

East vs. West

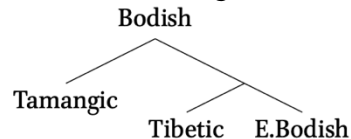
Differential loss of palatalization *j as a West Bodish (Tamangic) shared innovation

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High-level overview

- The internal division of the Bodish subgroup into East Bodish and West Bodish (≈Tamangic) is a generally-accepted working hypothesis (Shafer 1953, Benedict 1972, Bradley 1993, Matisoff 2003, a.o.), but is so far not well substantiated with evidence from regular sound change.



- Differential reflexes of proto-Bodish ****j** is a promising candidate for a sound law that distinguishes WBod from the rest: **WBod has regularly lost two kinds of ****j****, which Tibetic and EBod preserve, each in a different pattern.

Case study: Houghton's Law cognates in WBod. *versus* Tibetic + EBod.

Languages, branches, notational conventions & data sources

West Bodish (Bradley 1997)	WBod	≈Tamang-ish/Tamang-ic
<ul style="list-style-type: none"> Tamang (Risiangku) Gurung (Ghachok) Gurung (Sikleś) Manange 	Tmg _{ris} Gur _{gha} Gur _{sik} Mng	Mazaudon (1994) Glover et al. (1976) fieldwork project @ ELA New York, see Ronkos (2020) Hildebrandt (2004)
Occasionally:		
<ul style="list-style-type: none"> Manange (Prakaa) Thakali (Tukche) Thakali (Marpha) 	Mng _{pra} Thak _{tuk} Thak _{mar}	Hildebrandt (2004) citing Hoshi (1986) Mazaudon (1994) citing Hari (1969) & Hale (1973) Mazaudon (1994) citing Mazaudon (1973, 1978)
Tibetic		≈ "Tibetan varieties" descending from Old Tibetan
<ul style="list-style-type: none"> Written Tibetan 	WT	Hill (2010a) (lexicon of Tibetan verbs)
Old/pre-Tibetan is transliterated using Hill's (2019) system. Note that <ñ> = [ŋ].		
Two-letter abbreviations for particular WT lexicographical sources [i.e. published dictionaries] from Hill (2010a) are occasionally used.		
East Bodish	EBod	≈ Group of Bodish languages in E. Bhutan, W. Arunachal see Bodt (2023)
<ul style="list-style-type: none"> Kurtöp 	Kur	mainly Hyslop et al. (2022)
Occasionally on other EBod languages		Donohue (2021)
Chinese & Burmese data	Chn., Bur.	Hill (2019)

Single asterisk * reconstructions of lower-level subgroups: Old/pre-Tibetan, pEBod, pWBod
 Double asterisk ** reconstruction of proto-Bodish (pBod)

1. BACKGROUND: HOUGHTON'S LAW

In Tibetic, many palatal nasal initials \tilde{n} [ɲ] are secondary. In particular, a subset of \tilde{n} results from palatalization of pre-Tib. $*\tilde{n}^y$ [ɲ].

- This pattern is established in early comparative work between Written Tibetan (WT) and Chinese/Burmese (Hill 2019 citing Houghton 1898, Benedict 1939), with a constrained set of comparanda.
 - Where Tib. shows a palatal nasal initial \tilde{n} , OChn. and Bur. cognates reflect the proto-velar initial η .
 - Analysis: there was a pST palatalization, $*^j$, which is only preserved in Tibetan, and lost in Chinese and Burmese.

Table 1: “Original” comparanda for Houghton’s Law (Hill 2019:§27)

a. Bodish-external	b. Tibetic + EBod.
Bur. འཇེ: $\tilde{n}āḥ$ Chi. 魚 $ngjo < *ḡa$	Tib. ཇ $\tilde{n}a < *n^ya$ ‘fish’ Kurtöp ja ‘fish’ <div style="text-align: right;">$< **ḡa$</div>
Bur. ཇེ: $\tilde{n}hāḥ$ ‘borrow’	Tib. བརྒྱ $brñā < *brn^ya$ ‘lend, borrow’ Kurtöp ju ‘borrow’ <div style="text-align: right;">$< **brḡa$</div>
Chi. 齧 $ngjin < *ḡ[n]$	Tib. རྩེལ་ $rñil \sim$ རྩེལ་ $sñil < *rn^yil/*sn^yil$ ‘gums’ Kurtöp $'nê$ ‘gums’ (conflicting) <div style="text-align: right;">$< **\{r/s\}ḡil$</div>
Bur. $\tilde{n}anh$ ‘poisonous snake’	Tib. གཉན་པོ་ $gñan-po$ ‘antidote; opponent force’ $< *gn^yan$ ‘pestilence’ or much rather, བན་ nan ‘evil, harm’ (see Bodt 2023) $< **ḡan$

