

Various Aspects of the Japanese 「ん」

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In Japanese language, 「ん」 may represent not only [n] but also several variations, such as [m] (bilabial), [ɲ] (palatal), [ŋ] (velar), [ŋ̠] (uvular), according to its juxtapositions in a word.¹⁾ In the common pronunciation, [ɱ] (nasal-labiodental) or [ŋ̠] (nasal-retroflex) can not be heard.

Most of the variations of 「ん」 shown here occur when followed by certain sounds. That is, this variation may be called a Regressive Assimilation. These variations are caused by economy of effort. There are no instances of 「ん」 being pronounced without these Assimilations, except the final [ŋ̠].

Any 「ん」 can represent one syllable. For instance, 「しんかんせん」(新幹線) [ʃiŋkaŋsen] must be divided into 6 syllables. 「おんせん」(温泉) [oŋsen] must be divided into 4 syllables.

Five variations represented by 「ん」 can be exemplified as follows;

1) 「ん」 represents [m];

Here, [n] has been replaced by [m] under the influence of the following bilabial consonants. [m] also occurs in the initial consonant of 「ま」 series, such as, 「ま」[ma], 「み」[mi], 「む」[mu], 「め」[me], 「も」[mo].

ex.

「さんぽ」[sāmpo](散歩, a walk)

「さんま」[sāmma](サンマ, a saury)

「さんばい」[sāmbai](三倍, three times)

2) 「ん」 represents [n].

Here, [n] has been retained, because the following consonants were

alveolar. Similarly, [n] occurs in the initial consonant of 「ㇿ」 series, such as, 「ㇿ」[na], 「に」[ni], 「ぬ」[nu], 「ね」[ne], 「の」[no].

ex.

「さんとー」[santo:](三等, the third)

「さんどー」[sando:](山道, a mountain path)

「さんじん」[sanniɾɯ](三人, three men)

「さんるい」[santɯi](三壘, the 3rd base)

3) 「ん」 represents [ɲ].

Here, [n] has been replaced by [ɲ] under the influence of the following palatal consonant.

ex.

「はんにゅー」[hanɲju:](搬入, carrying)

4) 「ん」 represents [ŋ].

Here, [n] has been replaced by [ŋ] under the influence of the following velar consonants.

ex.

「さんか」[saŋka](参加, participation)

「さんかつ」[saŋkatsɯ](三月, March)

In standard Japanese, [ŋ] is used as the nasalized initial consonant of 「ガ」 series. The nasalized 「ガ」 series consonants are represented like, 「カ°」[ŋa], 「キ°」[ŋi], 「ク°」[ŋu], 「ケ°」[ŋe], 「コ°」[ŋo], respectively.

5) 「ん」 represents [ɾ].

As far as I know, the phonetic symbol [ɾ] was first used in Richard Paget's book, *Human Speech* in 1930, to represent the voiced-nasal-uvular. It seems to me that Dr. Masao Onishi (President of PSJ) cited [ɾ] from Paget's book and has been using it in his work instead of using [N] of the International Phonetic Alphabet.²⁾

By lowering the uvula, the out-going air current can be allowed to escape through the nose as well as through the mouth. The symbol [ɲ] thus can be used for representing this type of pronunciation, which is peculiar to the Japanese people.

The phonetic symbol [ɲ], however, does not mean that the air streams through the nose and mouth are equal. The ratio of the air current through the nose and the mouth is not fixed. It depends on the speed of the utterance or the emphasis of speaker. Therefore a ratio of 7 to 3 or 8 to 2 is possible.

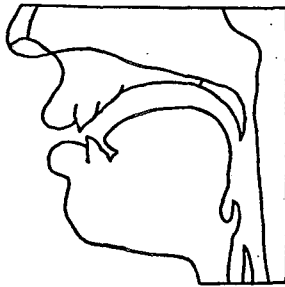


Fig. 1. Rough position of the tongue and the soft palate for [ɲ].

It is said that [ɲ] may occur not only before [s], [z], [ʃ], [ʒ], [j], [w] and vowels but also in the final position. However, in the latter case, [ɲ] tends to be [ŋ] when spoken with emphasis.

