

Tracing the tone class divisions

 <https://doi.org/10.1075/cilt.365.c5>

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Pages 32–38 of

Using Tonal Data to Recover Japanese Language History

Elisabeth M. de Boer

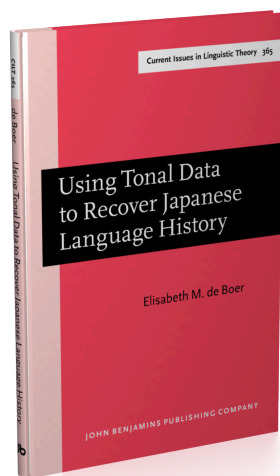
[*Current Issues in Linguistic Theory*, 365]

2024. viii, 130 pp.

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5.1 Mergers

The vocabulary of the modern Japanese dialects is divided into tone classes that can be traced back to Middle Japanese, for which we have some written records, and, ultimately, to proto-Japanese, which we can reconstruct, at least partially, using the comparative method. No one dialect has preserved all the pJ tone classes: in every dialect, two or more pJ classes have merged. To determine which classes merged in which dialects requires careful examination of the lexicon of each dialect.¹⁹ In Ryūkyū dialects, for example, there is an extra split in certain classes, traces of which can be found in some Kyūshū dialects. For reasons presented in Chapter 10, we can put this extra split aside when reconstructing the pJ tone system.

In fact, the pJ tone system turns out to be remarkably close to that of Middle Japanese. At the MJ stage, syllables are generally associated with level /H/ and /L/ tones, but rising /R/ and falling /F/ tones still occur; hence, words of one mora were divided into four tone classes, those of two morae into at least five, and those of three into at least seven tone classes.

Nouns show the greatest number of tone classes. Verbs and adjectives, which inflect, show only two classes each, often called type A and type B. The different grammatical forms (allomorphs) of these words show various tonal patterns in the modern dialects, but as these productive forms have been often remodeled by analogy, the historically prior distinctions often do not survive.²⁰ We will therefore concentrate in what follows on nouns and pay special attention to noun compounds.

19. In some previous publications I have used the term ‘proto-Japonic’ instead of ‘proto-Japanese’. The first term was coined by scholars impressed by the great differences between the dialects of the Ryūkyū islands and the main islands of Japan. In their view, proto-Japonic first split into proto-Ryūkyūan and the source of all other Japanese dialects. In fact, tonal data strongly imply that proto-Japanese split into several dialects, and that proto-Ryūkyūan then separated from one of them, probably in southern Kyūshū prior to the migrations that eventually populated the Ryūkyū islands (de Boer 2017, 2020).

20. The difference between the two in the modern dialects is in the location of the /H/ tone in the verb and adjective forms. In class B, the /H/ tone non-final in the stem, while in class A, it is in final position, and is therefore not heard unless the allomorph is followed by an enclitic particle or a form of the copula. In the Tōkyō Gairin subtype tone systems, word-final /H/ tone in verb and adjective forms has disappeared, just as it has disappeared in nouns.

Our pJ tone classes are reconstructed on the basis of specific patterns of reflexes in modern dialects and, when available, historical attestations. For example, if a two-mora word has word melody A in Kagoshima, all /Ø/ tones in Gairin type tone systems, /H/ tone on the second mora in a Chūrin type tone system, and /H/ tone on the first syllable in Kyōto, we include this word in tone class 2.2. We expect such a word to be marked as /LH/ in Middle Japanese if attested. A division of the Japanese lexicon along these lines was carried out by Kindaichi (1974), and his classification is still considered standard. These commonly acknowledged tone classes are shown in Tables 5.1 through 5.3.

An important refinement was introduced by Martin (1987), who subdivided Kindaichi's classes into a number of subclasses using suffixes 'a' or 'b' as necessary. As we shall see, Martin's extra subclasses sometimes point to changes that occurred between the pJ and MJ epochs.

A third way to denote tone classes, which we shall not use, is the so-called Waseda system (Akinaga et al. 1998), which is tightly tied to MJ tone dot attestations. Unfortunately, it assigns a different numerical designator to each attested variation in tone dot attestations, breaking the link to the values used by Kindaichi, who based his classification on modern dialect reflexes. For example, monosyllables in class 1.3b in Martin's classification and part of class 1.3 in Kindaichi's are in Waseda class 1.4.

