

# On the status of the curly-tail alveolo-palatal ( 舌面前 ) symbols [ t̺, d̺, n̺, l̺, ɕ, ʑ ]

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This article documents linguistic usage of the "curly-tail" phonetic symbols used to transcribe sounds of the alveolo-palatal series, namely the six symbols [ t̺, d̺, n̺, l̺, ɕ, ʑ ]. Of these six symbols, the last two may be the only ones familiar to readers, as these are included among the list of "Other Symbols" in the IPA's chart of phonetic symbols (1993, revised 1996). These two symbols [ ɕ, ʑ ] are discussed in the *Phonetic Symbol Guide* (PSG, Pullum & Ladusaw 1996: 33, 204), though the other four [ t̺, d̺, n̺, l̺ ] are not. The omission of these symbols from PSG being in contrast to widespread Sinitic, Sinologic and Sino-Tibetanist usage provided the original stimulus for the writing of this article. Seeking to address issues relating to the encoding of the STEDT<sup>1</sup> Project's source transcriptions, it is hoped that this article will succeed in raising the profile of these "curly-tailed" signs, such that it may be deemed appropriate to include them in computerized encoding standards. At present although [ ɕ, ʑ ] are both to be found in the Unicode Standard 3.0 (cf. <<http://charts.unicode.org/PDF/U0250.pdf>> for the "IPA Extensions" in the range of [0250-02AF]), the four signs [ t̺, d̺, n̺, l̺ ] are not.

Insofar as the precise status of these symbols within the IPA Standard may be in question, a few words may be said with regard to the place of articulation of this series. As PSG reports under its entry for [ɕ] (p. 33):

#### IPA USAGE

Voiceless "alveolo-palatal" median laminal fricative. Articulated further forward than [ ç ] (true palatal) but not as far forward as [ ʃ ] (palato-alveolar), and articulated laminally (with the flat blade of the tongue) rather than apically (with the tip of the tongue, as in retroflex [ ʂ ]).

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<sup>1</sup> *Sino-Tibetan Etymological Dictionary and Thesaurus*, James A. Matisoff et al., <<http://stedt.berkeley.edu/>>.

As PSG notes, this sign [ç] is used to represent the Hanyu Pinyin /x-/ initial of Mainland Standard Chinese (MSC, as in the word 现 xiàn). To this, it may be added that, according to WU Zongji (1992:77) key differences between the [ʃ] as in English and MSC [ç] are that, whereas the English sound involves a certain degree of lip-rounding and troughing of the tongue, the Chinese sound does not: medial tongue closure is rather tight with [ç], and the primary point of frication is rather back in comparison with [ʃ]. Note also that this [ç] initial is always found with a following high front vowel, and so is in complementary distribution with MSC's [ʂ] retroflex.

What is being distinguished here for [ç, ʒ] is a place of articulation, such that the following four places are distinguished in the continuum from palate to alveolum:

PALATAL, ALVEOLO-PALATAL, PALATO-ALVEOLAR, ALVEOLAR.

Although IPA [ç, ʒ] are apparently marginalized in the "Other Symbols" part of the IPA chart, the "curly-tail" manner of writing these consonants does in fact lend itself to the same logical extension for other manners of articulation, as seen in the IPA symbols of the retroflex series, e.g. [ʈ, ɖ, ɳ, ʂ, ʐ, ʈ̣, ɖ̣]. PSG calls this "right tail" a "diacritic for retroflexion" (p. 177), which begs the question: is the "right tail" a diacritic when it is part of the character? (In fact, cp. PSG's own *Comments* on the "right hook" diacritic, p. 264.) And if apico-postalveolar retroflexion is indicated with a diacritic, then by the same reasoning the "curly-tail" mark itself could be viewed as a diacritic. As such, it would be improper to exclude the remaining symbols of the curly-tail series as "non-IPA", based on the supposition that they are full characters not in the IPA standard. Rather, the full series for this place of articulation has simply been sketched, alluded to in the "Other Symbols" portion of the IPA's chart. Just as the alveolar [t, d, n, l] symbols may receive the "diacritic for retroflexion" to become apico-postalveolar retroflex [ʈ, ɖ, ɳ, ʌ], so too [ṭ, ḍ, ṇ, ʌ̣] are generated by the same principle, after the pattern of [ç, ʒ] to indicate laminal alveolo-palatals.

This appears, at any rate, to have been the reasoning employed by Chinese linguists in their creation of and usage of these [ṭ, ḍ, ṇ, ʌ̣] curly-tailed symbols. It is not the purpose of the present article to attempt to demonstrate the distinctiveness of an "alveolo-palatal" place of articulation. It is sufficient for the present purposes to note that these symbols are indeed employed by Sinitic, Sinologic and Sino-Tibetanist linguists, in apparent conformity with IPA principles. As such, it is suggested that this curly-tailed class of symbols should not be treated as an aberrant, non-IPA class of symbols. Rather, they should be recognized as having at least the same status as the retroflex

series, if not the same status as all other place series symbols.