- Hill (2019), furnishing additional data on this original “core” set of comparanda from non-Tibetic EBod languages, mainly Kurtöp, concludes that $*ḡ^j > j$ must have occurred at an EBod-wide level (though with a flourish).
- Hill (2010b, 2019) dubs this sound change $*ḡ^j > j$ **Houghton’s Law**.

AS A TIB+EBOD SOUND CHANGE. Hill sees Houghton’s Law as a “Bodish”-level sound change, though he was only able to base it on Tibetic + EBod data.

2. WBOD COGNATES TO THE “ORIGINAL” HOUGHTON’S-LAW FORMS [CLASS 1a]

Overwhelmingly, WBod cognates of **Houghton’s-Law forms** show a velar nasal initial η (and a comparable vowel), **without palatalization**.

$**ḡ^j_{1a}$

Tib. ཇ $\tilde{n}a < *n^ya$ ‘fish’

- Kur. ja ‘fish’
- Tmg_{ris} $^2ta:ḡa$ ‘fish’, Gur_{gha} 2tāga ‘fish’ $< *^Bta:r-ḡa$ ‘white-fish’

- cf. Bur. *nāh*, Chi. 魚 *ngjo* < **ŋa* (01–31a)

****br_{1a}^ja**

Tib. བློ་ *brñā* < **brñ^ya* ‘borrow’

- Kur. *ju* ‘borrow & return’
- Tmg_{ris} ¹*ŋan* ‘borrow’, Gur_{gha} ¹*ŋaẽ* ‘lend (a durable item)’, Thak_{mar} *ŋan*⁴⁴ ‘borrow’, Mng ¹*ŋjeN* ‘lend, borrow’, Mng_{pra} ³*ŋjẽ* < *^A*ŋan* ‘lend/borrow’
- Bur. ཇོ་ *nhāh* ‘borrow’

****{r/s}ŋ_{1a}^jil**

Tib. རྩ་ *rñil* / སྩ་ *sñil* < **rñ^yil* / **sñ^yil* ‘gums’

- Kur. *nê* ‘gums’
- Tmg_{ris} ³*ŋil* ‘gums’, Gur_{gha} ³*ŋe* ‘gums’ though Tmg_{tag} ¹*nil* ‘gums’,
The etymology of Mng *nerke~jérke* seems to be a bit more obscure.
< *^A*ŋil* ‘gums, palate’
- Chi. 齦 *ngjin* < **ŋə[n]*

Impression: whereas Tib. preserves ***j*—thus leading to the positing of Houghton’s Law,

- EBod. **tends to preserve** ***j* in Houghton’s-Law forms, with one exception (Kur *nê* ‘gums’).
- WBod **regularly loses** ***j* in Houghton’s-Law forms

3. MAIN PLOT: DIFFERENT ***j*’S, DIFFERENT FATES

If one puts WBod into the picture and look more exhaustively for cognates involving velar *ŋ* vs. palatal *j*, **four** correspondence classes eventually emerge.

Table 2: Overview—four correspondence classes pertaining to pBod ***j*

EBod	Tib.	WBod	Class	Representative example	Complete list of datapoints
j	j	∅	1a	**ŋ_{1a}^ja ‘fish’	§2 i.e. the original Houghton’s-Law comparanda <i>n</i> =2,5
		j	1b	**ŋ_{2b}^jo ‘look~buy’	§3.2.2 <i>n</i> =1+
∅	j	∅	2a	**ŋ_{2a}^jam ‘feel, experience’	§3.1 <i>n</i> =4
		j	2b	**ŋ_{1b}^jan ‘listen’	§3.2.1 <i>n</i> =1+

3.1. LOSS OF ***j* IN WBOD AND EBOD

[CLASS 2a]

Looking beyond the “original” Houghton’s Law forms, one finds quite a few other cognates showing loss of ***j* in WBod **AND in EBod**.

