

The tone rules for compound nouns in Middle Japanese

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Using Tonal Data to Recover Japanese Language History

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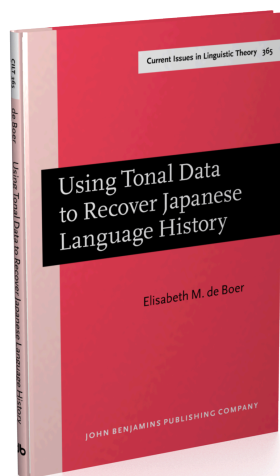
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The tone rules for compound nouns in Middle Japanese

8.1 The tones of 2–3 compounds in MJ

In MJ attestations of compounds, we often find that heads in 2.1 and 2.2 – /LL/ and /LH/, respectively, in isolation – are both recorded as /LL/; similarly, members of 2.3, 2.4, and 2.5 – /HH/, /HL/, and /HR/, respectively, in isolation – are all recorded as /HH/. This leveling of head tones is a clear sign that we are indeed looking at a compound, not merely a chance sequence of two nouns. But *ren-daku* – the change of initial MJ /h, t, k, s/ to /b, d, g, z/ in the coda – is also a strong indication of a true compound, yet sometimes we find /LH/, /HL/, and /HR/ in their heads instead of /LL/ or /HH/. From this, we conclude that the tones of the unmerged classes were older, and that the leveling of tones in the heads of compounds was a rule of MJ compound formation.

Another MJ rule caused a long coda to be realized as [HLH] when the head had initial /H/, and [LLH] when the head had initial /L/, regardless of the tones of the coda in isolation. This is illustrated by the examples in Table 8.1.

Table 8.1 The tone of 2–3 MJ compounds

Compounds with initial MJ /H/		
2.3 <i>mimi</i> ‘ear’ HH + 3.2 <i>kusari</i> ‘chain’ LLH	→	<i>mimigusari</i> ‘ear pendant’ HH-HLH
2.4 <i>ine</i> ‘rice plant’ HL + 3.4 <i>turubi</i> ‘mating’ HHH	→	<i>inaturubi</i> ‘lightning’ HH-HLH
2.4 <i>wara</i> ‘straw’ HL + 3.1 <i>humide</i> ‘brush’ LLL	→	<i>warahumide</i> ‘straw brush’ HH-HLH
Compounds with initial MJ /L/		
2.1 <i>kizu</i> ‘wound’ LL + 3.1 <i>tokoro</i> ‘place’ LLL	→	<i>kizudokoro</i> ‘wounded spot’ LL-LLH
2.1 <i>take</i> ‘bamboo’ LL + 3.4 <i>hakari</i> ‘measure’ HHH	→	<i>takebakari</i> ‘yardstick’ LL-LLH
2.1 <i>kaha</i> ‘river’ LL + 3.1 <i>yanagi</i> ‘willow’ LLL	→	<i>kahayanagi</i> ‘purple willow’ LL-LLH

Short codas, on the other hand, behave in a more complicated way. We therefore postpone further discussion of 2–3 compounds to Chapter 9 and turn our attention to compounds with short codas here.

8.2 The tones of 2–2 MJ compounds

I selected from Akinaga et al. (1998) compounds that are attested in *Ruiju myōgishō* and *Wamyō ruijushō*, since both sources contain many words and tend to corroborate one another. In the following tables, I refer to these sources as *M* and *W*, respectively. Excluding other sources avoids “noise” in the data likely due to differences between dialects, time periods, or tone-marking conventions in other sources. As already noted, certain tone dot materials, such as *Kokin kuntenshō*, reflect a Gairin type tone system, and therefore represent tonal patterns different from those found in *M* and *W*. I give compounds in their traditional written forms and their current glosses, i.e., after well-known historical changes in segments such as MJ *awo* ‘blue/green’ > *ao* for 青, MJ *hudi* > *huzi* ‘wisteria’ 藤, etc. When a morpheme is a deverbal noun (i.e., infinitive or *ren’yōkei*), its tone class is A or B; the tone classes of other nouns are shown with the *n.k* labels previously introduced.

In the modern dialects, 2–2 and 3–2 compounds often differ in tone, but as will be shown in the Chapter 9, these differences developed after the MJ period because of regularization of the tone patterns in /H/-initial compounds. This trend is stronger in longer compounds, and has therefore progressed further in 3–2 compounds, creating differences with the tones of 2–2 compounds.

