THE MORA OBSTRUENT /Q/ AS AN EMPHATIC IN JAPANESE

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1．INTRODUCTION

Modern Japanese (ModJ) is a pitch accent language and its basic unit is the mora. An accented mora carries a high tone, with the subsequent mora carrying a low tone. According to Kubozono (1989), morae can, on the basis of this tone distinction, be further subdivided into syllabic and non-syllabic, the former capable of bearing a high tone, the latter not. Non-syllabic morae incapable of bearing a high tone can be further sub-divided into four types (hyphens indicate moraic boundaries): (a) the second mora of a long vowel, e.g. the final mora in /ku-u/, 'eat'; (b) the second mora in a sequence of two vowels, but only when the high front vowel /i/, e.g. the final mora in /sa-i/, 'rhinoceros'; (c) the mora nasal, generally notated in the literature as /N/, e.g. /ka-N-ta-N/, 'easy'; and (d) the mora obstruent, generally notated as /Q/ in the literature, e.g. /wa-Q-tya-Q-ta/, '(I've etc.) gone and smashed (it)'. The mora nasal /N/ and the mora obstruent /Q/ may be referred to collectively as the (non-syllabic) mora consonants.

The goal of this paper is to examine the role of the mora obstruent /Q/ in expressing emphasis in the modern language and, additionally, to speculate on the accuracy of the belief amongst some scholars that the phoneme's genesis lies in the sound changes triggered by borrowing from Chinese in the late Old Japanese (OJ) and Early Middle Japanese periods. Before doing so, however, I will outline the /Q/ phoneme's distribution within the ModJ phonetic system in §2 below, and then consider the sources of the phoneme in general in §3. The phoneme's role as an emphatic will be discussed in §4.

2．DISTRIBUTION OF THE MORA OBSTRUENT /Q/ IN MODJ

Before considering the various sources of the mora obstruent /Q/ in ModJ, and in particular its use as an emphatic, let us first consider the phoneme's distribution, which is

restricted in terms of its distribution within the phonetic system: unlike any other consonantal phoneme in the language, /Q/ generally occurs only in /V_C/ position, although Hattori (1960, 361) notes that there are very few examples of /Q/ occurring after the mora nasal /N/, e.g.:

(1)   /roNdoNQko/   'Londoner'

Other examples (all mine), such as:

(2)   a.   /beruriNQko/   'Berliner'

       b.   /wasiNtoNQko/   'Washingtonian'

and others, are not cited by Hattori, nor are listed in either Shinmura (1997) nor Matsumura (1988), but are acceptable to native speakers of Japanese.* Morpheme-initially, /Q/ is restricted in occurrence to the enclitic particles /Qte/ (the colloquial version of the quotative particle /to/) and /Qke/ (which indicates reflection on the part of the speaker - see (9)), and the three bound morphemes -/Qpoi/, '-ish' (4), -/Qpanasi/ 'leave～ing' (see (10a) below) and -/Qkonai/, 'no way～will do' (see (10b) below). Since /Qte/ and /Qke/ can follow any word ending in /N/, one can therefore argue that an example such as (3) below is also an instance of the occurrence of /NQ/:

(3)   /koraremaseN   Qte/
           come-NEG-POTENTIAL-POLITE   QUOTE
            '(S)he said (s)he can't come'

Additionally, although not quoted in any dictionary, since the morpheme -/Qpoi/ can be attached to nouns (-/Qpanasi/ and -/Qkonai/ can only be attached to verbs whose stems can never end in -/N/), the following is acceptable by native speakers and so is also an instance of /NQ/:

＊Takeuchi (1999, 44), however, writes: 'even if [lexemes containing /Qko/ are] indicated as 'overlong' in writing, it is not entirely clear whether they are pronounced accordingly'. I personally believe they are.

(4)   /gaiziN/   +   /Qpoi/   >   /gaiziN.Qpoi/

    'foreigner' (disparaging) '-ish'   'like something a(stupid)foreigner would do'

Thus, while the /NQ/ distribution is possible across word (3) or morpheme (4) boundaries, it does not occur tautomorphemically.

