

# **The Phonological Process of Verb Nasalization in Banyumasan dialect of Javanese**

**Riza Nuzulul Huda and Agus Subiyanto**

Linguistic Section, English Department, Faculty of Humanities, Diponegoro University  
Jl. Prof Soedarto, SH. Tembalang. Semarang 50275

**Abstract:** Dialek Banyumas adalah salah satu dialek di dalam Bahasa Jawa yang penuturnya meliputi Barlingmascakeb (Banjarnegara, Purbalingga, Banyumas, Cilacap and Kebumen). Penutur Banyumas mengucapkan dengan cara *ngapak-ngapak* yang berarti memproduksi vokal [a] tanpa menggantinya dengan vokal [o] yang Bahasa Jawa standar gunakan dan di setiap akhiran diproduksi akhiran [ʔ] serta pada saat memproduksi konsonan [b, d, k, g, h, y, k, l, w] dengan disuarakan sempurna. Berlandaskan dengan kondisi di atas, penulis memutuskan untuk menganalisa proses fonologis menjadi topik dalam tulisan akhir ini. Penulis akan bertumpu pada pembentukan Kata Kerja melalui proses Nasalisasi dengan prefiks. Di dalam pengambilan datanya, penulis menggunakan transkrip fonetis dari siaran radio Cilacap dalam program “Curanmor (*Curahan Perasaan dan Humor*)”. Penelitian ini adalah penelitian kualitatif deskriptif, dengan mengimplementasikan Teori Schane tentang Proses Fonologis dan Fitur Distingtif. Ada tiga jenis data yang penulis gunakan yaitu transkrip fonetis dari 8 episode di program “Curanmor (*Curahan Perasaan dan Humor*)”, Kamus Bahasa Banyumas untuk penulisan baku dialek Banyumas, dan konfirmasi melalui data pengucapan penutur aktif bahasa Banyumas. Metode pengumpulan data penelitian yang penulis pakai adalah metode Observasi non-Partisipasi dengan metode simak. Metode analisis data yang penulis gunakan adalah metode agih dan padan dengan menggabungkan penentu data. Dari hasil analisis data, penulis menemukan dua proses fonologis yang paling sering dijumpai yakni Assimilasi dan Proses Stuktur Suku-Kata.

**Kata Kunci :** dialect, Banyumasan dialect of Javanese, phonological process, phonetic transcription, verb nasalization, prefix, Assimilation, Syllable Structure Process

## **Introduction**

Balai Bahasa Jawa Tengah in Language Map of Central Java (2008) divided Javanese in Central Java into 5 dialects, which are Semarsuradupati dialect (Semarang residency, Surakarta residency, Kedu residency, and Pati residency), Pekalongan dialect (Pekalongan regency, Batang regency, and Pemasang regency), Wonosobo

dialect (Wonosobo regency), Banyumasan dialect (Banyumas regency, Cilacap regency, and Kebumen regency), and Tegal dialect (Tegal and Brebes regency).

Banyumasan dialect is used as the mother tongue of the people in Barlingmascakeb (Banjarnegara, Purbalingga, Banyumas, Cilacap and Kebumen region). The Banyumasan dialect is often called *ngapak-ngapak* dialect. In terms of the phonological aspect, *ngapak-ngapak* means producing vowel [a] instead of [ɔ] (as used in the Standard Javanese) followed by consonant [ʔ] in the final syllable and producing consonants [b, d, k, g, h, y, k, l, w] with voiced feature. Banyumasan dialect has particularly different pronunciations compared to Standard Javanese as mentioned above. This difference in the phonological aspect has a big impact on the phonetic forms.

I have three purposes of study. First, to study the phonetic representations of the nasal prefix in Banyumasan dialect. Second, to describe the phonological process happening to the variations of the nasal prefix. Last, to analyze the phonological rules that can show the phonological processes.

## **Review of Literature**

### **Phonetic Characteristics of Banyumasan Dialect of Javanese**

Nurdiyanto (2010: 31) states that Banyumas dialect of Javanese has six vowels, which are [i, ε, ə, ɔ, u, a]. All of these vowels can be characterized in terms of three basic vowel properties of height, backness and rounding. Nurdiyanto (2010: 31) also states that Banyumasan dialect has 22 consonants which are [p, b, m, f, w, t, d, n, r, s, l, t<sup>h</sup>, d<sup>h</sup>, c, j, ŋ, y, k, g, ŋ, h, ʔ]. All of these consonants can be characterized in terms of place of articulation and manner of articulation.

