12. Japanese

12.0.1. We provide the modern neutral pronunciation of Japanese, based on that of Tokyo. Our *transliteration* avoids diacritics for vowels, by indicating long vowels as *ii, ee, aa, oo, uu* (instead of *ī, ē, ā, ō, ū*, or *î, ê, â, ô, û*). As far as consonants are concerned, we prefer the most widely used system (by Japanese authors too: the Hepburn system, with the exception –methodologically considerable– of the choice to use *n* even before *m, p, b*, instead of *m*). Thus, the phonemic transcription has the task of indicating the systemic structuration; whereas the phonetic transcription, of course, aims at precision, without which everything would be approximate and –frankly– useless.

Therefore, we have: [tsɯ] /tɯ/ *tsu*, [ɸɯ] /hɯ/ *fu*, [ɕi] /si/ *shi*, [ɕjɐ] /sja/ *sha*, [ɕjɤ] /sjo/ *sho*, [ɕjɯ] /sjɯ/ *shu*, [tɕi] /ti/ *chi*, [tɕjɐ] /tja/ *cha*, [tɕjɤ] /tjo/ *cho*, [tɕjɯ] /tjɯ/ *chu*, [dʑi, ʑi] /zi/ *ji*, [dʑjɐ, ʑjɐ] /zja/ *ja*, [dʑjɤ, ʑjɤ] /zjo/ *jo*, [dʑjɯ, ʑjɯ] /zjɯ/ *ju*, [dzɯ, zɯ] /zɯ/ *zu*. But we prefer to use a more ‹logical› *cch* [tɕtɕ(j)] /tt(j)/ (which is less eurocentric than *tch*), and *n* (with *n'* + V or *y*) [ŋ̊, m̥, n̥, ɳ̥, ɴ̥] /ŋ/ (that some systematically render with *n̄*, thus resolving in a ‹graphonemic› way the slight problem of *n'*, before V and *y*, and also that of *m*, before *m, p, b*). In addition, we have [ŋ] /ŋ/, that we render with *g*, which can alternate with [g] /g/, as we will see below, *cf* § 12.2.1.1-2 (others use *ḡ*, to compensate for the absence of any transcriptions).

Length is distinctive both for vowels and consonants. We will mark it by doubling the phonemic and graphemic symbols – /kappoo/ and *kappoo*, respectively. In our phonetic transcriptions, for contoid lengthening it is necessary to add [ː]: [ˌkɐpˈpːɤɤ] (but, as can be seen and heard, *after* the *second* element).

12.0.2. In Japanese, even the pitch of the different morae is distinctive. They form syllables, words, phrases, and sentences. The example just seen shows that pitch is not marked in spelling, that is in the transliteration, as well as in normal *hiragana* writing – [ˌçiˈɰɐ·ŋɐ͟.nɐ, ˌçiˈɰɐ.ŋɐ.nɐ; ˌçiˈɰɐ·ŋɐˌnɐ] /hiraˌŋaˌna; -naˌ/ (which is added to characters, ‹ideograms›, that were taken from Chinese).

Normally, this does not happen in the other type of writing, *katakana* [ˌkɐ̥ˈtɐ·ˌkɐ͟.nɐ, ˌkɐ̥ˈtɐ·kɐˌnɐ] /kataˌkaˌna/, which is generally used in teaching and scientific textbooks, in order to ‹hint› at the pronunciation of onomatopeic terms and recent loanwords (*more* recent than the Chinese ones, which adapted to Japanese), or for stylistic reasons.

Instead, in *phono*toneᴍic transcriptions, we indicate with /ˌ/ the point after which the voice goes from a mid pitch to a low one. We call this *akusento* (*cf* § 12.3.2.1), by using the term taken from English (*accent*), in order to indicate this particular pitch phenomenon. As a matter of fact, it is not properly a stress element, since, in actual fact –as we will see– both pitch patterns and segmental con-

sistency –or syllabic ‹weight›– determine stress, cf § 12.3.2.5-14. Indeed, these points may even be more than just one, as can be seen from the two previous examples. However, these points have to be interpreted as possible *variants*, in a paradigmatic opposition, which is typical of phonemes, that manifest themselves on the syntagmatic axis, as is typical of words in sentences. This means that *one* must be ‹chosen›, excluding all the others.

On the contrary, *phono*tonetic transcriptions more concretely show the pitch of every syllable in a word, or rhythm group, since there are precise patterns for neutral Japanese (as we will see in detail later on, § 12.3.2.2), even if with variants. As a matter of fact, for the word *hiragana* we find as many as three possibilities (although the last is less favorite and older), as we have just seen, and as many as two for *katakana*. While, for a word like *katana*, there is just one possible neutral toneme: [ˌkɐ̥ˈtɐ·nɐ] /katana̗/ (/kataˌna/ is only regional).

We prefer to use [ ] /̗/ (instead of a more popular –in Japan– but less satisfactory [ˈ ˈ] /ˈ/), since the marked pitch is low, whereas the unmarked one is mid, not high (as a more traditional notation would lead to think, being based more on a tonemic rather than a tonetic criterion, which considers ‹high› what is ‹non-low›).

Vowels

12.1.1. Japanese has only five vowels, which can be distinctively short or long (or rather *doubled*, being realized almost as *monotimbric diphthongs*), and they can combine into different kinds of sequences (as happens in a slow pronunciation of Spanish in *Saavedra* or *La Habana* [ʂaaˈβɛ·ðra, laaˈβa·na]. However, too often Japanese pronunciation is hastily ‹described› as having the vowels of Spanish and the consonants of English. We will see that this is not the case at all.

fig 12.1 shows the actual articulations of the five vowels: [i, ɛ, ɐ, o, ɯ; ii, ɛɛ, aa, σσ, ɯɯ] /i, e, a, o, ɯ; ii, ee, aa, oo, ɯɯ/ *i, e, a, o, u; ii, ee, aa, oo, uu*. Since ‹long› vowels are phonemic sequences (and phonetic geminations), the marker of (short) /a/ [ɐ] is grey, seeing that it is articulated as a less open vocoid (even in stressed syllables). The most problematic Japanese vowel –of course for non-native speakers– is [ɯ] /ɯ/ *u*, which lacks the typical lip rounding of [u] so widespread in many languages. Besides, it is articulated with the tongue dorsum in a fronter position than [u] in most languages; in fact, it is back-central, not simply back.

Mostly, the younger generations articulate /ɯ/ in a further front position, as high central –with partial or full rounding, [ɨ] or [ʉ], respectively– but we always notate [ɯ], since those are youth characteristics which generally change into [ɯ], sooner or later. This peculiarity continues in relative time, without really changing the structure. Obviously, real non-neutral pronunciations are a different thing.

Let us now see some examples for each phoneme: [ˌiˈɛ] /ie̗/ *ie*, [ˌɟiŋ·koσ] /giŋ̗koo/ *ginkoo*, [ˌsɐ̥ˈβiˌɕii] /sabisi̗i/ *sabishii*; [ˌɛiˈɛɲ̥] /eieŋ̗/ *eien*, [ˈɛˌŋɐσ] /e̗ŋao/ *egao*, [ˌkɐ̥ˈɟɐ·tɛ] /karate/ *karate*; [ˌɐ̥i] /a̗i/ *ai*; [ˌdzɐɕ·ɕːi] /zassi̗/ *zasshi*, [ˌmɐˈtσ] /mato/ *mato*; [ˈnɛˌkσ] /ne̗ko/ *neko*, [ˌoˈciˌɹɯ] /oki̗rɯ/ *okiru*, [ˌoˈtσ·kσ] /otoko̗/ *otoko*; [ˌsɯˈmi] /sɯmi̗/ *sumi*, [·ɐ̥_kɯˌmɐ] /a̗kɯma/ *akuma*, [ˌmɯˈɕi] /mɯsi̗/ *mushi*.

12.1.2. For monomorphemic *ei* and *ou* (but the latter is generally transliterated as *oo*) it is normal to have /ee, oo/ [ee, σσ]: [ˌsɛŋ̊ˌsee] /seŋseˌe/ *sensei*, [ˌsɯˈiee] /sɯiee/ *suiei*, [ˌee·cĵσσ] /eekjoo/ *eikyoo*; [ˌσσˌɕjɯɯ] /oˌosjɯɯ/ *ooshuu*; [ˌσσ·gσŋ̊] /oogoŋ/ *oogon*, [ˌσσ·ɛŋ̊] /ooeŋ/ *ooen*.

Instead, for heteromorphemic *ei* and *ou* it is normal to have /ei, oɯ/ [ɛi, σɯ]: [ˌkɛi·tσ] /keito/ *keito*, [ˌsɛi] /seˌi/ *sei*, [ˌɐˈɹɐˌsσɯ] /arasoˌɯ/ *arasou*, [ˌsσɯ] /soɯ/ *sou*.

fig 12.1. Japanese vowels.

12.1.3. Besides, neutral Japanese has the peculiarity of presenting vowel *devoicing*. Indeed, there are two partially different degrees.

The first type is complete, and produces *voiceless* vocoids, that is with no vibration of the vocal folds, as also happens with consonants, such as (voiceless) [s] /s/ in comparison with (voiced) [z] /z/. More appropriately, these voiceless vowels are lenis too (or lenited), *ie* only the arytenoids are open, as for [h]. This concerns [i̥, ɯ̥] between voiceless consonants, or between a voiceless consonant and a pause, when in low-pitched syllables (but occasionally even in non-low-pitch ones, however never on ‹accented› morae, after which pitch becomes low), and never in interrogative post-intonemes (which shows a raising of the basic pitch): [ˌçi̥ˈɕi] /kisiˌ/ *kishi*, [ˌkɯ̥·tɕiˈßi·ɹɯ] /kɯtibirɯ/ *kuchibiru*, [ˌhɐˈnɐ·çi̥] /hanasiˌ/ *hanashi*, [ˌhi̥ˈtσ·tsɯ̥] /hitoˌtɯ/ *hitotsu*.

The second type, or degree, of devoicing is half-voicing, which concerns the other three vowels, but acts less systematically. In fact, we find [ɐ̥, σ̥], especially in the first syllable of words, when followed by syllables containing the same vowel (more rarely /e/ [ɛ] is devoiced too): [ˌkɐ̥ˈtɐ·nɐ] /katanaˌ/ *katana*, [ˌtσ̥ˈkσ·ɹσ] /tokoro/ *tokoro*; [ˌkɛ̥ˈsɐ·nɐi] /kesanai/ *kesanai*.

The second type again applies, instead, to *all* vowels before a pause, either short or long, preceded by any consonant. Obviously, /i, ɯ/ become [i̥, ɯ̥], when they are in the condition of total devoicing, in the context [ÇV]]. Therefore, before a pause, the last vocoid is [i̥, ɛ̥, ɐ̥, σ̥, ɯ̥] (even in diphthongs). It is important to state that this type of devoicing is syntagmatic, which means that we have one vocoid –not two– which begins as voiced and ends as voiceless. So the first part is voiced, whereas the second one is voiceless: ⟦ᵛᵛ̥⟧ – and this is hinted at by the pause context, even if the actual pause is short. Examples relating to this phenomenon can be found in the passage of the *Text* section, § 12.4. In simpler terms, we could say that the auditory effect is almost that of a very short [h], ⟦ᵛʰ⟧ or a semiapproximant ⟦ᵛʱ⟧.

For emphasis, strictly speaking (or for other paraphonic implications connect-

ed with states of mind), often an actual [Vh|] sequence may be heard: [ʲʌˌsσσ.dɛ.sɯ̥-ˌkɐh·] /ˌʌsoˌodesɯka,/ *Soo desu ka?!*

Consonants

12.2.0. As we have already said, it is currently thought that Japanese consonants are pronounced as those of English. We have to correct this false information, which is further reinforced by the widespread use of *ch, j, sh, f, ts* in transliteration (as we do ourselves, for the sake of simplicity). In fact, *ch, j, sh* stand for [tɕj; dʑj, ʑj; ɕj], with no absorption at all of [j] /j/; besides, *f* is not [f], but [ɸ]. Finally, there is [ŋ], that –as we will see– is an intense (‹syllabic›) provelar semi-nasal: [ŋ̩] /ŋ̍/.

The table of *fig* 12.2 gives the consonantal articulations of Japanese which are necessary for an adequate pronunciation of this language.

Instead, *fig* 1.9-15 show the orograms –grouped by manners of articulation– of all contoids treated in the chapters of this handbook (including secondary, occasional, and regional variants), which are needed for the 12 languages dealt with. This exposition renders the necessary comparisons among different languages more useful.

fig 12.2. Table of Japanese consonants.

	bilabial	dental	alveolar	prepalatal	bilabialized prepalatal	palatal	postpalatal	provelar	velar	laryngeal
N	m	[n]	n	[ɳ]			[ɲ]	ŋ̩	ŋ	
K	p b	t d					[c ɟ]		k g	[ʔ]
KS		[ts dz]			[tɕ dʑ]				([kx])	
X	[ß]									
S		s z			[ɕ ʑ]					
J	[ɸ]					[ɦ̡] j		ɥ	([ɦ̡])	h ([ɦ])
L			/r/ ɽ|[l]							

Nasals

12.2.1.1. At the beginning of syllables, Japanese has three possible nasal phonemes: /m/ [m] *m* (bilabial), /n/ [n] *n* (alveolar; realized, however, as prepalatal, [ɳ], before /i, j/, by assimilation): [ˌɳiˈmσ·nσ] /nimono/ *nimono*, and /ŋ/ [ŋ] *g* (velar): [ˌɐˈŋɐˌkɯ̥] /aŋakɯ/ *agaku*.

But we must add at once that, within words, /ŋ/ [ŋ] *g* (which is sometimes transliterated as *ḡ*) can be systematic only in the most neutral type of pronunciation, after /V, ŋ̍/. In fact, nowadays the oscillation between /g ~ ŋ/ [g ~ ɣ ~ ŋ] is very widespread, but with much fluctuation among people and words. However, no native speaker systematically has only [g] /g/. In (sentence, phrase, lexeme, or grammeme) initial position, [g] /g/ occurs, even for speakers who possess [ŋ] /ŋ/;

for (enclitic) *ga* we normally find [ŋɐ] /ŋa/; for *ga* (conjunction) we have [gɐ], but [ŋɐ] is possible too, even after a pause.