    Word-finally, Hamano (1998) states quite correctly that /Q/ can occur as the final element in mimetic vocabulary (see §4.1), but since such mimetic lexemes are followed without exception by the quotative particle /to/ (e.g. /zaQ-to/, 'briefly, roughly'), one might argue that the particle has been cliticized onto the mimetic lexeme with /Q/ thus appearing in practice in intrinsic /V_C/ position. The same argument can also be applied to some exclamatory-final /Q/s (e.g. /aQ-to yuu ma ni/, 'in a flash', lit. 'in the time it takes to say ah'), although there are a few examples of exclamatory interjections ending in /Q/ which are not followed by the quotative particle, most especially /ee(eeeee)Q/ (with sharply rising intonation), 'exclamation of surprise' .

    The consonants directly before which /Q/ may occur have been limited until relatively recently in the history of the standard language* to voiceless obstruents (although not the voiceless glottal fricative /h/). A huge influx of foreign borrowings from languages other than Chinese has resulted in the distribution of /Q/ being extended to preceding not only these four voiceless obstruents, but also to their voiced pairs (5a-d) and to the voiceless fricative /h/ and its allophones [Φ] and [ç] (5e).

(5)   a. /Qg/:   /baQgu/   /sukoQtieQgu/
             'bag'   'Scotch egg'

     b. /Qd/:   /kiipaQdo/   /uootaabeQdo/
             'keypad'   'waterbed'

     c. /Qb/:   /ueQbu/   /sunoQbu/
             'the internet'   'snob'

     d. /Qz/:†   /guQzu/   /kiQzu/
             'goods'   'kids'

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* There are a few examples of /Q/ occurring before a voiced obstruent in non-standard peripheral dialects.
† /Qz/ is nearly always realized phonetically as [dːz], as the English etyma here suggest.

    e. /Qh/:   /baQha/   /sutaQhu/

                        'Bach'   'staff, personnel'

Additionally, it should be noted that there are examples of /Q/ preceding a non-obstruent, namely the liquid /r/. Shinmura (1997) lists such borrowed lexemes as:

(6)   a. /Qr/:   /aQraa/   'allah'

      b. /Qr/:   /muQraa/   'mullah'

      c. /Qr/:   /tariateQre/   'tagliatelle' ,

from Arabic geminate [lː] (6a-b) and Italian geminate [lː] (6c), as well as the reduplicated mimetic lexeme:

(7)   /Qr/:   /kaQrakaQra-to/   'a kind of giggling sound' ,

(which he lists as synonymous with /kaNrakaNra-to/).* However, while the vast majority of Japanese native speakers would fail to pronounce the /Q/ in (6-7) unless in exceedingly careful or affected speech and these spellings would appear to be literal orthographic representations of the original etyma, there would seem to be a case to be made for /Q/ appearing before liquids within the foreign Japanese stratum.†

/Q/ cannot occur before the nasals /n/ and /m/, nor before the mora nasal /N/. Here, length, or emphasis, is accomplished by the mora nasal.‡ Thus geminate nasals (8a,c) or a nasalized vowel followed by a nasal consonant (8b) in foreign borrowings are realized as /Nn/ or /Nm/:

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* *Nihon Onsei Gakkai* (1976, 510) also notes the dialect form /aQra/ (= /aru daroo/).

† The fact that the two languages with geminate [lː] from which these four examples cited are borrowed are held in relatively low esteem as foreign languages in Japan is undoubtedly a contributory factor to the denial of a /Qr/ distribution in most treatments. If one considers that the often absurdly high prestige attached to English in Japan has contributed to new phonemes in the speech of the better educated and higher socio-economic classes, such as [v] (e.g. higher socio-economic class [vaioriN] 'violin' v. lower socio-economic class [baioriN]), as well as new morae such as [fa], [fi], [fo] etc., then little imagination is needed to surmise what the status of /Qr/ would be were Arabic, Italian and other languages with geminate liquids held in the same status.

‡ This is not to say that the two mora consonants are in complementary distribution, however. While /Q/ cannot occur before a nasal, /N/ can occur before any non-nasal.