### **Phonological Process**

The phonological process occurs when a morpheme combines with another morpheme, and one of the sounds of this morpheme changes because of the influence of the other neighboring morpheme. Schane (1973: 49) states that when morphemes are combined to form words, the segments of neighboring morphemes become juxtaposed and sometimes undergo change. According to Schane (1973: 49), there are four kinds

of phonological process, which are: assimilation, syllable structure, weakening and strengthening, and neutralization.

- a. Assimilation happens when a morpheme takes features from a neighboring morpheme.
- b. Syllable Structure Processes influence the distribution of consonants or vowels in the word which may be deleted or inserted.
- c. Weakening and Strengthening happen when the change of simple syllabic structure lead to a complex syllable structure.
- d. Neutralization is the process when the phonological distinctions are reduced in a particular environment.

### **Distinctive Features**

Distinctive features are the backbone of generative phonology. The theory of distinctive features said that an utterance is composed of a sequence of discrete segments. A distinctive feature is the smallest unit of phonetics in generative phonology. For indicating opposite traits from a phonetic parameter, we use a binary system which use pluses and minuses to show whether or not the attribute is present. There are three groups of Distinctive Feature, which are;

- a. Major Class Features is the feature theory needs to show is between consonants, vowels and semi-vowels. Major Class Feature deals with consonantal, syllabic and sonorant.
- b. The Place of Articulation Features are the main features used for defining a consonantal place of articulation which consists of Coronal and Anterior.
- c. The Manner of Articulation Features relate to the manner in which a segment is produced. The manner features are continuant, delayed release, nasal, strident and lateral

### **Phoneme and Allophone**

Odden (2005) states a phoneme as a mental integration of the different physical properties of the sounds which is used in particular language. While an allophone is variant of a phoneme or the realization of a phoneme in a certain phonetic environment.

From the words above the phoneme as an underlying form is chosen from one of the allophones that has the widest distribution.

## **Research Method**

### **Type of Research**

This research is descriptive qualitative because I describe the phonological process of Verb Nasalization in Banyumasan dialect. This study is a description of phonetic variations of the nasal morpheme and the phonological process.

### **Data, Population, Sample, and Source of Data**

The data of this research are utterances taken from Curanmor (*Curahan hati dan humor*) program at Cilacap radio station. *Curanmor* program is presented by Mr Samidi, a native speaker of Banyumasan dialect of Javanese. This program has been produced since 2005 by using Banyumasan dialect and it is boardcasted in Banyumas area and its surroundings such as Cilacap, Kebumen, Banyumas and Banjarnegara. I used 8 episodes of this program, but in order to simplify the data, I used random sampling method. The secondary data to support the analysis was taken Banyumasan dialect dictionary from *Balai Bahasa Kabupaten Banyumas*. This dictionary was used to check the written form of each word. In addition, I also took data from the Banyumasan native speakers for the pronunciation of the written data.

### **Method of Collecting Data**

In this study, I used non-Participant Observation and *simak* method for the data collection. I recorded Curanmor program without involving in the program. In conducting the research, I used a recording technique to collect the data. In addition, I used a note-taking technique done by writing down the verbs that contain the nasal prefix. The data were transcribed phonetically to know particular part of the words.

### **Method of Analyzing Data**

To analyze the data, the writer used *Padan* and *Agih* methods. According to Sudaryanto (1993), *Padan* is a method which uses external determining factors, i.e. referent, another language, organ of speech, orthography, and speech partner. On the other hand,

*agih* is a method which uses internal determining factors. In this study, I used Javanese grammatical rules as a determining factor.