****ŋ_{2a}^jam**

Tib. *s-ñam* ‘think, consider, imagine, wonder, want < *cause (oneself) to experience’, *ñam-s* ‘feeling, experience, visionary experience’ < **ñam* ‘to feel, experience’¹

- Kur. *’jam* ‘wonder’
- Tmg_{ris} *’jam* ‘experience (happiness or misfortune) > believe; be too salty’, Gur_{gha} *’jã*, Gur_{sik} *’ja* ‘want to, feel’

Kur. *’j* regularly reflects ***s-ñ*, as e.g. *’ja-ma* ‘previous’, *’ja-ba* ‘early’, Tib. *sña*. Note that this is in spite of Dzongkha: Dz. *he-ma* ‘early’ (Tib. *sñan-ma*), *ha-sa* ‘early’ (Tib. *sña-sa*)

****g-ŋ^j_{2a}e-n**

Tib. *gñen* ‘relative, kinsman, companion’ < *g-ŋ^j_{2a}e-n

- Kur. *’jen* ‘partner, spouse’
- Gur_{gha} *’jẽ-maẽ* ‘relatives not of the same lineal family’
Gurung *-maẽ* is the human plural suffix.

The Tib. form contains nominalization prefix *g-* and suffix *-n* (see e.g. Jacques 2019); the underived root **ñ^je > ñe* ‘near, close’ is therefore also identifiable as a Houghton’s-Law root.

That Tib. *gñen* should be the cognate form of Gurung *’jẽ* is supported on both the preinitial and the coda fronts. Gurung tone 1 shows that the pWBod nasal initial must be voiceless **ŋ^j*, which would correspond well with the presence of a preinitial in the Tib. form *gñen*. (If the Tib. had no preinitial, then pWBod would most likely attest a voiced **ŋ* initial.) On the other hand, the nasal vowel *ẽ* in Gurung is evidence of a pWBod nasal final, which Tib. *gñen* also corroborates.

****ŋ^j_{2a}iŋ~ŋ^j_{2a}eŋ**

Tib. *sñen* ‘be afraid’ < *s-ñ^j_{2a}eñ **cause to be afraid*; **ñ^j_{2a}eñ* ‘be afraid’

- Gur_{gha} *’ñi*, Gur_{sik} *’ji*, ‘be frightened, afraid’ Thak_{tuk} *’jin*, Mng *’jiN-pa* ‘frightening, scary_{adj}’, though Mng_{pra} *’nji* ‘fearful, cowardly’

The WT form contains a preinitial *s* but is apparently intransitive/unagentive. Considering regular correspondence between Tib. unpreinitialized voiced onsets with pWBod tone A voiced onsets, the pre-Tib. comparandum is here identified as **ñ^j_{2a}eñ*, while **s-* is identified as the causative prefix. The erstwhile transitive verb would then have undergone secondary intransitivization in Tib; this is supported by a number of lexicographic glosses: DK glosses *sñen* as transitive ‘to frighten, fear, cause to be afraid’; DS glosses it as ‘to produce fear’, and explicitly indicates it as “archaic.”

****{r/s}ŋ^j_{2a}ok**

Tib. *rñog~sñog* ‘to stir up, cause to be disorderly’; *ñog* ‘to be muddy, disorderly, disarrayed’

- Kur. *’got* ‘shake_{tr}’
- Tmg_{ris} *’go*: ‘tease, tickle’

¹ For this form Hill (2019:§208c, 219e) cites Chn. 恧 *nyimX* < **nəm?* as a cognate. It should be noted that this Chinese form has a dental initial, which does not reflect to the velar initial as attested in Bodish. This correspondence is thus different from the ‘fish’ correspondence, where Chinese *does* reflect the velar initial.

The long vowel in the Tamang form straightforwardly points to a pWBod final *-k. The final -t in Kur. can possibly be explained as a reflex of a final **s or **t, comparable e.g. to in the past stem of the Tib. *brnog-s* / *bsñog-s*. Final -s being reflected as -t is not uncommon in Kurtöp or in EBod more generally: compare Kur *nat* ‘put down, with Tib. *g-nas* ‘stay, settle down’; or Chamkhar *nat* ‘barley’, Ura *nat* ‘millet’ versus Trongsa *nas* ‘barley, wheat’, Ura *nas* ‘black barley’, Kur. *nas-phi* ‘barley flour’ with Tib. *nas* ‘barley’.

3.2. RETENTION OF **j IN WBOD [CLASS b]

In a non-trivial set of cases, where Tib. shows a palatalized initial ñ, WBod **retains** palatalization, i.e. WBod cognates show velar initial ŋ and a comparable vowel, **BUT ALSO a palatal medial j**.

