

What's the difference between a phoneme, a phone, and an allophone?

In order to really understand phonology and phonetics, you need to understand what the differences between a phoneme, a phone, and an allophone are. Let's look at them separately first.

1. What is a phoneme?

I think it's easier to start with discussing **what a phoneme is**. The definition that you will often hear is “a phoneme is the smallest unit that distinguishes meaning between sounds in a given language.” What does that mean? Let's look at a word using IPA, a transcription system created by the [International Phonetic Association](#).

- **Let's look for example at the word *puff*.**

We use broad transcription when describing phonemes. When we are using broad transcription we use slashes (/ /). So the word *puff* in broad transcription is:

/pʌf/

In simpler words, in broad transcription phonetics tells you that the word *puff* includes four (4) letters but when transcribed it contains three (3) phonemes. Here we see that *puff* has three phonemes /p/, /ʌ/, and /f/. When we store the pronunciation of the word *puff* in our head, this is how we remember it. What happens if we change one phoneme in the word *puff*?

A phoneme is the abstract mental realization or psychological reality (image stored in mind) you have about transcribed words.

Let's take for instance the phonemic transcription **/pʌf/** (/p/, /ʌ/, and /f/). If we change the phoneme (not the letters) /f/ to the phoneme /k/ we get another word. We get the word *puck* which looks like this in broad transcription: /pʌk/

This is a type of test that we can do to see if /f/ and /k/ are similar or different phonemes. If we swap these two phonemes we get a new word so we can say that in English /f/ and /k/ are different phonemes. This difference in phonology is called contrastive distribution; contrastive because the meaning has changed. Here are other examples: **(sink- pink), (sit- kit), (push- put), (meat- seat)**

2. What is a phone?

Now that we've covered what a phoneme is, we can discuss phones. Remember that we defined a phoneme as “the smallest unit that distinguishes meaning between sounds in a given language.” However, a phoneme is really the mental representation of a sound, not the sound itself. The phoneme is the part that is stored in your brain. When you actually produce a sound you are producing **a phone**.

To give an example, let's say you want to say the word for a small four-legged animal that meows, **a cat**. Your brain searches for the word in your **lexicon** to see if you know the word. You find the lexical entry. You see that the phonemic representation of the word is /kæt/. Then you use your vocal tract to produce the sounds [k], [æ], and [t] and you get the word [kæt].

Phonology tells you that **a phone** is the actual practical sound part that you can hear. It is marked with brackets ([]) while the phoneme; the mental representation of the sound, is marked with slashes (/ /).

So now we know the main difference between phonemes and phones. But why do we need to make the distinction?

Why do we need phonemes and phones?

Ok. Let's recap. Phonemes are the mental representation of the how a word sounds and phones are the actual sounds themselves. If we take an example from above, the word *puff* we can write out the phonemic representation (with phonemes using slashes) and the phonetic representation (with phones using brackets).

/pʌf/

[pʌf]

Okay. What does the above show us? Not a whole lot really. So why do we need two different versions? Recall that the transcription that uses phonemes is called broad transcription while the transcription that uses phones is called narrow transcription. These names can give us a clue about the differences.

By looking at the broad transcription, /pʌf/, we can know how to pronounce the word *puff*. I can pronounce the word, you can pronounce the word, and a non-native English speaker can all pronounce the word. We should all be able to understand what we are saying. However, what if we wanted more information about how the word actually sounds? Narrow transcription can help us with that.

- Narrow transcription just gives us extra information (details) about how a word sounds. So the word *puff* can be written like this in narrow transcription:

[p^hʌf]

Well, that's new. This narrow transcription of the word *puff* gives us a little more information about how the word sounds. Here, we see that the [p] is **aspirated**. This means that when pronouncing the sound [p], we have an extra puff of air that comes out. We notate this by using the superscript ^h.

So you are probably asking yourself, why don't we just put the ^h in the broad transcription? Remember that broad transcription uses phonemes and by definition, if we change a phoneme in a word, we will get a different word. Look at the following:

/pʌf/
/p^hʌf/ *

In English, an aspirated *p* and an unaspirated *p* don't change the meaning of a word. That is, you can pronounce the same sound in two different ways, but it wouldn't change the meaning. And by definition, if we change a phoneme, we change the meaning of a word. That means there's only one /p/ phoneme in English. If we were speaking a language where aspiration does change the meaning of a word, then that language could have two phonemes, /p/ and /p^h/. Since it doesn't change the meaning in English, we just mark it in narrow transcription.

and /p^h/ are called: allophones

Great. So now we know why we need to have phonemes and phones, but what are allophones?

3. What are allophones?

I just said that we can pronounce the /p/ phoneme in at least two different ways: [p] and [p^h]. This means that [p] and [p^h] are allophones or variants of the phoneme /p/. The prefix -allo comes from the Greek *állos* meaning "other," so allophones are just "another way to pronounce a phoneme."

- In phonology [p] and [p^h] are in complementary distribution in this case because the meaning has not changed.

Aspiration is a phonetic feature which occurs in initial position (beginning of a word) but not in final position (end of the word).

For more examples see these links on youtube.

<https://www.youtube.com/watch?v=UCeXfLfVQ2I&t=517s>

<https://www.youtube.com/watch?v=UCeXfLfVQ2I&t=566s>

Recap

We've learned a few things here.

1. A phoneme is a mental representation of a sound, not necessarily a letter. Also, when we swap a phoneme we change the word.
2. A phone is the phonetic representation of a phoneme (the actual sound).
3. Allophones are different ways to pronounce the same phoneme while keeping the same meaning.
4. Sometimes allophones are predictable depending on their environment and who is speaking.

This may seem like a lot to grasp if this is the first time you are reading about phonemes, phones, and allophones. I know that when I started learning this stuff it took me a while to grasp what was going on, but these are the building blocks of both phonology and phonetics. If you want to study either of those or if you want to really deep dive into English pronunciation, you need to know this stuff. If this didn't make sense the first time you read it, come back tomorrow and read through it again. It will start making sense after reading it a few times.

lexicon noun

/ˈleksɪk(ə)n/

the vocabulary of a person, language, or branch of knowledge.