

How to Cite:

Alsharif, H. (2020). Phonology, phonetic and phonological aspects. *Macrolinguistics and Microlinguistics*, 1(1), 52–68.

Phonology, Phonetic and Phonological Aspects

Hassan Alsharif

Taibah University, Madinah, Saudi Arabia

Abstract---This paper aimed at explaining the definition of phonology and exploring phonetic aspects in English. A continuous sequence of language sounds, sometimes an up and down sound, sometimes a short pause or a long pause, sometimes a loud or soft sound, and sometimes a stretching sound and a normal sound. The classification of this word in linguistics has always been a topic that has never been overlooked, since Aristotle's time until now, including in Indonesian linguistic studies, the problem has never been resolved. This occurs, because, firstly, each language has its own characteristics, and secondly, because the criteria used to classify the word can vary.

Keywords---argumentative discourse, discourse, language sounds, linguistic studies, normal sound, phonology, syllables, universal language.

Introduction

Units of sound sequence are called syllables or syllables. It is a unit of a sequence of sounds marked by one unit of the loudest sound, which may or may not be accompanied by another sound in front of it. The field of linguistics that studies, analyzes and discusses the sequence of language sounds is called phonology, etymologically, the word phonology is sound, and logic, which is science. In other words, phonology is a field of linguistics that investigates the sounds of language according to its function (Dmitrieva et al., 2015) or as a special field in linguistics that observes certain language sounds according to their function for exposition, which describes topics or facts; persuasion discourse invites, recommends, or prohibits; and

argumentative discourse is to provide arguments or reasons for something (Nielsen, 2011).

As stated in the paragraph above, discourse is a complete and complete unit of language. That is, in this discourse the unit of ideas or messages conveyed will be understood by the listener or reader without hesitation or without feeling that there is a lack of information from the ideas or messages contained in the discourse.

If we look again at the hierarchical division of language units as discussed above, it can be concluded that a word or phrase with certain conditions can become a sentence. Units that are one level smaller will form larger units. Thus, phonemes form morphemes; then the morpheme will form words; then the words will form phrases; then the phrase will form a clause; after that the clause will form a sentence; and finally the sentence will form the discourse. Presumably the hierarchical order is a theoretical normal. In the practice of speaking many factors cause deviation of order. In addition to the normal sequence cases of skipping, tiering, and derating may be noted.

A continuous sequence of language sounds, sometimes an up and down sound, sometimes a short pause or a long pause, sometimes a loud or soft sound, and sometimes a stretching sound and a normal sound such as teach, teach, teach, and teach are five different words. The classification of this word in linguistics has always been a topic that has never been overlooked, since Aristotle's time until now, including in Indonesian linguistic studies, the problem has never been resolved. This happens, because, firstly, each language has its own characteristics, and secondly, because the criteria used to classify the word can vary.

Method

Traditional linguists use criteria of meaning and criteria of function. The meaning criteria are used to identify the verb, noun, and adjective classes. Meanwhile, functional criteria are used to identify prepositions, conjunctions, adverbs, pronouns, and others. Thus, according to this traditional linguistic term, what is called a word verb is a word which denotes an action or action; what is called a noun is a word that denotes an object or something that is bent; and what is called a conjunction is a word that has a duty or function to connect a word with a word, or part of a sentence with one another.

However, the formulation of noun verbs and conjunctions like the one above for Indonesian turns out to be a lot of trouble, because the morphological characteristics of the Indonesian language apparently cannot help to determine the class of words. For example in Indonesian, a word with a certain prefix is not necessarily a verb,

because some are also nouns such as defendant and accused. In fact, Indonesian adverbs do not have morphological characteristics.

Apart from the aforementioned traditional linguists, there are also structuralist and linguist linguists who try to classify words. However, there are still many problems in its identification. Classification or categorization of words is necessary. Its benefits are like theoretically in semantic studies, as well as practically in practicing language skills. From this word class discussion, it can be said that the determination of words based on class or class really needs to be done. However, if until now there have been many problems, especially in Indonesian, it is presumably that the standards or criteria need to be rethought, look for those that can truly reveal the most essential characteristics of each class of words.

Result and Discussion

The formation of this word has two characteristics, namely forming inflective words, and secondly, which are derivative. Derivative word formation is forming a new word, a word whose lexical identity is not the same as the root word, for example in English it can be given, for example, from the word happy which has an adjective class to form happiness with a noun class. The noun-class beauty word is formed into verb-class beautify. Changes or adjustments to the form of verbs are called conjugations, whereas in nouns and adjectives it is called declination. Inflective can be said that the morpheme has allomorphs so that it has different meanings but is still in the same class, and has the same lexical identity. For example in English: write becomes writes, wrote, written, writing.