(8) a. /Nn/   ＜ /nn:/   ＜ It. 'madonna'   /madoNna/   'the madonna'

     b. /Nn/   ＜ /Ṽn:/   ＜ Fr. 'Sorbonne' /soruboNnu/   'the Sorbonne'

     c. /Nm/   ＜ /mm:/ ＜ Gk. 'gamma'   /gaNma/   'γ, gamma'

Similarly, /Q/ as an emphatic infix (see §4.2) and /Q/ in the intensifying prefix /maQ/-
(see §4.3) also manifest themselves as the mora nasal /N/ before a (mora) nasal.

 In sum, /Q/ in ModJ appears overwhelmingly only in /V_C/ position, where /C/ is an
obstruent or a liquid (the latter case rare and open to debate). /C/ cannot be a nasal, semi-
vowel or the mora nasal /N/. There are a few examples of /Q/ occurring in /N_C/ position,
as cited in (1-4) above, although again these are very rare. The mora obstruent /Q/ may
occur word-initially, although rarely. Until the modern era, the /C/ of the /VQC/ position in
which /Q/ was distributed was restricted to voiceless obstruents (but not /h/) only.

3．Sources of the Mora Obstruent /Q/

 There are eight main sources of /Q/ in ModJ, listed in (a)-(h) below. Of these, (a) and
(b) probably make up the majority of occurrences, with (c) and, especially in the spoken
language, (f) accounting for the bulk of the remainder.

(a) *Sokuonbin*, one of a series of sound changes that occurred within the native Japanese (NJ)
    vocabulary stratum from the Early Middle Japanese period (c. 800-1200 CE), collectively
    known in Japanese as *onbin*. For further discussion see Cho (1970), Nakata (1972), Satō
    (1977a, 1977b), Okumura (1980), Martin (1987) and Frellesvig (1995), amongst others.

(b) The compounding of two Sino-Japanese (SJ) morphemes when, and only when, the
    final phoneme of the initial morpheme and the initial phoneme of the final morpheme
    have a certain canonical shape (e.g., /haQ.teN/, 'development'). For further detail, see
    Martin (1952, 27ff, & 1987), Wenck (1957, 109ff), McCawley (1968, 115-116), Okumura
    (1972 & 1977), Toyama (1972), Aoki (1981, 89-93), Vance (1987), Unger (1988, 629) and
    Miyake (1999, 228ff) *inter alia*.

(c) Vocabulary borrowed from foreign languages other than Chinese, the vast majority of these lexemes having been borrowed from Indo-European languages from the mid-19th century onwards. The derivations are complex, but /Q/ in ModJ lexemes derived from foreign etyma occurs most often when the etymon in question ends in a single consonant preceded by a short vowel (/zyaQzi/ ＜ Eng. 'judge') or, in some cases, a consonant cluster preceded by a short vowel (/boQkusu/ ＜ Eng. 'box'). For greater detail on the complexity and for further discussion, see amongst others Aoki (1981), Vance (1987), Katayama (1998 & 2000), Yamane & Tanaka (2000) and Yamane (2001).

(d) As a minor alternative rendaku form (e.g., /sue.Qko/～ /sue.ko/～*/sue.go/, 'youngest child'). For rendaku in general, see Hashimoto (1932), Okumura (1952), Nakagawa (1966), Ōtsu (1980), Vance (1980, 1987 & 1996), Itō & Mester (1986), Martin (1987), Unger (1993), Itō , Mester & Padgett (1995), Takayama (1999), Fukuzawa & Kitahara (2001), etc.; for minor examples with an obstruent mora, see Vance (1987, 148) in particular.

(e) Occasionally in verb compounding, for example /noQ.toru/, 'imitate, follow' ＜ /nori/, 'get on', ＋ /toru/, 'take' . While /Q/-generation via (a) *sokuonbin* within verb morphology only occurs in standard ModJ in consonant verbs whose stem ends in -/V/, -/t/ or -/r/, in conjunction with certain bound morphemes beginning in /t/-, the generation of the mora obstruent /Q/ in a the very few verbal compounds such as /noQtoru/ is derived additionally from verbs whose stem ends in, for example, -/k/. See Martin (1952, 89-90), Wenck (1959, 294), Vance (1987, 163-164) *inter alia* for more detail.