Again, there is [g] /g/ –above all– in loanwords, in onomatopeic expressions, in Chinese reduplicate words, and after certain proclitics (which are obviously heterorganic): ['ɟi̥ŋɐ] /giˌŋa/ *giga*, [ˌɟiŋ̆ŋɐ] /giˌŋŋa/ *ginga*; [ˌmi'ɟi] /migi/ *migi*, [ˌmɐ'gɯˌɣ̥σ] /magɯɾo/ *maguro*, [ˌmσŋˌgɛŋ̆] /moŋ̆geˌŋ̆/ *mongen*, [ˌmɐ'gσ] /magoˌ/ *mago*.

12.2.1.2. An even bigger phonic problem regarding nasals arises from a fourth Japanese nasal phoneme, *ie* ‹moraic *n*›, /ŋ̆/ (sometimes transliterated as *n̄*), which always occurs in a syllable coda and has a prevailing articulation as semi-provelar (*ie* provelar semi-nasal, with no actual contact between the dorsum and the velum). It is phonetically more energetic, *ie* intense [ŋ̆].

It occurs in three positions: (1) before continuous consonants (*ie* those produced with an incomplete occlusion of the oral cavity), that is /s, z; j, ɰ; h/ [s ~ ɕ, z ~ ʑ; j, ɰ; h ~ ɸ ~ ɦ], (2) before a vowel (which is heterosyllabic, of course), and (3) in final position before a pause (or, again, before continuous consonants, or vowels): [ˌɛŋ̆'sɐŋ̆] /eŋ̆saŋ̆/ *ensan*, [ˌhɐɳ̆ˌɕjɐ] /haŋ̆sja/ *hansha*, [ˌɯɲ̆ˌjɯ] /ɯŋ̆jɯ/ *un'yu*, [ˌkɐŋ̆ˌɰɐ] /kaŋ̆ɰa/ *kanwa*, [ˌsɛɛˌsɐŋ̆ˌhi̥] /seesaˌŋ̆hi/ *seisanhi*, [ˌsɛŋ̆ˌhjɐˌkɯ̥] /seˌŋ̆hjakɯ/ *senhyaku*, [ˌgσ'sɛŋ̆ˌɸɯ̥] /goseˌŋ̆hɯ/ *gosenfu*, [ˌtɐŋ̆i] /taˌŋ̆i/ *tan'i*.

However, by assimilation, /ŋ̆/ has other realizations too. In fact, it is articulated as a homorganic nasal (to a following consonant and is always intense): (1) [m̆, n̆; ɲ̆, ŋ̆], before the correspondent stops /p, b; t, d/ [p, b; t, d] and /k, g/ [k, c; g, ɟ]: [ˌsɐm̆ˌpσ] /saˌŋ̆po/ *sanpo*, [ˌɕim̆ˌbɯŋ̆] /siŋ̆bɯŋ̆/ *shinbun*, [ˌɯn̆ˌtɛŋ̆] /ɯŋ̆teŋ̆/ *unten*, [ˌtɛɲˌci] [-ɲ̆ˌci] /teˌŋ̆ki/ *tenki*, [ˌtɐŋ̆ˌkɐ] /taˌŋ̆ka/ *tanka*; and (2) [n̆, n̪̆] before dental or bilabialized prepalatal stopstrictive taxophones of /t, z/ [ts, dz] and [tɕ, dʑ]: [ˌbɐn̪̆ˌdzɐi] /baŋ̆zaˌi/ *banzai*, [ˌɛn̪̆ˌtɕjσσ] /eŋ̆tjoo/ *enchoo*, [ˌɲin̪̆ˌdʑiŋ̆] /niŋ̆ziŋ̆/ *ninjin*; and, naturally, [ŋ̆] before the frequent stop(semi)[con]strictive variant, [kxɐ, kꭓɐ], of /ka/ [kɐ] *ka*: [ˌtɐŋ̆ˌkxɐ, -ˌkꭓɐ] /taˌŋ̆ka/ *tanka*.

In addition, we have (3) [m̆, n̆, ɲ̆, ŋ̆] before nasals, /m, n, ŋ/ (*m n g*) and again [n̆] before *r* /ɾ/ [l], *eg*: [ˌɯm̆ˌmɛɛ] /ɯˌŋ̆mee/ *unmei*, [ˌɐn̆ˌnɐi] /aŋ̆naˌi/ *annai*, [ˌɲin̆ˌɲiˌkɯ̥] /niŋ̆nikɯ/ *ninniku*, [ˌɐŋ̆ˌŋɐi, -ˌŋɐi] /aŋ̆ŋai, aŋ̆ˌ/ *angai*, and [ˌɐn̆'lɐˌk(ɯ)ˌɕi] /aŋ̆rakɯˌsi/ *anrakushi*.

Stops

12.2.2.1. Japanese has three (voicing) diphonic pairs for stops: the voiceless are /p, t, k/ [p, t, k] (as already seen, often /k/ is [kx, kꭓ] + /a(a)/; occasionally /t/ becomes [th] + /a(a), o(o)/; and often /p/ is [ph], in the context between /ŋ̆/ and /i(i), a(a)/): [ˌkɐm̆'pɐi, ˌkxɐ-, ˌkꭓɐ-, -'phɐi] /kaŋ̆pai/ *kanpai*, ['tɐˌkσ; 'thɐ-] /taˌko/ *tako*, [ˌɕip̆'p:ɯ] /kippɯ/ *kippu*, [ˌɰɐ'tɐ; -'thɐ] /ɰataˌ/ *wata*, [ˌkɛm̆ˌpσσ] /keˌŋ̆poo/ *kenpoo* (word-initial /p/ only occurs in loanwords and onomatopeic forms). In emphatic speech, there is more ‹aspiration›.

The greatest ‹oddity› regards /t/ [t] which, by assimilation, before /i, j/ [i, j] is realized as a bilabialized prepalatal stopstrictive [tɕ] (transliterated as *ch*, even if /j/

[j] remains; but it is important to note that lip rounding is reduced, by assimilation to /i, j/, but the phone remains different from [tʂ]): [ˌtɕi̥ˈtɕi] /titi̩/ *chichi*, [ˌtɕjɐɴ·tʊ] /tjaɴto/ *chanto*. In addition –and even more ‹strangely›– /t/ [t], before /ɯ/ [ɯ] is realized as a dental stopstrictive [ts] (transliterated *ts*): [ˌtsɯˈɲi] 〚-ɲi〛 /tɯɲi/ *tsugi*.

Let us observe, once and for all, that the ‹palatal› realizations of /k, g, ŋ/, *ie* [c, ɟ, ɲ], are instead ‹postpalatal›, or retracted palatal, and can be represented better with ‹special› symbols, 〚c̱, ɟ̱, ɲ̱〛. They may safely be used (although, more often, [c, ɟ, ɲ] are used), after stating that they are realized in the rear part of their articulatory space, we define ‹postpalatal›, which in any case remains distinct from the ‹prevelar› articulation, [k̟, g̟, ŋ̟], typical of most languages before front vowels and [j], as in English 〚ˈk̟hɾi, ˈɾɛgjəlɐ〛 (Am. Engl. 〚ˈɾɛgjəlɐ̢〛) 〚ˈsɪŋ̟ɪŋ〛 /ˈkɹi, ˈɹɛgjələɹ, ˈsɪŋ-ɪŋ/ *key, regular, singing*.

Thus, we have: 〚ˌc̱i̥pˈpːɯ, ˌmiˈɟi, ˌtsɯˈɲi〛 /kippɯ, migi, tɯɲi/ *kippu, migi, tsugi*, or [ˌc̱i̥pˈpːɯ, ˌmiˈɟi, ˌtsɯˈɲi], provided [ɲi] remains different from [ni] (therefore, /ni/ [ni] should not be rendered as if it were ‹[ɲi], as we find in quite a few publications).

12.2.2.2. For /b/ [b] *b*, the variant [ß] is more common (*ie* a voiced bilabial constrictive), which occurs after vowels, especially in non-slow and non-formal pronunciation; less frequently the corresponding approximant, [β], is used: [ˌsɯˈßɛ-ˌɹɯ] /sɯbeɾɯ/ *suberu*, [ˌbɐi·kɐi] /baikai/ *baikai*, [ˌd͡ʑjɯm̩ˌbi] /zjɯ꜔bi/ *junbi*.

The phoneme /d/ [d] *d* poses no problems, except that genuine Japanese words never have **di*, **dyV* and **du*, substituted by *ji*, /zi/ [d͡ʑi, ʑi] *jV*, /zjV/ [d͡ʑjV, ʑjV] and *zu*, /zɯ/ [d͡zɯ, zɯ]: [ˌdɐiˌʑiɴ̩; -ˌd͡ʑiɴ̩] /daˌizin̩/ *daijin*, [ˌd͡ʑjɯˈzɯ; -ˈd͡zɯ] /zjɯzɯ̩/ *juzu*. Its normal distribution, non-emphatic and non-slow, is [Vʑ(j); ǀd͡ʑ(j), ŋ̩d͡ʑ(j)].

Also /g/ [g] *g* poses no problems, apart from a complementary (or alternative) distribution with /ŋ/ [ŋ] (*g*, which sometimes is transliterated as *ḡ*, as already said): [ˈgʊˌgɐˌkɯ̥] /goˌgakɯ/ *gogaku*.

Word-initial vowels, both at the beginning or in the middle of phrases and sentences, are generally preceded by [ʔ], especially for emphasis or to separate vowels of adjoining words.

This fact will be indicated prevailingly in connected transcriptions, such as those in § 12.4. In addition, especially (but not only) in women's pronunciation, short utterance-final vowels, mostly with a suspensive intoneme, can be followed by [ʔ(˙)] (*ie* with or without [an audible] release) as an alternative pronunciation instead of a possible more ‹normal› partial devoicing of the last vocoid: [ˈ(ʔ)ʊˌkɛ̥ǀ, ˈ(ʔ)ʊˌkɛ(ʔ)ǀ] /oˌke/ *oke*, [ˌ(ʔ)ɐˈsɯ̥ǀ, ˌ(ʔ)ɐˈsɯ(ʔ)ǀ] /asɯ̩/ *asu*. In the passage in § 12.4.2.3, a couple of cases are indicated.

Constrictives

12.2.3. Japanese has a pair of grooved dental constrictives /s, z/ [s, z] *s, z*. The voiceless one, /s/ [s] *s*, is realized as prepalatal round [ɕ] (with reduced rounding,

by coarticulation) before *i*, /i/ [i] (transliterated as *sh*) and before *yV*, /jV/ [jV] (transliterated as *shV*, although /j/ [j] does not disappear at all): [ˌɕjɐˈɕiɲ̩] /sjasiŋ/ *sha-shin*.

The corresponding voiced sound, /z/ *z*, is [Vz] (slow ⸻⁄ careful: [Vʣ]) and [|ʣ, ṇʣ]. Hence, it is realized as a dental constrictive, between vowels, either in words or sentences, either in normal or fast speech. However, after a pause or /ŋ/, it is realized as a stopstrictive: [ˌkɐˈzɛ] /kaze/ *kaze* (slow ⸻⁄ careful: [ˌkɐˈʣɛ]), [ˌʣɯˈɐ̃ɲ̩] /zɯaŋ/ *zuan*, [ˌsɛṇˌʣo] /seₙŋzo/ *senzo*.

In addition, we find /z/, before *i*, /i/ [i] (transliterated as *j*, instead of *z*) and before *yV*, /jV/ [jV] (transliterated as *jV*, although /j/ [j] remains), which is realized as prepalatal rounded (again, with reduced rounding) [Vʑi, VʑjV] (slow ⸻⁄ careful: [Vʥi, VʥjV]) and [|ʥi, |ʥjV; ṇʥi, ṇʥjV]: [ˈɸɯˌʑi] /hɯₗzi/ *fuji*, [ˌʥiˈtɛɲ̩] /ziteŋ/ *jiten*, [ˌkɐṇˌʥi] /kaŋzi/ *kanji*.

Approximants

12.2.4.1. Japanese has three approximants. The first, /j/ [j] *y*, is (voiced) palatal: [ˌsɐjoˈnɐˌɺɐ, -ˌɺɐ, ˌsɐjooˈnɐˌɺɐ] /sajonaₗɾa, -ɾa, sajoonaₗɾa/ *sayonara* (-*yoo*-), [ˌjɐˌɕi̥ˈci, ˌjɐɕːˈci] /jasiki̥/ *yashiki*, [ˌmiˈɐ̆ˌko] /mijako/ *miyako*, [ˌjooˌcjɯɯ] /jookjɯɯ/ *yoo-kyuu*, [ˌɕjɯɯˌɕi̥] /sjɯₗɯsi/ *shuushi*.

As can be seen from the examples, it remains unchanged in word-initial position /#jV/ [#jV], whereas it is realized as a phonetic ‹zero›, [∅], when preceded by *i*, /i/: /ijV/ → [iV]. In non-slow speech, the same is possible for /ejV/ → [ɛV], or [ɛjV]; thus we will mark [ɛjV] (by using a palatal semi-approximant symbol): [ˌhɛˈjɐ] /he-jaₗ/ *heya*.

After the voiceless stop phonemes /pjV, tjV, kjV/, /j/ is devoiced, [j̥]: [pj̥, tɕj̥, cj̥]; but it remains [j] after other consonants (even if voiceless, /s, h/ [ɕ, ħ] *s, h*), and without being absorbed by /t, s, z, h/: [tɕj̥, ɕj, ʑj, ʥj, ħj] (in spite of transliterations such as *ch, sh, j*). Sequences such as **yi, *ye* do not occur.