Phrase

Phrase is a grammatical unit in the form of a combination of words that are non-predictative, or also called a combination of words that fill one of the syntactic functions in a sentence. Other definitions of the phrase from some linguists are as follows. According to [Dmitrieva \(2010\)](#), a phrase is a grammatical unit consisting of two or more words and does not exceed the clause function limit. Phrases are always contained in one clause element (S, V, O, C). While [Darcy et al. \(2015\)](#) phrase is a linguistic unit which is potentially a combination of two or more words, which do not have clause characteristics. Then, [Nielsen \(2011\)](#) explains that a phrase is a combination of two or more words that are not predicative. In principle, a phrase is a grammatical unit consisting of two or more words that do not exceed the limits of the clause function. A phrase is a combination of elements that are interrelated and occupy a certain function in a sentence, or a form that is syntactically the same as a single word, in the sense that the word combination can be replaced by just one word. [Dmitrieva et al. \(2015\)](#) states that a phrase is a linguistic construction consisting of two words. To make a good discourse that is coherent and coherent, various discourse

tools are used. The discourse tools can be in the form of grammatical tools or semantic tools. The semantic tools used include:

- The use of contradictory relationships in both sentences. For example, yesterday it rained very heavily, fortunately today the weather is very sunny.
- Use of generic-specific relationships and vice versa. For example, the government is trying to provide as much public transportation as possible and will try to reduce the number of private cars.
- The use of a comparative relationship between the contents of the two parts of a sentence, or the content between two sentences in one discourse. For example, like an eagle grabbing a chicks, he quickly grabs the woman hiker's bag.
- The use of a cause-and-effect relationship between the contents of the two sentences. For example, he was a student who diligently attended lectures and studied diligently. Naturally, if he quickly graduated from college.
- The use of purposeful relationships in the content of a discourse. For example, with great difficulty he sent all of his children to school so that one day he would not have a hard life like himself.
- The use of the same reference relationship in two parts of the sentence in one discourse. For example, the becak is no longer in Jakarta. The three-wheeled vehicle is often accused of jamming Jakarta's very congested traffic.

Discourse can also be differentiated based on the point of view from which it is viewed, namely discourse based on its ingredients, namely spoken language or written language, this discourse is divided into spoken discourse and written discourse. Discourse seen from the use of language is divided into discourse of prose and discourse of poetry. Discourse, seen from the delivery of its contents, is divided into narrative, exposition, persuasion, and argumentation discourse. Narrative discourse has the character of telling a topic or thing; discourse grammatical tools as well as semantic tools. The grammatical tools used include conjunction. Conjunctions are tools for connecting parts of a sentence, or linking paragraphs to paragraphs. For example, in the discourse the king was ill. The queen died. In this discourse, the relationship between the first sentence and the second sentence is not clear, so it needs to be given a conjunction so that the discourse becomes clearer.

Using the pronouns *dia*, *nya*, *them*, *this*, and *that* as anaphorical references. By using a pronoun as an anaphorical reference, it is not necessary to repeat the unequal parts of the sentence, but to be replaced with the pronoun, so that the sentences become related to one another. For example, it can be seen in the following sample discourse. The student group of protesters first came to the office of the Minister of Home Affairs. After that they went in an orderly manner to the MPR DPR building in Senayan. The child slipped and fell into the river. Several passersby tried to help him. Thick, lumpy clouds covered the sky of Surabaya. It is a sign that heavy rain will fall. An ellipsis is the omission of part of the same sentence contained in another sentence.

Examples in English are as follows. I was to take the east path and Steve was to take the west path. So I was to take the east path and Steve, the west path. Another example: I believe that this party can, and will, win the next election. (Elliptical sentence) I believe that this party can win the next election and will win the next election.

The relationship between words in the construction is not predicative, and can be replaced by one word only. The six definitions above are not substantially different. Each definition determines two things, namely a phrase is a grammatical unit consisting of two or more words and the relationship between the constituent elements does not exceed the limit of the clause element function. That is, the phrase is always in one clause element function. So, in a definite phrase there is neither subject nor predicate and consists of more than one word. Phrases must consist of free morphemes. Examples of phrases in English are the book, have been done, in the class, and so on.

Clause

According to [de Leeuw & Celata \(2019\)](#), clauses can be interpreted as a group of words containing a subject and a predicate. In contrast to the phrase which means a group of words that does not contain a subject and a predicate. A clause is a syntactic unit in the form of words with a predicative construction. This means that in this construction there are components in the form of words or phrases that function as predicates, and others function as subjects, objects, and descriptions. In the construction of the class room it is not a clause because the relationship between class components and room components is not predictive. While the construction of what you said is a clause because the relationship between you and said components is predicative, you are the filler of the subject function and said is the filler of the predicate function. There are several other definitions of clauses from some linguists are as follows.

[de Leeuw & Celata \(2019\)](#) states that a clause is a group of words containing only one predicate. Meanwhile, [Foulkes & Docherty \(2006\)](#) defines a clause as a grammatical unit consisting of a predicate, whether accompanied by a subject, object, complement, and description or not, or a clause is a (subject) predicate (object) (complement) (description) with a statement that the existing elements in brackets is the manasuka element. In other words, a clause is a grammatical unit or linguistic unit consisting of a subject and a predicate, whether accompanied by an object, complement, description, or not. Thus, a clause is a grammatical unit in the form of a group of words which at least consists of a subject and a predicate and has the potential to become a sentence.

Based on some of the above definitions are not substantially different. Each definition determines two things, namely the clause is a linguistic unit and the minimal clause is formed by the subject and predicate, or theme and rema. From the two elements that

make up the clause, it can be seen that the clause is a level that is bigger than the phrase. The relationship between the elements in the phrase does not exceed the limit of function or is not predicative. Meanwhile, the relationship between elements in the clause must be predicative and of course also exceed the limit of function.