I have also excluded cases in which there appears to be a shift from /H/ to /L/, or vice versa, within the head of the compound. Such cases are fairly uncommon as they violate the usual leveling rule for the heads of MJ compounds mentioned above. It is likely that these exceptional attestations either reflect chance sequences of words rather than genuine compounds or else tones of a compound in some pre-MJ dialect. In either case, it is best to cull them from our set since our goal is discern the rules applying to MJ compounds.

8.2.1 Codas in class 2.1

In 2–2 compounds, codas in class 2.1 /HH/ are most often attested with level tones ([HH] or [LL]) matching the tone of the head (Table 8.2).

But sometimes codas in 2.1 are attested as [LH] or, less often, as [HL] or [HR] (Table 8.3). I believe such compounds show that the coda nouns had earlier been /LR/.

MJ /R/ occurred only word-finally (including in the monosyllables of class 1.2). By MJ times, /R/ was often realized as [L] when followed by [H] in an attached particle. Unassimilated /R/ persisted longest after /H/,³³ which is why MJ

33. In general, contour tones are preserved longer when they are surrounded by unlike tones (de Boer 2010: 202–207).

Table 8.2 Compounds in which nouns of class 2.1 attach with level tone

Written form	Modern form	Tone	<i>W</i>	<i>M</i>	Alternate	Head class	Coda class
黒柿	kuro-gaki	HHHH	x			?2.5, ?2.3	2.1
船棚	huna-dana	HHHH	x			2.4	2.1
唐桃・杏子	kara-momo	HHHH	x			2.5	2.1
弓弭・弓筈	yumu-hazu	HHHH	x	x	<i>M</i> HHLL	2.3	2.1
瓜蠅	uri-bae	HHHH	x	x	<i>M</i> HHHL	2.4 (? < 2.5)	2.1
熊鷹	kuma-t/daka	HHHH	x	x	<i>W</i> ??HH	2.3	2.1
沓筥	kutu-bako	HHHH		x		2.3	2.1
神嘗	kamu-nibe	HHHH		x		2.3	?2.1a
有様	ari-sama	HHHH		x		B	?2.2a ? < 2.1
鵠 (鳥名)	hasi-taka	HHHH	x			–	2.1
飯蟻	ii-ari	HHHH	x			2.3	?2.1a
大蟻	oo-ari	HHHH	x			2.3 = B	?2.1a
大贅・苞苴	oo-nio	HHHH	x			2.3 = B	?2.1a
雉脯・干鳥	hosi-tori	HHHH	x			B	2.1
大蒜 (植物名)	oo-biru	HHHH	x			2.3 = B	2.1 (? < *2.3)
白鷹	sira-taka	HHHH	x	x		?2.3	2.1
鉄	kuro-gane	HHHH	x	x		?2.5, ?2.3	2.1
黄牛・牝牛	ame-uzi	HHHH	x	x		2.1	2.1
馬杷・馬鋤	uma-guwa	HHHH	x	x		2.3	2.1
鮪	nawa-saba	HHHH	x	x		2.3	2.1
大風	oo-kaze	HHHH	x	x		2.3 = B	2.1
大鐘	oo-gane	HHHH	x	x		2.3 = B	2.1
淡竹 (植物名)	oo-dake	HHHH	x	x		2.3 = B	2.1
大壺	oo-tubo	HHHH	x	x		2.3 = B	2.1a
大床	oo-doko	HHHH	x	x		2.3 = B	2.1
大路・大道	oo-miti	HHHH	x	x			
汁粥	siru-kayu	HHHH	x	x		2.4	2.1
船床	huna-doko	HHHH	x	x		2.4	2.1
唐鋤・犁	kara-suki	HHHH	x	x			

Table 8.2 (continued)

