

THE HISTORICAL ORTHOGRAPHY OF THE NON-SYLLABIC MORA OBSTRUENT /Q/

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1. INTRODUCTION

In the Yale system of Japanese phonemic transcription, the symbol /Q/ is a purely phonemic device, not employed in writing the Japanese language, neither at present nor at any stage in its past. Indeed, all but a very tiny minority of native speakers would even be aware of such a symbol, let alone be able to surmise what its value was. In this it differs from the relative transparency of other Yale system phonemes (including the other non-syllabic mora /N/) since almost all native speakers of Japanese are familiar with some form of Roman transcription.

The modern Japanese orthographical system employs a symbol for the mora obstruent /Q/ that represents the sound at the phonemic level, rather than at the phonetic. While phonographic orthographies in almost any language are essentially phonemic, the fact that /Q/ has such a wide range of allophones ought perhaps to be a mitigating factor against its effectiveness as a phonograph. Nevertheless, all the various methods of romanization used to write Japanese also employ the phonemic method of simply writing the consonant in question twice consecutively, e.g. the lexeme 則る is written <nottoru> in (modified) Hepburn, *Kunrei-shiki* or *Nippon-shiki*, the three major methods of romanized transcription for Japanese.¹ Similarly, the earliest examples of romanized transcrip-

¹ Korean, which employs a phonographic syllabary, also uses glyphs to represent tense geminate consonants which are composed internally of a double representation of a single syllable, i.e. ㅅ [s] ㅆ [ss]. Additionally, those scripts that phonemically mark gemination always seem to do so by writing the letter twice, whether in Roman script or not, e.g. Finnish, Sanskrit, Hungarian, Italian, Uighur. The only exception would appear to be the use of a superscript symbol written above single consonants in the Perso-Arabic script (but not in Uighur) to double it. However its use is optional and usually only used in textbooks or educationally in Quran reading and, in this sense, it is close to an orthographic /Q/.

tions of Japanese, Christian missionary literature dating from the 16th and 17th centuries, also employ an identical orthographical method (see *inter alia*, Ishizuka 1976, or Doi, Morita & Chōnan 1980, for examples of Portuguese-Japanese dictionaries).

Modern Japanese, as is well known, actually employs a mixed writing system comprised of three² different orthographies: sinograms borrowed from China (*kanji*) and two phonographic syllabaries known as *hiragana* and *katakana* (known together as *kana*). Since sinograms are non-phonographic, the mora obstruent /Q/ is naturally not indicated in Sino-Japanese compounds, but is inferred by native speakers when reading aloud. This is a major barrier in most cases towards being able to offer a firm pronunciation for lexemes in documents written before the modern era (as it is for all languages that employ sinograms or have employed them in the past).

In both these phonographic syllabaries, the obstruent mora /Q/ is written in modern Japanese with a symbol of the same shape as that used to write the syllable /tu/, つ in *hiragana* and っ in *katakana*, although in miniscule, i.e. っ and っ respectively. This modern orthography will be considered in §3. However, as the *Nihon Onsei Gakkai* (1976: 192) points out, whilst there are a very few indications that the phoneme /Q/ existed in Old Japanese (OJ), no fixed orthography for /Q/ existed until the mid-Heian period of Early Middle Japanese (EMJ), i.e. 850 - 950 CE. In early EMJ documents, /Q/ was indicated in two main ways: either unmarked with no orthographic symbol at all, or by symbols also used to indicate the non-syllabic mora nasal /N/.

2. THE HISTORICAL ORTHOGRAPHIES

Examples of the two main orthographical methods just mentioned will now be further elucidated: the unmarked orthography in §2.1, and the orthography as /N/ in §2.2. In addition, some of the lesser found methods of historical representation will be outlined in §2.3.

² Arabic numerals, as well as the Roman alphabet and numerals are also used to a certain extent, as is the Greek alphabet, although this last orthography is largely confined to scientific and mathematical texts.