12.2.4.2. The second Japanese approximant, /ɰ/ [ɰ] *w* (which occurs in the syllable *wa*), is (voiced) provelar differing from [w], which is velar rounded; it has the same relationship with /ɯ/ [ɯ] *u* as happens in English between /w/ and /ʊu, ʊ, u/ – [w], [ɰu/ʊu, ɔ, ɰ] ([ˈwɪnː, ˈkhwɪk, ˈthɰˈu/-ʊˈu, ˈthɔk, ˈthɰˈit̚] *win, quick, two, took, to eat*): [ˌɰɐˈtɐˌɕi] /ɰatasi/ *watashi*, [ˌkɐˈɰɐ] /kaɰa/ *kawa*, [ˌɯˈɰɐˌsɐ] /ɯɰaˌsɐ/ *uwasa*, [ˌdɛɲˌɰɐ] /deŋɰa/ *denwa*.

The third approximant, /h/ [h] *h*, is voiceless laryngeal; however, in fast pronunciation [h] can become voiced, [ɦ], after vowels. But the most remarkable fact is that, by assimilation, /hɯ/ is [ɸɯ] (a voiceless bilabial approximant, transliterated as *fu*), and that in /hi, hjV/ [ħi, ħjV] we have a voiceless palatal approximant.

In addition, a voiceless velar approximant, [ħ], is very frequent for /ha(a)/: [ˌhɐˈhoɲ̩, ˌhɐˈɦoɲ̩] /hahoŋ/ *hahon*, [ˌhɐˈhɛɲ̩, ˌhɐˈɦɛɲ̩] /haheŋ/ *hahen*, [ˌɸɯ̥ˌkoo] /hɯₗkoₗo/ *fukoo*, [ˌħi̥ˈŋɛ] /hiŋe/ *hige*, [ˌħ̥jɐˈkɯ] /hjakɯₗ/ *hyaku*.

‹Trills›

12.2.5. Japanese has one phoneme of the ‹trill› type, which is similar to Spanish *r* /ɾ/ [ɾ], as in *interpretar*, /interpre'taɾ/ [inˌterpre'taɾ]. A realization like this could be sufficient for a fairly good pronunciation of Japanese, all the more so because that is indeed one of the possible realizations. However, it is better to learn the two most typical articulations given shortly (which are alveolar again), and use them instead of [ɾ].

The first taxophone of /ɾ/ *r* is [ɺ], *lateral flap* (or *lateralized flap* – cf fig 10.13 in *NPT/HPh*, besides fig 1.14.2-3 in this handbook), which occurs after vowels (even within sentences): [ˌkɐ'ɯɐ·ɺɐ] /kaɰaɾa/ *kawara*, [ˌɛ'ɺi] /eɾi̥/ *eri* (the same phone also occurs in American English before [ɹ], eg ['bɐɺɹ] /'bɛtəɹ/ *better*). A non-lateralized *flap* is possible too, [ɾ]: [ˌkɐ'ɯɐ·ɾɐ] /kaɰaɾa/ *kawara*, [ˌɛ'ɾi] /eɾi̥/ *eri* (which is the main American phone, in all contexts without [ɹ], eg ['bɐɾi] /'bɛti/ *Betty*). In Japanese it is better to use [ɺ], although [ɾ, ɾ] are possible too.

The second taxophone of /ɾ/ *r* is [ɺ̣], *lateral tap* (or *tapped lateral*, fig 1.15.3), which occurs after /ŋ̍/ (even within sentences) or after pauses: [ˌbɛŋ·ɺ̣i] /beŋ̍ɾi/ *ben-ri*, [ˌlɯ'i·ʑi, -·dʑi] /ɾɯizi/ *ruiji*, [ˌlɛ·ci̥'ɕi, -c'ɕi] /ɾekisi/ *rekishi*, [ˌloŋ̍ɺ̣i] /ɾoŋ̍ɾi/ *ronri*.

For the sake of simplicity, we could say that the difference between the two realizations consists in different degrees of lateralization. In fact, [ɺ] is less lateralized, as lateralization is an added, or secondary, component (let us say ⅓); whereas, for [ɺ̣] lateralization is prevailing, or primary (let us say ⅔).

Occasionally, lateral realizations can be heard as well, [l] (which is still alveolar), and postalveolar ones (of various manners of articulation – respectively: flap, tap, stop, flapped lateral, lateral: [ɽ, ɽ̥, ɖ, ɭ̆, ɭ]. Obviously, these phones need not be actively acquired – it is sufficient to be simply able to recognize them.

‹Palatalization›

12.2.6.1. Before /i, j/, the phonemes /n, ŋ; t, k, g; s; z; h/ have peculiar but necessary realizations: [ɲi, ɲi] /ni, ŋi/ *ni, gi*; [tɕi, ci, ɟi] /ti, ki, gi/ *chi, ki, gi*; [ɕi; ʑi, ǀdʑi, n̩dʑi; çi] /si; zi; hi/ *shi; ji; hi*: [ˌɲiɲ·dʑjɯɯ] /niŋ̍zjɯɯ/ *ninjuu*, [ˌkɐ'ɲi·ɺɯ] /kaŋiɾɯ/ *kagiru*; [ˌtɕi'ɛ] /tie̥/ *chie*, [ˌci'ɛ·ɺɯ] /kieɾɯ/ *kieru*, [ˌɟi'ɯɐ·kɯ] /giɰɐkɯ/ *giwaku*; [ˌɕi-'mɐ] /sime̥/ *shima*; [ˌɐ'ʑi] /azi/ *aji*, [ˌdʑi'mi] /zimi̥/ *jimi*, ['mɐˌhi̥] /mahi/ *mahi*.

In addition, we find: [ɲj, ɲj] /nj, ŋj/ *ny, gy*; [tɕj, cj, ɟj] /tj, kj, gj/ *ch, ky, gy*; [ɕj; ʑj, ǀdʑj, n̩dʑj; çj] /sj; zj; hj/ *sh; j; hy*: [ˌɲjɯɯ·ŋɐ·kɯ̩] /njɯɯŋakɯ/ *nyuugaku*, [ˌɐŋ̍·ɲɐ] /aŋ̍ja/ *angya*; [ˌtɕjɯɯ·tɕjo] /tjɯˌɯtjo/ *chuucho*, [ˌcjɯɯ·cjɯɯ·ɕjɐ] /kjɯɯ·kjɯˌɯsja/ *kyuukyuusha*, [ˌɟjɯɯ·ɲjɯɯ] /gjɯɯnjɯɯ/ *gyuunyuu*; [ˌɕiɲ̍·ɲjɯˌɯsee] /siŋ̍njɯˌɯsee/ *shinnyuusei*; [ˌkɐŋ̍·jɯɯ] /kaŋ̍jɯɯ/ *kan'yuu*, [ˌdʑiˌdooˌɕjɐ] /zidoˌosja/ *jidoosha*, [ˌhjɐ'kɯ] /hjakɯ̥/ *hyaku*.

Again, we must remember that, for /k, g, ŋ/ + /i, j/, the actual articulation is ‹postpalatal› [[c, ɟ, ɲ]] (rather than fully palatal, [c, ɟ, ɲ]), and that [j] remains.

12.2.6.2. All other consonants have no ‹palatalization› (although certain linguists and phonologists state the contrary, because they carry theorism to an ex-

cess). So, we regularly have: [Vɹi, |̩li, n̩li] /ɾi/ *ri*; [mi, pi] /mi, pi/ *mi, pi*; [bi, ßi] /bi/ *bi*. Thus: [σ·ßiˈᴇ·ɹɯ] /obieɾɯ/ *obieru*, [ˌmiˈnσ·ɹi] /minoɾi/ *minori*, [ˌli̩ˈsσ·kɯ̥] /ɾi-sokɯ/ *risoku*, [ˌɕin̩li] /si̩ɲɾi/ *shinri*, [ˌᴇm̩·pi·tsɯ̥] /eŋpitɯ/ *enpitsu*.

In addition, /CjV/ [CjV] *CyV, ChV*: [ɲj, |lj, n̩lj] /ɾj/ *ry*; [mj, pj̊] /mj, pj/ *my, py*; [bj, ßj] /bj/ *by*: [ˌᴇn̩ljσ] /eɲɾjo/ *enryo*, [ˌljɯɯ] /ɾjɯˌɯ/ *ryuu*, [ˌlσpˈpːje̯·kɯ̥] /ɾoppja-kɯ/ *roppyaku*, [ˌbjσσ] /bjoˌo/ *byoo*, [ˌbɯm̩·mje̯·kɯ̥] /bɯŋmjakɯ/ *bunmyaku*, [ˌʥei̯ˌɲjσσ] /zaiɾjoˌo/ *zairyoo*.

‹Gairaigo› – loanwords

12.2.7. As in any language, even in Japanese, loanwords (of which about 10,000 are of English origin) require some adaptation to the syllable structure (which is based on morae in Japanese) and new phonemic combinations for new sounds.

For these typical adaptations, let us consider two examples: [·kɯˌɹe̯ˌßɯ] /kɯˌɾa-bɯ/ ‹club›, [ˌs(ɯ̥)tσˌɹei̯ˌc(i̥)] /sɯtoraˌiki/ ‹(workers') strike›, [ˌs(ɯ̥)tσˌɹei̯ˌk(ɯ̥)] /sɯ-toraˌikɯ/ ‹(baseball) strike›. It is clear how the Japanese syllabic structure changes original monosyllables, with consonant clusters, into actual polysyllables.

Among new combinations, in the traditional phonotactics (which is quite rigid and with a fairly limited number of possibilities), the most common are: [ˌpaaˌti] /paˌat-i/ ‹party›, [ˌdiˈɹᴇˌk(ɯ̥)ˌtaa] /d-iɾeˌkɯtaa/ ‹director›, [ˌʨ(j̊)ᴇn̩ˌʥi] /tjeˌɲzi/ ‹change›, [ˌʥ(j)ᴇtˌtːσ] /djeˌtto/ ‹jet›, [ˈɕ(j̊)ᴇˌɸ(ɯ̥)] /sjeˌhɯ/ ‹chef›, [ˌɸɯˈi·ɹɯ·mɯ, -ˌɹɯˌmɯ, ˈɦi-, ˈɸɯi-, ˈɸi-] /hɯiɾɯmɯ, h(ɯ)iˌɾɯmɯ/ ‹film›, [ˌɕim̩ˌɸσˌnii] /si̩ŋhɯo-nii/ ‹symphony›, [ˌken̩ˌtsσσˌnᴇ] /kaɲtɯoˌone/ ‹canzone›.

Some examples clearly show that, besides placing some phones into new combinations, certain sequences are slightly ‹denipponized› (as the possible dropping, in these words but not in genuine ones, of [j] after prepalatal [rounded] articulations), becoming slightly more ‹international›.

Structures

12.3.0. In particular, we will deal with Japanese *akusento*, which is determined by pitch (even if it does not lack a stress component), and with intonation, which is superimposed to *akusento*, slightly changing it.

A typical Japanese pronunciation shows a particular kind of voice with a para-phonic setting with lowered larynx ⟨∵⟩, especially for men.

Taxophonics

12.3.1.1. The basic things have already been said. In fact, we have seen devoiced vocoids (cf § 12.1.3), and the few taxophonic characteristics regarding Japanese consonants.

Gemination

12.3.1.2. We must state that a ‹mora› coincides with a *light* syllable, as the one formed by a short vowel (/i, e, a, o, ɯ/), or by /ŋ/, or else by the first element of a geminate consonant (/V-C-CV/ [C-Cː]).

A *half-heavy* syllable corresponds to a geminate vowel (/ii, ee, aa, oo, ɯɯ/) or a diphthong, or to a short vowel + /ŋ/ (/Vŋ/) or + the first element of a geminate consonant (whose second element belongs to the following syllable, together with its vowel).

Instead, a *heavy* syllable presents a geminate vowel (or diphthong) + /ŋ/ (/VVŋ/) or + the first element of a geminate consonant: /VVC(-CV)/.

As we have seen from various previous examples, in Japanese, *vowel length* is distinctive, *ie* short and ‹long› or rather geminate (or doubled) vowels: [so] /so, soˌ/ *so* (one mora), [ˌsoo] /soo, soˌo/ *soo* (two morae); [ˈtoˌci̥] /toˌki/ *toki*, [ˌtoo̯ci̥] /toˌo-ki/ *tooki*. Even *consonant length* is distinctively present, as in [ˌci̥ˈtɐ] /kite/ (from *kiru* /kiɾɯ/ ‹to wear›) and /kiteˌ/ *kite* (from *kuru* /kɯɾɯ/ ‹to come›), both with two morae; [ˌci̥tˈtɐ] /kitte₍ₗ₎/ (‹stamp›) and [ˈcitˌtɐ, ˌci̥tˈtɐ] /kiˌtteˌ/ *kitte* (from *kiru* /kiˌɾɯ/ ‹to cut›), both with three morae: /ki-t-te/; [ˌgɐˈkɐ] /gaka/ *gaka* ‹artist›, [ˌgɐkˈkɐ] /gakka/ *gakka* ‹lesson›.

From a phonetic point of view, a doubled consonant consists of two morae: the first one coincides with the first element of the gemination (even if it is actually shorter, [t]), whereas the second one (which is decidedly longer, since actually lengthened, [tː]) constitutes another mora together with the vowel that follows it: [cit-tːɐ] (although here we have omitted the pitch features given above). In fact, /sotto/ is [ˌsotˈtːo] *sotto* ‹softly› (while a similar Italian word *sotto* /ˈsotto/ ‹under› is [ˈsotːto] in an intoneme, or [ˈsotto] in a preintoneme). Let us observe well –and listen even more carefully to– the difference between [CːC] and [CCː]. Both for Japanese /sotto/ or for Italian /ˈsotto/, however, we always have two phono-syllables, even if Japanese /sotto/ has three morae.

‹Moraic› *n* is always postvocalic, but it can also be followed by a vowel (and it is transliterated as *Vn'V*, in order to make people realize we are dealing with /VŋV/ [Vŋ̍-V], not with *VnV* /VnV/ [V-nV], and the same goes for *Vn'yV* /VŋjV/ [Vŋ̍-jV], which is different from *VnyV* /VnjV/ [V-ɲjV]): [ˌtɛɲˌdoo] /teˌŋdoo/ *tendoo* (cf, a similar Italian word, *tendo* /ˈtɛndo/, or [ˈtɛnːdo] in an intoneme).