(f) In mimetic vocabulary (§ 4.1). Until relatively recently, this was a component of the Japanese vocabulary largely overlooked by scholars both Japanese and western, but recent work by scholars such as Hamano (1998 & 2000) has shown there to be a clear systematicity behind the sound-symbolism inherent in ModJ mimetic vocabulary and the emphatic symbolism underlying the mora obstruent /Q/.

(g) Intensive infixes (§ 4.2). Many adjectives, adverbs and, to a lesser extent nouns, can be made more emphatic by insertion of what is generally termed an 'emphatic infix' word-medially before a consonant.

(h) Intensive prefixes (§ 4.3), such as /maQ/-.

Of the above sources, (a)-(e) are products of phonological or morphophonological change. Indeed, while it would appear that (e) represents a sporadic supra-morphophonological extension of (a) into verb compounding, the possibility of a link between (a) and (b) ought perhaps not to be dismissed either. Since we are dealing with a period of few written records whose orthographies exhibit a large amount of confusion when it comes to the representation of the non-syllabic morae /Q/ and /N/, any such link is necessarily almost impossible to prove. Although there is much speculation in the Japanese literature, the majority of it is mere conjecture based on no definitive proof. The case is perhaps based summed up by Okumura (the extract is lengthy, but I believe worth quoting in its entirety):

Although the interrelationship between *hatsuonbin* [generation of the mora nasal /N/] and *sokuonbin* on one side and the Japanese pronunciation of sinographs on the other is a difficult problem, the idea that sinographs ending in a nasal (✶-/n/, ✶-/m/ and ✶-/ ŋ /) or a voiceless stop (✶-/k/, ✶-/t/ and ✶-/p/) in some way exerted an influence cannot be flatly rejected. Ordinarily, the phenomenon whereby new phonemes develop differs from such unproductive sound changes as loss of or alteration in phonemes in that, generally speaking, there exists the possibility of one having to assume influence from an outside source. However, the fact that 'the development of *hatsuon* and *sokuon* within NJ is regarded as having occurred at a time somewhat after the borrowing of sinographs and their readings'✶ should not be overlooked either. [Here Okumura cites examples of *hatsuon* and *sokuon* in Early Middle Japanese texts where the orthography for NJ lexemes postdates that of SJ lexemes].

Nevertheless, there is a persistent assumption that there was some kind of influence from the Japanese pronunciation of sinographs on the development of *hatsuonbin* and *sokuonbin*, but this does not mean that the final phonemes of SJ morphemes, be they consonantal or vocalic, were borrowed *non mutatis mutandis*. The fact that, within the Japanese pronunciation of sinographs 'there was an internal distinction made between both those Middle Chinese morphemes ending in a nasal (✶-/n/, ✶-/m/ and ✶-/ ŋ /) and those ending in a voiceless stop (✶-/k/, ✶-/t/ and ✶-/p/), and

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✶Okumura does not cite a source for this quote.

that Middle Chinese pronunciations such as */kan/［干］and */kat/［渇］were wholly monosyllabic', * means that their character was different from *hatsuonbin* and *sokuonbin*. Thus it may be said that the idea of any influence from the Japanese pronunciation of sinographs is referring at the same time to the Japanization of the pronunciations of sinographs.

<div align="right">Okumura (1977, 234-235), trans. mine, square brackets mine</div>

Okumura (ibid. & 1980, 124-125) goes on to ultimately reject the Japanese pronunciation of sinographs as a trigger for *hatsuonbin* and *sokuonbin* in NJ vocabulary, since he goes along with the theory that these two *onbin* changes began earlier in eastern dialects than in western ones and 'it would be impossible to imagine that the influence of the pronunciation of sinographs would occur first in the more rural [i.e. largely illiterate] eastern dialects' (Okumura (1977, 235), trans. mine, square brackets mine).