2.1 Unmarked Orthography

In spite of /Q/ being orthographically unmarked, the required pronunciation of the sinograms in EMJ texts was implied by what are traditionally known as *bōkun* (傍訓), *katakana* syllabary or miniscule sinograms with specific quasi-standardized phonetic readings written alongside the text. Example (1) is from the Vajra Prajñā Sutra or Diamond Sutra collection (金剛般若經集驗記), *bōkun*-annotated c. 850 CE, while example (2) is from the *Jisō Jūrinkyō* (地藏十輪經), *bōkun*-annotated 883 CE. Both are cited in Komatsu (1980: 567) and in both examples (and all examples following) the sinograms and their appended *bōkun* would have been written vertically.

- (1) ^{ノタマフ} 令召 <no-ta-ma-hu> < OJ /no-ri-ta-ma-pu/ ‘say’
/noQtamahu/
- (2) ^{モテ} 持 <mo-te> < OJ /mo-ti-te/ ‘have (gerund)’
/moQte/

Here we have two examples of the mora obstruent /Q/ having been generated by a phenomenon known as *sokuonbin* (one of the *onbin* sound changes), where the second morae of the OJ forms, (1) /ri/ and (2) /ti/, are both replaced with /Q/ (for greater detail on onbin in general and *sokuonbin* in particular, see Cho 1970b, Nakata 1972, Kawamoto 1977, Satō Nobuo 1977a & 1977b, Okumura 1980, and especially Frellesvig 1995). Although the appended *bōkun* seem to indicate the OJ /ri/ and /ti/ morae have been completely elided, this is not in fact the case and authorities agree that these examples would have been pronounced as indicated phonemically.

Okumura (1972: 80) points out that earlier examples of morae being orthographically unmarked, such as (3) below from the *Man'yōshū* (万葉集) of the late 8th century CE, are generally accepted to be genuine examples of complete mora elision, rather than /Q/-generation by *sokuonbin*.

- (3) ^{ノタバク} 乃多婆久 <no-ta-ba-ku> < OJ /no-ri-ta-ba-ku/ ‘say’
/notabaku/

2.2 Orthography as the Non-Syllabic Mora Nasal /N/

The same symbols used to indicate the mora nasal /N/ in EMJ, ム or ン,³ were also used to indicate /Q/ and vice versa, as well as sinograms with the quasi-standardized phonetic reading of /mu/, such as 牟 (Komatsu 1980: 567). *Onbin* sound changes generated both the non-syllabic morae /Q/ and /N/, with the obvious confusion in the orthography of the time seemingly indicative of the lack of any representational standard. Example (4) below, where /Q/ is indicated orthographically by ム, is from a translation of the 7th century Chinese Buddhist text by Xuan Zang, *The Realization of Consciousness Only*⁴ (成唯識論), *bōkun*-appended in 1021 CE, and cited in Satō, Nobuo (1977: 243):

- (4) ^{ワタムテ} 渉 <wa-ta-mu-te> < OJ /wa-ta-ri-te/ ‘cross (gerund)’
 /wataQte/

Here also we have an example of the mora obstruent /Q/ generated by *onbin*, where this time the third mora of the OJ form, /ri/, is replaced with /Q/. Whilst the appended *bōkun* seem to indicate that the OJ /ri/ mora has in fact undergone *hatsuonbin* (/N/-generation: like *sokuonbin* in §2.1, one of the *onbin* sound changes), as far as example (4) is concerned, authorities would agree that this is not in fact the case and in this instance the pronunciation would have been as is indicated phonemically.

Example (4) above is a native Japanese (*wago*) word, but Okumura (1972: 80) also cites examples from the Sino-Japanese (*kango*) vocabulary stratum where individual sinograms were indicated by their *bōkun* as being read with a final -/N/, rather than the expected -/tu/. These include (5) - (7):

- (5) ^{トム} 突 ModJ /totu/

³ The latter of these two orthographies, ン, along with its *hiragana* counterpart, ん, are used in ModJ to indicate the nasal mora /N/. It is generally held that the first of the two possible orthographies cited here, ム, used also in EMJ and still in modern Japanese to write the syllable /mu/, was initially utilized for sinograms whose Middle Chinese reading ended in the bilabial nasal -/m/.

⁴ English translation of this work is after Miner, Odagiri & Morrell (1985: 392-393). The first Japanese translation of the Chinese text was made by Dōshō (629-700), although Satō Nobuo does not state whether (4) refers to this particular translation or not.