In English, there are types of clauses, including: noun clause, relative clause, and adverbial clause. Here are some examples of clauses: (1) I know where Sue lives, (2) What he said was interesting. (3) When the phone rang, the baby woke up. (4) The man whom I saw was Mr. Jones. In examples (1) and (2) what he said is interpreted as a noun clause; example (3) when the phone rang is an adverbial clause because it explains verbs, while example (4) whom I saw is a relative clause because it explains a noun. Based on some examples of these clauses, the clause can be interpreted as a group of words that have a subject and predicate but have not conveyed perfect ideas. These clauses are considered not independent. A clause that cannot stand alone is known as a subordinate clause and a clause that can stand alone is called a main clause.

Sentence

By connecting the role of the sentence as a means of interaction and the completeness of the message or content to be conveyed, a sentence can be defined as an orderly arrangement of words containing complete thoughts. Meanwhile, in relation to smaller syntactic units (words, phrases, and clauses), the sentence is a syntactic unit composed of basic constituents, which can usually be in the form of clauses, completed with conjunctions if needed, and accompanied by a final intonation. There are several other definitions of sentences from some linguists as follows. [Bohn & Best \(2012\)](#) and [Hallé et al. \(1999\)](#) states that a sentence is a language unit that is relatively independent, which has a final intonation and consists of a clause. [Davidson \(2006\)](#) and [Frisch & Wright \(2002\)](#) states that the sentence is the largest unit of grammatical analysis, which is the largest unit recognized by linguists to explain relationships. Meanwhile, [Menn \(1983\)](#) and [Atterer & Ladd \(2004\)](#) defines a sentence as a maximum linguistic form which is not part of a larger linguistic construction. [Chen \(2011\)](#) and [Berent \(2013\)](#), also states that a sentence is a grammatical unit that is preceded and ended by silence and functions in utterance.

Based on some of the above definitions are not substantially different. Each definition establishes the principle that a sentence is a grammatical unit or a linguistic form. The intended grammatical unit is to end with a decreasing ending tone (for example, the ending tone of a statement sentence) or an increasing ending tone (for example the ending tone of a question sentence). The grammatical unit is not part of a larger grammatical unit. In English it is known as nominal sentence (nominal sentence) and verbal sentence (verbal sentence). For example: (1) She is a student. (2) She goes to campus every day. In example (1) the sentence is a nominal sentence because it only states the situation or condition of the subject and does not state action. In contrast to

example (2) the sentence is a verbal sentence because it states an action. The discussion about sentences will be discussed in more depth in the syntax section.

Discourse

Burgess & Spencer (2000) and Ohala & Ohala (1993) states that discourse is a complete language unit so that in the grammatical hierarchy it is the highest and largest grammatical unit. As a complete language unit, discourse contains a complete concept, idea, thought or idea that can be understood by the reader (in written discourse) or the listener (in spoken discourse) without any doubt.

As the highest and largest grammatical unit, it means that discourse is formed from sentences or sentences that meet other requirements of discourse, which are coherent and coherent. To create a good discourse that is coherent and coherent, various discourse tools are used. The instrument of discourse can be in the form of military rank lines, the word grams and kilograms are in one scale measurement line.

Polysemic

Polysemic a word / unit of speech is called polysemic if it has more than one meaning. For example, the word head which has the meaning (1) part of the human body, such as in the sentence the head was injured by broken glass, (2) the chairman or leader, as in the sentence the head of the office is not my uncle, (3) something that is on the top, as in a letterhead sentence usually contains the name and address of the office, (4) something that is round, or (5) something or part that is very important. In the case of polysemy, usually the first meaning (which is listed in the dictionary) is the actual meaning, the lexical meaning, the denotative meaning, or the conceptual meaning.

Homonymy

Homonymy is two words or one utterance which form the same "coincidence"; the meaning is of course different, because each is a different word or form of speech. For example, between the word boyfriend which means "henna" and the word girlfriend which means "lover".

In the case of homonymy there are two other terms that are usually discussed, namely homophony and homography. What is meant by homophony is the similarity of sound (fon) between two units of speech regardless of spelling, whether the spelling is the same or different. For example, the words bank 'financial institution' and bang (shortened form of brother). The term homography refers to a form of speech that has the same orthographic or spelling, but the utterance and meaning are not the same. In Indonesian homographical forms only occur because the orthography for phoneme / e / and phoneme / ə / has the same symbol, namely the letter <e>. For example, the word blush which means to do milk, and the word blush which means to

become red. The method of determining two of the same forms is homonym or polysemy, as the first rule to be held is that homonymy is two or more forms of speech which "coincidentally" have the same shape, progressive assimilation (phonetic) (progressive assimilation, tag) is the process of changing a sound to be similar to the sound that precedes it, or the effect occurs in the future, or the sound that affects is located in front of the sound that is affected.

Phonological aspects in English

As stated in the paragraph above, phonology is the study of language sounds, limited to sounds that differentiate meanings. Phonetics and phonology are the lowest level parts of linguistics. Phonetics and phonology are not included in grammar and also do not belong to lexicons. For most linguists today, phonetics is considered to be included in phonology, so that the two systematic levels of sound are only called phonology, but there are also those that distinguish phonetics and phonology ([Local, 2003](#); [Baumann & Cangemi, 2020](#)).