Written form	Modern form	Tone	W	M	Alternate	Head class	Coda class
干魚	hosi-io	HHHH	x	x		B	2.1
若鷹	waka-taka	HHHH	x	x			
黒鳥	kuro-tori	HHHH	x	x		?2.5, ?2.3	2.1
大鷹	oo-taka	HHHH	x	x		2.3 = B	2.1
衾・大領	oo-kubi	HHHH	x	x			
生贄	ike-nie	HHHH	x	x		B	?2.1a
麻布	asa-nuno	HHLL		x	W H H H L		
縦様	tata-sama	HHLL		x			
弟叔父	oto-ozī	HHLL	x		M H H L H	?2.3	2.1
蜜蜂	miti-bati	HHLL	x	x	W H H H L	2.3	?2.1a
大口 (袴)	oo-uti	HHLL	x	x	M H H H L	2.3 = B	2.1
蟹	oo-zume	HHLL	x	x	M H H L H	2.3 = B	2.1
大贄・苞苴	oo-nie	HHLL	x			2.3 = B	?2.1a
銀	siro-kane	HHLL	x	x		2.5	2.1
弟嫁	oto-yome	HHLL	x	x			2.1
相嫁	ai-yome	HHLL	x	x			2.1
大嫁	oo-yome	HHLL	x	x		2.3 = B	2.1
蒼鷺	mito-sagi	LLHH		x	W L ? H H	?2.2x, ?2.1	2.1
石灰	isi-bai	LLHH	x			2.2b	2.1
弱竹	nayu-take	LLHH		x		–	2.1
菱竹	nayo-t/dake	LLHH		x		–	2.1
呉竹	kure-take	LLHH	x	x		?2.1	2.1
呉床	kure-doko	LLHH	x			?2.1	2.1
鷓鴣	ai-kuti	LLHH	x			?2.4 ? < 2.3	2.1
品品	sina-zina	LLHH		x		2.1	2.1
横笛	yoko-bue	LLHH	x	x		2.1	2.1
甜酒	tamu-s/zake	LLHH		x		2.1	2.1
堅粥	kata-gayu	LLHH	x	x		2.1 (= A)	2.1
下顎	sita-kubi	LLHH	x			2.2a	2.1

Table 8.2 (continued)

Written form	Modern form	Tone	W	M	Alternate	Head class	Coda class
川竹	kawa-take	LLHH	x	x		2.2a	2.1
石蟹	isi-gani	LLHH	x	x		2.2b	2.1
文箱	humi-bako	LLHH	x	x		2.2b	2.1
文櫃	humi-bitu	LLHH	x			2.2b	2.1
青鯖	ao-saba	LLHH	x	x		2.5	2.1
焼金	yaki-gane	LLHH				A	2.1
金鼓	hira-gane	LLHH	x	x		A	2.1
荒筥	ara-bako	LLHH		x		A	2.1
鼻梁	hana-mine	LLLL	x		M LLLH	2.1	?2.1, ?2.2a
横様	yoko-sama	LLLL		x		2.1	?2.2a ? < 2.1
行先	yuku-saki	LLLL		x		–	2.1
凝藻葉	koru-moha	LLLL	x	x		(2.1)	2.1
銅	aka-gane	LLLL	x	x		? 2.5 < 2.1	2.1
瘡蓋・痂	kasa-buta	LLLL	x	x		?2.1	2.1
鶏	niwa-tori	LLLL		x		2.1	2.1
仮宮・行宮	kari-miya	LLLL	x			2.1	2.1
吉舌・雛尖	hina-saki	LLLL	x	x		2.2b	2.1
粗金	ara-kane	LLLL		x		2.5	2.1
明星	aka-bosi	LLLL	x			A	2.1

has an asymmetrical set of five tone classes for 2-mora nouns, with a distinct class 2.5 for /HR/ but no class for /LR/. Even after the /LR/ sequence had merged with class 2.1 /LL/ in isolation, the /HR/ of class 2.5 was still marked in MJ texts, and we find the original [HR] or later [HL] in some compounds.

