Getting To Know Phoneme And Its Benefits In Sound Science

Alvindi Alvindi [1], Nisa Febriyanti Tanjung [2], Thareq Ahmad Alqawwiy [3], Yani Lubis [4]
[1,2,3,4] Study Program of English Education Department, Faculty Of Tarbiyah And Teacher Training, State Islamic University of North Sumatera
Email: [1]alvindy61@gmail.com; [2]nisafebriyantitanjung@gmail.com; [3]thareqahmadalqawwiy@gmail.com;
[4]yanilubis@uinsu.ac.id

Abstract The purpose of this study is to find out how loanwords from other languages in Indonesian change their phonemes. Changes in vowel and consonant phonemes indicate these changes. The research method combines literature review techniques and qualitative descriptive methods. The data collected are taken from various literature sources and then grouped according to certain criteria. The results showed that language sounds are based on two premises: they usually form symmetrical patterns and the sounds of language usually interact with each other. Phonology also has hypotheses, which serve as the basis of its analysis in the following way, in addition to these two premises. When phonetically similar sounds contrast in minimal pairs, it is first necessary to treat them as different phonemes.

Keywords: Phonemes, Sound Science, Phonology

INTRODUCTION

How to pronounce language by someone for a word is also called pronunciation. The audience will definitely understand a frank speech. Phonological awareness of sounds in a language exists in every speaker. Phonetics and phonemics are two subfields of phonology. In phonology, speech sounds are considered the same as other language mediums. Phonemics refers to the idea that phonology considers the sounds of words as components of the language system in particular, the smallest elements of the language that are part of the structure of words and also serve to distinguish a meaning. In phonemic examination, fundamental speech is a component of segmental and suprasegmental languages. Vowels and consonants form the segmental element itself.[1] Without constriction of the vocal tract above the glottis, vowels are speech sounds produced by the vibrations of the vocal cords. Vowel phonemes are derived from vocoid sounds, which are sounds produced without the need for narrowed or closed articulation. Only the resonance chambers in the oral cavity are regulated when sounds are pronounced by adjusting the position of

---

[1] Agusniar Dian Savitry. "Hakikan Fonologi". https://pustaka.ut.ac.id/lib/wp-content/uploads/pdfmk/PBIN410202-M1.pdf

the tongue and lips. The number of vocoid votes is smaller than the number of cnotoid votes. In this article, we will discuss the meaning of phonemes in linguistics as well as what is meant by complete phonemes.

RESEARCH METHODS

This article uses a qualitative approach method, which is a method that searches for data through literature related to phonemes in books, journals and articles. Information collection is carried out through secondary data directly from various references related to phonemes as a literature study. . In addition, non-numerical data were used in the creation of this article, which aims to interpret the meaning of the data for the purpose of understanding the population or intended location. The report is expected to provide a fairly comprehensive phonological picture and is then compiled after the information has been collected, analyzed, described, and discussed.

RESULT AND DISCUSSION

The word phonology is taken from two Greek languages combined, logos means knowledge and phone means sound. Therefore, phonology refers to the study of sounds. The sounds implied in phonology are the sounds of language. A person's articulation organs, or speech apparatus, are what make language sound. Phonology studies the sounds of language, including how they are used in speech or as a whole. The study of sound phonology as a phenomenon in the physiological, anatomical, psychological, and neurological world of humans that produces these sounds. It also studies the function, behavior, and organization of sound as linguistic elements. Phonetics is a branch of linguistics. There are two perspectives on phonology: phonetics and phonemics. Phonemics views language sounds as components of the language system, while phonetics views sounds solely as a language medium. In other words, in phonemics, the sounds of a language are the smallest elements of word structure that also serve to distinguish meanings. There are two assumptions about the sounds of a language: first, that sounds tend to form symmetrical patterns, and second, that sounds tend to influence each other. Phonology has hypotheses on which to base its analysis, as follows, in addition to these two premises. When phonetically similar sounds are contrasted in minimal pairs, it is first important to treat them as

distinct phonemes. Second, in complementary settings, phonetically similar sounds must be placed in the same two phonemes.[2]