There is a necessity in language analysis to distinguish functional sounds called phonemes from language sounds which do not have a function. So it must be distinguished between phonemes and phonemes. Phon (phone) is the sound of language, while phoneme (phoneme) is the smallest sound unit capable of showing a contrasting meaning, for example in English, / b / is a phoneme because it distinguishes the meanings of the words bat and pat, / b / and / p / are two different phonemes because the words bat and pat have different meanings. Phoneme is an abstraction, while its phonetic form depends on several factors, especially position in relation to other sounds ([Best & Strange, 1992](#); [Shaywitz et al., 2004](#)).

Phonemization is a procedure for finding phonemes. The phonemization effort of a language is an attempt to find sounds that function in the context of differentiating meaning. Phonemization bases itself on good and careful phonetic recording. Phonemic recording that is prepared for phonemization work must undergo several improvements (trial and error), it must be searched for as many sounds in a particular language as possible ([Ohala, 1990](#); [Bondarko, 2005](#)).

Assimilation

Phonological assimilation studies have been carried out by experts in various languages. According to [Sproat & Fujimura \(1993\)](#) and [Bürki et al. \(2011\)](#), the process of mutual influence between sounds causes the characteristics of the sound that is affected to change to match the sound that affects, and that influence can occur between segments in a word or between components in a compound word. [Deng \(1998\)](#) and [Turkeltaub & Coslett \(2010\)](#), says assimilation means that sounds become more alike.

From the various definitions put forward by linguists, it can be concluded that assimilation is the process of a sound influencing other adjacent sounds so that the affected sound becomes the same or almost the same as the sound that affects it. The assimilation process occurs due to the similarity or similarity in several features between the sound that affects it and other sounds that are affected. The similarity may lie in the manner of articulation, the area of articulation, the nature of the sound, or other phonetic features (Browman & Goldstein, 1990; Lahiri & Reetz, 2010).

According to Dinnsen & Charles-Luce, 1984; Barlaz et al., 2018), assimilation can occur based on three factors: vibration of the vocal cords, movement of the velum, and branching of the articulation area. Assimilation based on the vibration of the vocal cords can result in voiceless sound becoming audible or vice versa. Assimilation that involves movement of the velum will result in non-nasal sounds becoming nasal in character. Assimilation based on the articulator or the area of the articulation will result in a sound changing into another sound adjacent to the area of articulation.

In terms of shape, Beckman et al. (2011) and Kharlamov (2014), divides the assimilation process into four possibilities, namely (1) consonants assimilate with vowel characteristics, (2) vowels assimilate with consonant characteristics, (3) consonants assimilate with characteristics -consonant characteristics, and (4) vowels assimilate with vowel characteristics.

As a phonological symptom, assimilation can be phonetic and can be phonemic. Gahl et al. (2012) and Wiese (2006), states that phonetic assimilation does not change the state of the affected sound phonemes, whereas phonemic assimilation changes certain phonemes into other phonemes. For example, in Dutch the word zakdoek handkerchief is a compound word consisting of the eastern part.

The formality factor. For example, the words money and money are two synonymous words. However, the word money is used in a variety of formal and informal. Money is only suitable for informal styles. Social factors. The word I and I are synonymous. The word I can be used by anyone and anyone, while the word I can only be used for peers and have a close relationship. Field of activity factors. The words sun and surya, are synonymous. The word sun is used in any activity, while the word solar is only used in a specific variety. The nuance factor of meaning. For example, the words see, behold, descry, espy, survey, contemplate, observe, notice, remark, note, perceive, discern, are synonymous words.

Antonym

Antonym is a semantic relationship between two units of speech whose meaning states the opposite / contradiction. For example, the words good> <bad, happy> <sad, and buy> <sell. Types of antonyms include antonyms that are absolute. For

example, the word death is anonymous with the word life. It is absolute because something that is alive is certainly not dead, and something that is dead is certainly not alive. Antonyms that are relative / graded. For example, the words big and small are relatively anonymous, because the boundaries between one another cannot be clearly determined. Antonyms that are relational. For example, between the words buy and sell, between teacher and student. Antonyms of this type are called relational because the emergence of one must be accompanied by another. For example, a man cannot be called a husband if he does not have a wife. If his wife died, he would no longer be a husband, but now he has changed his name to a widower. Hierarchical antonyms. For example, the words enlisted and non-commissioned officer are hierarchically antonyms, also between the words gram and kilogram. Thus, the words enlisted and non-commissioned officers are in one.

Meaning of idioms and proverbs

Idiom is a unit of speech whose meaning cannot be predicted from the meaning of the elements, both lexically and grammatically. Idioms are divided into two, first, full idioms, namely idioms where all the elements have merged into one unit, so that the meaning they have comes from the whole unit. Example: by the book. The meaning of doing something according to the rules. In sentences it is often stated that He is a good cop. He does everything by the book. Another example: Don't give up the day job. The meaning: You are not very good at that. You could definitely not do it professionally. In sentences it is often stated that I really like the way you write, but don't give up your day job. Second, partial idioms are idioms where one of the elements still has a lexical satirical meaning. Example: white house, consists of two meanings, namely house and white. The proverb is an idiom which has a meaning that can still be traced or traced from the meaning of its elements because of the association between the original meaning and its meaning.

