

**‘The split of the Tōkyō type tone system into a number of sub-types,
and what this can tell us about the tone system of proto-Japanese’**

An as yet unsolved problem in Japanese historical linguistics is the fact that there is no convincing account of the developments from the tone system of proto-Japanese in the standard reconstruction (Kindaichi, 1951) to the tone systems of the various modern dialects. For a large part, the difficulty is caused by the fact that the reconstructed tone system of proto-Japanese does not fit in well with the modern dialect data.

We know what the tonal contrasts of Middle Japanese were like because of the so-called tone dot material, which stems from the 11th to 14th century. In this material, the tones of Japanese were marked by means of dots which were added around the Japanese *kana* graphs. This material shows that the tonal oppositions of Middle Japanese were far more numerous than those of any of the modern dialects.

As the number of tonal oppositions that has to be reconstructed for proto-Japanese – based on a comparison of the modern dialects – by and large agrees with the number of oppositions represented in Middle Japanese, we can assume that the two must have been relatively close. But while the oppositions of Middle Japanese are clear, the phonetic realization of these oppositions is not: As the tone dots fell out of use in the 14th century, the tonal value that is assigned to the dots is a matter of interpretation. The most reliable source on the phonetic realization of the distinctions of Middle Japanese are therefore the tone systems of the modern dialects.

Based on these, S.R. Ramsey (1979) argued that the tone system of Middle Japanese had been reconstructed ‘upside down’. If the tones were exactly reversed, the tone system of proto-Japanese could be reconstructed in a way that fit in much better with the modern dialect data.

Ramsey’s work concentrated on the origin of the most well-known split in the tone systems of the Japanese dialects; the division between the Tōkyō type and the Kyōto type tone systems. In Ramsey’s reconstruction Middle Japanese looks Tōkyō-like, and the Kyōto type tone system is regarded as an innovation, the result of a leftward tone shift that occurred after the Middle Japanese period. Such a development offers a good explanation for the geographical distribution of the two types in Japan, in which Kyōto type tone is surrounded on all sides by Tōkyō type tone. Internal reconstruction too, confirms that a tone shift must have taken place in the Kyōto type dialects.

In my presentation, I will concentrate on the cause behind the split of the Tōkyō type tone system into three sub-types, Nairin, Chūrin and Gairin. I will argue that this split can be explained in a natural way, if the tone system of proto-Japanese is reconstructed in accordance with Ramsey’s theory.

In all three Tōkyō type tone systems, the accent – or phonological /H/ tone, as I prefer to call it – occurs in the same location in the word. However, compared to the Nairin type, in the Chūrin and Gairin types word-final /H/ tone is lacking in certain tone classes. (In the Chūrin type this concerns class 1.2, and in the Gairin type classes 1.2, 2.2 and 3.2.) Table 1 shows the resulting merger patterns of mono- and disyllabic nouns.

Table 1

Proto-Japanese tone class		Nairin (cf. Totsukawa)	Chūrin (cf. Tōkyō)	Gairin (cf. Ōita)
1.1 child <i>ko-ga</i>	/L-L/	[L:-H] /Ø-Ø/	as Gairin	[L-H] /Ø-Ø/
1.2 name <i>na-ga</i>	/R-L/	[H:-L] /H-Ø/		[L-H] /Ø-Ø/
1.3a hand <i>te-ga</i>	/H-L/	[H:-L] /H-Ø/		[H-L] /H-Ø/
1.3b fire <i>hi-ga</i>	/F-L/	[H:-L] /H-Ø/		[H-L] /H-Ø/
2.1 bird <i>tori-ga</i>	/LL-L/	[LH-H] /ØØ-Ø/	as Nairin	[LH-H] /ØØ-Ø/
2.2 village <i>mura-ga</i>	/LH-L/	[LH-L] /ØH-Ø/		[LH-H] /ØØ-Ø/
2.3 mountain <i>yama-ga</i>	/HH-L/	[LH-L] /ØH-Ø/		[LH-L] /ØH-Ø/
2.4 sea <i>umi-ga</i>	/HL-L/	[HL-L] /HØ-Ø/		[HL-L] /HØ-Ø/
2.5 monkey <i>saru-ga</i>	/HR-L/	[HL-L] /HØ-Ø/		[HL-L] /HØ-Ø/

In the Middle Japanese tone dot material, it is possible to distinguish different types of tone systems, based on the tone of the attached monosyllabic case particles *ha*, *ga wo*, and *ni*. In some materials the tone of the particles is always /L/, while in other materials the tone of the preceding noun influences the tone of the particle: In some materials the particle will have /H/ tone if the preceding noun ends in /R/ tone, and in other materials also when the preceding noun ends in /LH/ tone. In these materials therefore, tone assimilations have caused the drop to /L/ tone after noun classes 1.2 and/or 2.2 (and 3.2) to be lost.

A comparison of the Middle Japanese tones with those of the three modern Tōkyō sub-types suggests that the development from the relatively unrestricted tone system of Middle Japanese, to the strongly restricted tone systems of the modern dialects was characterized by a radical reduction of the number of phonological /H/ tones per word: Only /H/ tones that preceded /L/ tone in Middle Japanese were preserved as phonological /H/ tones (or accents) in the modern dialects.

This means that the lack of a drop to /L/ tone after tone classes 1.2, 2.2 and 3.2 that can be seen in certain varieties of Middle Japanese, can be linked to the lack of final /H/ tone in these tone classes in the modern Chūrin and Gairin sub-types. The developments in disyllabic nouns are illustrated in Table 2. (Pre-low /H/ tones in Middle Japanese and the remaining phonological /H/ tones in the modern dialects are indicated in bold print.)

Table 2

<i>Ruiju myōgi-shō</i> (1140-1150?)		Nairin/Chūrin merger pattern	<i>Kokin kanten-shō</i> (1305)		Gairin merger pattern
2.1 /LL-L/	>	[LH-H] / ØØ-Ø /	/LL-L/	>	[LH-H] / ØØ-Ø /
2.2 /LH-L/	>	[LH-L] / ØH-Ø /	/LH-H/	>	[LH-H] / ØØ-Ø /
2.3 /HH-L/	>	[LH-L] / ØH-Ø /	/HH-L/	>	[LH-L] / ØH-Ø /
2.4 /HL-L/	>	[HL-L] / HØ-Ø /	/HL-L/	>	[HL-L] / HØ-Ø /
2.5 /HR-H/	>	[HL-L] / HØ-Ø /	/HR-H/	>	[HL-L] / HØ-Ø /

Finally, as Hyman (2007) and others have pointed out, leftward tone shift – such as must have taken place in Kyōto according to Ramsey’s theory – is more likely to occur in restricted /H/ vs. Ø tone systems, in which the /H/ tones have become accent-like. At the end of my talk, I will address the question of whether it is possible to derive Kyōto type tone from a Tōkyō type tone system that is already at the restricted tone language stage.

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