The three remaining sources of /Q/, (f)-(h), have probably engendered the least research, but all have one salient point in common: the mora obstruent acting as an emphatic. It is important, therefore, to make a definite distinction between /Q/ as a phonologically or morphophonologically derived phoneme as in (a)-(e), and one which appears to be semantically (phenomimically or psychomimically) motivated, as in (f)-(h). While written records of the former can be traced back to approximately 850 CE in *sokuonbin* (Tsukishima (1969, 365ff), Frellesvig (1995)), the latter, occurring necessarily with far greater frequency in the spoken rather than the written language, is impossible to pinpoint chronologically. The issue of which predates the other is one that I will take up in the conclusion (§5) to this paper.

Before moving on to deal with examples of /Q/ as an emphatic as in (f)-(h), it is necessary to note that there are other 'miscellaneous' occurrences of the mora obstruent. Firstly, word-initially in two particles: /Qte/, the colloquial equivalent of the quotative particle /to/ (see (3) above), and /Qke/, which indicates reflection on the part of the speaker and can only occur sentence finally (9):

(9) /ano hito dono kaisya-ni tutometeru N daQke/
that person which company-ON BEHALF OF work-CONT NP COP REFL
'Which company does that bloke over there work for again?'

Secondly, in three bound suffixes, -/Qpoi/ 'ish', which combines with adjectives or

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*Again, Okumura does not cite a source for this quote.

nouns (see (4) above), and -/Qpanasi/ 'leave ～ ing' and -/Qkonai/, 'no way ～ will do', which combine with the continuative form of the verb (10):

(10) a. /nagare/   +   /Qpanasi/   >   /nagare.Qpanasi/
     'flow'   'leave (water etc.) running'

    b. /wakari/   +   /Qkonai/   >   /wakari.Qkonai/
     'understand'   'no way he (etc.) will understand'

Finally, there are some miscellaneous lexemes which contain the mora obstruent /Q/ and whose etymologies are unclear. One of these is /asaQte/, 'the day after tomorrow', the more common variant of the /Q/-less /asate/ 'ibid.'. The others are NJ numerical lexemes: /miQtu/ 'three', /yoQtu/ 'four', /muQtu/, six, /yaQtu/ 'eight', /miQka/ '3ʳᵈ day', /yoQka/ '4ᵗʰ day',* and /yoQtari/ 'four people'.† There are /Q/-less variants of all the plain numbers above, /mitu/, /yotu/, /mutu/ and /yatu/ respectively, as well as for 'four people' /yotari/, but not for the days, */mika/ or */yoka/. The numbers 'three', 'four', 'six' and 'eight' are the only NJ numerals to exhibit (optional) /Q/-generation. It is well known that the proto-Japanese counting system was a binary one (see, for example, Miller (1967, 337)) with unique elements for 1, 3, 4 and 5 with their doubles derived by 'vocalic ablaut': here it is 3 and 4 and their doubles, 6 and 8, which exhibit optional /Q/-generation.

4. The /Q/ Mora as an Emphatic

The most important of the three /Q/ emphatics (f)-(h) is without doubt (f), mimetic vocabulary. Mimetic vocabulary in any language frequently remains immune from sound changes that effect other areas of the lexicon. Modern Japanese exhibits a particularly rich mimetic vocabulary stratum where voicing alternations, reduplication and infixation are capable of representing extraordinarily subtle shades of meaning and ranges in nuance. It is likely that the role of /Q/ as an emphatic in the mimetic stratum (§4.1) is the source for its role as an emphatic infix (§4.2) or in an emphatic prefix (§4.3) within non-mimetic vocabulary.

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* '6th day' is /muika/ and '8th day' is /yooka/, both /Q/-less.
† Or the SJ form /yoniN/ 'four people'. The corresponding NJ lexeme for 'three people' is the /Q/-less /mitari/, or the SJ form /saNniN/. There are no corresponding NJ lexemes for 'six people' (*/mu(Q)tari/) or 'eight people' (*/ya(Q)tari/), only the SJ forms /rokuniN/ and /hatiniN/, respectively.