Synonyms

Synonym is a semantic relationship which states that there is a similarity in meaning between one unit of speech and another. For example, right with the correct word between pregnant and the phrase sitting on the stomach. The inequality factor of two synonymous utterances whose meaning will not be exactly the same is time factor. For example, the word kempel is synonymous with the word stempel, but the word kempa is also only suitable for use in classical contexts. The place or region factor. For example, the words I and beta are two synonymous words. However, the word I can be used anywhere, while the word beta is only suitable for Indonesian regions.

Zakantong and doek kain, the voiceless [k] changes to sound [g] due to the effect of the sound [d] in the word doek. Incidentally, in Dutch [g] is only an allophon of the phoneme / k / only in Dutch there is no phoneme * / g /. Therefore, the assimilation in the word zakdoek [zakduk] is a phonetic assimilation, because there is no change in

the phoneme. In contrast to the example of *zakdoek*, the example in Dutch is *ik eet vis* [ik et fis]. In this example the phoneme / v / in the word *vis* changes to the voiceless homorgan phoneme / f / due to the influence of the previous unvoiced phoneme / t / in the word *eet*. This change is phonemic because the phonemes / v / and / f / are two phonemes that both exist in Dutch and are both minimally paired.

Assimilation in English, for example, the English word *top* is pronounced [tOp '] with [t] apico-dental. However, after getting [s] lamino-palatal at stop, the word is pronounced [stOp '] with [t] also lamino-palatal. Thus it can be concluded that [t] in [stOp '] is adjusted or assimilated its articulation with the preceding [s] so that it is equally lamino-palatal. If the assimilated sound comes after the assimilating sound it is called progressive assimilation.

The Dutch word *zak 'bag'* is pronounced [zak '] with an unvoiced [k] velar, and *doek' kain* 'is pronounced [duk'] with [d] voiced apiko-dental. When the two words are combined, it becomes *zakdoek 'handkerchief'*, pronounced [zagduk ']. The sound [k] in *zak* changes to voiced [g] velar because it is influenced by the sound [d] that follows it. Thus it can be concluded that [k] in [zak '] is adjusted or assimilated by the articulation of the sound [d] that follows it so that they both sound. If the assimilated sound comes before the assimilating sound it is called regressive assimilation.

The Batak Toba word *holan ho 'only you'* is pronounced [holakko], *suan hon* is pronounced [suatton]. The sound [n] in *holan* and the sound [h] in *ho* are mutually adjusted or assimilated to be [k], while the [n] in *suan* and [h] in *hon* are mutually adjusted or assimilated to be [t]. Thus it can be concluded that the two sounds, namely [n] and [h], [n] and [h] are mutually adjusted. If the two sounds assimilate each other, giving rise to a new sound it is called reciprocal assimilation.

Judging from the scope of the changes, the assimilation in Example 1 is classified as phonetic assimilation because the changes are still within the scope of the allophones of one phoneme, namely phoneme / t /. The assimilation in Example 2 is also classified as phonetic assimilation because the change from [k '] to [g'] in the *koda* position is still classified as allophones of the same phoneme. While the assimilation in Example 3 is classified as phonemic assimilation because of the change from [n] to [k] and [h] to [k] (in *holan ho* > [holakko]), as well as changes from [n] to [t] and [h] to [t] (on *suan hon* > [su-atton]) is already in the interphone scope. The sound [n] is an allophone of fo-nem / n /, the sound [k] is an allophone of the phoneme / k /. Likewise, the sound [h] is an allophone of the phoneme / h /, and the sound [t] is an allophone of the phoneme / t /.

In Indonesian, phonetic assimilation occurs in the nasal sounds of the words *about* and *kick*. The nasal sound in *about* is pronounced apico-dental because the sound that follows it, namely [t], is also apicodental. The nasal sound of the *kick* is pronounced

apico-alveolar because the sound that follows it, namely [d], is also apico-alveolar. These changes in nasal sounds are still within the scope of the allophones of the same phoneme.

Phonemic assimilation is seen in the following example. The Dutch sentence 'Ik eet vis' 'I eat fish', the word 'vis' - which is usually pronounced [vis] - in the sentence is pronounced [fis] with a labiodental fricative that does not sound because it is influenced by the word 'eet' [i: t] which ends with a stop sound apico-alveolar voiceless. The change or adjustment from [v] to [f] is the scope of two different phonemes because the sound [v] is an allophon of the phoneme / v /, and the sound [f] is an allophon of phoneme / f / (Mitterer & Ernestus, 2008; Johnson, 2006).

Dissimilation

The opposite of assimilation, dissimilation is the change of sound from two sounds that are the same or similar to a sound that is not the same is the meaning of words independently, without relation to other words in a construction (Warner et al., 2004). Examples of lexical meanings are the uppermost or foremost part of the body or limb 'anything that can and is eaten' 'bound sheets of paper to record lessons', grammatical meaning only exists when there is a process of affixation, reduplication, composition, or sentenceization. And contextual meaning is the meaning of a lexeme / word that is in one context.

A word / lexeme is said to have a referential meaning if there is a reference, otherwise it is called non-referential if the words have no reference. The denotative meaning is the original meaning possessed by a lexeme. Meanwhile, the connotative meaning is another meaning that is added to the denotative meaning which is related to the taste value of the person / group of people who uses the word. The conceptual meaning is the meaning that has a lexeme regardless of any context / association, while the associative meaning is the meaning that belongs to a lexeme / word with respect to the relationship between the word and something that is outside the language.