## Findings and Discussion

### The Phonetic Forms of the Nasal Prefix

The nasal prefix has four phonetic forms: [ŋ-], [ɲ-], [m-], and [n-]. The difference of these phonetic forms lies on the place of articulations. Based on the place of articulation, the nasal [ŋ] is velar, [ɲ-] is palatal, [m-] is bilabial, and [n-] is alveolar. The uses of nasal prefix are to show the activate transitive marker and to show the verbal marker. The active transitive marker is shown by adding the nasal prefix to verbs to create transitive verb, such as *nyupir* from the base ‘*supir*’. Before the adding of nasal prefix, ‘*supir*’ is a intransitive verbs. The verb marker is shown by after adding the nasal prefix to nouns will create a verb, for example *ngecap* from the noun ‘*cap*’. The four distribution of the phonetic forms will be described below:

	Kinds of Distribution
Underlying form [ŋ-]	Before vowels [a, i, u, e, o], laryngeal glide [h], velar [k, g], and alveolar [l, r]
Prefix [ɲ-]	Before fricative alveolar consonant [s] and plosive palatal [c]
Prefix [m-]	Before plosive bilabial [b, p]
Prefix [n-]	Before plosive alveolar consonants [t, d] and plosive palatal consonant [j]

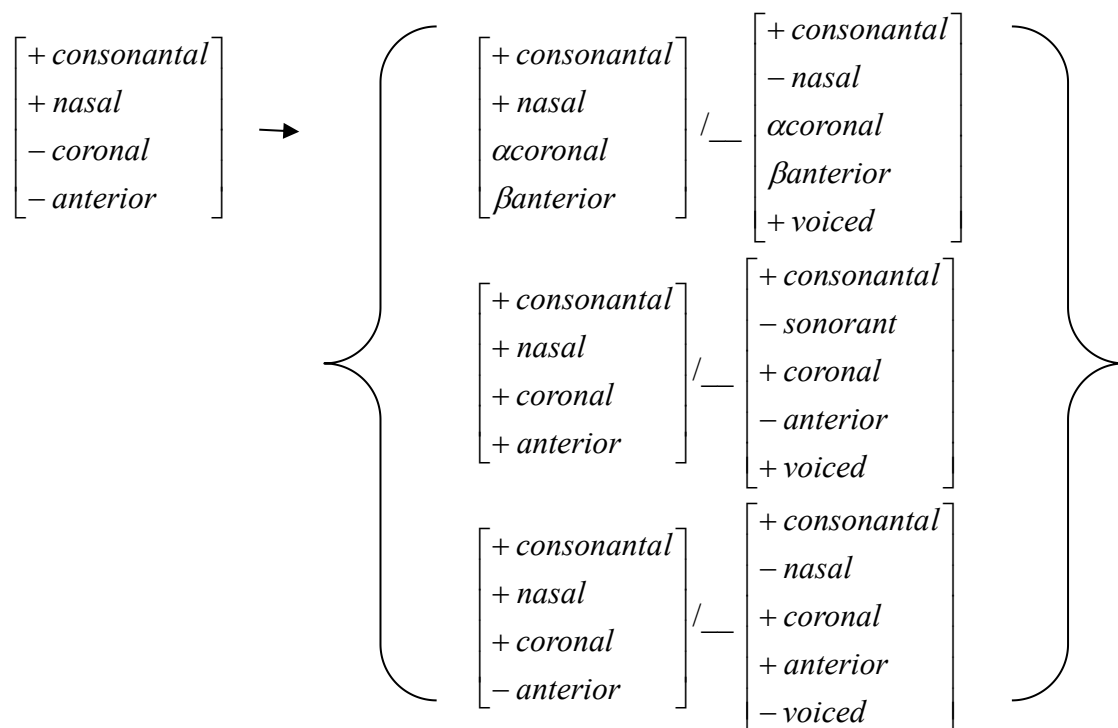
### The phonological rules governing the distribution of the allophones

The underlying representation of the nasal prefix will need a phonological rule which converts /ŋ/ to [m], [ɲ], and [n] in which following phoneme begins with these conditions, [ŋ], [ɲ], [m], and [n] are predictable variants of a single abstract segment which will represent [ŋ] as a morphophoneme, a phoneme that has function as a phoneme. The sounds of the other variants are in complementary distribution because the context where one variant appears is the complement of the context where the other sounds occur.