4.1 The /Q/ Mora in Mimetic Vocabulary

Japanese is rich in native mimetic vocabulary, otherwise known as phonaesthetic vocabulary, onomatopoeia, or sound symbolism. Mimetic lexemes are conventionally divided into three sub-categories (see, for example, Jugaku (1980, 214-215), Shibatani (1990, 153-157), Hamano (1998)): phonomimes (*giseigo* or *giongo*), phenomimes (*gitaigo* or *giyō go*), and psychomimes (*gijōgo*). Generally speaking, phonomimes are lexemes used to describe sounds, phenomimes are employed to describe movement, and psychomimes symbolize psychological conditions or sensations.* Although all three subcategories exhibit abundant examples of the /Q/ mora, a more useful delineation of mimetic vocabulary in terms of the source of the /Q/ mora is the one following Hamano (1998).

In order to analyse the sound symbolic role each of the phonemes in Japanese mimetic vocabulary plays, Hamano divides mimetic vocabulary into two broad groups: mimetic adverbs based on /CV/ roots and mimetic adverbs based on /CVCV/ roots. The /CV/ roots include those mimetic lexemes of the most basic /CV/ shape as well as those with an initial palatalized consonant, a long or diphthongized vowel, reduplication and, most importantly, a morpheme final mora consonant -/Q/ or -/N/ (Hamano 1998, 64). Of the symbolic role the /Q/ mora plays as a final element in /CV/ mimetic roots, she states that:

> The phonological contrasts between /N, Q/ and Ø correlate with semantic contrasts in the manner of an ending or a movement. /N/ indicates that the direction of motion or the quality of the sound changes towards the end. That is, it indicates that there is a reaction to or reverberation after the initial movement. It may indicate that the object is flexible or elastic and is capable of such reactions or reverberations. /Q/ on the other hand indicates that the object is inflexible and that the action is carried out vigorously in one direction or without a marked change in its physical condition.
>
> Hamano (1998, 67-68)

As an illustration, she cites the following:

(11) /gitaa-no   ito-o   *piN-to*   haziita/

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*Not all scholars would agree with such a categorization, some, such as Shibatani (1990) or Kaiser (1998), include the third category of psychomimes, while others such as Jugaku (1990) and Hamano (1998) do not. As Kaiser (1998, 35) states, however, the psychomime category is only 'sometimes added to distinguish states of mind or psychological relations' from phenomimes and 'the difference is often fuzzy'.

guitar-GEN   string-ACC   plucked

 'I *plucked* the string of the guitar'

＊/gitaa-no   ito-o   *piQ-to*   haziita/

Turning now to her /CVCV/ root mimetic adverb category, these include mimetic lexemes of the basic /CVCV/ shape, as well as, just like /CV/ root mimetic adverbs, those exhibiting consonant palatalization, vowel lengthening and reduplication. Most importantly, however, /CVCV/ root mimetic adverbs exhibit a cliticized morpheme-final -/Q/, -/N/ or -/ri/ (e.g. /potaQ.to/～/potaN.to/～/potari.to/), as well as the insertion of a /Q/ morpheme before the second consonant (i.e. /CVQCV/). Of the morpheme-final -/Q/ and -/N/ non-syllabic morae, Hamano (1998: 106) states that the meanings in /CVCV/ roots are 'identical to those in CV-based mimetic adverbs'. Of the symbolism of the /Q/ morpheme when inserted before the second consonant (which Hamano (1998, 107) terms the 'intensifier {C}', but Hamano (2000, 212) terms an 'intensifying morpheme'), she says: 'Semantically, the intensifier adds the sense of distinctiveness, emphasis, liveliness or physical impact' (Hamano 1998, 107). As an illustration she cites the following (ibid):

(12) a. /yagate   yukute-ni *poQturi*   akari-ga   hitotu mie-hazimemasita/
         Before long direction-ADV   light-NOM   one   appear-started
         'Before long, a *very tiny point of* light appeared in the distance'

   b. /yagate   yukute-ni *poturi*   akari-ga   hitotu mie-hazimemasita/
         Before long direction-ADV   light-nom   one   appear-started
         'Before long, a *dim* light appeared in the distance'

Shibatani too speaks of the mimetic value of /Q/ in a similar vein, although he puts more emphasis on the idea of suddenness and speed:

Forms that end in the glottal stop, which assimilates to the following *t* of the quotative particle *to*, such as *dosat-to* (dumping of an object) and *kurut-to* (turning motion) symbolize sudden cessation of action, quickness, or the single occurrence of an action.