However, in Japanese, in addition to /VŋV/ [Vŋ̍-V] and /VnV/ [V-nV], as in [ˌɐŋ̍ˌi] /aˌŋi/ *an'i*, [ˈɐˌɲi] /aˌni/ *ani*, we can also have /VŋŋV/ [Vŋ̍-ŋV] (which is the combination of /Vŋ/ and /ŋV/): [ˌɛŋˌɲi] /eˌŋŋi/ *engi* and /VŋnV/ [Vŋ̍-nV] too (combination of /Vŋ/ and /nV/): [ˌɐŋˌnɐ] /aˌŋna/ *anna*, [ˌɐŋˌɲi] /aˌŋni/ *anni* (cf Italian: /ˈanna, ˈanni/ [ˈan(ː)na, ˈan(ː)ni] *Anna, anni*). Let us add this –not useless– example: [ˌhoˌŋ̍ˌjɐ] /hoˌŋ-ja/ *hon'ya*.

Therefore, the structure of /ŋ/ [m̩, n̩, ɳ̍, ɲ̍, ŋ̍, ɴ̩] (one mora) is different from the geminate one /C-CV/ (two morae, or three including the first vowel: /V-C-CV/). However, there is no difference for the counting of morae.

Japanese ‹accent› – *akusento*

12.3.2.1. Both phonetic and phonemic transcriptions, as we have seen in the previous section too, indicate that in Japanese *akusento* is actually a pitch accent.

We are not faced with real tones (and tonemes), as in Chinese or Vietnamese (languages where even gliding or compound movements on each syllable are prevailing). On the contrary, in Japanese a pattern stretches over whole words, or whole rhythm groups formed by one or more words and by their (strictly connected) enclitic functional syllables (grammatical particles).

The term *akusento*, [·ɐ̯k(ɯ)‿sɛŋ̩̊tʊ] /aˌkɯseŋto/, indicates the point, *ie* the mora, after which pitch is lowered, that is the change from mid to low pitch. In our transcriptions, this is marked by writing /ˌ/ after the mora in question. Any other morae before the *akusento* have mid pitch, except for the very first one, which is low. If a word or rhythm group has no *akusento*, the first mora is low, whereas all the successive ones are mid; thus without going back to low pitch, according to the pattern that follows shortly (which is limited here to four morae).

12.3.2.2. Only in the following table (which relates to *fig* 12.3), we will show a toneᴍɪᴄ (ᴀ) and a toneᴛɪᴄ pattern (ʙ, where [ˌσ] indicates a low-pitched syllable, with the vowel timbre of /o/; whereas [·σ] indicates mid pitch). We consider them to be more useful and convenient, in order to describe and learn/teach. We add pattern (ᴄ) that is most recommendable in transliterations which do not ignore *akusento*, when no transcriptions are used.

According to the general principles of not explicitly writing unmarked prosodic elements, in transcriptions, the notation [·] –for mid pitch– could or should be left out. However, it is certainly more useful to show it, all the more so because in actual examples it is much less obtrusive than in the table. In any case, in pattern (ʜ) it has been left out.

For useful comparisons, we will add the most widespread patterns used in transliterations (ᴅ, ᴇ), and the one used in katakana moraic transcription (ꜰ) with typically oriental graphic complexities. We also show a phonotonetic pattern turned into a more ‹orthodox› one (ɢ), originating from pattern (ᴇ). To indicate any mora, here we use [σ], /o/, *o*, ◇ (the last one to ‹indicate› katakana, in ꜰ):

ᴀ	/oooo/	/ooooˌ/	/oooˌo/	/ooˌoo/	/oˌooo/
ʙ	[ˌσ·σ·σ·σ]	[ˌσ·σ·σ·σ]	[ˌσ·σ·σˌσ]	[ˌσ·σˌσˌσ]	[·σˌσˌσˌσ]
ᴄ	*oooo*	*oooò*	*ooòo*	*oòoo*	*òooo*
ᴅ	*oooo*	*oooo*ˈ	*ooo*ˈ*o*	*oo*ˈ*oo*	*o*ˈ*ooo*
ᴇ	*o*ˈ*ooo*	*o*ˈ*ooo*ˈ	*o*ˈ*oo*ˈ*o*	*o*ˈ*o*ˈ*oo*	ˈ*o*ˈ*ooo*
ꜰ	◇◇◇◇	◇◇◇◇	◇◇◇◇	◇◇◇◇	◇◇◇◇
ɢ	[σˌσσσ]	[σˌσσσˌ]	[σˌσσˌσ]	[σˌσˌσσ]	[ˌσˌσσσ]
ʜ	[ˌσσσσ]	[ˌσσσσ]	[ˌσσσˌσ]	[ˌσσˌσˌσ]	[σˌσˌσˌσ]

fig 12.3. Pitch-accent patterns.

/oooo/   /oooo‚/   /ooo‚o/   /oo‚oo/   /o‚ooo/
[‚σσσσ]   [‚σσσσ]   [‚σσσ‚σ]   [‚σσ‚σ‚σ]   [σ‚σ‚σ‚σ]
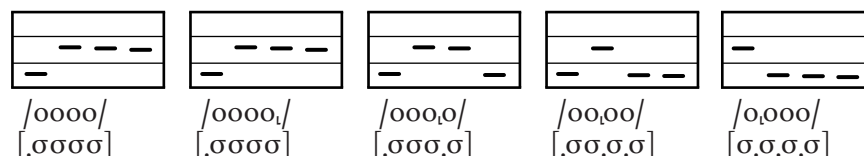
12.3.2.3. In type-A tonetic transcriptions, the first instance (/oooo/) differs from the second (/oooo‚/), because for the latter we also indicate the succeeding lowering (which –for obvious reasons– is absent in type-B transcriptions). Indeed, it is not objectively present in actual reality, when no words follow (as we will see shortly). In type-C transliterations, the accent could even be acute (*ó*), but the grave one is to be preferred since it can show actual movements better – in fact, the pitch falls from mid to low.

Type-D and type-E transliterations reflect the first ones in a more abstract way: tonemic and tonetic (A, B); even the katakana transliteration –or ‹transcription›– (F) shows the same characteristic, but in a more abstract way in comparison with real transcriptions (A, B, G).

We do not use transcriptions of the type /oˈooo/ [ˈσˈσσσ], which some use though (on the wake of type D and type-E transliterations), because if syllables/morae were really pronounced in a high pitch, instead of the mid one, the result would not be at all convincing. Let us add that in certain textbooks it is possible to find both types D and E with katakana, and type F with transcriptions.

As far as the indication or pitch variants is concerned, as we have done in § 12.0.2, for *hiragana* ([‚ɦiˈɰe·ŋe‚ne, ɦiˈɰe·ŋe‚ne; ɦiˈɰe·ŋe‚ne] /hira‚ŋa‚na; -na‚/) and *katakana* ([‚ke̥·te·ke‚ne, ke̥ˈte·ke‚ne] /kata‚ka‚na/), the most important thing is to indicate them (unless there are usage differences). Our phonotonetic transcription also shows their (wider or narrower) diffusion and recommendability (which is to be interpreted gradually – from the first onwards).

On the other hand, in a *pronouncing dictionary*, which would be worth publishing (using a transliteration, followed by the official writing and, of course, by an *IPA* transcription, certainly a phonemic one), preferences could and should be shown, by indicating /hira‚ŋa‚na, hira‚ŋana, hira‚ŋana‚/ and /kata‚kana, kataka‚na/, obviously in a shortened form: /hira‚ŋa‚na, -ra‚-; -na‚/ and /kata‚kana, -ka‚-/. Of course, in an introduction, the precise phonetic and tonetic characteristics would be fully treated, with accurate transcriptions, and with all the necessary vocograms, orograms, and tonograms, &c.

12.3.2.4. A short –*mono-moraic*– syllable may have two pitch possibilities: /ne/ *ne* ‹sound, tone› (absence of *akusento*), /ne‚/ *ne* ‹root› (presence of *akusento*), but tonetically they are both ‹non-low› (*ie* said in a mid pitch: [ˈnɛ]; the same goes for /ki/ *ki* ‹spirit›, /ki‚/ *ki* ‹tree›, [ˈci], and /ha/ *ha* ‹leave›, /ha‚/ *ha* ‹tooth›, [ˈhɐ].

In the case of *two morae*, we can have [‚ˌsσσ] /so‚o/ *soo* ‹monk›, [‚sσσ] /soo/ *soo* ‹villa, inn›, which are monosyllables realized right as [‚sσσ], with half-low pitch – but slightly falling or rising, respectively, since they combine mid and low, or low and mid, pitch (*cf fig* 12.4).

In *unstressed* bimoraic syllables, we find [꜌] (which is low, but raised up to the border with the mid band, as can be seen from the figure, in comparison with the low pitch of [꜌]), as in: [ˌsɛ́ɲ꜌sɛɛ] /seŋseˌe/ *sensei*, [꜌koo꜍çii] /koohiˌi/ *koohii*.

For *two syllables* formed by adding –to a monomoraic monosyllable– particles such as [ŋɐ, ɰɐ] /ŋa, ɰa/ *ga, wa*, which are *akusento*-less (since their pitch depends on what precedes, even if [when pronounced metalinguistically in isolation] they are obviously [ˈŋɐ, ˈɰɐ] /ŋa, ɰa/), we obtain respectively: [ˌnɛˈŋɐ] /neŋa/ *ne ga* and [ˈnɛ꜌ŋɐ] /neˌŋa/ *ne ga*, [꜌ciˈŋɐ] /kiŋa/ *ki ga* and [ˈci꜌ŋɐ] /kiˌŋa/ *ne ga*, [꜌hɐˈŋɐ] /haŋa/ *ha ga* and [ˈhɐ꜌ɰɐ] /haˌɰa/ *ha wa*.

It is fundamental not to believe that Japanese has *two* ‹tonemes› – low and mid. As a matter of fact, *akusento* is not at all a kind of actual pitch height (as it is not stress either). On the contrary, it is a pitch *fall*. It is a sort of ‹catatonic point›, after which the pitch falls, passing to the low band, as the examples clearly show.

But above all, *akusento* is either present or absent. In English, (the position of) stress is phonemic; whereas it is not so in Japanese. Besides, in English, pitch depends only on intonation (and paraphonics); whereas, in Japanese, pitch is phonemic and fundamental.
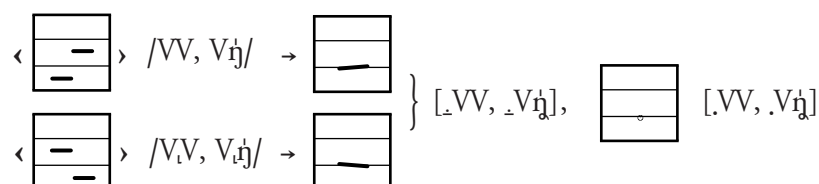
This language has mid pitch until an *akusento* comes, after which the pitch becomes low. If no *akusento* occurs, the pitch remains mid. On the contrary, stress in Japanese is not phonemic and depends on a complex interplay of various factors, such as the presence or absence of *akusento*, where it is placed, and the syllable structures of the rhythm group.

 Naturally, the tonograms sufficiently highlight that, in a rhythm group (or in an isolated word), the first mora is low and contrasts with the second one, which is mid; provided that (as we have already seen) the first mora is not followed by an *akusento*, in which case it is mid and what follows is low.

Again with two morae, we also have [ˈhɐ꜌nɐ] /haˌna/ *hana* ‹edge›, [꜌hɐˈnɐ] /hanaˌ/ *hana* ‹flower›, [꜌hɐˈnɐ] /hana/ *hana* ‹nose› (all bisyllabic), as for the monosyllabic examples with a particle seen above.

As soon as we add a particle, the effect of *akusento* is immediately clear: [꜌nɛˈɰɐ] /neɰa/ *ne wa* ‹sound, tone›, [ˈnɛ꜌ɰɐ] /neˌɰa/ *ne wa* ‹root›, [ˈhɐ꜌nɐ꜌ŋɐ] /haˌnaŋa/ *hana ga* ‹edge›, [꜌hɐˈnɐ꜌ŋɐ] /hanaˌŋa/ *hana ga* ‹flower›, [꜌hɐˈnɐ·ŋɐ] /hanaŋa/ *hana ga* ‹nose›; and so on.

fig 12.4. Movements in syllables with morae of different pitch.

Stress in Japanese

12.3.2.5. Although stress is not distinctive in Japanese, nevertheless it has a fundamental phonetic function. On the other hand, when acculturated native speakers talk about Japanese *accent*, they surely mean *pitch* accent –*akusento*– which is distinctive. However, in an automatic way, even non-acculturated natives –inevitably– use different degrees of stress for the various syllables which form sentences.

Since stress is not distinctive, it can oscillate and shift in sentences, phrases, and rhythm groups. This can also depend on communicative, pragmatic, paraphonic, and emotional factors. It can even change according to which monosyllables are added.

However, we will give some indications about the phenomenon of stress, since we believe it is impossible to continue ignoring it; although this is exactly what still happens. Let us now proceed in order and start from monosyllables, by reflecting on the fact that bimoraic words, as the following, are actually monosyllables (in spite of contrary confused indications): [ˌii] /i͜i/ *ii*, [ˌɐɯ] /a͜ɯ/ *au*, [ˌbɐi] /ba͜i/ *bai*, [ˌkoɛ] /ko͜e/ *koe*, [ˌcjσσ] /kjo͜o/ *kyoo*, [ˌbɯŋ̍] /bɯ͜ŋ/ *bun*, [ˌσσi] /oo͜i/ *ooi*, [ˌbaai] /baai/ *baai*, [ˌbjσσ·iŋ̍] /bjooiŋ̍/ *byooin* (this last example has four morae, but not four syllables, rather only one! – cf English [ˈɡ3ʊɪŋ, ˈɡσʊɪŋ] /ˈɡɔʊɪŋ/ *going*).

In these examples, a stressed syllable is always half-low, but it is slightly *falling* (since it derives from the combination of mid and low pitch, within the same syllable), except in the last two examples, where it is slightly *rising* instead (since it derives from the combination of low and mid pitch, tautosyllabically – cf fig 12.4).