3.1 Definition of Phoneme

That is a language unit that distinguishes meanings. In addition, phonemes also mean as the smallest unit of sound that can convey different meanings, as defined by the Big Indonesian Dictionary (KBBI). For example, /i/ and /u/ are phonemes because they distinguish the meanings of the words can and foam, while /b/ and /p/ are 2 different phonemes because standard and nail have different meanings. The three suprasegmental phonemes are not considered phonemes in Indonesian, but when combined will form intonation with the ability to distinguish meanings. Types of phonemes can be classified by many types. In addition to vowels and consonants, diphthongs and clusters make up most of the phonemes. Check out the following explanation for more details:

1.1.1   Vocal

Vowels are sounds made when people speak naturally. Sound with high loudness is vocal. Vowels according to KBBI references have several implications, namely:

1) The voice of discourse is conveyed by the aerial passage of the lungs through the vocal cords and limits much of the vowels over the pars media.

2) Phonological arising in delocutions without displacement, e.g. a, i, u, e, o.

Vowels are divided into two, namely monophhongs are a combination of (a), (i), (u), (e), (o) and diphthongs that combine simulated intelligence, au, oi. Constriction, lip shape, tongue height, and movement of parts of the tongue can all be used to identify vowels. It can be classified based on:

a.   The height (height and low) of the tongue

1)   High vowels: [i, u]

2)   Intermediate vowels: [e, ə, r, o, ɔ]

3)   Low vowels: [a, ɑ]

---

[2] Nurul Masfufah. 2018. "ANALISIS KONTRASTIF FONEM VOKAL DAN KONSONAN BAHASA INDONESIA DENGAN BAHASA BENUAQ".

b. Movement of the tongue part

1) Front vowels, which are made by moving the front of the tongue up and down, e.g. [i, e, ɾ, a]

2) Middle vowels, which are made by moving the middle part of the tongue, such as: [ə]

3) The back vowels, which are made by moving the back of the tongue (base of the tongue) up and down, include: [u, o, ɔ, ɑ]

c. Strictures

A stricture is a positional relationship between the tongue which is the active articulator and the palate which is the passive articulator. Therefore, the distance between the tongue and the palate determines the narrowing of the vocals. Vowels are classified as closed vowels, half-closed vowels, open vowels, and open vowels based on their structure.

1) Close vowels are formed when the tongue is raised as high as possible against the roof of the mouth. Closed vowels include the phonemes [i] and [u].

2) Semi-closed vowels Half-close vowels form when the tongue is raised one-third below the closed vowel or two-thirds above the lowest vowel. The phonemes [e] and [o] are examples of half-closed vowels

3) Vowels formed by raising one-third of the tongue above the lowest vowel or two-thirds below the closed vowel are known as half-open or semi-open vowels. This vowel group includes half-open vowels, namely the phonemes [ɾ] and [ɔ]

4) Open vowels: are vowels formed by the tongue in a low position to the line connecting the vowels [a] and [ɑ]. As a result, both phonemes are open vowels.

d. Lip shape

1) Spherical vowels: in particular, speech with rounded lips. open round, like [ɔ], closed round, like [u]

2) Neutral vowels: that is, pronounced while maintaining a neutral lip shape. Take for example the vowel [ɑ].

3) Vowels without spheres: that is, those that are pronounced with lips wide open. For example, vowels such as [i, e, ə, ɾ, a].

3.2 Diphthongs

KBBI defines diphthongs as double vowel sounds that belong to one syllable, such as ai in chain words and au in imbau words. There are three types of diphthongs: centering diphthongs, ascending diphthongs, and descending diphthongs.

a. Diphhong rise, Diphtong rose is a vowel whose second vowel is pronounced higher on the tongue than the first. Closing diphthongs or closing diphthongs is another name for these diphthongs. In Indonesian are classified 3 types of diphthongs up including:

1) Diphthongs with a rising shape then closing then forward [aI], such as "squirrel" and "wear"

2) Diphthongs with a rising shape then closing then forward [oi], like "amboi"

3) Diphthongs with a rising shape then closing then retreating [aU], such as "chaotic" and "brother"

There are only certain types of diphthongs such as ascending diphthongs in Indonesian, and no other types of diphthongs.

b. Diphthongs Down, diphthongs that descend as opposed to diphthongs that rise, where the second vowel is lower than the first. The diphthong [iə] in the word "ear" is an example of a declining diphthong in English.

c. Diphthong centering is the pronunciation of vowels by positioning the tongue in the direction of the central center vocal movement. There are two types of centering diphthongs: up-cover-centering diphthongs [ɔə] e.g. more [mɔə] and up-cover-centering diphthongs[ɛə], in: there [ðɛə].