Tubo ‘tub’ /LL/, for instance, is a class 2.1 nouns that was attested with /R/ tone on the final mora when a coda in a compound with initial /H/: 墨壺 *sumi-tubo* [HHHR] in *M*, [HHHL] in *W*; and 箸壺 *hasitubo* [HHHR] in *M*. That they were recorded either as [HHHL] or [HHHR] is due to the fact that /R/ tone could be indicated with either the light level tone dot or the rising tone dot. Martin assigns words like *tubo* to his class 2.1a. So although in isolation these nouns were marked as [LL], their underlying word-final /R/ was preserved when they were codas of /H/-initial compounds. By contrast, as codas of /L/-initial compounds, they are marked as [LH]: *mumetubo*, *nasitubo*, *kiritubo* and *huzitubo*, all [LLLH]

Table 8.3 Compounds in which nouns of class 2.1 attach with a change in tone

Written form	Modern form	Tone	<i>W</i>	<i>M</i>	Alternative	Head class	Coda class
銭瘡	zen-gasa	HHLH		x	<i>W</i> ??LH	–	?2.1
糞虫	kuso-musi	HHLH		x	<i>W</i> ??LH	2.3	2.1
辛酒	kara-sake	HHLH		x	<i>M</i> HHHH	B	2.1
大鳥	oo-tori	HHLH	x		<i>WM</i> HHHH	2.3 = B	2.1
浜菱 (植物名)	hama-bisi	HHLH	x		<i>M</i> HHHH	2.3	2.1
草鞋虫 (虫名)	ome-musi	HHLH	x	x	<i>W</i> HHLL	–	2.1
山鳥	yama-dori	HHLH	x	x	<i>W</i> HHHH	2.3	2.1
山桃	yama-momo	HHLH	x	x	<i>W</i> HHLL	2.3	2.1
立薦	tatu-komo	HHLH	x	x			
蛭	hio-musi	HHLH		x	<i>W</i> LLLH	(?2.3)	2.1
皮虫	kawa-musi	HHLH		x			2.1
従祖母	oba-oba	HHLH		x		2.1	2.1
肩先	kata-saki	HHLH		x		2.4	2.1
菅鳥	suga-dori	HHLH		x			2.1
布穀鳥	huhu-dori	HHLH	x			–	2.1
従祖母	oo-oba	HHLH	x			2.3 = B	2.1
角虫	tuno-musi	HHLH	x	x		2.3	2.1
朝顔	asa-gao	HHLH	x	x		2.5	2.1
蛭螻	ogi-musi	HHLH	x	x		?2.3	2.1
雨鳥	ama-dori	HHLH	x	x		2.5	2.1
彦星	hiko-bosi	LLLH		x	<i>M</i> LLHH	?2.1	2.1
水銀	mizu-kane	LLLH	x		<i>WM</i> LLHH	?2.1a	2.1
丸虫	maro-musi	LLLH		x	<i>W</i> LLHH	2.1	2.1
文箱	humu-bako	LLLH		x	<i>M</i> LLHH	2.2b	2.1
鶉	hie-dori	LLLH	x	x		2.1	2.1
粃米	momi-yone	LLLH	x			2.1	?2.1, ?2.4
空虚	uti-bora	LLLH		x		2.2a(?/2.1)	?2.1, ?2.4
布穀鳥	hoho-dori	LLLH	x	x		–	2.1
米虫	yona-musi	LLLH	x	x		?2.1, ?2.4	2.1

Table 8.3 (continued)

Written form	Modern form	Tone	<i>W</i>	<i>M</i>	Alternative	Head class	Coda class
商陸・魚鋤 (植物名)	io-zuki	LLLH	x	x		2.1	2.1
青虫	ao-musi	LLLH		x		2.5	2.1
梅壺	mume-tubo	LLLH	x			2.1	2.1a
梨壺	nasi-tubo	LLLH	x			?2.2a	2.1a
桐壺	kiri-tubo	LLLH	x			2.1	2.1a
藤壺	huzi-tubo	LLLH	x			2.1	2.1a
夏虫	natu-musi	LLLH	x	x	WLLLL	2.2a	2.1
芋粥	imo-gayu	HHHL	x		W HHHH	2.3	2.1
犬蓼 (植物名)	inu-tade	HHHL	x			2.3	2.1
山柿	yama-gaki	HHHL	x	x			
長笛	naga-bue	HHHL		x	W HHHH	2.1	2.1
高麗笛	koma-bue	HHHL		x	WM HHHH	2.1	2.1
墨壺	sumi-tubo	HHHR		x	W HHHL	2.1	2.1a
箸壺	hasi-tubo	HHHR		x		2.1	2.1a

in *W*, and *kamatubo* [LLLH] in *Ishinpō* (a medical text of 984 that has tone marks in some versions).