Peter Ladefoged has already mentioned in his book (1975) that Spectrograph cannot be used to measure degrees of nasalization, nor are they much help in differentiating between adjacent places of articulation.³⁾ Flow-Nasality Graph, here, is more useful than Sound Spectrograph in analyzing nasal, such as [m], [n], [ɲ], [ŋ], [ɲ] and nasalization.

Originally, the Flow-Nasality Graph was invented for the purpose of a medical checkup for the person with physical disorders, such as cleft palate or a paralysis of speech organs. The air stream from the lungs can be de-

tected from oral or nasal cavities simultaneously by the use of this graph. The detected air stream can be easily monitored graphically and, moreover, if necessary, printed clearly. The Flow-Nasality Graph is, also, useful and helpful not only for the patient with speech disorders but also for the person who wants to learn the correct pronunciation of his or her mother tongue or a foreign language.⁴⁾

Four cases are included in this category of [ɾ].

a) before fricatives;

「せんす」[seɲsu] (扇子, a fan)

「さんぞく」[saɲzoku] (山賊, a bandit)

「さんしょー」[saɲʃo:] (参照, reference)

b) before semi-vowels;

「でんわ」[denwa] (電話, phone)

「こんや」[konja] (今夜, tonight)

c) before vowels;

「たんい」[tani] (単位, a credit)

「しんい」[ʃini] (真意, the real intention)

d) in the final position;

「さん」[saɲ] (三, three)

「てん」[ten] (天, heaven)

「しん」[ʃin] (新, new)

「えん」[en] (円, en)

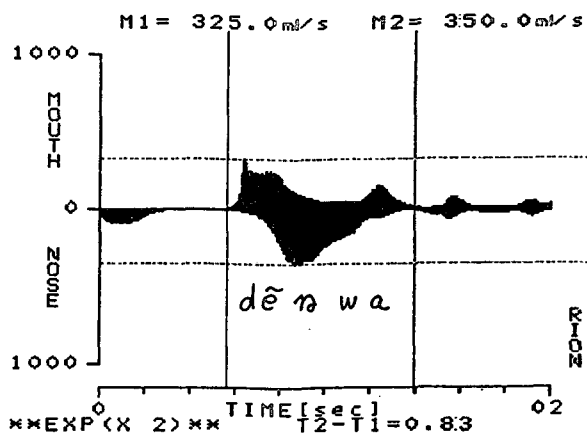


Fig.2. 「でんわ」[dēnwa](電話, phone)

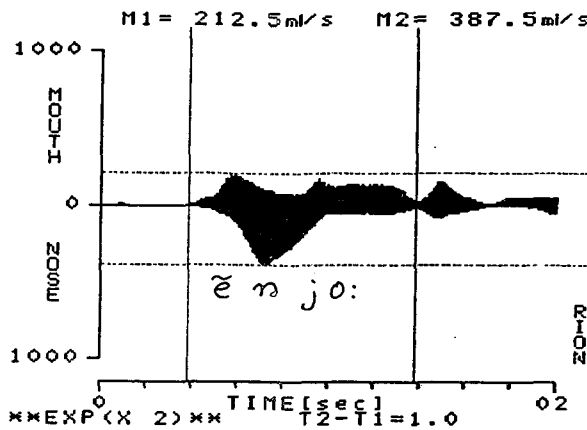


Fig.3. 「えんよー」[ēnjo:](遠洋, an ocean)

Notes

- 1) PSJ; (1981), *A Ground Dictionary of Phonetics*, p. 364.
- 2) Masao Onizhi, (1969), 國語音聲學, pp. 84-85.
_____ (1973), 音聲表記法, p. 27.
- 3) Peter Ladefoged, (1975), *A Course in Phonetics*, p. 187.
- 4) Masaki Tsuzuki, (1987). "Some Suggestions for Using Flow-Nasality Graph to Teaching Pronunciation" (1), P. 31, (The Bulletin, PSJ, No. 183).

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