5.2 The distribution of the tone dots in Middle Japanese

The two diacritic dots that were most consistently used to indicate the tones of Middle Japanese were the marks for the even 平 and rising 上 tones of Late Middle Chinese. A number of words show the mark for the going 去 tone; it is limited to word-initial position and monosyllables. Another group of words are marked for light even tone (a dot to the left of the center of a *kana* specifying the critical mora). This mark is also called *tō-ten* 東点 or 'east dot', and so will be represented with the character 東.²¹ The tone dots for the even, rising, and going tones were adopted from Chinese sources, but the use of the light even tone dot was a strictly Japanese invention, not seen in China, Korea, or Vietnam.

As argued in the previous chapter, when Chinese tone markings were used to denote the tones of Middle Japanese, the light even tone indicated /R/, the going

21. The designation 'east dot' stems from the fact that the Sino-Japanese reading of the character for 'east' 東 is a well-known example of a gloss with a light even tone in Japan. Also, in the Chinese tradition, the four cardinal directions were represented diagrammatically as
$$\begin{array}{ccc} & S & \\ E & & W \\ & N & \end{array}$$
 with 'east' to the left of center.

tone /F/, the even tone /H/, and the rising tone /L/. After the light even tone dot fell out of use, the rising tone dot did double service as marker of /R/ as well as /L/. As a mirror image of the distribution of the going tone, /R/ tone was limited to word-final position and monosyllables. Just as in the modern Nozaki dialect, the rise was most likely shifted onto an attached case particle, if there was one. In those cases the phonetic realization of /R/ tone would have been [L] on the tone bearing unit itself, with [H] migrating to a following particle.

The following two sets of double attestations confirm that the going tone was a contour tone, [HL] on one syllable (notated 平上, i.e., LMC even + rising). The first appears in the *Tosho-ryō-bon* of *Ruiju myōgi-shō* (1081), which has both *nu* 去 and *nuu* 平上 for ‘marsh’, and both *hagi* 去平 and *haagi* 平上平 for ‘shank’. Second, *Shinsen jikyō* (892) has *hii* 平上 for ‘shuttle’, which is also attested as *hi* 去 in *Ruiju myōgi-shō*. The tone /F/ was probably a true [HL] contour tone also, but it disappeared from the language as a distinct tone in the 13th century.

As for the light even tone dot, Komatsu Hideo (1959) discovered that some words were marked with it in several works: the *Tosho-ryō-bon* of *Ruiju myōgi-shō*, *Konkōmyō saishō-kyō ongi*, the *Iwasaki-bon* of the *Nihon shoki*, and a number of other early works that employed tone dots. The mark occurred most notably on the second mora of nouns in class 2.5 and on some 1.2 nouns. Apart from one example of 1.2 *kii* ‘yellow’ marked as 上平 in *Ruiju myōgi-shō*, there is little direct evidence for an [LH] contour from moraic markings per se, but its influence on the pitch of attached particles (leading to [L-H]) confirms that the light even tone was a contour tone. Though the use of the light even tone dot to mark the pitches of Japanese fell out of use in the 12th century, the common view is that the /R/ contour tone marked by the light even tone dot did not disappear from the language (Akinaga et al. 1998: 580–581), its effect on the tones of attached case particles and reflexes in modern dialect show that it persisted where they had previously been marked long after. Only the conventions of notation changed: the tone dot east did double duty, marking /L/ and /R/, which had previously been marked with the light even tone dot. This change is clear from a comparison of the following attestations: *abu* ‘gadfly’ and *hiru* ‘leech’ 平上 in *Ruiju myōgi-shō*, but earlier 平東 in *Konkōmyō saishō-kyō ongi*; *hitohe* ‘single layer’, both 平平東 and 平平上 in the *Tosho-ryō-bon* of *Ruiju myōgi-shō*; and, in the same work, *tamaki* ‘arm ornament’, both 平平東 and 平平上. Double attestations of 東 and 上 are especially numerous in case of the adjective suffixes *-si* (conclusive ending) and *-ki* (attributive ending).²²

22. Confusingly enough, there are also texts in which an even tone dot is used instead of the light even tone dot. This is usually seen as an indication that, in earlier copies of these texts, the light even tone was still in use. Later copyists mistook the only slightly raised light even tone dot for the ordinary even tone dot.

In summary, though /R/ tones remained, the use of the light even tone dot to mark them died out in the 12th century. By contrast, when marking /F/ with the going tone dot ceased in the 13th century, it was likely because distinct /F/ had disappeared from the language.