The meaning of a word is still general in nature, harsh and unclear. It only becomes clear when a word is already in the context of the sentence / or the context of the situation. Meanwhile, the meaning of the term has a definite, clear, unambiguous meaning, even without the context of the sentence. It is often said that the term is context free while the meaning of the word is not context free.

The term semantics is used more frequently in linguistic studies than terms for other meaning sciences, such as semiotics, semiology, semasiology, sememics, and semics. This is because the other terms have a fairly broad object scope, which includes the meaning of a sign or symbol in general. Including traffic signs, morse, mathematical

signs, and also other signs, while the limitation of the scope of semantics is the meaning or meaning relating to language as a means of verbal communication.

Semantics comes from the Greek *semanticos* which means it is a branch of linguistics that studies the meaning contained in a language, code or other types of representation. In other words, semantics is the study of meaning. Semantics in Indonesian comes from English "semantics", which is the term used by experts to refer to the part of linguistics that studies meaning. Furthermore, according to Van Oostendorp, (2008) and Nielsen, (2011), "semantics is the study of meaning communicated through language", which means semantics is the study of meaning communicated through language. So semantic theory is a theory that studies the science of meaning communicated through language. Semantics is a part of linguistics which discusses the meaning of words, phrases and clauses in a sentence. The role of semantics is very important in communicating life, because the language used in communication is nothing but to convey meaning.

The word lexical is an adjective form derived from the noun lexicon. The lexicon is the plural form. The unit form is lexeme. The lexicon can be equated with vocabulary, vocabulary. The lexeme is the basic abstract lexical unit that underlies the various inflective forms of a word. For example: go, went, gone, going are forms of the lexeme go. The lexical meaning is the meaning that belongs to the lexeme without any context. Lexical meaning

The Indonesian word learn [learn] comes from combining the prefix ber [bər] and the basic form of teaching [teach]. It should be, if there is no change to teach [bərajar]. However, because there are two sounds [r], the first [r] is differentiated or dissimilated to become [l] so that it becomes [bəlajar]. Since this change has crossed the phoneme boundary, namely [r] is an allophon of phoneme / r / and [l] is an allophon of phoneme / l /, it is called phonemic dissimilation.

Diachronic, the word scholar [scholar] comes from the Sanskrit *sajjana* [sajjana]. The change occurs because of the double [j] sound. The sound [j] is first changed to the sound [r]: [sajjana] > [scholar]. Since the change has crossed the phoneme boundary, namely [j] is an allophon of the phoneme / j / and [r] is an allophon of the phoneme / r /, the change is called phonemic dissimilation.

The word vegetable [sayUr mayUr] is the result of a morphological process of repeating the basic vegetable form [sayUr]. After repeating, [s] in the basic form [sayUr] changes to [m] so that it becomes [sayUr mayUr]. Since the change has crossed the phoneme boundary, namely [s] is an allophon of phoneme / j / and [m] is an allophon of phoneme / m /, then the change is also called phonemic dissimilation (Dmitrieva et al., 2010; Mennen, 2004).

Vowel modification is a change in the sound of a vowel as a result of the influence of other sounds that follow it. This change can actually be included in the assimilation event, but because this case is relatively unique, it needs to be isolated. The word behind is pronounced [baliʔ], The vowel i is pronounced low [ɪ]. But when you get the suffix -an, so that it becomes better, the sound [ɪ] changes to high [i]: [inverse]. This change is due to the sound that follows it. In the word reverse, the sound that follows is glotal stop or hamzah [ʔ], While in the word inverse, the sound that follows is dorso-velar [k]. Since the change from [ɪ] to [i] is still within the allophones of one phoneme, the change is called phonetic vowel modification.

As a note, this change could also be due to differences in the structure of the syllable. In the sound [ɪ], it is a syllable nucleus followed by a code (lik on a ba-lik), while in the [i] sound, it is a syllable nucleus that is not followed by a cod (li on a ba-li-kan). The word toko, koko, oto is pronounced respectively [toko], [koko], [oto]. Meanwhile, the character said, sturdy, muscles are pronounced [tOkOh], [kOkOh], [OtOtʔ]. The sound of the vowel [O] in the first syllable of the second group of words is influenced by the sound of the vowel in the syllable that follows it. Because the vowel of the second syllable is [O], it is adjusted to [O] in the first syllable. Since this change is still within the scope of the allophon of one phoneme, namely the phoneme / o /, it is called a modification of the phonetic vowel. This mindset can also be applied to the sound [o] in group one words.

Conclusion

If observed, the vowel change in example 1 occurs from a low vowel to a higher vowel. The modification or change of vowels from low to high by linguists is called an umlaut. There is also a mention of metaphony. Meanwhile, the vowel change in Example 2 occurs due to the influence of the other vowels on the following syllable. This type of vowel change is known as vocal harmony or vocal harmony. Apart from these two types of vowel changes, there is also a vowel change called ablaut (There are also those who call apophony or vowel gradation). This type of vowel change is not due to the influence of the structure of the syllable or other vowel sounds on the syllable that follows it, but is more related to morphological elements. For example, the change of the English word's vowel from sing [sɪŋ] 'to sing' to sang [sɛŋ], sung [sʊŋ]. This type of vocal change can also be called an internal modification (Klatt, 1979; Darcy et al., 2015).