3.2.1. RETENTION IN WBOD, RETENTION IN EBOD [CLASS 2b]

**ŋ^j_{2b}an

Tib. *ñan* < *ñ^y₁an ‘listen’

- Kur *jan* ‘listen, agree’
- Tmg_{ris} ¹ŋjan ‘listen to, pay attention, obey, be persuaded’, Gur_{gha} ¹ŋe ‘obey’, Mng ¹ŋjeN-pa ‘listen’

3.2.2. RETENTION IN WBOD, LOSS IN EBOD [CLASS 1b]

**ŋ^j_{1b}o

Tib. *ño* < *ñ^y₂o ‘buy’ < ‘look, look intently, examine’

- Kur *ŋwi* ‘buy’ < *ŋo-s ‘buy-PST’
- Gur_{gha} ³ŋjo, Gur_{sik} ³ŋqjo, ‘look at; look after, care for, seek, divine’; Mng ³ŋjo ‘look; taste, test, try out’, though Mng_{pra} ²ŋjo < pWBod *^Bŋjo

The semantic shift of the etymon *ñ^yo from ‘look at, look intently, examine’ to ‘buy’ is a Tibetic innovation. Though no longer identifiable with the etymon *ñ^yo, this shift is substantiated by the H-register verb *gzig* ‘(hon.) look at; buy’, which is the H variant of both *lta* ‘to look at’ and *ño* ‘to buy’.

3.2.3. RETENTION IN WBOD, STATUS INDETERMINATE IN EBOD [CLASS b, 1/2 indeterminate]

Four more datapoints show retention of **j in WBod, but remain indeterminate on the EBod side, because I do not have the EBod cognates.

**ŋ^j_{1b/2b}a

Tib. *ña* < *ñ^ya ‘full moon’ —in compounds such as *zla-ba ña-rgyas*, *zla-ba ña-gan* ‘full moon’

- Tmg_{ris} ³ŋja ‘full moon; purne’

**ŋ^j_{1b/2b}am

Tib. *ñam* ‘physical strength’ < *ñ^yam

- Tmg_{ris} ³ŋjam ‘to get along well (*s’entendre bien*)’, Gur_{gha} ³ŋjã ‘good physical condition’

**ŋ^j_{1b/2b}al

Tib. *ñil* ‘be dessicated, crumble away/fall apart’; *sñil* ‘to destroy, crush, fragment’ < *s-ñ^yil < *s-ñ^yal?

- Tmg_{ris} ¹ɲjal ~ ²ɲil ‘pound into powder’, ¹ɲjal ~ ¹ɲjat ‘chew, ruminant’; Gur_{gha} 1ɲe ‘chew’; Mng ¹ɲje ‘chew’

3.3. ANALYTICAL SUMMARY

Current analysis: posit four different ****j**’s.

- Hill (2019:§219) already posits ***y¹** and ***y²** for Tib+EBod:
***y¹** conditions palatalization in both Tib. and EBod
***y²** conditions palatalization in Tib. only.
- With WBod in the scene, ***y¹** and ***y²** each bifurcates, creating 4 correspondence classes.

Table 3: Four different ****j**’s in pBod

*pTib+EBod (Hill 2019)	EBod	Tib.	WBod	**pBod	Representative example	Complete list of datapoints
*y₁	j	j	∅	**j_{1a}	**ɲ^j_{1a}a ‘fish’	§2 i.e. the original Houghton’s-Law comparanda <i>n</i> =2.5
			j	**j_{1b}	**ɲ^{j1b}o ‘look~buy’	§3.2.2 <i>n</i> =1+
*y₂	∅	j	∅	**j_{2a}	**ɲ^{j2a}am ‘feel, experience’	§3.2.1 <i>n</i> =1+
			j	**j_{2b}	**ɲ^{j2b}an ‘listen’	§3.1 <i>n</i> =4

Conclusion:

WBod has regularly preserved the a-class, and regularly lost the b-class, whereas EBod has regularly preserved the 1-class, and regularly lost the 2-class, Tib. has preserved both the 1/2-classes and the a/b-classes.

Outstanding question:

- Are any of the four ****j**’s collapsible? = Is there further phonological conditioning?
- Observation:
 Class-a contains the vowels {a, o, e}²
 Class-b contains the vowels {a, o}
- Problem:
 Vowel {a, o} straddles classes a & b.