The word *mizo* ‘ditch’ also belongs to class 2.1a. It has mostly /LL/ tone in the MJ texts but is attested as /LR/ tone in *M* and, in the compound 汗溝 *asemizo* ‘sweat rivulet’, it has [HHHR] tone in *M* (though [HHHH] tone in *W*). Another member of this group is *mizu* ‘water’, which appears in 樋水 *himizu* [HHR] in *M*. Although not included in either *M* or *W*, compounds with the coda *mizu* in other manuscripts are also marked with oblique tones: in the *Kokin kuntēn-shō* (1305), 沼水 *numamizu* (2.3 + 2.1a) is marked [HHHL]; in the *Shūchūshō* of Ken-shō (1179), 逃水 *nigemizu* (B + 2.1a) is marked HHHL. Martin (1987) also takes note of the word *musi*, attested in a tone-marked copy of *Nihonshoki* as *musi-no* [LL-H]. Since the particle *no* copied the tone of a preceding noun in MJ, this suggests that *musi* too, had /LR/ tone.

Because codas such as *tubo* ‘pot’, *oba* ‘aunt’, *tori* (~ -*dori*) ‘bird’, *musi* ‘insect’, and *mizu* ‘water’ make more than one appearance in Table 8.3 and do not show up in Table 8.2, I propose that the tones of Martin’s 2.1a class nouns be reconstructed as pre-MJ /LR/.

8.2.2 Codas in class 2.2

Turning next to codas in class 2.2 (Table 8.4), we find that the expected [LH] tones are the most numerous but that [HH], [HL], and [LL] also occur. In materials other than *W* and *M*, a majority of such compounds involve the common word *hito* (~ *-bito*) ‘person’. Although reconstructed by Martin as belonging to tone class 2.2a (see Section 5.4 above), it is perhaps better to reconstruct this word as 2.1a /LR/, not only because of its (both low and high) level markings when it occurs as a coda in MJ compounds but also because of its unusual tone in modern dialects (oxytonic in codas but atonic in isolation). At any rate, there is no clear correlation between the tones of codas in compounds and Martin’s subclasses 2.2a and 2.2b. As previously explained, his 2.2a contains words are unexpectedly atonic in a number of Chūrin type tone systems where one expects them to be oxytonic. Since these dialects are usually located in the vicinity of Gairin type dialects, Martin’s subclasses 2.2a and 2.2b may reflect differences among Chūrin dialects depending on their degree of contact with Gairin dialects.

Table 8.4 The tone of compounds with 2.2 codas

Written form	Modern form	Tone	W	M	Alternate	Head class	Coda class
山梨	yama-nasi	HHHL	x	x	W HHHH	2.3	?2.2a
懸橋	kake-hasi	HHHL	x	x		B	2.2b
芋幹	imo-gara	HHLH	x		M HHHH	2.3	2.2a
豆幹	mame-gara	HHLH		x	W HHHH	2.3	2.2a
盗人	nusu-bito	HHLH		x	WM HHHH	–	2.2a
銭形	zeni-gata	HHLH	x		WM HHHL	2.4 ?<2.5	2.2b
麦幹	mugi-kara	HHLH		x		2.4 (?<2.5)	2.2a
中頃	naka-goro	HHLH		x		2.4	?2.2a, ?2.1
一度	hito-tabi	HHLH		x		?2.4, ?2.3	2.2b
梳齒魚	awa-gara	HHLH	x	x		2.3	2.2
寒蛸	kamu-semi	HHLH		x		–	2.2a
蚱蟬	nawa-semi	HHLH	x	x		2.3	2.2a
馬蛸	muma-semi	HHLH	x	x		2.3	2.2a
弓弦	yumi-zuru	HHLH	x	x		2.3	2.2a
高機	taka-hata	HHLH	x			B	2.2a
山形	yama-gata	HHHH	x			2.3	2.2b
諺	koto-waza	HHHH		x		2.3	2.2b

Table 8.4 (continued)