Neutralization is a change in phonemic sound as a result of environmental influences. To explain this case, we can look at the following illustration. By means of the minimal pair [baraŋ] 'barang'– [paraŋ] 'parang' it can be concluded that in Indonesian there are the phonemes / b / and / p /. But under certain conditions, the distinguishing function between / b / and / p / can be invalidated - at least a problem – because.

References

- Atterer, M., & Ladd, D. R. (2004). On the phonetics and phonology of “segmental anchoring” of F0: evidence from German. *Journal of Phonetics*, 32(2), 177-197. [https://doi.org/10.1016/S0095-4470\(03\)00039-1](https://doi.org/10.1016/S0095-4470(03)00039-1)
- Barlaz, M., Shosted, R., Fu, M., & Sutton, B. (2018). Oropharyngeal articulation of phonemic and phonetic nasalization in Brazilian Portuguese. *Journal of Phonetics*, 71, 81-97. <https://doi.org/10.1016/j.wocn.2018.07.009>
- Baumann, S., & Cangemi, F. (2020). Integrating phonetics and phonology in the study of linguistic prominence. *Journal of Phonetics*, 81, 100993. <https://doi.org/10.1016/j.wocn.2020.100993>
- Beckman, J., Helgason, P., McMurray, B., & Ringen, C. (2011). Rate effects on Swedish VOT: Evidence for phonological overspecification. *Journal of phonetics*, 39(1), 39-49. <https://doi.org/10.1016/j.wocn.2010.11.001>
- Berent, I. (2013). The phonological mind. *Trends in cognitive sciences*, 17(7), 319-327. <https://doi.org/10.1016/j.tics.2013.05.004>
- Best, C. T., & Strange, W. (1992). Effects of phonological and phonetic factors on cross-language perception of approximants. *Journal of phonetics*, 20(3), 305-330. [https://doi.org/10.1016/S0095-4470\(19\)30637-0](https://doi.org/10.1016/S0095-4470(19)30637-0)
- Bohn, O. S., & Best, C. T. (2012). Native-language phonetic and phonological influences on perception of American English approximants by Danish and German listeners. *Journal of Phonetics*, 40(1), 109-128. <https://doi.org/10.1016/j.wocn.2011.08.002>
- Bondarko, L. V. (2005). Phonetic and phonological aspects of the opposition of ‘soft’ and ‘hard’ consonants in the modern Russian language. *Speech communication*, 47(1-2), 7-14. <https://doi.org/10.1016/j.specom.2005.03.012>
- Browman, C. P., & Goldstein, L. (1990). Representation and reality: Physical systems and phonological structure. *Journal of Phonetics*, 18(3), 411-424. [https://doi.org/10.1016/S0095-4470\(19\)30382-1](https://doi.org/10.1016/S0095-4470(19)30382-1)
- Burgess, J., & Spencer, S. (2000). Phonology and pronunciation in integrated language teaching and teacher education. *System*, 28(2), 191-215. [https://doi.org/10.1016/S0346-251X\(00\)00007-5](https://doi.org/10.1016/S0346-251X(00)00007-5)
- Bürki, A., Fougeron, C., Gendrot, C., & Frauenfelder, U. H. (2011). Phonetic reduction versus phonological deletion of French schwa: Some methodological issues. *Journal of Phonetics*, 39(3), 279-288. <https://doi.org/10.1016/j.wocn.2010.07.003>
- Chen, Y. (2011). How does phonology guide phonetics in segment-f0 interaction?. *Journal of Phonetics*, 39(4), 612-625. <https://doi.org/10.1016/j.wocn.2011.04.001>
- Darcy, I., Park, H., & Yang, C. L. (2015). Individual differences in L2 acquisition of English phonology: The relation between cognitive abilities and phonological processing. *Learning and Individual Differences*, 40, 63-72. <https://doi.org/10.1016/j.lindif.2015.04.005>

