

RESEARCH ARTICLE



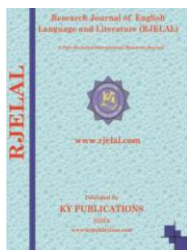
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NASALIZATION IN PHONETICS

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ABSTRACT

The article entitled “*Nasalization in Phonetics*” focuses solely on studying the role and impact of Nasal Sounds in the field of linguistics. Linguistics is the scientific study of languages in general. Morphology, Syntax, Semantics and Phonetics are the branches of linguistics. Phonetics deals with the speech sounds of a language. Every language has distinctive and unique speech sounds. In other words, it studies the Linguistic Sound System. The three main branches of phonetics are: Articulatory, Acoustic and Auditory Phonetics. In a nutshell, place and manner of articulation are the two parameters through which we study the phonetics of any language.

Keywords: Nasalization, impact, linguistics, Morphology, Syntax, Semantics, articulation, cavity, IPA

Knowledge of the place of articulation does not suffice to describe speech sounds. It is inevitable to learn how they are articulated i.e. the manner in which they are produced. As an illustration, Fricatives are the consonants that are

produced by forcing air maybe through the upper teeth and lower lip.

The IPA Chart is given below for the perusal of how speech sounds are classified:

THE INTERNATIONAL PHONETIC ALPHABET (revised to 2005)

CONSONANTS (PULMONIC)

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	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k ɡ	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	ɴ		
Trill				r					ʀ		
Tap or Flap		ⱱ		ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible. Symbols used in the IPA 1

Nasal sounds are the consonants that are produced by letting the sound through the nasal cavity when the oral cavity is closed. The speech sound flows through the nose. IPA is used to show the pronunciation of any language in the world. Nasalization is a human phonological process. In every production of a speech sound, there is a Phonological Environment in which particular speech sounds come together to form syllables and words. In articulation of sounds, place and manner of production are significant. Owing to the juxtaposition of speech sounds, many changes occur for instance, assimilation. It is the change that is triggered because of the adjacent combination of consonants and vowel sounds. Two basic factors have been observed:

1. Almost all the language in the world have nasalization;
2. The first sounds acquired by children are nasal sounds.

To define in the simplest terms, a nasal sound, nasal or nasalization is produced when a speech sound is released through the nose. There is a simultaneous flow of nasal and oral sounds. On the other hand, the technical description is that it involves a lowered velum and closure in the oral passage.

Nasals are our fourth manner of articulation, after stops, fricatives and affricates.

For all the consonants, the soft palate (velum) has been raised, closing off the nasal cavity, so that all the air from the lungs has had to pass through the mouth (getting partly or completely blocked en route).

The uniqueness of nasals is the fact that, during their articulation, the velum is lowered, allowing air to exit through the nose. Nasality is such a usefully distinctive feature that few, if any, languages in the world lack these characteristic n or m type sounds. Three conditions are normally present for a nasal:

1. The vocal folds are vibrating (nasals are typically voiced).
2. Throughout the duration of the sound, the oral cavity is closed at some point, so that the air set into vibration by the vocal folds enters the mouth, but can't leave through it.
3. The velum is lowered, so that the vibrating air escapes via the nose.

Check this by saying [mmm] to yourself. In the case of [m] the oral cavity is closed at the lips (same place of articulation as [p], [b]). So [m] is a **voiced bilabial nasal**. respect of the position of the velum: the entrance to the nasal cavity remains open throughout the duration of [m], so that it can be prolonged in spite of the stop-like closure at the lips.

If the oral closure is alveolar instead of bilabial, [n] is the result. (The slightly different shape of the oral cavity gives rise to a slightly different sound wave). As you might expect the [n] of French, Spanish or Italian — like the corresponding stops — is dental not alveolar: [n].

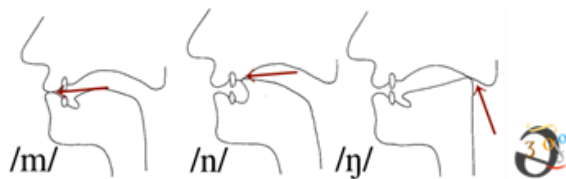
Also to be noted is the velar nasal, which is of frequent occurrence in English (ng in the spelling, e.g. singer, singing). This has the same place of articulation as [k] and [g], but the same manner of articulation as [m] and [n], specified above. The IPA uses the symbol [ŋ] for this sound: [sɪŋ], [sɪŋ]. Its official name is "eng".

