the likely inability of transcription to capture the Tangut vowel system in all its detail (Jacques 2014: 17) as well as the likely value of close study of typological tendencies while still managing to work with and not against the grain suggested by material like NLMC – Chinese varieties which are not only far more pertinent than MC to Tangut in chronological and geographical terms but also plentifully attested and thoroughly studied.

Distributional peculiarities, some of which are on display in Table 1 above, also deserve our attention in connection to Grade. For instance, Gong's solution, while essentially binary, faces the problem of dealing with Tangut Gr. II as separate or intermediate in some way, thus “-ʕV<sup>ʷ</sup>” in the version of the proposal under consideration here. It could be crucial that this vowel neighborhood excludes *r*-onset syllables and to a lesser degree all sonorant onsets and Hwang-chen Gong's “-*r*” such that it appears ultimately to be of rhotic origin, at least in part (here see, e.g., Miyake 2015). Parallel distributional facts constitute fertile ground for further investigation of Tangut vocalism.<sup>19</sup> In particular, past approaches to Grade which abandon discrete segments or features to work instead from generally low (Gr. I) to high (Gr. III/IV) across a vowel spectrum, among them Miyake (2012; 2015), look relatively well-suited to confront these issues as well as aspects of the NLMC data considered in this study.

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## Abbreviations

CPP	Chinese 'Phags-pa
CSZ	Common Shāzhōu
LMC	Late Middle Chinese
LTCA	Late Táng Cháng'ān
MC	Middle Chinese
MGZY	Ménggǔ zìyùn 蒙古字韻
MSEA	Mainland Southeast Asia
NLMC	northern late medieval Chinese languages
OC	Old Chinese
QYS	Qièyùn system
XXC	Xixià Chinese
ZYYY	Zhōngyuán yīnyùn 中原音韻

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