12.3.2.6. True problems begin with bisyllables, though. In fact, there are differences between [ɐˈmɛ] /ame/ *ame* ‹candy›, [ˈɐˌmɛ] /aˌme/ *ame* ‹rain›, and [ˌnɛˈɾɯ] /neɾɯ/ *neru* ‹to sleep›, [ˈnɛˌɾɯ] /neˌɾɯ/ *neru* ‹flannel›. Bisyllables of two morae, that is with two light syllables, are stressed on the second syllable, unless *akusento* follows the first one, which is then stressed: [ˌkoˈko] /koko/ *koko*, [ɐˈʑi] /azi/ *aji*, [ˌɯˈɛ] /ɯe/ *ue*, [iˈɯ] /iɯ/ *iu*, [ˌσˈi] /oi/ *oi* and [ˌσˈto] /otoˌ/ *oto*, [ɐˈɕi] /asiˌ/ *ashi*, [ˌmɯˈɐ] /mɯɾaˌ/ *mura*, [ˌtsɯˈɲi] /tɯɲiˌ/ *tsugi*, [ˌɕiˈσ] /sioˌ/ *shio*, [iˈɛ] /ieˌ/ *ie*. However, we have: [ˈdoˌɛ] /doˌɾe/ *dore*, [ˈɐˌçi] /aˌki/ *aki*, [ˈtsɯˌmɐ] /tɯˌma/ *tsuma*, &c.

Three-mora bisyllables are stressed on the heaviest syllables (*ie* with more morae than others), although there are some oscillations that we will indicate. It is important to accurately observe *akusento* differences (which are pitch differences), in phonemic transcriptions, since sometimes they are the only actual differences (but fig 12.4 must be carefully considered): [ˌσˈmσi] /omoi/ *omoi*, [ˌσˌmσi] /omoˌi/ *omoi*, [ˌkɐˈsσσ] /kasoo/ *kasoo*, [ˌkɐˌsσσ] /kasoˌo/ *kasoo*, [iˈɾɐi] /iɾai/ *irai*, [·iˌɾɐi] /iˌɾai/ *irai*, [ɐˈσi] /aoi/ *aoi*, [ɐˌσi] /aoˌi/ *aoi*, [ɕiˈɐi] /siai/ *shiai*, [ˌciˈnσσ] /kinoo/ *kinoo*, [jσˈtɛɛ] /jotee/ *yotei*, [ˌçiˌŋɐi] /hiˌŋai/ *higai* (but [ˈciˌɲjσσ] /kiˌɲjoo/ *kigyoo*), [ˌkɯˌ ɾσσ] /kɯˌɾoo/ *kuroo*, [·bɐˌ ɛɛ] /baˌɾee/ *baree*.

More: [ˌciˌkɐi] /kikaˌi/ *kikai*, [ˌçiˌkɛŋ̍] /sikeˌŋ̍/ *shiken*, [·iˌkɛŋ̍] /iˌkeŋ̍/ *iken*, [iˈkɛŋ̍] /ikeŋ̍/ *iken*, [·ɡσˌzɛŋ̍] /ɡoˌzeŋ̍/ *gozen*, [·ʣɯˌβσŋ̍] /zɯˌboŋ̍/ *zubon*, [ˌkσσˌʑi] /koozi/ *kooji*, [ˌkσσˌʑi] /koˌozi/ *kooji*, [ˌɛɲ·ɲi] /eŋ̍ɲi/ *engi*, [ˌɐi·dɐ] /aida/ *aida*, [ˌhɐiˌɯ] /haˌiɾɯ/ *hairu*, [ˌcjσσ·to] /kjoˌoto/ *Kyooto*, [ˌkɐi·ɲi] /kaiɲiˌ/ *kaigi*, [ˌdɐi·kɯ] /daˌi-

kɯ/ *daiku*, [ˌbɛn̩ˈli] /beŋˌri/ *benri*, [ˌmin̩·nɐ] /miŋna/ *minna*, [ˌmitsˈtsːɯ] /mitstsɯ/ *mittsu*, [ˌɐkˈkːɐ] /akka/ *akka* (but: [ˈɐkˌkːɐ] /aˌkka/ *akka*, [ˈlɛɕˌɕːjɐ] /reˌssja/ *ressha*, where pitch prevails on other factors).

Generally, in four-mora bisyllables, stress falls on the first syllables, unless it is a light one (*ie* with just one mora) or there is an *akusento* after the second one (or if the first is only ‹half-heavy›, *ie* checked by [C̚ʰ̩C̩ː]): [ˌdʑjɯɯ·βjoσ] /zjɯɯbjoo/ *juubyoo*, [ˌdʑjɯɯˌβjoσ] /zjɯɯbjoo/ *juubyoo*, [ˌhoσ·koσ] /hookoo/ *hookoo*, [ˌdʑjɯɯˌdoσ] /zjɯɯdoo/ *juudoo*, [ˌkoσˌʑjoσ] /koozjoo/ *koojoo*, [ˌkoσˌʑjoσ] /koozjoˌo/ *koojoo*, [ˌtɐi̯ˌɸɯɯ] /taihɯˌɯ/ *taifuu*.

More: [ˌkɛn̩·toσ] /keŋtoo/ *kentoo*, [ˌkɛn̩ˌtoσ] /keŋtoˌo/ *kentoo*, [ˌsɛn̩·toσ] /seŋtoo/ *sentoo*, [ˌsɛn̩ˌtoσ] /seˌŋtoo/ *sentoo*, [ˌsɛn̩·sɛσ] /seŋseˌe/ *sensei*, [ˌcin̩·ɛn̩] /kiŋeŋ/ *kin'en*, [ˌjɯɯ·βin̩] /jɯɯbiŋ/ *yuubin*, [ˌɡɛkˈkːoσ] /gakkoo/ *gakkoo*, [ˌtɔcˈcːjɯɯ] /tokkjɯɯ/ *tokkyuu* (but: [ˌbɔtɕˌtɕːjɛn̩] /boˌttjaŋ/ *bocchan*), [ˌɛˈciin̩] /ekiiŋ/ *ekiin*, [ˌɕipˈpːɐi, ˌɕi̯-] /sippai/ *shippai*, [ˌtoσ·cjoσ] /tookjoo/ *Tookyoo*.

12.3.2.7. Three-mora trisyllables are stressed on their second syllable, unless it contains a devoiced vowel, which makes stress shift forwards (if an *akusento* is there) or backwards: [ˌci̯ˈmo·no] /kimono/ *kimono*, [ˌjɯˈβi·ɥɐ] /jɯbiɥɐ/ *yubiwa*, [ˌtɕi̯ˈkɐ·ɹɐ] /tikaɹaˌ/ *chikara*, [ˌɸɯ̩ˈtɐ·ɹi] /hɯtari/ *futari*, [ˌɐˌɹɐˌɕi̯] /aˌɹasi/ *arashi*.

Besides: [ˌkɐˈɛ·ɹi] /kaeɹiˌ/ *kaeri*, [ˌkɐˈɛ·ɹɯ] /kaeɹɯ/ *kaeru*, [ˌkɐˌɛˌɹɯ] /kaeˌɹɯ/ *kaeru* (but [ˌkɐɛˌɹɯ] /kaˌeɹɯ/ *kaeru*), [ˌtɐˌσˌɹɯ] /taˌoɹɯ/ *taoru*, [ˌɯˈɛ·ci] /ɯeki/ *ueki*, [ˌɕi̯ˈkɐ·kɯ] /sikakɯˌ/ *shikaku*; [ˌkɐˌzoˌkɯ̩] /kaˌzokɯ/ *kazoku* (with this pitch pattern, and especially with non-devoiced /i, ɯ/ in the last but one syllable, it is also possible to have: [ˈdɔˌtɕi·ɹɐ] /doˌtiɹa/ *dochira*, [ˈdɛˌɡɯˌtɕi̯] /deˌŋɯti/ *deguchi*); [ˈkɛˌɕi̯ci] /keˌsiki/ *keshiki*, [ˈi̯ˌkɯ̩ˌtsɯ] /iˌkɯtɯ/ *ikutsu*, [ˈpɔˌsɯ̩ˌtσ] /poˌsɯto/ *posuto*, [ˌɥɐˌɸɯ̩ˈkɯ] /ɥahɯkɯ/ *wafuku*, [ˌɐˌɕi̯ˈtɐ] /asitaˌ/ *ashita*, [jɐˌkɯ̩ˈɕjσ] /jakɯsjo/ *yakusho*.

Four-mora trisyllables are stressed on the first syllable, unless it is a light one: [ˌkɐi̯·mo·nσ] /kaimono/ *kaimono*, [ˌσσ·sɐ·kɐ] /oosaka/ *Oosaka*, [ˌsɐɐˌβi̯ˌsɯ̩] /saˌabiˌsɯ/ *saabisu*, [ˌɕjoσˌʑi̯ˌci, -ʑi·ci̯] /sjoozi̯kiˌ/ *shoojiki*, [ˌtɛn̩·pɯ·ɹɐ] /teŋpɯɹa/ *tenpura*, [ˌdʑɛn̩ˌkoˌkɯ̩] /zeŋkokɯ/ *zenkoku*, [ˌɕi̯ˌɹoσ·tσ] /si̯ɹooto/ *shirooto*, [ˌbɯˈtsɯ·zoσ] /bɯtɯzoo/ *butuzoo*, [ˌsɛˈci·n̩iŋ] /sekiniŋ/ *sekinin*, [ˌɐˌkɐˌtɕjɐn̩] /aˌkatjaŋ/ *akachan*, [ˌmɐˈɛɯ·ɹi] /maeɯɹi/ *maeuri*, [ˌσˈi·ɥɐi] /oi̯ɥai/ *oiwai*, [ˌɯˈɛ·ciɐ] /ɯekija/ *uekiya*.

More: [ˌsɯˈi·sɛn̩] /sɯiseŋ/ *suisen* (but: [ˌσσˈɐˌmɛ] /ooaˌme/ *ooame*, [ˌlσσˈmɐˌʑi] /roomaˌzi/ *roomaji*, [ˌkɛn̩ˈŋoˌɸɯ̩] /kaŋŋoˌhɯ/ *kangofu*, [ˌloσˈsoˌkɯ̩, -ˈsoˌkɯ] /roosoˌkɯ/ *roosoku*, [ˌdʑjɯɯˈŋɐ·tsɯ] /zjɯɯŋatɯˌ/ *juugatsu*, where the *akusento* prevails). Regularly, also: [ˌn̩iˈhon̩·ŋo] /nihoŋŋo/ *Nihongo*, [ˌpɐˈtɕin̩·ko] /patiŋko/ *pachinko*. In compounds, usually we find a seemingly irregular pattern, such as: [ˌbɐn̩ˈmɛ·ɕi] /baŋmesi/ *banmeshi*, [ˌɡɐiˈko·kɯ] /gaikokɯ/ *gaikoku*, [ˌjɯɯˈdɐ·tɕi] /jɯɯdati/ *yuudachi*, [ˌhɐiˈzɐ·ɹɐ] /haizaɹa/ *haizara*.

12.3.2.8. Four-mora quadrisyllables tend to be stressed on the second syllable from the beginning: [ˌkɐˈmi·dɐˌmɐ] /kamidama/ *kamidama*, [ˌnɐˈŋɐ·ŋɯ·tsɯ̩, -ˌtsɯ] /naŋaŋɯtɯ/ *nagagutsu*, [ˌnσˈɹi·mo·nσ] /norimono/ *norimono*, [ˌbɯˈtɐ·n̩i·kɯ, -ikɯ̩] /bɯtanikɯ/ *butaniku*, [ˌsɐˈkɐ·nɐˌjɐ] /sakanaja/ *sakanaya*, [ˌɕi̯ˈɐɥɐˌsɛ] /siaɥase/ *shiawase*, [ˌɐˈmɛ·ɹi̯ˌkɐ] /ameɹika/ *Amerika*, [ˌɯˈɹi·ci·ɹɛ] /ɯɹikiɹe/ *urikire*, [ˌtσˈmo·dɐˌtɕi]

/tomodati/ *tomodachi*, [ˌɯˈkɛ·tsɯ̥·kɛ, ˌ-tsɯˌkɛ] /ɯketɯke/ *uketsuke*, [ˌtɕi̥ˈkɛˌɕi̥ˌtsɯ, -iˌtsɯ] /tikaˌsitɯ/ *chikashitsu*, [ˌoŋ̍ˈŋɛ·kɯ̥ˌkɛi, ˌ-kɯˌkɛi] /oŋ̍ŋakɯˌkai/ *ongakukai*.

More: [ˌkɯˈdɛˌmoˌno] /kɯdaˌmono/ *kudamono*, [ˌtɐˈßɯˌkɯˌ˞o] /tabɯˌkɯ˞o/ *tabukuro*, [ˌkɐˈnɛˌzɯˌtɕi] /kanazɯˌti/ *kanazuti*, [ˌɦi̥ˈ˞oˌɕiˌmɛ] /hi˞osima/ *Hiroshima*, [ˌɦɐˈnɛˌɕi̥·tɛ, -i̥ˌtɛ] /hanasiteˌ/ *hanashite*, [ˌtɐˈnoˌɕiˌmi] /tanosimi/ *tanoshimi*, [ˌkɐˈnɛ·moˌtɕi] /kanemotiˌ/ *kanemochi*, [ˌiˈnɛ·mɯˌɹi] /inemɯ˞iˌ/ *inemuri*, [ˌ·dʑiˈtɛŋ̍·ɕjɐˌjɐ] /ziteŋ̍sjaja/ *jitenshaya*, [ˌɦoŋ̍ˈsɛ·ɕi̥ˌtɕi] /hoŋ̍sekiˌti/ *honsekichi*.