5.3 Overview of the MJ tone classes

In the following tables, exemplary nouns, with the topic particle *wa*, are shown with their MJ tone attestations. The modern Kyōto type tone system is represented by the dialect of Kōchi, as the tone system of this dialect is more archaic than the dialect of the city of Kyōto itself. The dialect of the city of Kyōto had shifted the /H/ tone on the second syllable in three mora nouns onto the first by the end of the 17th century.²³ An older stage, in which this leftward shift had not yet occurred, is attested in *Bumō-ki* (1687), and modern Kyōto type dialects such as Wakayama and Hyōgo have preserved the *Bumō-ki*-type stage, as has Kōchi.²⁴ The Gairin type is represented by the dialect of Ōita, the Chūrin type by the dialect of Tōkyō, and the Nairin type (only monosyllabic nouns are given) by the dialect of Totsukawa. The dialect material is from Kobayashi (1974) for Kōchi and Tōkyō, from Hirayama (1979) for Totsukawa, and from Hirayama (1960) for Kagoshima and Ōita.

The correspondences for the trisyllabic nouns in the modern dialects are often irregular because, for three syllables or more, compound nouns begin to obscure the picture. Tone classes 3.1 and 3.4, which were level /L/ and level /H/ in Middle Japanese, are usually quite regular, but irregular patterns are found in classes 3.2 and 3.5.²⁵ Tone class 3.3, originally postulated by Kindaichi, is not included in Table 5.3: the number of members of this class is small, and it lacks a rigorous definition. As before, [H] in the modern dialects from underlying /H/ are marked in bold. All other pitches are automatic and are phonemically /Ø/ in modern dialects.

We first examine monosyllabic nouns (Table 5.1).

23. The tone pattern /ØHØ/ (realized as [HHL]) does occur in Kyōto nouns (mostly in compounds) but is very rare. It is more common in verbs and adjectives, where it probably is the result of productive morphophonemic processes.

24. *Bumō-ki* was a pronunciation guide of the Shingi Shingon school for the correct recitation of the *rongi* ceremonies (formalized discussions on the Buddhist teachings).

25. In each case, however, it is possible to explain (at least partly) the reason behind the irregularity of the present-day reflexes. For tone classes 3.2, 3.3, and 3.5, see, respectively, de Boer 2010: 109, 118–120, and 204.

Table 5.1 Monosyllabic tone classes

Middle Japanese		Kōchi (Kyōto)		Totsukawa (Nairin)	Tōkyō & Ōita (Chūrin/Gairin)	Kagoshima
1.1 <i>ko</i> ‘child’	上-上	L-L	H-H	L-H	L-H	A
1.2 <i>na</i> ‘name’	東/上-上	R-L	H-L	H-L	L-H	A
1.3a <i>te</i> ‘hand’	平-上	H-L	L-H	H-L	H-L	B
1.3b <i>hi</i> ‘fire’	去-上/平-上	F-L	L-H	H-L	H-L	B

Tone class 1.2 is usually marked with a rising tone dot in MJ manuscripts, and only rarely with a light even tone dot. We can tell it was distinct from 1.1, however, because the possessive particle *no* attached to 1.2 nouns with a rising tone, but to 1.2 nouns with even tone; e.g., 上-平 for both *hi-no* ‘of the sun’ in *Ruiju myōgi-shō* and for *ha-no* ‘of the leaf’ in the *Maeda-ke-bon* of *Nihon shoki* (Hayata 1984: 35). Since, in general, the particle *no* took on the tone of the preceding mora in Middle Japanese, this implies that tone class 1.2 had an /R/ tone.²⁶

Tone class 1.3 is divided into two subclasses, 1.3a and 1.3b because a small number of nouns that have reflexes typical of tone class 1.3 in the modern dialects are marked with the going tone dot. Only a few nouns attested with a going tone dot have survived as independent nouns in modern dialects. The reflexes in the Tōkyō type dialects are usually the same as for class 1.3a; in the Kyōto type dialects, they are irregular.

Something similar is seen in disyllabic nouns (Table 5.2).

Table 5.2 Disyllabic tone classes

Middle Japanese		Kōchi (Kyōto)		Tōkyō (Nairin/ Chūrin)	Ōita (Gairin)	Kagoshima
2.1 <i>tori</i> ‘bird’	上上-上	LL-L	HH-H	LH-H	LH-H	A
2.2 <i>mura</i> ‘village’	上平-上	LH-L	HL-L	LH-L	LH-H	A
2.3 <i>inu</i> ‘dog’	平平-上	HH-L	HL-L	LH-L	LH-L	B
2.4 <i>umi</i> ‘sea’	平上-上	HL-L	LH-H	HL-L	HL-L	B
2.5 <i>saru</i> ‘monkey’	平上-上/平東-上	HR-L	LH-L	HL-L	HL-L	B

26. The lone instance of 1.2 *kii* ‘yellow’ marked 上平 in *Ruiju myōgi-shō* (Section 5.2 above) should not be given undue weight because the reflexes of the MJ 1.1 and 1.2 classes are generally distinct reflexes in modern dialects.