## The rules of phonological process

According to Schane (1973), when morphemes are combined to form words, the segments of neighboring morphemes become juxtaposed and sometimes change. These changes occur in the initial word as a nasalization prefix. All of changes will lead phonological process. There are two kinds of phonological process of verb nasalization in Banyumasan dialect; assimilation and syllable structure process. When nasal assimilates vowels or consonants some process occur deletion or insertion segment during the nasalization. On the other hand, when nasal deletes one segment on morphemes without any influence of their neighboring segment, it occurs deletion on syllable structure process.

### Phonological Rules of Nasal Assimilation Process



The assimilation process in verb nasalization occur when the nasal [ŋ] which has features  $\left[ \begin{array}{l} - \textit{coronal} \\ - \textit{anterior} \end{array} \right]$  changes into  $\left[ \begin{array}{l} \alpha \textit{coronal} \\ \beta \textit{anterior} \end{array} \right]$  when it is followed by a consonant that has the same features  $\left[ \begin{array}{l} \alpha \textit{coronal} \\ \beta \textit{anterior} \end{array} \right]$ .

But on the other hand, there are two cases that differently happen between nasal prefix and consonant [j] and consonant [s].

The rule above explains the nasal that has feature  $\begin{bmatrix} -coronal \\ -anterior \end{bmatrix}$  changes into  $\begin{bmatrix} +coronal \\ +anterior \end{bmatrix}$  when it is followed by plosive palatal consonant that has the same features only in coronal articulation  $\begin{bmatrix} +coronal \\ -anterior \end{bmatrix}$ .

The rule above explains the nasal that has feature  $\begin{bmatrix} -coronal \\ -anterior \end{bmatrix}$  changes into  $\begin{bmatrix} +coronal \\ -anterior \end{bmatrix}$  when it is followed by plosive bilabial consonant that has the same features  $\begin{bmatrix} +coronal \\ +anterior \end{bmatrix}$ .

### Phonological Rule of Consonant Deletion Process

$$\begin{bmatrix} +consonantal \\ -nasal \\ -coronal \\ -anterior \\ -voiced \end{bmatrix} \rightarrow \emptyset / \begin{bmatrix} +consonantal \\ +nasal \\ -coronal \\ -anterior \end{bmatrix} \text{---}$$

The rule above explains when [-voiced] (voiceless consonant) which is attached to nasal prefix are deleted when it occurs after a nasal.

### Phonological Rule of Vowel Insertion Process

$$\emptyset \longrightarrow \left[ \begin{array}{l} + \textit{syllabic} \\ + \textit{sonorant} \\ - \textit{high} \\ - \textit{back} \\ - \textit{round} \end{array} \right] / \left[ \begin{array}{l} + \textit{syllabic} \\ + \textit{sonorant} \\ + \textit{consonantal} \\ + \textit{nasal} \\ - \textit{coronal} \\ - \textit{anterior} \end{array} \right] \text{--- [CVC] \#}$$

The rule above shows that between the [ŋ] and one-syllable word, with [CVC] structure occurs insertion of Schwa vowel [ə].

### Conclusion

The nasal prefix in Banyumasan dialect of Javanese has four phonetic forms: [ŋ-], [ŋ̄-], [m-], and [n-]. The difference of these phonetic forms lies on the place of articulations. The uses of nasal prefix are to show the activate transitive marker and to show the verbal marker. The active transitive marker is shown by adding the nasal prefix to verbs to create transitive verb and by adding the nasal prefix to nouns to create a verb.

The processes of changing the Underlying Form into its variations in nasalization verb are called Assimilation, Deletion on Syllable Structure Process and Insertion on Syllable Structure Process. Because of the limitation on the purpose of this research, the writer believe that this study can be continued on the further research that analyze more about the phonological rules in Banyumasan dialect on an extensive object.

### References

- Anggraeni, Dyen Wirsa. 2007. "Perbandingan Sistem Fonologis Bahasa Jawa di Wonosobo dengan Bahasa Indonesia". Skripsi Fakultas Ilmu Sosial dan Ilmu Politik Universitas Jendral Soedirman. Purwokerto
- Anjarsari, Nurvita. 2015. "Phonic Interference of First Language into Second Language: A Case Study of Non-Native Speakers". Thesis Universitas Diponegoro. Semarang
- Ayatrohaedi. 1979. *Dialektologi: Sebuah Pengantar*. Jakarta: Pusat Pembinaan dan Pengembangan Bahasa, Departemen Pendidikan dan Kebudayaan.