However, stress generally falls on the last but one syllable, when it is a heavy one, or is followed by an *akusento*, or when the second one contains a devoiced vowel. Mainly, this also happens with final *-tsu*, *-ri* or in obvious compounds: [ˌɐ·sɐˈnɛˌßoo] /asaneˌboo/ *asaneboo*, [ˌɡɐi·koˈkɯˌʑiŋ̍, -ˌdʑiŋ̍] /gaikokɯˌziŋ̍/ *gaikokujin*, [ˌɐ·ɹɯˌßɐi̥ˌto] /a˞ɯbaˌito/ *arubaito*, [ˌɡɛ·tsɯˌjooˌßi] /getɯjoˌobi/ *getsuyoobi*, [ˌmo·kɯˌjooˌßi] /mokɯjoˌobi/ *mokuyoobi*, [ˌbiˌɹɯ·diŋ̍ˌŋɯ] /bi˞ɯdiŋ̍ŋɯ/ *birudingu*, [ˌɲi·ɥɐˈkaaˌmɛ] /niɥakaaˌme/ *niwakaame*, [ˌtɕjo·ko·ˌɹɛɛˌto] /tjokoreˌeto/ *chokoreeto*, [ˌtɕ̊jɯɯ·ŋoˈkɯ·ŋo] /tjɯɯŋokɯŋo/ *chuugokugo* (but [ˌɡɐiˈko·kɯˌŋo] /gaikokɯˌŋo/ *gaikokugo*).

In addition: [ˌo·ɸɯ̥ˈkɯˌ˞o, ˌ·o·ɸɯ-] /ohɯkɯ˞o/ *ofukuro*, [ˌjɐ·kɯ̥ˈso·kɯ, ˌjɐ·kɯ-] /jakɯsokɯ/ *yakusoku*, [ˌkɐ·ɕi̥ˈkɐ·tɐ, ˌkɐ·ɕi-, ˌ-tɐ] /kakikataˌ, -ˌta/ *kakikata*, [ˌjo·tsɯ̥ˈkɐ·do, ˌjo·tsɯ-] /jotɯkado/ *yotsukado*, [ˌto·ɕiˈoˌɹi] /tosijoɹiˌ/ *toshiyori*, [ˌkɐ·miˈnɛ·ɹi, -ˌɹi] /kaminaˌ˞iˌ/ *kaminari*, [ˌsɐ·ɹɐiˈŋɛ·tsɯ, ˌ-tsɯ̥] /sa˞aiŋetɯ/ *saraigetsu*, [ˌɦɐ·tɕiˈŋɛ·tsɯ] /hatiŋatɯˌ/ *hatigatsu*, [ˌɕi·tɕiˈŋɛ·tsɯ, ˌɕi-] /sitiŋatɯˌ/ *shitigatsu*, [ˌdʑjɯɯ·ɲiˈŋɛ·tsɯ] /zjɯɯniŋatɯˌ/ *juunigatsu*, [ˌɐ·sɐˈmɛ·ɕi] /asameˌɕi/ *asameshi*, [ˌi·ɹɯˈmɛ·ɕi] /i˞ɯmesi/ *irumeshi*, [ˌoɲ̍·nɛ·noˌko] /oŋ̍naˌnoko/ *onnanoko*, [ˌdɛɲ̍·ɕiˌɡɐiˌɕjɐ, -ˌŋɐi-] /deŋ̍kigai-sja, -ŋai-/ *denkigaisha*, [ˌɦi·ɕiˈdɐ·ɕi, ˌɦi̥-] /hikidasi/ *hikidashi*, [ˌkɐ·ɕiˈdɐ·ɕi] /kasidasi/ *kashidashi*, [ˌɦɐ·tɐˈmi·tɕi] /hatamiti/ *hatamichi*.

12.3.2.9. In five-syllable words, which are generally not simple words, stress decidedly tends to fall on the last but one syllable, except for particular compounding or devoicing: [ˌkɐˌtɐ·zɯˈkɛ·ɹɯ] /katazɯkeˌ˞ɯ/ *katazukeru*, [ˌiˌnɐ·ßiˌkɐ·ɹi] /inabiˌkari/ *inabikari*, [ˌoˌto·ko·noˌko] /otokoˌnoko/ *otokonoko*, [ˌnɛˌʑi·mɐ·ɥɐ·ɕi̥] /nezimaˌɥasi/ *nejimawashi*, [ˌjɐˌmɐ·no·ßoˌɹi] /jamanoˌbo˞i/ *yamanobori*, [ˌoˌkɯ·ɹiˈmoˌno] /okɯ˞imono/ *okurimono*, [ˌoˌcjɐ·kɯˈsɐ·mɐ, ˌ·o·cjɐ·kɯ-] /okjakɯsama/ *okyakusama*, [ˌoˌtɐ·tsɯ·dɐiˌsɐŋ̍] /oteˌtɯdaisaŋ̍/ *otetsudaisan*, [ˌɐˌmɛ·ɹiˈkɛ·ʑiŋ̍, -ˌdʑiŋ̍] /ameriˌziŋ̍/ *amerikajin*.

More: [ˌsɛɲ̍ˌtɐ·kɯˈmo·no] /seŋ̍takɯmono/ *sentakumono*, [ˌiˌtɕi·ɲiˈtɕi·ʑjɯɯ] /itinitizjɯɯ/ *ichinichijuu*, [ˌdɛɲ̍·ɕi·sɯ̥ˈtooˌßɯ] /deŋ̍kisɯtooˌbɯ/ *denki-sutoobu*, [ˌtɕ̊jɯɯ·ŋo·kɯ·ˌɹjooˌɹi] /tjɯɯŋokɯ˞joˌo˞i/ *chuugokuryoori*, [ˌkoo·dɐɲ̍ˌdʑjɯɯ·tɐˌkɯ̥] /koodaŋ̍zjɯɯtakɯ/ *koodan-juutaku*, [ˌdɛɲ̍·ßooˈsɛ·tsɯˌßi, ˌ·dɛɲ̍·ßoo ˈs-] /daŋ̍booˌtɯbi/ *danboo-setsubi*, [ˌo·mɐˈɥɐ·ɹiˌsɐŋ̍] /omaˌɥarisaŋ̍/ *omawarisan*, [ˌɲjɯɯ-ˌŋɛ·kɯ·ɕi̥ˌkɛŋ̍] /njɯɯŋakɯsikeˌŋ̍/ *nyuugaku-shiken*, [ˌmɐ·tɕi·ɐi·ɕi̥ˌtsɯ, -iˌtsɯ̥] /ma-tiaˌisitɯ/ *machiaishitsu*.

12.3.2.10. In verbs in *-ru* generally stress is on the preceding syllable and *akusento* immediately after it: [ˌo·ßoˈɛ·ɹɯ] /oboeˌ˞ɯ/ *oboeru*, [ˌkɐŋ̍·ŋɐˈɛ·ɹɯ] /kaŋ̍ŋaeˌ˞ɯ/ *kangaeru*, [ˌɐ·tsɯˈmɐ·ɹɯ] /atɯmaˌ˞ɯ/ *atsumaru*, [ˌɕi·ɹɐˈßɛ·ɹɯ] /si˞abeˌ˞ɯ/ *shiraberu*,

[ˌko·ɕi̥·keˈkɛˌ˞ɯ] /kosikakeˌɾɯ/ *koshikakeru*; but [ˌɐˈɳɐ·ɰɐˌsɯ̥] /aɾaɰaˌsɯ/ *arawasu*, [ˌtɕi̥ˈke·zɐˌkɯ̥] /tikazaˌkɯ/ *chikazaku*.

Usually, adjectives are stressed on the last, or last but one, syllable: [ˌɐˌtɐ·tɐˌkɐi] /atatakaˌi/ *atatakai*, [ˌmɯ·ɕiɐˌtsɯi] /mɯsiatɯˌi/ *mushiatsui*, [jɐˌkɐ·mɐˌɕii] /jaka-masiˌi/ *yakamashii*, [ˌɐˈßɯ·nɐi] /abɯnai/ *abunai*, [ˌoi·ɕii] /oisii/ *oishii*, [ˌcii·ɳoi] /kiiɾoi/ *kiiroi*, [ˌɐˈke·ɳɯi] /akaɾɯi/ *akarui*, [ˌtsɯˈmɛ·tɐi] /tɯmetai/ *tsumetai*; but there are even cases like: [ˌmɯˈzɯ·keˌɕii] /mɯzɯkasii/ *muzukashii*, [ˌɐˈtɐ·ɳɐˌɕii] /a-tarasiˌi/ *atarashii*, [ˌoˈmo·ɕiˌɳoi] /omosiɾoˌi/ *omoshiroi*, [ˌmɯˈɕiɐ·tsɯi] /mɯsiatɯˌi/ *mushiatsui*, [ˌmɛŋˈdoo·kɯ̥ˌsɐi] /meŋdookɯsaˌi/ *mendookusai*.

In iterated forms stress and *akusento* belong to the first syllable: [ˈmɯˌzɯˌmɯˌzɯ] /mɯˌzɯmɯzɯ/ *muzumuzu*, [ˈɰɐˌzɐˌɰɐˌzɐ] /ɰaˌzaɰaza/ *wazawaza*. Finally, here are some *akusento*-less forms: [ˌsɐˈɰɐɾɯ, ˌtsɯˈɳɐɾɯ, ɯˈkɛɾɯ] /saɰaɾɯ, tɯŋa-ɾɯ, ɯkeɾɯ/ *sawaru, tsugaru, ukeru*.

12.3.2.11. Since there are no real rules for *akusento* and stress in compounds, especially for less long ones, we just give some examples, to rouse reflection (also on the paramount importance that a real pronouncing dictionary would have [by using *IPA*] for *akusento*, stress, segments, devoicing, &c): [ɸɯjɯˈŋɛˌɕ(i̥)ˌci] /hɯjɯ-ŋeˌsiki/ *huyugeshiki*, from [ˌɸɯˈjɯ] /hɯjɯˌ/ *huyu*, [ˈkɛˌɕ(i̥)ˌci] /keˌsiki/ *keshiki*.

Other examples: [ˌjɯˌɳjɯɯ·kɯˈdɛˌmoˌno] /jɯnjɯɯkɯdaˌmono/ *yunyuukuda-mono*, from [jɯˈɳjɯɯ] /jɯnjɯɯ/ *yunyuu*, [ˌkɯˈdɛˌmoˌno] /kɯdaˌmono/ *kudamo-no*; and more: [ˌjɯɯ·jɐ·kɛˈzoˌɳɐ] /jɯɯjakezoˌɾa/ *yuuyakezora*, from [ˌjɯɯ·jɐ·kɛ] /jɯɯjake/ *yuuyake*, [ˈsoˌɳɐ] /soˌɾa/ *sora*; [ˌsɐˌtoˈŋoˌkoˌɳo] /satoŋoˌkoɾo/ *satogokoro*, from [ˌsɐˈto] /sato/ *sato*, [ˌkoˈkoˌɳo] /kokoˌɾo/ *kokoro*.

Furthermore: [ˌɳiˈŋɯˌɳɯˌmɐ] /niŋɯˌɾɯma/ *niguruma*, from [ˈɳi] /niˌ/ *ni*, [ˌkɯ-ˈɳɯ·mɐ] /kɯɾɯma/ *kuruma*; [ˌɐˈsɐˌkɐˌzɛ] /asaˌkaze/ *asakase*, from [ˈɐˌsɐ] /aˌsa/ *asa*, [ˌkɐˌzɛ] /kaze/ *kaze*; [ˌiŋ̊·s(ɯ̥)ˌteɳˌtoˌkooˌçii] /iŋsɯtaŋtokoˌohii/ *insutantokoohi*, from [ˌiŋ̊·s(ɯ̥)ˌteɳˌto] /iŋsɯtaˌŋto/ *insutanto*, [ˌkooˌçii] /koohiˌi/ *koohi*; [ˌɡɐi·koˈkɯ-ˌʑiŋ̊, -ˌʥiŋ̊] /gaikokɯˌʑiŋ/ *gaikokujin*, from [ˌɡɐi·ko·kɯ̥] /gaikokɯ/ *gaikoku*, [ˌʥiŋ̊] /ʑiŋ/ *jin*; [ˌɡɐi·koˌkɯ·ʑiɳ̊ˌtooˌɳoˌkɯ̥, -·ʥiɳ-] /gaikokɯʑiŋtoˌoɾokɯ/ *gaiko-kujin-tooroku*, from [ˌɡɐi·koˈkɯ̥ˌʑiŋ̊, -ˌʥiŋ̊] /gaikokɯˌʑiŋ/ *gaikokujin*, [ˌtooˌɳo·kɯ̥] /tooɾokɯ/ *tooroku*.

12.3.2.12. In forming Japanese sentences, some modifications are introduced regarding *akusento* (and somehow for rhythm-group stress too). Let us consider the following examples, in order to see how they work, by carefully observing the pitch of the syllables in the second rhythm group. In fact, normally, the rhythm groups that are not separated by pauses, after a rhythm group with *akusento*, remain mid-pitched as the previous one. Here are some sentences: [ˌɰɐˈtɐ·kɯ̥·çiˌno ·nɐˈmɐɛ] /ɰatakɯsino namae/ *watakushi no namae* (in [ˌnɐˈmɐɛ] /namae/, *na-* becomes [·nɐ], by pitch assimilation to the preceeding syllable), [ˈboˌkɯ·no ˌsɛɳ̊ˌsɛɛ] /boˌkɯno seŋseˌe/ *boku no sensei* (in [ˌsɛɳ̊ˌsɛɛ] /seŋseˌe/, *-see* becomes low), [ˌɳiˈhoɳ̊ ˈtɕiˌzɯ] /nihoŋ tiˌzɯ/ *Nihon chizu* (without modifications).

More sentences: [ˌɐˌsɐˌßɐɳ̊] /aˌsa baɳ/ *asa ban* (from [ˈɐˌsɐ] /aˌsa/ and [ˌßɐɳ̊] /baŋ/, by unifying everything into one rhythm group and lowering *ban*), [jɐˈsɐ·çii ˌhoɳ̊]

/jasasi̥i hoꜜɳ/ *yasashii hon* (without modifications), [ˌii ˌʑi̥ˌʁi̥ˌci̥, ˌʥi-] /i̥i zibiki/ *ii jibiki* (from [ˌʥi̥ʼʁi·ci̥] /zibiki̥/, with lowering of -*biki*), [ˌsɯˈzɯˌɕii ˌhɛ·ɹɐ] /sɯzɯɕi̥i hejḁ/ *suzushii heya* (in [ˌhɛˈɹɐ] /hejḁ/, -*ya* is lowered), [ˌsɛ̃ŋˌsɛɛˌdɛˌsɯ̥, -ːs, -s] /seŋse̥e desɯ/ *sensei desu* (with stress reduction on [ˈdɛˌsɯ̥, -ːs, -s] /de̥sɯ/ and lowering of *de-*).