At least that's the RP pronunciation of singer, singing. Many speakers in the UK always have a [ŋ] after their [ŋ] and therefore pronounce these words [sɪŋ], [sɪŋ]. In RP the [ŋ] is present only in the pronunciation of some words: finger for example [fɪŋ] (where er is not a suffix).

Nasal Vowels: Vowels are nasalized when a nasal consonant occurs in the same syllable.

M (IPA /-m/), N (IPA /-n/ and (IPA /-ŋ/)

Positions of the mouth



The phonetics and phonology of nasal sounds can be easily understood by taking the illustration of the transformed state of a speech sound on account of the impact of a neighboring nasal consonant. A vowel sound is nasalized when the sound –n comes after it; there is a conditional state that it should not be followed by another vowel sound. The most significant feature of a language is its nasalization. Nasal segments are caused by an acoustic variation which is the result of a phonetic context:

For example, nasalization is a redundant feature for English vowels but is distinctive for English consonants but in Akan and French nasalization is a distinctive feature for vowels.²

Nasalized sounds are perceived only in the colloquial aspect of a language. It is normally seen that when a vowel or a combination of vowel sounds are followed by –m or –n, the vowel sound is said to be nasalized. In such cases, these two sounds are not pronounced; they only cause nasalization.

It is better to classify speech sounds comprehensively into Nasal Vowels and Nasal Consonants:

Nasal Vowels:

English: * Spelling:

- an, -en, -in, -on, -un
- am, -em, -im, -om, -um
- ank, -enk, -ink, -onk, -unk
- ang, -eng, -ing, -ong, -ung
- youn-, yon-

Vowel Nasality is more in some languages as in the case of the French language. It is one of the Romance Languages, like Portuguese, in which nasal

sounds are frequently found in environment of the following letter combinations:

French:

- -an, -en, -in, -on, -un
- am, -em, -im, -om, -um
- -ain, -aim, -eim, -ein, -in, -im, -ym, -yn, -ien
- -ank, -enk, -ink, -onk, -unk
- -ang, -eng, -ing, -ong, -ung

Phonetic Symbols for Nasalized Monophthongs which are single nasalized sounds like /ã/, /æ̃/, /ĩ/, /ũ/, /ẽ/, /õ/. In IPA, nasality is indicated by using a Tilde (~) above the symbol concerned.

The distinction between French and English nasalization is that French Nasal Vowels are prominent whereas those of English are not. As a child of German Language, English has only nasal consonants. One can study the nasal nuances in English, German and French languages.

<i>French:</i> <u>Océan</u> /ɔ.se.ã/	English: Ocean /'əʊʃ/(ə)n/
Argent /aʀ.ʒã/	Urgent /'ə:dʒ(ə)nt/
<u>Bonjour</u> /bɔ̃.ʒuʀ/	Bond /bɒnd/
Un /œ̃/	Unusual /ʌn'ju:ʒʊəl/
Jardin /ʒaʀ.dẽ/	Din /din/
Cinq /sɛ̃k/	Ink /ɪŋk/

The examples given above show that French has purely nasalized sounds.

Nasal vowels are used in English as well, albeit in a much more run-of-the-mill way. They occur before nasal consonants, as in 'man,' 'can't,' or 'then.' Few of us notice this nasality, unless we're listening very carefully, because it's uncommon in English that nasal consonants are dropped *entirely*, a la French.

(It's worth noting that in English, we don't absolutely *have* to nasalize vowels before nasal consonants. I could say 'man' without nasalizing the 'a,' although this

might sound rather effete or vaguely British to American ears.) 3

It can be logically concluded that there are two types of nasal sounds:

1. Purely nasalized speech sounds
2. Nasalized Stops

Nasal Consonants in German and English are [m], [n] or [ŋ]:

German:	English:
Kindergarten	Kindergarten
Und	And
Umlaut	Umlaut
Kommen	Come
Antwort	Answer
Ende	End
Achtung	Attention
Cousin	Cousin

Man, Am and King are the examples. Nasality in consonants is a factor of stopping the sound; in other words, they are nasals stops. Thus, nasality, nasal sounds or nasalization in phonetics is a matter that is specific to individual languages.

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