Just as in with 1.2 nouns, the particle *no* attached to nouns in MJ class 2.5 with even tone but to nouns in class 2.4 with a rising tone. Martin's classification of *kata* 'shoulder', *hune* 'boat', *mugi* 'wheat', *aha* 'millet', *ine* 'rice', *kinu* 'garment', *uri* 'melon', *zeni* 'money' and *kari* 'goose' as belonging to class 2.5 is based on the fact that the particle *no* attached with a even tone to these nouns (Martin 1987: 173). To these we may add *ima* 'now' and *kibi* 'millet', to which the particle *no* also attached with a even tone; furthermore, these two words still belong to class 2.5 in those modern Kyōto type dialects that maintain the class.

Table 5.3 rounds out this summary with examples of trisyllabic nouns.

Table 5.3 Trisyllabic tone classes

	Middle Japanese	Kōchi (Kyōto)	Totsukawa & Tōkyō (Nairin/Chūrin)	Ōita (Gairin)	Kagoshima
3.1 'shape' <i>katati</i>	上上上-上	HHH-H	LHH-H	LHH-H	A
3.2 'red bean' <i>azuki</i>	上上平-上	LHL-L	LHH-L	LHH-H	A
3.4 'mirror' <i>kagami</i>	平平平-上	HHL-L	LHH-L	LHH-L	B
3.5 'heart' <i>kokoro</i>	平平上-上	HLL-L	LHL-L	LHL-L	B
3.6 'crow' <i>karasu</i>	平上上-上	LHH-H	HLL-L	HLL-L	B
3.7 'helmet' <i>kabuto</i>	平上平-上	LHL-L	HLL-L	HLL-L	B

5.4 Additional subdivisions

As remarked above, Martin (1987) adopted Kindaichi's division but incorporated extra subclasses based on divergences in tone in various modern dialects. His subclasses generally have only a few members each. The largest of them break up Kindaichi's classes 2.2 and 3.2.

In Martin's classification, class 2.2a and class 2.2b are distinct from class 2.2, even though all are marked with MJ /LH/ tone. If a word with reflexes typical of class 2.2 is unexpectedly atonic (lacks an /H/) rather than oxytonic (/H/ on the last mora) in one or more Chūrin type tone systems, Martin classes this word as belonging to class 2.2a because, in these dialects, the word behaves as if it belonged to class 2.1. If a word with reflexes typical of class 2.2 is oxytonic in one or more Gairin type dialects, where it is expected to be atonic, Martin puts this word into 2.2b because, in these dialects, it behaves as if it belonged to class 2.3.

Similarly, Martin distinguishes class 3.2 from classes 3.2a and 3.2b even though both groups are marked with MJ /LLH/. There are quite a few irregularities involved, and until we can be certain that the atonic reflexes are not the result

of contact with some nearby Gairin type tone systems, it is best to regard these classes as provisional.

Beyond these, Hayata (1973) has proposed adding subclasses 3.7a and 3.7b, and Martin has proposed classes 3.5a and 3.5b. Martin here follows a suggestion of Hattori (1951): some members of class 3.5, usually marked with [HHL] tone (Martin's class 3.5a) are attested with [HHR] tone (平平東 as well as 平平上) in the *Tosho-ryō-bon* of *Ruiju myōgi-shō*. These markings, however, usually concern words that are compounds (cf. *ao-to* 'blue grindstone', *hiro-me* 'seaweed', *hito-he* 'single layer', *hi-mizu* 'ice water', and *tama-ki* 'arm ornament'). As will be discussed in Chapter 8, in some of these cases (e.g., *himizu* 'ice water'), there are reasons to think a final /R/ had been present in the second element of these compounds at some pre-MJ stage. When these words were used in isolation, the /R/ tones had already disappeared, since they were preceded by /L/ tone, but in compounds with initial /H/, the /R/ tones were preserved. In the case of *himizu*, this allows for the reconstruction of the tone pJ /LR/ > MJ /LL/ for *mizu* 'water'. This small class of words (which also includes *tubo* 'tub', *mizo* 'ditch', *musi* 'insect') is labelled class 2.1a by Martin. It is possible that this class left some trace in the tone of noun compounds in Middle Japanese, as explained in Section 8.2 below.