                                             Shibatani (1990, 155)

Kaiser (1998, 39) also states that 'doubling the consonant gives more emphasis'. The use by Hamano of words such as 'vigorously', 'distinctiveness', 'liveliness' and 'impact' leave no doubt as to the emphatic and intensifying role of the /Q/ mora within Japanese mimetic vocabulary. In the next section we shall see that the /Q/ mora exhibits an identical function within non-mimetic Japanese vocabulary as well.

4.2 The /Q/ Mora as an Intensive Infix in Emphatic Utterances

As we have seen in the immediately preceding section, where /Q/ can be infixed prior to the second consonant in /CVCV/-root mimetic adverbs to further intensify the mimesis, /Q/ can also be infixed into other parts of speech. In virtually all cases, these lexemes will have a corresponding non-intensive /Q/-less counterpart (although see (14) for exceptions). A definitive list of such lexemes is impossible to compile since in theory the intensive infix /Q/ can be applied to any item in the NJ vocabulary stratum, and, furthermore, as usage is weighted heavily in favour of the spoken language, the overwhelming majority of cases are not recorded in dictionaries (see Martin (1952, 69-70), Kuroda (1965, 201-228) and McCawley (1968, 97) for further discussion). Some examples of common /Q/-less non-intensive and /Q/-infixed intensive pairs follow:

(13) a. atikoti   ～   aQtikoQti

　　　　　'here and there'   'here and there' (intensive)

　　　b. bakari   ～   baQkari

　　　　　'just, only'   'just, only' (intensive)

　　　c. yahari   ～   yaQpari*

　　　　　'as I thought'   'just as I thought'

Hamada (1955) points out that in some cases emphatic forms have displaced their unemphatic counterparts: in (14a) the form on the left has since disappeared from the standard language, leaving only the intensified form. In other instances, a semantic distinction has developed between the intensified and unintensified forms (14b).

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* This -/h/- ～-/p/- alternation arises from the fact that ModJ word-initial /h/- is derived from OJ word-initial /p/-. For a more detailed discussion, see *inter alia* Wenck (1959, 86ff), Mabuchi (1971, 77ff), Okumura (1972, 129), Komatsu (1981, 264ff), Kiyose (1985) and Frellesvig (1995, 39).

(14) a. *mataku   ∼   maQtaku
          'completely'   'completely' (intensive)

      b. saki   ∼   saQki
          'before'   'a short while ago'

Multiple /Q/ infixes can occur to create heightened intensity: as example (15a) below shows, the mora obstruent /Q/ can be infixed into a lexeme that already contains a /Q/ morpheme derived from another source (in this case derived from SJ compounding), while, as examples (15b-c) show, /Q/ intensive infixes can also occur before a voiced obstruent in casual speech. As forms such as (/QQQQ/) in parentheses indicate, emphasis is not fixed at the insertion of a single mora: multiple /Q/ morae serve to indicate heightened emphasis.

(15) a. iQpai   ∼   iQQpai
          'lots'   'lots and lots and lots'

      b. sugoi∼sugee   ∼   suQ(QQQ)gee
          (standard∼casual)   (rough)
          'fantastic' , etc.   'fan(bloody)tastic' , etc.

      c. yabai∼yabee   ∼   yaQ(QQQ)bee
          (standard∼casual)∼   (rough)
          'dodgy etc.'   ∼   '(bloody) dodgy' , etc.

Most examples of such /Q/ infixes, as well as indicating emphasis, fall within the informal speech register, and some, especially (15a) above, are very common in children's speech.