More: [ˌto̥ˈtɛ·mo ·oˈmo·ɕi̥ˌɹoi ˌhoꜜɳ] /totemo omosiro̥i hoꜜɳ/ *totemo omoshiroi hon* (from [ˌoˈmo·ɕi̥ˌɹoi], with raising of *o-* and lowering of *hon*), [ˌhi̥ʼʑjoo·ɲi ·ɸɯˌkɯ·zɛˈtsɯ·nɐ ˈmoɳ·dɐi] /hizjooni hɯkɯzatɯna moꜜɳdai/ *hijoo ni fukuzatsuna mondai* (with raising of *fu-* and *mon-*), [ˈmot̚ːo ˌjɐˌsɯi ˌhoꜜɳ] /mo̥tto jasɯi hoꜜɳ/ *motto yasui hon* (with lowering of -*sui* and *hon*), [ˌoˈhɐ·joo ·goˈzɛi·mɛˌsɯ̥, -ːs, -s] /o-hajoo gozaimḁsɯ/ *ohayoo gozaimasu* (with raising of *go-*).

Some others: [ˌɐˈɹi̥ˌŋɛˌtoo ˌgo̥ˌzɛiˌsɯ̥, -ːs, -s] /ari̥ŋatoo gozaimḁsɯ/ *arigatoo gozaimasu* (with lowering of -*zaima-*: everything is low, except -*ri*-), [ˌdoo̥ˌmo ˌɐ·ɹi̥ˌŋɛˌtoo ˌgo̥ˌzɛiˌmɛˌsɯ̥, -ːs, -s] /do̥omo ari̥ŋatoo gozaimḁsɯ/ *doomo arigatoo gozaimasu* (with lowering of -*ri-* and -*zaima-*: everything is low, except *doo-*, which is half-low).

In addition: [ˌɯ·tɕi̥ ˈkɐ·ɹɐ ˈɛˌci̥ ˌmɛˌdɛ| ˌɐˌɹɯ·ciˈmɛˌsɯ̥, -ːs, -s] (in the case of fast speech with no breaks: [ˌɯ·tɕi̥ ˈkɐ·ɹɐ ˈɛˌci̥ ˌmɛˌdɛ ˌɐˌɹɯˌciˌmɛˌsɯ̥, -ːs, -s]; but, separately, word by word: [ˌɯˈtɕi̥, ˌkɐ·ɹɐ, ˈɛˌci̥, ˈmɛˌdɛ, ˌɐˌɹɯciˈmɛˌsɯ̥, -ːs, -s]) /ɯti kara e̥ki mḁde arɯki mḁsɯ/ *uchi kara eki made arukimasu* (please, note the stress change in the first rhythm groups, mainly due to /i/ devoicing).

Also: [ˈɲiˌʑiˌkɐˌɹɛː ˌsɛɳˌʥi ˌmɛˌdɛ| ˌʥiˈmɯˌɕjoˌɲiː ˌiˌmɛˌsɯ̥, -ːs, -s]; possibly with fewer breaks, in less slow speech: [ˈɲiˌʑiˌkɐˌɹɐ ˌsɛɳˌʥi ˌmɛˌdɛ| ˌʥiˈmɯˌɕjoˌɲi ˌiˌmɛˌsɯ̥, -ːs, -s]. On the other hand, in separate rhythm groups, we have: [ˈɲiˌʑi, ˌkɐˌɹɐ, ˌsɛɳˌʥi, ˈmɛˌdɛ| ˌʥiˈmɯˌɕjoˌɲi, ˌiˈmɛˌsɯ̥, -ːs, -s] (with modifications on *kara*), /ni̥zi kara saꜜɳzi mḁde zi̥mɯsjoni imḁsɯ/ *niji kara sanji made jimusho ni imasu*; [ˈjoˌʑi ˌmɛˌdɛˌɲiː ˌko̥ˈko·ɲi ·ci̥ˈtɛ ·kɯ·dɛˌsɐi] (slower: [ˈjoˌʑi ˌmɛˌdɛˌɲiː ˌko̥ˈko·ɲiː ·ci̥ˈtɛ ·kɯ·dɛˌsɐi]; on the other hand, in separate rhythm groups, we have: [ˈjoˌʑi, ˌmɛˌdɛˌɲi, ˌko̥ˈkoɲi, ˌci̥ˈtɛ, ˌkɯ·dɛˌsɐi], with stress modifications on *made ni*, in comparison with *made*), /joˌzi mḁdeni kokoni ki̥te kɯdasḁi/ *yoji made ni koko ni kite kudasai*.

12.3.2.13. Here are further examples illustrating stress modifications, in forming rhythm groups: [·mɛˌdɛˌɲiˌɰɐ] /mḁdeniɰa/ *made ni wa*, [ˌoˈci·nɐ·ɰɐ] /okinaˌɰa/ *Okinawa*, but [ˌoˌci·nɐˈɰɐ·ɰɐ] /okinaɰaɰa/ *Okinawa wa*… Obviously, it is not always easy to readily distinguish between the effect of pitch prominence and stress prominence. On the contrary, when mid pitch coincides with stress, prominence is quite clear.

If all this combines with a fairly heavy syllable, prominence is even more evident. In any case, if several nearby syllables share the same characteristics, it becomes less easy to distinguish clearly.

However, pitch remains the most important element, being the distinctive one, though undoubtedly stress has a considerable role. It is important to find an appropriate balance between the elements, although oscillations are quite possible and normal, indeed.

In an example like [ˌtɐ·ʁɛˈmɛˌɕi̥ˌtɐˌkɐˑ] /¿tabemḁsitaka?/ *tabemashita ka?*, the low pitch and secondary stress on the syllable *ta-* and the mid pitch and weak stress on

-be- may give a similar prominence effect. But, of course, it is inferior to that of the syllable *-ma-*, and decidedly inferior to that of *ta*, and even less so than in the syllable *-shi-*, with devoicing up to the loss of syllabicity: [ˌɕ̥i̥, ˌɕ̥ː, ˌɕ̥].

In the case of loanwords, the interplay of pitch and stress (as well as of syllabic weight and *akusento* placing) often undergoes some hierarchic reversal, by moving closer to the original (stress) pattern: [ˌko̞ːꞯ̥hii] /koohiˌi/ *koohii* (‹coffee›), [·ho̞-ˌtɛꞯɯ] /hoˌteɾɯ/ *hoteru* (‹hotel›).

12.3.2.14. Obviously, in current speech, some reduction phenomena occur in Japanese too. Here we will consider some of the most ‹normal› ones. The particles *no* and *ni*, in particular, are often reduced to /ŋ/: [ˈkɯˌꞯɯn̩ ˈnɛˌꞯɐ] /kɯˌɾɯno naˌɾa/ *kuru no nara*, [ˌci·miŋ̍ ·ɯˈtɕi] /kimino ɯtiˌ/ *kimi no uchi*, [ˌɡɛŋ̍·cin̩ ˈnɛˌꞯɯ] /ɡeˌŋki-ni naˌɾɯ/ *genki ni naru*. In the negative, forms with *-r-V-nai*, change /ɾV/ into /ŋ/: [ˌɕin̩ˈnɐi] /siɾanai/ *shiranai*, [ˌo̞·kɯn̩ˈnɐi] /okɯɾenai/ *okurenai*. More frequently, there can even be contractions such as: [·mi̯tɕʲɐɯ] /miˌte simaɯ/ *mite shimau*, [·jo̞n̩ˌʥʲɐɯ] /joˌŋde simaɯ/ *yonde shimau*.

Intonation

12.3.3.1. When actual Japanese sentences are pronounced, the pitch of their single rhythm groups is partially modified by intonation (too), which is added with its characteristics, according to the four types of intoneme.

fig 12.5 shows the Japanese preintonemes and intonemes, with their characteristics. Every preintoneme forces the pitch of its individual tones, by canalizing them into the indicated shapes (which, in more sophisticated notations than necessary, could even be marked with small rings, as we will see shortly). A normal preintoneme is compressed (/ / [ ], ⟦∘ ⟧), the interrogative is raised (/¿ / [¿], ⟦° ⟧), whereas the imperative one is falling (/¡ / [¡], ⟦°∘ ⟧); finally, an emphatic preintoneme is non-compressed, (/ʌ̣ / [ʌ̣], ⟦°₀ ⟧).

Again in *fig* 12.5 it is possible to see the modifications of the intonemes: the conclusive is falling (/./ [ˋ.]), the interrogative is rising (/?/ [ˊ.]), the suspensive is extended (/;/ [ː.]), whereas the continuative intoneme is compressed (/,/ [·]).

fig 12.6 shows the modifications undergone by light and heavy syllables (on two morae of different pitch [*cf fig* 12.4]), when the four Japanese intonemes superim-

fig 12.5. Japanese preintonemes and intonemes.
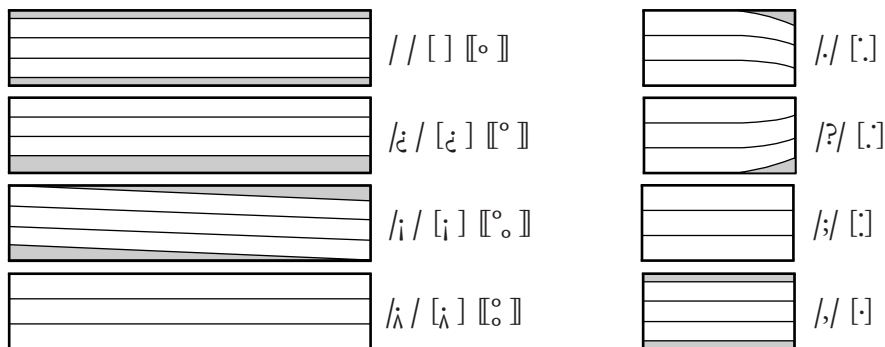
pose on them. Mainly the last syllable of an intoneme undergoes these changes, whether it be stressed (as in these examples) or unstressed. As can be seen, a conclusive intoneme makes the last syllable lower and slightly falling; an interrogative one makes it raise by giving it a clear rising movement. A suspensive intoneme practically does not modify anything; whereas, a continuative one slightly compresses it towards the mid band.

Before moving to the illustrastive examples, let us observe that, in Japanese, questions are made by adding the particle *ka* [kɐ] /ka/ at the end, and using an interrogative intoneme with total questions, but a conclusive (or a continuative) one with partial questions. This is the most recommedable and common pattern. However, since *ka* is very recognizable, as an interrogative element, a simple conclusive intoneme can be used, even with total questions, or an interrogative one even with partial questions. Lastly, above all colloquially, *ka* need not necessarily be used, in which case then an interrogative intoneme is necessary with total questions.

Lastly, here are three examples to illustrate the most recommendable use of marked intonemes:

/./: [ˌɰɐˌkɐ·ɹi·mɐˌsɛn̩ˌdɛˌɕi̥tɐ˟] /ɰakarimaseᶇ desita./ *Wakarimasen desita.*

/?/: [ˌ¿ˌɰɐˌkɐ·ɹi'mɐˌɕi̥tɐˌkɐ˟] /¿ɰakarimaˌsitaka?/ *Wakarimasita ka?*

/;/: [ˌɸɯ'jɯ ˌdɛt.tɐ ˌkɛˌɹɛˌdoʔ˟ ˌi·ci'mɐˌɕi̥tɐ˟] /hɯjɯₗ datta keredo; ikimaˌsita./ *Fuyu datta keredo, ikimasita.*

Typically, Japanese has a peculiar paraphonic setting, with lowered larynx ⟨ː·ː⟩, mostly for men.

fig 12.6. Pitch movements for light or heavy Japanese syllables, with the four intonemes.
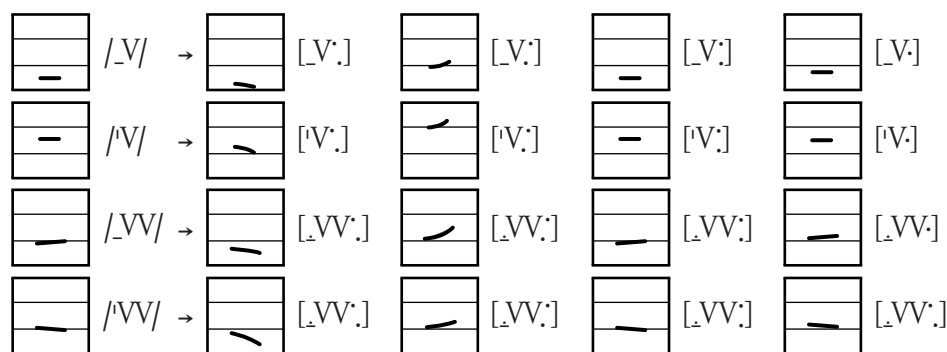
Text

12.4.0. The story *The North Wind and the Sun* follows, given in four different ‹normalized› versions. We start with the (neutral) Japanese pronunciation of (neutral British) English – this is the first step of the phonetic method (the written text is given in § 2.5.2.0). The Japanese translation follows, in its neutral phonotonetic and phonotonemic versions, since it is important in this language to see its *akusento* and the actual phonotonetic rendering, to make useful reflections.

At the end, as always, there is the version which gives the English pronunciation of Japanese, by neutral British speakers, fluent in Japanese (after prolonged

contact with native speakers, but with no help from the phonetic method), who have adequately learned the relative prominences, but who substantially use segmental and intonation elements which are typical of neutral British English (for reference purposes, although, of course, a neutral accent is not so common). Obviously, the same principle is valid for the foreign pronunciation of English, given first.