The remainder of the current article is devoted to presentation of bibliographic information and statistics for the known printed sources providing attested usage of the curly-tail [ t̥, d̥, n̥, l̥ ] symbols. Linguistic texts published in Mainland China (PRC) employ the [ t̥ ], [ d̥ ] and [ n̥ ] curly-tail (alveolo-palatal) symbols. One source, a general handbook of Modern Standard (Beijing) Chinese phonetics, might be mentioned first:

- 《现代汉语语音概要》，吴宗济主编。北京：华语教学出版社 (Sinolingua), 1992. <<Xiandai Hanyu - Yuyin Gaiyao>> (*Elements of Modern Chinese Phonetics*), 吴宗济 WU Zongji, Ed. Beijing: Sinolingua, 1992. ISBN 7-80052-137-0.

This work contains an IPA-style "Phonetic Symbol Table" on page 196 (see attached copy) which includes the [ t̥, d̥, n̥, ɕ, ʒ ] curly-tail symbols (though [ l̥ ] is omitted). Another source is:

- 《汉字古今音表》，〔美〕李珍华，周长楫编撰。北京：中华书局，1993. <<Han Zi Gu Jin Yin Biao>> (*Historical Chinese Phonologic Tables*). LI Zhenhua and ZHOU Changji. Beijing: Zhonghua Shu Ju, 1993. (Harvard Yenching Library Number: 5120 4414). ISBN 7-101-01198-5/H.103. [8,865 char. readings in 3 historical periods and 7 modern dialects.]

This work employs [ t̥, d̥, n̥, ɕ, ʒ ] in reconstructions of Old Chinese (上古); [ t̥, d̥, ɕ, ʒ ] in transcriptions of Middle Chinese (中古); [ n̥, ɕ, ʒ ] for the modern Wu dialect (吳語); [ n̥, ɕ ] for the modern Gan dialect (贛語); [ n̥ ] for the modern Kejia (客家話) dialect. Several of LI and ZHOU's historical forms were also cited in LTBA Monograph 18.1 (Cook 1996).

The STEDT Project Database contains the following curly-tail symbols, contained also in the printed sources from which the STEDT data derives (STEDT *Source Bibliography* abbreviations are explained below):

[ t̥ ] curly-tail-t in 99 records (3 sources, the principal of which is ZMYYC with 87; SHK-Sulung has 10; TBL has 2);

[ d̥ ] curly-tail-d in 01 record (AW-TBT);

[ n̥ ] curly-tail-n in 5686 records (1858 from ZMYYC, the rest from numerous others, including CSL-Yizd, DH-FRL, SLZO-MLD, TBL);

[ l̥ ] curly-tail-l in 8 records (all from a single source: JP-Idu).

The STEDT *Source Bibliography* abbreviations cited above are as follows (numbers at the end of each entry indicate the total number of records in the STEDT database from each source):

- **AW-TBT** = Weidert, Alfons K. 1987. (Current Issues in Linguistic Theory, Vol. 54.) Amsterdam and Philadelphia: John Benjamins Publishing Co. *Tibeto-Burman tonology: A comparative account*. (5426)
- **CSL-YIzd** = Chen Shilin, Li Min, et al., eds. 1979. Yi Language Work Unit, People's Committee of Sichuan. <<Yihan zidian>> [Yi-Chinese dictionary]. (498)
- **DHFRL** = Dai Qingxia et al., eds. 1991. Beijing: Yanshan Chubanshe. <<Zangmianyu shiwuzhong>> [Fifteen Tibeto-Burman languages]. (93) {DHFRL stands for the last names of the five authors: Dai, Huang, Fu, Renzeng, Liu.}
- **JP-Idu** = Pulu, Jatan. 1978. Shillong: The Director of Information and Public Relations, Arunachal Pradesh. *Idu phrase book*. (495)
- **LTBA** = the Biannual Journal *Linguistics of the Tibeto-Burman Area*. The University of California at Berkeley, James A. Matisoff, editor. Library of Congress Number 82-640813, ISSN 0731-3500, OCLC No. 4790670. <<http://stedt.berkeley.edu/ltba/>>
- **SHK-Sulung** = Sun Hongkai. 1993. (unpublished). Questionnaire (Sulong). (55)
- **SLZO-MLD** = Sun Hongkai, Lu Shaozun, Zhang Jichuan and Ouyang Jueya, eds. 1980. Beijing: Social Sciences Press. <<Menba, Luoba, Dengren de yuyan>> [The languages of the Menba, Luoba and Deng peoples]. (876)
- **TBL** = Dai Qingxia et al. 1992. Beijing: Central Institute of Minorities. <<Zang Mian Yu Zu Yu Yan Ci Hui>> [A Tibeto-Burman lexicon]. {ISBN 7-81001-347-5/H} (89608)
- **ZMYYC** = Sun Hongkai et al. 1991. Chinese Social Sciences Press. <<Zangmianyu yuyin he cihui>> [Tibeto-Burman phonology and lexicon]. {ISBN 7-5004-0797-1/H} (52213)