The mora obstruent /Q/ is replaced by the mora nasal /N/ before a following nasal, e.g.:

(16)   amari   ∼   aNmari
          'really, too much' ∼   *really*

4.3 The Intensifying Prefix /maQ/-

The intensifying prefix /maQ/- serves to intensify colours (17a-b), position (17c), time (17d), direction (17e), condition (17f), etc. This semantic notion of intensification is another manifestation of /Q/ with an underlying idea of emphasis. When /maQ/- attaches to a lexeme beginning in a nasal, the prefix-final /Q/ is replaced by the nasal mora /N/ - see example (17c). When attached to a vowel, the vowel elides (17b).*

(17) a. /maQ/   +   /siro/   >   /maQ.siro/
                                'white'   'snow white'

  b. /maQ/   +   /aka/   >   /maQ.ka/
                                'red'   'flame red'

  c. /maQ/   +   /naka/   >   /maN.naka/
                                'middle'   'right in the middle'

  d. /maQ/   +   /hiruma/   >   /maQ.piruma/
                                'daytime'   'in broad daylight'

  e. /maQ/   +   /syoomeN/   >   /maQ.syoomeN/
                                'ahead'   'dead ahead'

  f. /maQ/   +   /hadaka/   >   /maQ.padaka/
                                'naked'   'stark naked'

5．Concluding Remarks

Some scholars (notably, Nakata (1972, 27), Okumura (1977, 232), Satō (1977a, 243 & 1977b, 244) state that the large number of SJ lexemes borrowed into OJ from approximately the 5th century (or even the later *onbin* sound changes in Early Middle Japanese) gave rise to the two 'new' phonemes /Q/ and /N/. Against the view that both

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* There is one example where, instead of vowel elision, an epenthetic /s/ occurs between /maQ/- and the initial vowel of the prefixed lexeme (i.e. *∗*/QV/>/-QsV-/): /maQ/ + /ao/ 'blue' >/maQsao/ 'deep blue, deadly pale' .

the non-syllabic mora consonants did not exist in Japanese before the mass borrowing of SJ lexemes, there are but a few dissenting voices, most notably Toyama: 'the mora obstruent /Q/ *probably occurred in Japanese mimetic vocabulary from the outset* and is a characteristic of the writings of Late Middle Japanese' (Toyama (1972, 227-228),) trans. mine, emphasis mine. Personally, I am inclined to believe that both the mora obstruent /Q/ and the mora nasal /N/ had always existed in Japanese within the mimetic vocabulary stratum. It is well known that onomatopoeic vocabulary, along with so-called 'core vocabulary', is the least resistant to linguistic change, and for this reason is rarely utilized as evidence or documentation for individual sound changes. As Hamano puts it:

One might argue, as Hock (1986) does, that sound-symbolic vocabulary is unreliable as a basis for historical reconstructions. In the sound-symbolic stratum, new forms may be created at any moment based on old phono-semantic associations, and new phono-semantic associations may be established and freely exploited thereafter. Existing sound-symbolic forms tend to resist sound changes that would reduce their expressive range, but they are not immutable.

Hamano (2000, 207)

It is surely, however, too much of a coincidence that a 'concept' of using /Q/ to express emphasis within the Japanese language's vast and highly developed mimetic vocabulary stratum (and we are not talking about a few random occurrences, but wholesale systemization as evinced in §4.1) should suddenly 'appear' a few centuries after the beginning of the wholesale borrowing of sinographs and their concomitant readings into the language. It is surely more reasonable to conclude that both mora obstruents were already established in the mimetic vocabulary stratum in OJ and even pre-OJ. Furthermore, it is evident from English that there are phonemes that exist in onomatopoeic vocabulary, such as the clicks used to express disapproval or to gee up a horse, that do not appear elsewhere in the language, and since we can presume the situation is no different for any other language, we may also infer that, prior to the borrowing of SJ lexemes, it *was* no different for /Q/ and /N/ in OJ and pre-OJ either.

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＜要　　　旨＞

　現代日本語音韻の一つの促音モーラ（/Q/）には起源が八つあり、その中で促音便、入声音と外来語（洋語）が促音出現の大半を占める。この論文で詳細に考察するのは、促音の強調の役割、即ち擬声語・擬態語（例：ぴったり、/piQtari/）、強調挿入辞（例：やっぱり、/yaQpari/）そして強調接頭辞（例：真っ裸、/maQpadaka/）である。擬声語・擬態語の中の/Q/が現存する最古の文典に現れる促音便や入声音の/Q/に先行するかという問題も取り上げる。