Written form	Modern form	Tone	W	M	Alternate	Head class	Coda class
焼串	yai-gusi	LLLH	x	x		?2.1a	?2.2a
綺	kan-bata	LLLH	x	x		2.3	2.2a
杯	saka-zuki	LLLH		x		2.1	2.2a
軽石	karu-isi	LLLH	x	x	LLLL	–	2.2b
焼石	yaki-isi	LLLH		x		2.2b	2.2a
岩橋	iwa-basi	LLLH		x		2.5	?2.2a
諸共	moro-tomo	LLLH		x		2.2b	2.2a
石橋	isi-basi	LLLH		x	WM LLLL	2.1	2.x (?2.2b)
軽石	karu-isi	LLLH	x	x	LLLL	–	2.2b
焼石	yaki-isi	LLLH		x		2.2b	2.2a
岩橋	iwa.basi	LLLH		x		2.5	?2.2a
諸共	moro-tomo	LLLH		x		2.2b	2.2a
燃杭	moe-kui	LLLH	x		WM LLLL	?2.1	2.1
浮橋	uki.hasi	LLLH	x	s	W LLLL	2.2b	2.2b
鼠尾草	miso-hagi	LLLH	x			?	?2.2b
再	huta-tabi	LLHH		x		2.1	2.2a
客人	mara-hito	LLHH	x			2.1	?2.2a
礎	tumi-isi	LLLL	x		M HHHL	2.2b	2.2a
瑞籬	mizu-kaki	LLLL	x	x	M HHHL	A	2.2a
常夏	toko-natu	LLLL	x			2.2a	2.2b
築垣	tui-kaki	LLLL	x	x		A	2.2b
旅人	tabi-bito	LLLL	x	x		2.1	2.2a
輩	tomo-gara	LLLL		x		?2.1	2.2a

8.2.3 Codas in 2.3

Codas in 2.3, with just a few exceptions, show up as [LL] after /L/ and [HH] after /H/ (Table 8.5). There is no need to distinguish level from oblique realizations for 2.3 codas as is necessary in the case of 2.1 codas. I suspect the exceptional [LH] codas may indicate that the coda noun earlier belonged to 2.5 /HR/.

Table 8.5 The tone of compounds with 2.3 codas

Written form	Modern form	Tone	W	M	Alternate	Head class	Coda class
耳糞	mimi-kuso	HHHH		x		2.3	2.3
白玉	sira-tama	HHHH	x	x		2.3 = B	2.3
鹿角菜	tuno-mata	HHHH	x			2.3	?2.3
蒸物	musi-mono	HHHH	x			?2.3	2.3
茹物	yude-mono	HHHH	x			2.3	2.3
高殿	taka-dono	HHHH		x		?2.5, ?2.3	2.3
眉墨	mayu-zumi	HHHH	x	x		2.3 = B	2.3
家鳩	ie-bato	HHHH		x		2.1	2.3
大鹿	oo-zika	HHHH	x	x		2.1	2.3
黒土	kuro-tuti	HHHH	x	x		2.3	2.3
蛇	kuti-nawa	HHHH	x	x		2.3	2.3
花房	hana-busa	HHHH	x	x		1.3a + [– or B]	2.3
壺物	ae-mono	HHHH		x		B	2.3
果物	kuda-mono	HHHH	x	x		–	2.3
松脂	matu-yani	HHHH	x			B	2.3
腸	hara-wata	HHHH	x	x		B	2.3
藁沓	wara-gutu	HHHH		x	WM HHH L	2.4	2.3
黒鯛	kuro-dai	HHHH		x	WM HHH L	2.3	2.3
玉串	tama-gusi	HHHH		x		2.3	2.3
望月	moti-zuki	HHHL	x	x		2.3	?2.3
蛤	hama-guri	HHHL	x	x		?2.5, ?2.3	2.3
狼	oo-kami	HHLH	x			2.4	2.3
墨縄	sumi-nawa	HHLH	x	x		2.5	2.3
鳥網	tori-ami	LLLL	x	x		2.1	2.3
石亀	isi-game	LLLL	x		WM LLHH	2.2b	2.3
水瓶	mizu-game	LLLL	x			?2.1a	2.3
浮草	uki-kusa	LLLL	x		WLLLH	A	2.3
唐草	kara-kusa	LLLL	x			2.5	2.3
庭草	niwa-kusa	LLLL		x	WM LLLH	2.1	2.3
二又	huta-mata	LLLL		x	M LHHH	?2.1, ?2.2x	2.3
三又	mitu-mata	LLLL		x		–	2.3

Table 8.5 (continued)