- (6) ^{セン}折 ModJ /setu/
- (7) ^{アム}軋 ModJ /atu/

There are, however, cases where the phonemic values of ム and ン are not as clear cut, and Satō Nobuo (1977: 243) states that there are examples where a reading with /N/ rather than /Q/ may be possible, although he does not cite any specifically. The orthographical confusion can be summed up quite well by the following citation from Okumura:

ところで、従来、古文献の促音表記として紹介された例を見ると、大体、撥音表記の場合に似ているわけであるが、あるいは、撥音と促音との音韻的区別がはっきりしていなかったという様な事情も考えられるのではなからうか。

(When one examines words which are cited as containing examples of /Q/ generation in ancient documents, the orthography in question for the most part resembles that used to indicate the non-syllabic mora /N/. However, one should also consider the possibility that one is dealing with a situation where the phonemic distinction between the two morae was not yet clear cut.)

Okumura 1972: 79

2.3 Miscellaneous Historical Orthographies

As far as alternative /Q/ orthographies in early EMJ documents are concerned, Cho (1970a, b), whose phonological study of EMJ is based primarily on the analysis of a ten-volume Korean work on the Japanese language known in Japanese as the *Shōkai Shingo* (捷解新語), in Korean as the *Chep-hay sin-e*, or in English (Cho's translation) as *A Concise Explanation of the Current Language [Japanese]*,⁵ states that, prior to its publication in 1676,⁶ all the signs used for indicating /Q/ 'can be analysed into seven kinds of sign, i.e. six Kana letters and one *ad hoc* diacritical sign' (Cho 1970a: 90, italics and majisculization original). These were, according to him, the 6 *kana* syllables /tu/ ツ, /mu/ ム, /N/ ン, /u/ ウ, /hu/ フ and /ti/ チ, as well as an '*ad hoc* diacritical sign... similar to the Katakana letter for the syllable *re* in its graphic shape'. Of the six *kana* syllables

⁵ A copy of this work with a Japanese index and a commentary by Morita Takeshi has been published in Japanese: *Kyoto Daigaku Kokubungakkai* 1957.

⁶ Cho (1970a: 6) states that the work 'was already completed in its manuscript form by 1618, so that it had been in manuscript form for 58 years before it was published'.

cited, /mu/ and /N/ have already been examined in §2.2 above, while /tu/, being the modern standard orthography, will be considered in §3.

Okumura (1972: 79) cites examples from the *Bunkiyō Hifu Ron* (文鏡秘府論) of 1138 that employ the *katakana* symbol for /hu/, フ, including (8) below, but states that this orthography was only used for *onbin* derived from syllables beginning in OJ /p/ (which he transcribes as /F/ and whose phonemic value has become /h/ by modern Japanese).

- (8) ヒロフテ 拾 <hi-ro-hu-te> < OJ /pi-ro-pu-te/ 'pick up (gerund)'
/hiroQte/

I can, however, find no further mention in the literature of the use of the syllables /u/ or /ti/ cited by Cho to indicate /Q/ in early texts.

As concerns Cho's 'ad hoc diacritical sign ... similar to the Katakana letter for the syllable *re*', both Toyama (1972: 227) and Kobayashi (1980: 174) mention the use of the *katakana* symbol ヴ in literature dating from the Kamakura period (1200-1378). Both state that the symbol was also used to indicate *hatsuonbin* and so this may be taken as another example of the orthographic confusion between /Q/ and /N/ (see §2.2).

A further orthographical means of indicating /Q/ in EMJ texts, not cited by Cho, was by placing a dot in the lower right-hand corner of the *katakana* symbol in question (Okumura 1972: 80, Komatsu 1980: 567). This dot was traditionally used to indicate the entering tone or *nisshō* (入声), one of four MC tones which played an important role in /Q/-generation. Martin (1987: 83) states that this entering tone mark was used to represent the /Q/ morae of /uQtahu/ (> ModJ /uQtaeru/ 'sue') and /noQtoru/ 'imitate, follow' in the *Ruijū Myōgishō* (類聚名義抄), compiled in 1081.

Finally, Komatsu (1980: 567) also reports that the symbol ヴ is used in a text to which *bōkun* were appended in 1063 CE, however this is probably no more than an allograph of ヴ above.