3.3 Consonant

According to KBBI, a consonant is a speech sound caused by airflow resistance above the glottis in one part of the vocal tract. Speech sounds that are also considered consonants are sounds that can be at the edge of a syllable but not in the middle, and phonemes, which are notoid sounds. In general, consonants can be considered phonemes because they are made by some speech apparatus by blocking air. Consonants can be distinguished in various ways, including inhibited (way of articulation), place of inhibition (place of articulation), relationship between active and passive articulator position, vibration of the vocal cords or not.

The following categories of consonants will help clarify the above:

a. Pop-Inhibiting Consonants

It is a consonant that air currents are fully inhibited and released suddenly. Some differences in pop-inhibiting consonants based on the place of resistance or articulation are:

Consonants of bilabia: p, b], and Apico dental consonants: [t, d], apico consonants of alveoli: [t, d], and apoco-palatal consonants: t, d], Explosion consonants of mediopalatal consonants: [c, j], and dorso velar stop consonants: [k, g], plosive glottal, glottal stop hamzah consonants: (?), The last consonant is shear or fricative: [f, v, s, z, x].

b. Nasal Consonants

KBBI defines nasal as the sound released when air is expelled through the nose. Therefore, nasal consonants can be understood as consonants formed by lowering the pharynx and soft palate and tightly closing the airways leading from the lungs through the oral cavity. This allows air to be expelled through the nasal cavity. Nasal consonants can be broken down into the following groups based on where they are articulated as Bilabial nose: [m], Apico-alveolar nose: [n], Medio-palatal nose : [ñ], Dorso-velar nasal passages: [ŋ], Side or lateral consonants: [l].

c. Alloy Consonants

Consonants that are completely blocked from the lungs and then released slowly are called mixed consonants. This consonant is pronounced on the gums and on the tip of the tongue. As in the English word riches, the resulting consonants are apico-prepalatal compounds.

d. Side Consonants (laterals)

Side consonants are consonants that occur when the density of airflow from the middle of the oral cavity is blocked so as to allow air to escape from the side. The alveolar side of apico is the resulting consonant.

e. Fricative or Swipeful Consonants

Consonant shifts, also known as fricative consonants, are consonants created by narrowing the airflow of the lungs. These consonants are categorized according to the location of articulation as:

1) Labio shift consonants [f, v]
2) Consonants with apico-dental shift: [Ɵ, ð]
3) Apoco-palatal consonant shift: [r]
4) Consonants with lamino-alveolar shift: [s, z]
5) Dorso-velar shift consonant: [x] in "khilaf "

6) Slide the consonant from the larynx: [h].

f. Vibrating Consonants

Consonants that are created quickly and repeatedly prevent air from entering the lungs. The following groups of vibrating consonants are based on where they are articulated:

1) Apico-alveolar vibrating consonants: [r]

2) Uvular vibrating consonant: [R] in French.

g. Touch Consonants

It is a consonant made by once preventing air from entering the lungs. The only difference between touch consonants and vibrating consonants is single touch consonants. There are no touch consonants in Indonesian.

h. Strong Touch Consonants

Similar to tactile consonants, strong touch consonants come with moves to make the touch between passive and active articulators stronger. Strong touch consonants are absent in Indonesian.

i. Semi-Vocal

Namely semi-vowel consonants that when articulated do not form pure consonants. Categorized according to the location of articulation into:

1) Bilabial semi-vowels and dental labio: [w]

2) Medio-palatal semi-vowels: [y].

