The Sound Patterns of Language: Phonology

Phonemes
The Pronunciation of Morphemes
Examples of Allomorphs
The study of how speech sounds form patterns is phonology.

- Phonology is the description of the systems and patterns of speech sounds in a language.
- It is based on a theory of what every speaker of a language unconsciously knows about sound patterns of that language.
- Phonology is concerned with the abstract or mental aspects of sounds in language.
- Phonology serves as the underlying design for all the variations in different physical articulations of a sound type in different contexts.
Phonetics vs Phonology

Main Difference – Phonetics vs Phonology

Phonetics and phonology are two subfields of linguistics which studies the sounds in language.

The main difference between phonetics and phonology is that phonetics is the study of speech sounds whereas phonology is the study of sounds, especially different patterns of sounds in different languages.
Phonemes are the dark matter of phonology; they are not physical sounds and directly observable. They are abstract mental representations of the phonological units of a language. The phonological rules of the language apply to phonemes to determine the pronunciation of words.
Phonemes are the basic unit of sound and are sensed in your mind rather than spoken or heard.

Each phoneme has one or more sounds called allophones associated with it, which represent the actual sound being produced in various environments.

Vowel phonemes in English:

/ɪ/ as in ship
/ʊ/ as in book
/e/ as in egg
/æ/ as in cat
/ʌ/ as in cup
/ɒ/ as in hot
Pronunciation of a phoneme is called a phone. Phones that are the realizations of the same phoneme are called allophones of that phoneme. In English each vowel phoneme has both an oral and nasalized allophone. The choice of the allophone is not random it is rule-governed.
“All this time, I was getting on towards the river; but however fast I went, I couldn’t warm my feet, to which the damp cold seemed riveted, as the iron was riveted to the leg of the man I was running to meet. I knew my way to the Battery, pretty straight, for I had been down there on a Sunday with Joe, and Joe, sitting on an old gun, had told me that when I was ‘prentice to him, regularly bound, we would have such Larks there!”

In this example, different phonemes are highlighted as /g/ i/ /b/ /w/ /m/ /ie/ /d/ /s/ /f/ /h/ /j/ and /l/
Knowledge of phonology determines how we pronounce words and the parts of words we call morphemes. Often, certain morphemes are pronounced differently depending on their context.
Linguists (those who study language) have devised the category for the smallest unit of grammar Morphemes. Morphemes function as the foundation of language and syntax.

Syntax is the arrangement of words and sentences to create meaning.

We shouldn’t confuse morphemes as only a given word, number of syllables or only as a prefix or suffix. The term Morpheme can apply to a variety of different situations.

nonperishable is comprised of 3 morphemes. Non-perish-able.

-Non is an example of a prefix -Perish is a base morpheme a morpheme that gives the Word its essential meaning. -Able is an example of a suffix a morpheme that follows a base morpheme. Both –non and –able are examples of an affix a morpheme attached prior to or following a base that cannot function independently.
In linguistics, a **morpheme** is the smallest grammatical unit in a language. In other words, it is the smallest meaningful unit of a language.

- Sometimes certain morphemes are pronounced differently depending on their context

- Written as “s” and pronounced as /s/: groups, lots, proofs, weeks
- Written as “s” and pronounced as /z/: dogs, friends, jobs, shoes
- Written as “s” and pronounced as /ɪz/: horses, judges, prizes
- Written as “es” and pronounced as /z/: companies, potatoes, tornadoes
- Written as “es” and pronounced as /ɪz/: churches, classes, wishes
An allomorph is one of two or more complementary morphs which manifest a morpheme in its different phonological or morphological environments.

Examples of Allomorphs

The English possessive morpheme and the third person singular morpheme have allomorphs that take on the same phonetic form as the plural morpheme and are governed by the same rules:

- Possessive: Add [z] to woman to get woman’s
- Add [s] to ship to get ship’s
- Add [əz] to judge to get judge’s
- Third person singular: Add [z] to need to get needs
- Add [s] to eat to get eats
- Add [əz] to rush to get rushes
Phoneme (abstract) → p → Phone (concrete)

Phonology

top:

p

allophones

bottom:

Morpheme (abstract) → S → Morph (concrete)

Morphology

S, Z, iz

allomorphs

(Morpheme & morph belong to the different phonological structures, but represent for the same morpheme)
Each Phoneme in a language has variants. They are called allophones.

For Example: In the English Word “pool” the /p/ must be pronounced using the correct allophone.

The correct allophone of /p/ is aspirated.

The aspirated allophone of /p/ has a brief puff of air.

Incorrect: [pul]

Correct: [P-hul]
Whenever /p/ is before a vowel at the beginning of a stressed syllable we use the aspirated allophone of /p/.

“pie”          “pear”
“appear”       “patient”
On the other hand if /p/ is at the beginning of an unstressed syllable we use the unaspirated allophone of /p/.

“apple”      “polite”
“copper”      “typing”
Similarly in English whenever the /p/ sound comes after the sound /s/ we used the unaspirated allophone not the aspirated allophone.

"Spin"
"Spool"
"Speak"
"Spanish"
The smallest linguistic unit within a language that is able, when combined with other units to establish word meanings and distinguish between them:

A. Phonetics
B. Articulation
C. Phoneme
D. Speech sound
Phonology is:
A. The study of how phonemes are organized and function in communication to convey meaning
B. Refers to the description of the allowed combinations of phonemes in a particular language
C. List of all the vowels and consonants that function in AE to differentiate meaning
D. A disorder
How many phonemes are there in the word 'dangerous'?

A. Seven
B. Eight
C. Nine
Unrelated languages often use different sets of sounds and rules for making sense with them (i.e., syntax). The basic rules of grammar are learned in early childhood, before going to school. Formal education only standardizes and augments the rules.

Which of the following statements is true about languages?

- a) All languages use essentially the same number of sounds.
- b) All native speakers of a language learn the basic rules of grammar in school.
- c) While different languages may use different phonemes, they all essentially share the same syntax.
- d) none of the above
How many morphemes do these words contain?:

Plays
Replay
Cheap
Cheaply
Able
Unable
Brighten
### Answer:

<table>
<thead>
<tr>
<th>Word</th>
<th>Number of Morpheme:</th>
<th></th>
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<tbody>
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<tr>
<td>Brighten</td>
<td>2 morphemes</td>
<td>{bright} and {en}</td>
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