3. THE MODERN ORTHOGRAPHY

The fact that the majority of cases of /Q/-generation occurred immediately prior to /t/ (Satō, Nobuo 1977: 243, Komatsu 1980: 567), as well as the fact that the final *-t/ in MC morphemes did not have an epenthetic vowel in their SJ pronunciations until very late

indeed (Rodriguez 1604-08: 179, Wenck 1957: 119-120, Toyama 1972: 224-226 & 264, Morita 1977: 276-277, Okumura 1977: 223 & 234, Kobayashi 1980: 174, Martin 1987: 73 *inter alia*), undoubtedly had an influence on the rise of the symbol used for /Q/ as found in modern Japanese. According to Okumura (1972: 78), the first recorded examples of the modern Japanese orthographical form in its *katakana* variety, ツ, date from the late 11th to the late 12th centuries, the very end of the EMJ period, and he cites as an example the form /noQtori/ written in *katakana* as ノ ッ ト リ in the *Sanzō Hōshi Den* (三蔵法師伝) of 1099. Martin (1987: 75), while broadly concurring with Okumura that ‘-T was written with kana “tu” from the end of the eleventh century’,⁷ states that the *regular* use of the symbol only came into use during the Muromachi period (1367-1573), a date at the very earliest just under two centuries later than the first recorded examples as cited by Okumura. Tsukishima (1977: 9-10) too concurs with this view. Cho (1970a) gives a more detailed explanation:

It is generally assumed that the seven different signs [see §2.3] *were unified into one single sign*, i.e. the Kana syllable /tu/, by the later part of the Muromachi period. In some of the documents which appeared in the latter part of the Insei period [1086-1192], there was already a sign for [sic: ‘of?'] *the merging simplification* (into the present Kana syllable /tu/) of the divers signs for the *sokuon*, but the simplification was not universally carried out in this period. For in the extracts from the lectures entitled *Shih Chi* (i.e. *Shikiishiyō* of 1477 AD) of the Zen Buddhist Tōgen Zūisen (d. 1489 AD), for instance, two kinds of signs were used for indicating the *sokuon*, both of which occurred previously, i.e. the Kana letter /N/ and the *ad hoc* sign /Ntu/, which is made up of the Kana letter /N/ and the syllable /tu/, for example, <waruku naN.ta hotoni>, which is equivalent to the Mod. Jap. expression /waruku naQta hodoni/ “because ... became bad”, or <turete i Ntute>, which is equivalent to the Mod. Jap. expression /turete iQte/ “took with ... and...”. ...As is shown by the above examples, the divers signs for the indication of the *sokuon* had not yet completely merged into one single sign, i.e. the present Kana syllable /tu/, by 1477 AD (i.e. the date of the publication of the *Shikiishiyō*). Therefore, it may be safe to say that the merging simplification of the diverse signs for the indication of the *sokuon* was completed

⁷ Martin (1987) notates the mora obstruent as ‘T’ (see also Komatsu 1980: 566)

probably by the latter part of the Muromachi period.

Cho 1970a: 90-91, phonemicization altered, emphasis original, square brackets mine

Finally, it should be noted that, while Okumura (1972: 78) seems to imply that these earliest examples were written with the miniscule variant of the *katakana* symbol /tu/ (see the clear indication of this in the orthography of the /noQtori/ example just cited) Martin (1987: 75) states that 'it became common only quite late to reduce the size ("tu") from that used to write the syllable itself'. Indeed, until relatively recently, the majuscule versions ツ and づ were in common use for /Q/: my copy of Tsukishima (1969) is just such an example from less than four decades ago.

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ABSTRACT

Whilst in modern Japanese, in contexts where sinograms are not utilized, the non-syllabic mora obstruent /Q/ is consistently written using minuscule versions of the *kana* graphs employed for writing the syllable /tu/, such stability and relative standardization is far from being the norm diachronically. Despite the fact that the /Q/ phoneme probably did exist in Old Japanese to some limited extent, its first orthographic manifestations do not appear until the mid-Heian, where a sudden welter of competing orthographies may be found. In this paper, I will attempt to exemplify the two most frequent amongst these, a so-called unmarked orthography and an orthography that employs the same graphs used to mark the other Japanese non-syllabic mora, the nasal /N/. Additionally, a number of less frequently encountered orthographies will be discussed.