3.4 Clusters

Consonant clusters within the cilial boundary are known as clusters. The 2 consonants read as one sound are clusters. For example: drama and skeleton.[3]

In the field of phonemics, applied phonology. The practical goals of the study of applied phonemics actually span a wide range of disciplines, including linguistics. The first example is the comparative historical linguistic study of phonemics. Proto-phonemes, or precursors of modern languages, can be identified using sound reconstruction and correspondence techniques. It is also possible to trace the kinship that exists between the two languages being compared. The sound comparison between Javanese, Madurese, and Balinese is one illustration. From the three languages, the phoneme [w] of Madurese will adopt the phoneme [b] of Javanese and Balinese. Ultimately, Javanese, Madurese, and Balinese are all related can be traced through these

---

[3] Nadia Irvana Natasya. 2023. "Fonem: Pengertian dan Jenisnya". https://haloedukasi.com/fonem

comparisons and methods of reconstruction. Is it true that all three languages belong to the same family? The study of phonemics in spelling is another illustration. Changes in phoneme denotation in grapheme-shaped Indonesian are one example of this kind of phonemic study. If you think about it, Indonesian has changed quite a lot between then and now. In terms of writing, we usually use the letters o and e (oe) to represent the phoneme /u/. As a result, the word "profit" is written "oentoeng" when we want to write it. An example of something that can be researched is "how does phoneme symbolism Indonesian grapheme? These questions reveal a shift in the way phonemes and graphemes are represented. In the past, oe and you were the two graphemes that represented the phoneme. u; Two graphemes, dj, are used to express the phoneme j; Two graphemes, tj, etc., signify the phoneme /c/. In Indonesian, this then becomes one grapheme for each phoneme, except the phonemes /(/, /ş/, /ɲ/, and /(/ represented by graphemes ng, sy, ny, and kh. For the purposes of developing Indonesian phonemic theory, they served as theoretical phonemic identification. This applied phonemic study also focuses on determining whether two graphemes or one grapheme represent a phoneme One phoneme is represented by one symbol in good spelling The image in question is a letter As an illustration of the symbolization of an ideal phoneme in Indonesian spelling, the phoneme /b/ is represented by the letter b, and the phoneme /j/ is represented by the letter j. Despite this, there are still two phonemes represented by one letter: /k/ and /ʔ/ represented by the letter k, and one phoneme represented by two letters: /ng. This happens because it is difficult to indicate one phoneme with one letter. Showing one phoneme with one letter is difficult, especially in English.[4]

CONCLUSION

Language is the subject of linguistic research. In this sense, linguistics also has branches and subordinates that form levels or hierarchies. Syntax (the study of sentences) is the branch of linguistics that studies the highest or largest state of language, while phonology is the branch of linguistics that studies the lowest state of language. Broad and narrow meanings are associated with phonology. Since phonology includes phonetics and phonemics, it has a broad meaning.

---

[4] Rima Rismaya, Sugeng Riyanto. 2021. "KEKELIRUAN PELAFALAN FONEM DALAM KOSAKATA BAHASA INDONESIA OLEH VLOGGER ASING BERBAHASA INDONESIA". Jurnal Linguistik dan Satra

Therefore, the study of phonology focuses not only on organizing sounds in the form of sound systems and patterns that distinguish meanings, but also on how these sounds are pronounced, including in speech instruments. Phonology from a strict perspective implies that it includes only phonemics, or at least, it only sees sound associations as a framework of sounds and examples (phonemes). Phonetics, on the other hand, is considered a distinct field of study in the narrow sense of phonology. The sounds of language are based on two premises: 1) they usually form symmetrical patterns; 2) Language sounds usually interact with each other. Phonology also has hypotheses, which serve as the basis of its analysis in the following way, in addition to these two premises. When phonetically similar sounds contrast in minimal pairs, it is first necessary to treat them as different phonemes. Second, in complementary environments, phonetically similar sounds should be classified as two equal phonemes.

REFERENCES

Agusniar Dian Savitry. "Hakikan Fonologi". https://pustaka.ut.ac.id/lib/wp-content/uploads/pdfmk/PBIN410202-M1.pdf

Rima Rismaya, Sugeng Riyanto. 2021. "KEKELIRUAN PELAFALAN FONEM DALAM KOSAKATA BAHASA INDONESIA OLEH VLOGGER ASING BERBAHASA INDONESIA". Jurnal Linguistik dan Satra

Nurul Masfufah. 2018. "ANALISIS KONTRASTIF FONEM VOKAL DAN KONSONAN BAHASA INDONESIA DENGAN BAHASA BENUAQ".

Nadia Irvana Natasya. 2023. "Fonem: Pengertian dan Jenisnya". https://haloedukasi.com/fonem