- Balai Bahasa Kabupaten Banyumas. 2015. *Kamus Bahasa Banyumas*. Purwokerto: Balai Bahasa Kabupaten Banyumas Press.
- Bruce, Hayes. 2009. *Introductory Phonology*. United Kingdom: Blackwell Publishing.
- Chambers, J.K., & Trudgill, P. 1980. *Dialectology*. Great Britain: Cambridge University Press.
- Herusatoto, Budiono. 2008. *Banyumas Sejarah, Budaya, Bahasa, dan Watak*. Yogyakarta: PT LKiS Pelangi Aksara Yogyakarta.
- Isnaeni, Trisse. 2008. "Afiksasi Verba Bahasa Jawa Dialek Banyumas". Skripsi Fakultas Ilmu Sosial dan Ilmu Politik Universitas Jendral Soedirman. Purwokerto
- Kridalaksana, Harimukti. 1983. *Kamus Linguistik*. Jakarta: Gramedia.
- Labov. W. 1994. *Principles of Linguistic Change Vol 1*. Oxford UK and Crambridge USA: Blackwell.
- Mahsun. 1995. *Dialektologi Diakronis: Sebuah Pengantar*. Yogyakarta: Gadjah Mada University Press.
- Marsono.1991/1992. *Sistem Konsonan dalam Bahasa Jawa*. Laporan Penelitian Fakultas Sastra Universitas Gadjah Mada. Yogyakarta.
- 2011. *Morfologi Bahasa Indonesia dan Nusantara*. Yogyakarta:Gadjah Mada University Press.
- Nothofer, Bernd. 1987. *Cita-cita Penelitian Dialek Dewan Bahasa*, Februari 129-149.
- 1990. *Tinjauan Sinkronis dan Diakronis Dialek-Dialek Bahasa Jawa di Jawa Barat dan Tengah (bagian barat) Yogyakarta*: Pusat studi Bahasa-Bahasa Asia Tenggara, Fakultas Sastra UGM.
- 1982. *Central Javanese Dialects*. Pacific Linguistics series C. Vol 3, 127-309
- Nurdiyanto, Erwita. 2010. "Bahasa Jawa Dialek Banyumas di Kabupaten Banyumas (Kajian Geografi Dialek)". Skripsi Fakultas Ilmu Sosial dan Ilmu Politik Universitas Jendral Soedirman. Purwokerto
- Odden, David. 2005. *Introducing Phonology*. USA: Cambridge University Press.
- Pastika, I Wayan. 2005. *Fonologi Bahasa Bali: Sebuah Pendekatan Generatif Transformatif*. Kuta: Pustaka Larasan.
- Ramelan. 1962. "Bagelan Javanese Phonology". Skripsi Fakultas Keguruan dan Ilmu Pendidikan Universitas Airlangga. Malang.
- Ramlan, M. 1987. *Ilmu Bahasa Indonesia Morfologi Suatu Tinjauan Deskriptif*. Yogyakarta: CV. Kartono.

- Schane, Sanford A. 1973. *Generative Phonology*. New Jersey: Prentice Hall Inc.
- Sudaryanto. 1991. *Tata Bahasa Baku Bahasa Jawa Baku*. Yogyakarta: Duta Wacana Press
- . 1993. *Metode dan Aneka Teknik Analisis Bahasa*. Yogyakarta: Duta Wacana Press
- Sudiro, Samid. 1986. *Bahasa Jawa di Kabupaten Kebumen, dalam Soedarsono (editor). Kesenian, Bahasa, dan Folklor Jawa*. Yogyakarta: Proyek Penelitian dan Pengkajian Kebudayaan Nusantara, Ditjen Kebudayaan, Departemen Pendidikan dan Kebudayaan.
- Sunarso. 1994. "Pemakaian Tingkat Tutur Bahasa Jawa Dialek Banyumas di Daerah Banyumas". Thesis Universitas Gadjah Mada. Yogyakarta.
- Zen, Abdul Latif. 2016. "Perubahan Fonologis Kosakata Serapan Sansekerta dalam Bahasa Jawa (Analisis Fitur Distingtif dalam Fonologi Transformasi Generatif)". Thesis Universitas Diponegoro. Semarang