Written form	Modern form	Tone	<i>W</i>	<i>M</i>	Alternate	Head class	Coda class
黒豆	kuro-mame	LLLL	x		WHHLH	?2.5, ?2.3	2.3
岩室	iwa-muro	LLLL		x		2.2a	2.3
織物	ori-mono	LLLL	x	x		A	2.3
添物	soe-mono	LLLL		x		A	2.3
乗物	nori-mono	LLLL		x		A	2.3
盛物	mori-mono	LLLL		x		A	2.3
鼻面	hana-zura	LLLH	x	x		2.1	2.3
河骨	kawa-hone	LLLH	x			2.2a	2.3
腰骨	kosi-bone	LLLH		x		2.1	2.3
初霜	hatu-simo	LLHH	x	x		2.1	2.3

8.2.4 Remaining codas

Indeed, we find that codas in classes 2.4 /HL/ and 2.5 /HR/ are attested as [HL] after high heads but as [LL] or [LH] after low heads (Table 8.6).

This seems to be related to the fact that the MJ [HLH] contours on long codas were still attested even after [LHL] had shifted to [LHH]. Hence, after a high head, the [LH] contour of class 2.2 codas persisted. After a low head, the [HL] contour of codas in classes 2.4 and 2.5 changed to [LH], preserving the oblique change of tone and blocking further assimilation to [HH].

8.3 Summary

Putting all the foregoing data together, we find that the tones of MJ compounds are distributed as shown in Table 8.7. Boldfacing indicates cases in which underlying /H/ and /L/ in the coda appear to be reversed.

Focusing attention on the most frequently attested patterns, it seems that the initial tone of the head spread to all or most of the following morae except in the case of a 2.1 or 2.2 head with a 2.1 coda. To be more precise, the [LLHH] pattern arose most often when the head was 2.2. We may therefore hypothesize two additional MJ rules for compounds: first */LH.LL/ > */LH.HH/. This assimilation of the coda to the last mora of the head is the same rule mentioned earlier that affected [LHL] contours. After that rule had applied, */LH.HH/ > [LL.HH], with the initial tone of a short head spreading up to the morpheme boundary of the compound.

Table 8.6 The tone of compounds with 2.4 and 2.5 codas

Written form	Modern form	Tone	<i>W</i>	<i>M</i>	Head class	Coda class
足跡	asi-ato	HHHL		x	2.3	2.4
しけいと	sike-ito	HHHL	x	x	?	2.4
練糸	neri-ito	HHHL		x	2.3	2.4
冬瓜	kamo-uri	HHHL	x	x	2.3	2.4 (? < 2.5)
白瓜	siro-uri	HHHL	x	x	2.5	2.4 (? < 2.5)
腹帯	hara-obi	HHHL	x	x	2.3	2.4
唐衣	kara-ginu	HHHL	x	x	2.5	2.4 < ?2.5
狩衣	kari-ginu	HHHL		x	?B	2.4 < ?2.5
糸筋	ito-suzi	HHHL	x	x	2.4	2.4
長雨	naga-ame	HHHL	x		B	2.5
俎	mana-ita	LLLH	x	x	?2.1	2.4
敷板・?	siki-ita	LLLH	x		A	2.4
金槌・鉄槌	kana-zuti	LLLH	x	x	2.1	2.4 ? < *3.5
釣船	turi-bune	LLLH	x	x	2.1	2.4
湖	mizu-umi	LLHL	x	x	?2.1a	2.4
人数	hito-kazu	LLLL		x	2.2a	2.4
焼畑	yaki-hata	LLLL	x	x	A	2.4
継母	mama-haha	LLLL		x	?(2.1)	?2.1; ?2.3, ?2.4

Table 8.7 Summary of MJ 2–2 compounds with short codas

head ↓	coda →	2.1 LL	2.1a LR	2.2 LH	2.3 HH	2.4 HL & 2.5 HR
2.1 LL		LLHH 20			LLLL 14	LLLH 4
2.2 LH		LLLL 11	LLLH 16	LLLH 11 LLLL 8	LLHH 2 LLH 3	LLLL 3 LLHL 1
2.3 HH		HHHH 35	HHHH 20	HHLH 13	HHHH 19	
2.4 HL		HHLL 11	HHHL/R 7	HHHL 2	HHHL 2	HHHL 10
2.5 HR				HHHH 2	HHLH 2	