- Davidson, L. (2006). Phonology, phonetics, or frequency: Influences on the production of non-native sequences. *Journal of Phonetics*, 34(1), 104-137. <https://doi.org/10.1016/j.wocn.2005.03.004>
- de Leeuw, E., & Celata, C. (2019). Plasticity of native phonetic and phonological domains in the context of bilingualism. *Journal of Phonetics*, 75, 88-93. <https://doi.org/10.1016/j.wocn.2019.05.003>
- Deng, L. (1998). A dynamic, feature-based approach to the interface between phonology and phonetics for speech modeling and recognition. *Speech communication*, 24(4), 299-323. [https://doi.org/10.1016/S0167-6393\(98\)00023-5](https://doi.org/10.1016/S0167-6393(98)00023-5)
- Dinnsen, D. A., & Charles-Luce, J. (1984). Phonological neutralization, phonetic implementation and individual differences. *Journal of phonetics*, 12(1), 49-60. [https://doi.org/10.1016/S0095-4470\(19\)30850-2](https://doi.org/10.1016/S0095-4470(19)30850-2)
- Dmitrieva, O., Jongman, A., & Sereno, J. (2010). Phonological neutralization by native and non-native speakers: The case of Russian final devoicing. *Journal of phonetics*, 38(3), 483-492. <https://doi.org/10.1016/j.wocn.2010.06.001>
- Dmitrieva, O., Llanos, F., Shultz, A. A., & Francis, A. L. (2015). Phonological status, not voice onset time, determines the acoustic realization of onset f0 as a secondary voicing cue in Spanish and English. *Journal of Phonetics*, 49, 77-95. <https://doi.org/10.1016/j.wocn.2014.12.005>
- Foulkes, P., & Docherty, G. (2006). The social life of phonetics and phonology. *Journal of phonetics*, 34(4), 409-438. <https://doi.org/10.1016/j.wocn.2005.08.002>
- Frisch, S. A., & Wright, R. (2002). The phonetics of phonological speech errors: An acoustic analysis of slips of the tongue. *Journal of Phonetics*, 30(2), 139-162. <https://doi.org/10.1006/jpho.2002.0176>
- Gahl, S., Yao, Y., & Johnson, K. (2012). Why reduce? Phonological neighborhood density and phonetic reduction in spontaneous speech. *Journal of memory and language*, 66(4), 789-806. <https://doi.org/10.1016/j.jml.2011.11.006>
- Hallé, P. A., Best, C. T., & Levitt, A. (1999). Phonetic vs. phonological influences on French listeners' perception of American English approximants. *Journal of phonetics*, 27(3), 281-306. <https://doi.org/10.1006/jpho.1999.0097>
- Johnson, K. (2006). Resonance in an exemplar-based lexicon: The emergence of social identity and phonology. *Journal of phonetics*, 34(4), 485-499. <https://doi.org/10.1016/j.wocn.2005.08.004>
- Kharlamov, V. (2014). Incomplete neutralization of the voicing contrast in word-final obstruents in Russian: Phonological, lexical, and methodological influences. *Journal of phonetics*, 43, 47-56. <https://doi.org/10.1016/j.wocn.2014.02.002>
- Klatt, D. H. (1979). Speech perception: A model of acoustic-phonetic analysis and lexical access. *Journal of phonetics*, 7(3), 279-312. [https://doi.org/10.1016/S0095-4470\(19\)31059-9](https://doi.org/10.1016/S0095-4470(19)31059-9)
- Lahiri, A., & Reetz, H. (2010). Distinctive features: Phonological underspecification in representation and processing. *Journal of Phonetics*, 38(1), 44-59. <https://doi.org/10.1016/j.wocn.2010.01.002>

- Local, J. (2003). Variable domains and variable relevance: interpreting phonetic exponents. *Journal of Phonetics*, 31(3-4), 321-339. [https://doi.org/10.1016/S0095-4470\(03\)00045-7](https://doi.org/10.1016/S0095-4470(03)00045-7)
- Menn, L. (1983). Development of articulatory, phonetic, and phonological capabilities. *Language production*, 2, 3-50.
- Mennen, I. (2004). Bi-directional interference in the intonation of Dutch speakers of Greek. *Journal of phonetics*, 32(4), 543-563. <https://doi.org/10.1016/j.wocn.2004.02.002>
- Mitterer, H., & Ernestus, M. (2008). The link between speech perception and production is phonological and abstract: Evidence from the shadowing task. *Cognition*, 109(1), 168-173. <https://doi.org/10.1016/j.cognition.2008.08.002>
- Nielsen, K. (2011). Specificity and abstractness of VOT imitation. *Journal of Phonetics*, 39(2), 132-142. <https://doi.org/10.1016/j.wocn.2010.12.007>
- Ohala, J. J. (1990). There is no interface between phonology and phonetics: a personal view. *Journal of phonetics*, 18(2), 153-171. [https://doi.org/10.1016/S0095-4470\(19\)30399-7](https://doi.org/10.1016/S0095-4470(19)30399-7)
- Ohala, J. J., & Ohala, M. (1993). The phonetics of nasal phonology: Theorems and data. In *Nasals, nasalization, and the velum* (pp. 225-249). Academic Press. <https://doi.org/10.1016/B978-0-12-360380-7.50013-2>
- Shaywitz, B. A., Shaywitz, S. E., Blachman, B. A., Pugh, K. R., Fulbright, R. K., Skudlarski, P., ... & Gore, J. C. (2004). Development of left occipitotemporal systems for skilled reading in children after a phonologically-based intervention. *Biological psychiatry*, 55(9), 926-933. <https://doi.org/10.1016/j.biopsych.2003.12.019>
- Sproat, R., & Fujimura, O. (1993). Allophonic variation in English/l/and its implications for phonetic implementation. *Journal of phonetics*, 21(3), 291-311. [https://doi.org/10.1016/S0095-4470\(19\)31340-3](https://doi.org/10.1016/S0095-4470(19)31340-3)
- Turkeltaub, P. E., & Coslett, H. B. (2010). Localization of sublexical speech perception components. *Brain and language*, 114(1), 1-15. <https://doi.org/10.1016/j.bandl.2010.03.008>
- Van Oostendorp, M. (2008). Incomplete devoicing in formal phonology. *Lingua*, 118(9), 1362-1374. <https://doi.org/10.1016/j.lingua.2007.09.009>
- Warner, N., Jongman, A., Sereno, J., & Kems, R. (2004). Incomplete neutralization and other sub-phonemic durational differences in production and perception: Evidence from Dutch. *Journal of phonetics*, 32(2), 251-276. [https://doi.org/10.1016/S0095-4470\(03\)00032-9](https://doi.org/10.1016/S0095-4470(03)00032-9)
- Wiese, R. (2006). Phonology: overview. *Encyclopedia of Language and Linguistics*, 9, 562-564.