² Although consider that there is only example of o in Class-a: ****{r/s}ɲ^{j2a}ok**, Tib. (r/s)ñog, and that a Tibetan (Bodish) vowel o could be secondary, with a diphthongic origin at a higher level, notably *****aw** or *****ew**: see e.g. Hill’s (2019:§22) comparison of Tib. ñog-ñon ‘soft, tender’ with Chn. 弱 nyak < *newk (17-09a).

- Toy hypothesis:
Front vs. back distinction? $**[j_a] = **j_a$ vs. $**[j_a] = **j_b a$?

4. SOME DIACHRONIC IMPLICATIONS

4.1. PALATALIZATION OF OTHER INITIALS

By and large, WBod has **not** undergone palatalization-conditioned sound changes targeting other initials: l, r, t, s.

- Explanation: WBod's loss of $**j$ **preempts** these palatalization-conditioned sound changes.

Table 4: Tib. and/or EBod sound changes preempted by loss of $**j$ in WBod

Tib/EBod sound change	Tib/EBod examples	WBod comparanda
a. $*l, r^j > \acute{z}$ (Benedict's Law, Tibetic-only)	Tib. བཞི་ <i>bži</i> < $*b\acute{l}i$ 'four'	Tmg _{ris} , Gur _{gha} , etc. ⁴ <i>pli</i> 'four'
	Kur <i>ble</i>	
	Tib. ཞིམ་ <i>zim</i> < $*\acute{l}im$ 'tasty'	Gur _{gha} ² <i>li</i> 'fragrant, tasty', Thak _{tuk} ² <i>lim</i> 'fragrant'
	Kur <i>lem</i>	
b. $*tj, *sj > \acute{c}, \acute{s}$ (Hill 2019:§15, Tibetic- only)	Tib. ཞེ་ <i>ze</i> < $*\acute{l}e$ 'much, excessive'	Tmg _{ris} ³ <i>le</i> : '(for crops) to grow thick-set', Gur _{gha} ³ <i>le</i> 'many, a lot'
	Tib. རག་ <i>zag</i> < $*r^j\acute{a}k$ 'day'	Gur _{sik} - <i>ro</i> 'd'ay (classifier)'
	Tib. སྒྱུ་ <i>sig</i> < $*s^j\acute{i}k$ 'louse'	Gur _{gha} ² <i>se</i> 'louse'
	cf. Kur <i>se</i>	
c. $*r\acute{l} > r\check{}$ (Jacques 2004; Tib + EBod)	Tib. སྒྱུ་ <i>sin</i> < $*s^j\acute{i}n$ 'tree'	Tmg _{ris} ² <i>sin</i> 'wood, firewood', Gur _{gha} ² <i>si</i> 'tree, wood', etc.
	Kur <i>seng</i>	
	Tib. གཅིག་ <i>gčig</i> < $*g\acute{t}iek$ 'one'	Tmg _{ris} <i>ti</i> , Thak _{tuk} ^H <i>ti</i> 'one'
	Kur <i>thê</i>	
	Tib. རྒྱུ་ <i>rje</i> < $*r\acute{l}je$ 'exchange, barter'	Thak _{mar} <i>li</i> ⁵⁵ , Thak _{syang} <i>li</i> ¹¹ 'buy'
	Tib. རྒྱུ་ <i>rje</i> < $*r\acute{l}je$ 'lord'	Tmg _{ris} ⁴ <i>kle</i> 'king'
	Tib. བརྟེན་ <i>brjed</i> < $*mr\acute{l}et$ 'forget'	Tmg _{ris} ² <i>mlet</i> , Gur _{gha} ² <i>mli</i> 'forget'
	Tib. རྗེས་ <i>rjes</i> < $*r\acute{l}jes$ 'afterward'	Tmg _{ris} ¹ <i>li-cha</i> , Gur _{sik} ¹ <i>li</i> 'after'

- Important observation: all these datapoints instantiate class-a vowels {a, e, i} = exactly the class/condition for the loss of $*j$ in WBod!

4.2. NUMERAL '2'

WBod shows variable reflexes of the initial in numeral '2' (ŋ~n).