Speakers of American English could prepare their own version both of the Japanese pronunciation of English and of their pronunciation of Japanese, as an excellent exercise, by listening to native speakers, best of all after recording them. Of course, speakers of *other languages* could do the same thing. The author would be happy to receive their transcriptions and recordings, both in case of help –should they need it– and to make their contribution known to others (possibly in our website on ^{can}IPA *Natural Phonetics* – cf § 0.12).

Japanese pronunciation (of English)

12.4.1. [ˌʥeˈnɔɔ·sɯ 'ɥiṇ·dɔ· ʔeṇ·ʥeˈseṅ· ˌɥe·ʥi·sɯ̹ˈpjɯɯ·tɕiṅ 'ɥi·tɕi̥ ˌɥe·ze·sɯ̹·tɯ̹ˈɔŋ·ɡe̥·| 'ɥeṅ̩ ˌe·tɯ̹ˈɹe·ꞵɯ·ɹe· 'kee·mɯ 'ɔṅ̩ ˌꞱˈɹe·pɯ̹·tɔ ˌi·neˈɥɔɔ·mɯ ˌkɯ̹ˈɹɔɔ·kɯ̹·| ˌʥe·ʔe·ŋɯˈɹii·dɔ·ː ˌʥe·tɯ·zeˈɥeṅ̩ ɸɯˈheˈɹɯ·sɯ̹·tɔ ˌse·kɯ̹ˈɕii·ʥi·dɔ· ʔiṃˈmee·ciṅ ˌze·tɯ̹ˈɹe·ꞵɯ·ɹe· ˌtee·ci̥ ɦi·zɯ·kɯ̹ˈɹɔɔ·kɯ̹ ʔɔ·ɸɯ̹·| 'ɕjɯ·dɔ ꞵi·keṅ̩ˈɕi·de·dɔ ˌsɯ̹·tɯ̹ˈɔŋ·ɡe ˌzeṇ·ʥiˈe·ze̥·||

ˌʥeṇ· ˌʥeˈnɔɔ·sɯ 'ɥiṇ·dɔ· ꞵɯˈɹɯɯ· ˌe·zɯˈhaa·dɔ· ˌe·ʑiˈkɯ·dɔ̥·| ˌꞵet·tːɔ ˌzeˈmɔɔ ɦi·ꞵɯˈɹɯɯ̹·| ˌʥeˈmɔɔ ˌkɯ̹ˈɹɔɔ·sɯ·ɹi· ˌʥi·dɔ·ze·tɯ̹ˈɹe·ꞵɯ·ɹe·ː ˌhɔɔ·ɹɯ·dɔ ɦi·zɯ·kɯ̹ˈɹɔɔ·kɯ̹ ˌeˈɹeɯṇ·ʥi·mɯ̹·| ˌeṇ·de·tɯ̹ˈɹaa·sɯ̹·tɔ̥·ː ˌʥeˈnɔɔ·sɯ 'ɥiṇ·dɔ· ˌɢee 'ꞵep·pːɯ·ʑieˈteṃ·pɯ̹·tɔ·|| ˌꞱˈʥeṇ·Ʇ ˌʥeˈseṅ̩ 'ɕjɔṅ̩ 'eɯ·tɔ̥· ˌꞱˈɥɔɔ·mɯ·ɹi̥·| ʔeṇ·ʥiˈmii·ʥe·tɯ̹·ɹi̥·ː ˌꞱ·ʥe·tɯ̹ˈɹe·ꞵɯ·ɹe ˌtsɯ·kɯ̹ 'ɔ·ɸɯ̹· ˌꞱ·ɦi·zɯ·kɯ̹ˈɹɔɔ·kɯ̹·|| ˌꞱ·ʔeṇˈsɔɔ·Ʇ ˌzeˈnɔɔ·sɯ 'ɥiṇ·dɔ· ˌɥe·ze·ꞵɯˈɹei·ʑi·dɔ ˌtsɯ·keṅ̩ˈhe·sɯ̹·| ˌʥe·te·seṅ̩· ˌɥe·ze·sɯ̹·tɯ̹ˈɔŋ·ɡe· ˌꞱ·e·ꞵe·zeˈtsɯɯ̹·|||

¿ˌꞱˈʥi·ʑjɯˈɹei·ci̥· ¿ˌze·sɯ̹ˈtɔɔ·ɹi̥·| ¿ˌʥjɯˈɥɔṇ ˌteˈɦie·ɹi ˌtsɯˈŋeṅ̩·|||]

Japanese text

12.4.2. *Arutoki Kitakaze to Taiyoo ga chikara-kurabe o shimashita. Tabibito no gaitoo o nugaseta hoo ga kachi to yuu koto ni kimete, mazu Kitakaze kara hajime-mashita. Kitakaze wa, ‹Nani, hitomakuri ni shite miseyoo›, to, hageshiku fukitate-mashita.*

Suru to tabibito wa, Kitakaze ga fukeba fuku hodo gaitoo o shikkari to karada ni kuttsukemashita. Kondo wa Taiyoo no ban ni narimashita. Taiyoo wa kumo no aida kara yasashii kao dashite, atatakana hikari o okurimashita. Tabibito wa dandan yoi kokoromochi ni natte, shimai ni wa gaitoo o nugimashita. Soko de Kitakaze no make ni narimashita.

Kono hanashi omoshirokatta? Moo ichido yomu?

Phonotonemic transcription

12.4.3. /aˌɾɯtoki,| kitakazeto taˌijooŋa, tikarakɯˌɾabeo simaˌsita.‖ tabibitono gaitooo,: nɯŋaˌseta hoˌoŋa,: katiˌ tojɯɯ, kotoˌni kimete.‖ maˌzɯ,| kitakaze kaɾa, hazimemaˌsita.‖ kitakazeɯ̨a;| ˈnaˌni,| hitomaˌkɯɾini site, misejoˌo,ˈ| to;| haŋeˌsikɯ, hɯkitatemaˌsita.‖

sɯɾɯto,: tabibitoɯ̨a;| kitakazeŋa hɯkeˌba,: hɯkɯˌhodo;| gaitooo,: sikkaˌɾito,: karadani kɯttɯkemaˌsita.‖ koˌɳ̊doɯ̨a, taˌijoono baˌɳ̊ni, narimaˌsita.‖ taˌijooɯ̨a,: kɯˌmono aida kaɾa. jasasii;: kaoo daˌsite,| atataˌkana hikariˌo, okɯrimaˌsita.‖ tabibitoɯ̨a,| daˌɳ̊daɳ̊ ˈˈjoˌi,: kokoɾomotini naˌtte.‖ simainiˌɯ̨a,: gaitooo nɯŋimaˌsita.‖ sokode;: kitakazeno,: makeni narimaˌsita.‖

¿kono hanasiˌ‚ ¿omosiˌɾokatta?| ¿moˌo itidoˌ‚ ¿joˌmɯ?‖‖/

Phonotonetic transcription

12.4.4. [·ɐ̯ˈɟɯˌtoˌc̨i·| ˌc̨iˌteˌkeˈzɛˌtɔ ·tei̯ooˌŋɐ· ˌt̨ɕiˌkeˈɟɐ̯ˈkɯˌɟɐ̯ˌβɛˌɔ ˌɕiˈmeˌc̨i̯tɐ̯̊·‖ ˌtɐ̯ˈβi· ·βiˌtɔ·nɔ ˌˌgeiˌtɔ·o̯·: ˌnɯˈŋɐ̯ˌsɛˌtɐ̯ ˌˌhoo̯ˌŋɐ̯̊·: ˌkeˌt̨ɕi̯ˌtojɯɯ· ˌkɔˈtoˌɲi ˌc̨iˈmɛˌtɐ̯̊‖ ˈmɛˌzɯ̯·| ˌc̨iˌteˌkeˌzɛ ·keˈɟɐ̯· ˌheˌʑi·mɛˈmeˌc̨i̯tɐ̯·‖ ˌc̨iˌteˌkeˈzɛˌɯ̨ɐ̯̊·| ˈˈneˌɲi·| ˌh̨i̯ˌto·meˌkɯˌɟiˌɲiˌc̨i̯tɐ̯· ·miˈsɛˌɟoo̯·ˈ| ˈtoʔ·‖ ˌheˈŋɐ̯ˌc̨i̯kɯ· ˌɸɯ̨ˌciˌteˌtɐ̯ˈmɛˌc̨i̯tɐ̯·‖

ˌsɯˈɟɯ·tɔ·: ˌtɐ̯ˈβiˌβiˌtɔ·ɯ̨ɐ̯̊·| ˌc̨iˌteˌkeˌzɛˌŋɐ̯ ·ɸɯ̨ˈkɛˌβɐ̯̊·: ˌɸɯ̨ˈkɯˌhoˌdɔʔ·| ˌˌgeiˌtɔ·o̯·: ˌɕiˌkˌkeˌɟiˌtɔ̯·: ˌkeˈɟɐ̯·deˌɲi ˌkɯ̯ˌtsˌtsːɯˌkeˈmeˌc̨i̯tɐ̯·‖ ˌkoɳˌdo·ɯ̨ɐ̯· ·tei̯ooˌnɔ ˌbeɳ̊ˌɲi· ˌneˌɟiˈmɛˌc̨i̯tɐ̯·| ·tei̯ooˌɯ̨ɐ̯̊·: ·kɯˌmoˌnɔ ˌˌei̯·dɐ̯ ·keˈɟɐ̯· je·ˈseˌc̨iiˌ·: ˌkeˈoo· ˈdɐ̯ˌc̨i̯tɐ̯·| ˌɐ̯ˌteˌteˌkeˌne ˌh̨i̯ˈkeˈɟiˌˌo· ʔoˌkɯˈɟiˈmɛˌc̨i̯tɐ̯·‖ ˌtɐ̯ˈβiˌβiˌtɔ·ɯ̨ɐ̯̊·| ˌˌdeɳ̊ˌdeɳ̊ ˌˌjoiˌ·: ˌkoˌkoˈɟo·moˈt̨ɕiˌɲi ˈnetˌtːɐ̯̊·‖ ˌɕiˈmeiˌ·ɲiˌɯ̨ɐ̯̊·: ˌˌgeiˌtɔ·o nɯ·ɲiˈmɛˌc̨i̯tɐ̯·‖ ˌsoˌkoˈdɐ̯̊·: ˌc̨iˌteˌkeˌzɛˈnɔ·: ˌmɛˈkɛˌɲi ˌneˌɟiˈmɛˌc̨i̯tɐ̯·‖

¿koˈnɔ ·heˈneˌc̨i· ¿ˌoˌmoˌc̨iˈɟoˌketˌtɐ̯̊·ˈ| ¿ˌmoo ˌi·t̨ɕiˈdɔ· ¿ˈjoˌmɯ̯·ˈ‖‖]

English pronunciation of Japanese

12.4.5. [əˈʈ̨ɯʈɯˌkɾiˈ| ˌkhɾiʈɯkɯ⁻zeɪʈ͡ʒɒ taəˈj͡zɒŋgɯ· t͡ʃɾiˌke̯ɯ⁻khɒəʈəbeɪˌj͡ʒɒ ʃiˈmeʃ· tɐ̯.‖ ʈhə⁻bɹibɯʈ͡ʒɒnɒ ˈgaəʈ͡ʒɒ·: nɒŋ⁻gɛsəʈə ˈhɒŋge·: ˌkheʈ͡ʃəˈʈhɒjmɯ· kɯ⁻ʈhɒni kɪˈmeʈeɪˈ‖ ˈmezmu·| kɪ⁻ʈhekɯzeɪ kɯˈɟɑ: həʒɪməˈmeʃʈɐ̯.‖ khɯ̨ʈekɯˈzewɐ̯·| ˈˈnɑˈni·| hɯ̨ʈɒ· mɯˈkhɒəʈɪnɪʃʈeɪ· mɪˈseɪˌj͡ʒɒ·ˈ| ˈʈhɜ·o̯.·‖ heŋˈgeʃkɯu· ʈɯɯˌkɪʈeʈəˈmeʃʈɐ̯.‖

səˈʈ̨ɯʈ͡ʒɒ·: ʈhəˈbɹibɯʈ͡ʒɒɐ̯·| khɯ̨ʈekɯ⁻zeŋgɯ fɒˈkhɛbe·: fɒˈkhɯuhəˌd͡ʒɒ·| ˈgaəʈ͡ʒɒ·: ʃɪˈ kɯˈɟɾiʈ͡ʒɒ·: khɯ⁻ɟɑˈdəɲi koˌtspɯukɯˈmeʃʈɐ̯.‖ ˈkhɒnd͡ʒɒə· ⁻ʈhaəʒɒnɒ ˈben·i· ˌnɑˈʈɯˈmeʃ· ʈɐ̯.| ʈhaəˈj͡ʒɒɐ̯·: kɯ⁻mɜɒnɒ ˈaədɯ kɯˈɟɑ:. jəˈsɑˈʃɾɪ.·: khɑˈɜ·o̯· ˈd͡ʒeʃʈeɪ| əˌʈeʈɯ⁻khɑˈnɯ hɪˈ ˈkheʈ̨iˌj͡ʒɒ· ɯ̨ˌkɒəʈɯˈmeʃʈɐ̯.‖ ʈhəˈbɹibɯʈ͡ʒɒɐ̯·| ⁻d͡ʒend͡ʒeŋ ˈjo·ə·: khɯ̨koˈɟ͡ʒɒmə· t͡ʃhɪini ˈneʈ· eɪ.‖ ʃɪˈmɑənɪwɑ·: ⁻gaəʈ͡ʒɒ ˌnɒŋgɪˈmeʃʈɐ̯.‖ ˌsɜɒkɯˈdeɪ.·: khɯ̨ʈekɯzeɪˈnɜ·o̯·: mɑ⁻kheɲi ˌneʈɯˈmeʃʈɐ̯.‖

¿khɯˈnɜ·o̯ həˈneʃɪ· ¿ˌʒɒˌmɜɒʃɪ̨ɯˈkheʈɐ̯·ˈ| ¿⁻mɜ·o̯ ɪt͡ʃɪˈd͡ʒ·o̯· ¿ˈj͡ʒɒmpu·ˈ‖‖]