- Possible explanation: two regular sound changes
 $**gn^j$ is

> Proto-WBod ***gnis**

> (some pre-modern WBod) **ŋis**

> (other pre-modern WBod) **nis**

- Interestingly, this would demonstrate that the **serial contamination** involving a velar preinitial *g on the numeral ‘2’ dates back at least to proto-Bodish.
 - Compare with suspected non-Bodish: Tshangla *nik-tsiŋ* (Gerber & Grollmann)

4.3. MEDIAL *j AND LI FANG-KUEI’S LAW: NUMERALS ‘8’ AND ‘100’ IN WBOD

Medial *j (NOTE: different from *^j, as argued by Li F.K. 1959:59), also displays complete loss in WBod.

****brjat**

Tib. *brgyad* ‘8’ < *bryat

Tmg_{ris} ⁴*prat*, Gur_{gha} ⁴*pre*, Mng ⁴*phre*

< pWBod *^Bbrat

****brja:/brjaŋ/brjay**

Tib. *brgyaḥ* ‘100’ < *bryaḥ

Gur_{gha} ⁴*pra*, Mng ⁴*phra*

< pWBod *^Bbra

- Possible explanation: WBod merged **j and **^j before undergoing loss of *^j, i.e.
****rj > *r^j > *r**
- However, the status of Li Fang-kuei’s Law in E.Bod is still murky (Bodt 2023).

SELECTED REFERENCES

- Bradley, David. 1997. Tibeto-burman languages and classification. Pacific Linguistics. Series A. Occasional Papers 86. 1–72.
- Bodt, Timotheus A. 2023. East Bodish revisited. *Bulletin of Tibetology*, 54(1), 49–212.
- Donohue, Mark. 2020. Language and dialect relations in Bumthang. *Himalayan Linguistics*, 19(3).
- Glover, Warren William, Jessie R. Glover & Deu Bahadur Gurung. 1977. *Gurung-nepali-english dictionary: with english-gurung and nepali-gurung indexes*, vol. Pacific Linguistics (C51). Australian National University.
- Hildebrandt, Kristine A., 2004. A grammar and glossary of the Manange language. In *Tibeto-Burman languages of Nepal: Manange and Sherpa*. Pacific Linguistics.
- Hill, Nathan W. 2010a. *A lexicon of tibetan verb stems as reported by the grammatical tradition*. Bayerische Akademie der Wissenschaften.
- . 2010b. An overview of old tibetan synchronic phonology. *Transactions of the Philological Society* 108(2). 110–125.
- . 2019. *The historical phonology of tibetan, burmese, and chinese*. Cambridge University Press.
- Hyslop, Gwendolyn. 2022a. The role of Classical Tibetan (Chöke) on the development of Kurtöp, a language of Bhutan. *Bordering Tibetan languages: Making and marking languages in transnational High Asia*, pp.55–85.
- Hyslop, Gwendolyn, Kuenga Lhendrup & Karma Tshering & Pema Chhophyel. *Kurtöp-English-Dzongkha Dictionary*. ms.
https://www.academia.edu/28604552/Kurt%C3%B6p_English_Dzongkha_Dictionary. Last accessed 28 Aug 2023.
- Honda, Isao. 2013. Internal diversity in the tamangic lexicon. In *Trans-himalayan linguistics*, 131–154. De Gruyter Mouton.
- Jacques, Guillaume. 2001. Les préfixes nominaux d-/g- en tibétain classique. *Quinzième journée de linguistique-Asie orientale*, EHESS, Paris 8.
- . 2004. The laterals in Tibetan. *Proceedings at the 10th Himalayan Language Symposium (HLS10)*.
- . 2019. Fossil nominalization prefixes in tibetan and chinese. *Bulletin of Chinese Linguistics* 12(1). 13–28.
- Li, Fang-kuei. 1959. Tibetan *Glo-ba-’dring*. In Søren Egerod & Else Glahn (eds.), *Studia serica Bernhard Karlgren dedicate*, 55–59. Ejnar Munksgaard.
- Matisoff, James A. 2003. *Handbook of proto-tibeto-burman: System and philosophy of sino-tibetan reconstruction*, vol. 135. Univ of California Press.
- Mazaudon, Martine. 1994. *Problèmes de comparatisme et de reconstruction dans quelques langues de la famille tibéto-birmane*: Université de la Sorbonne-Nouvelle dissertation.
- Ronkos, Danielle. 2020. *The sounds of Sikles Gurung: A phonetic and phonological description of a Tibeto-Burman language of Nepal* (Doctoral dissertation, City University of New York).
- Shafer, Robert. 1966. *Introduction to sino-tibetan*, vol. 1. O. Harrassowitz.