



University of Tikrit

College of Education for women

Department of English

Subject: Phonetics

1st Year

Lecturer : Mais Alreem Mazin

MM231451Ped@st.tu.edu.iq

Phonemes

Phonemes

You might reasonably have assumed that whenever speakers distinguish between a pair of sounds, they will use that difference to distinguish between words. For example, we know that English speakers distinguish between [s] and [z], and we use this difference to signal the difference between the words sip and zip.

We will say that [s] and [z] contrast with each other in English. In fact, all of the sounds we have described so far contrast with each other in English and so are used by English speakers to distinguish words from each other.

You can test this out by taking any pair of sounds (as we took [s] and [z]) and creating a pair of words (like sip and zip) which are identical, except that where one has one sound, the other has the other sound, just as where sip has [s], zip has [z]. Pairs of words like this are called minimal pairs, and are used to demonstrate that pairs of sounds are used in a language to distinguish words from each other.

Sound units that distinguish words from each other are called phonemes. We enclose phonemes in / / (e.g., /s/, /z/) to distinguish them from sounds ([s], [z]) and ordinary letters (,).

Allophones

Now listen to the vowels in the words cat and cad. Are they identical or different? We hope you said “different.” Can you now say how they differ? We hope you said that one was longer than the other. Now listen to the consonants after the vowels. Are these the same or different? Again, we hope you said different, and that you know that [t] is voiceless and [d] is voiced.

Now, which vowel, the longer or the shorter, precedes [d] and which precedes [t]? We hope you said that the longer vowel precedes the voiced consonant. Are the two vowels similar in any way? Again, we hope you said that they seem to be longer and shorter versions of the same vowel, [ɪ]. Let's use [ɪ:] to indicate extra length. So, the vowel before voiceless [t] is just [ɪ], but the one before voiced [d] is [ɪ:]. Now let's listen to some more word pairs like cat and cad: root rood moat mode leaf leave gape Gabe Listen to the vowels in each pair. You should hear that the vowel in the second word in each pair is a little longer than the vowel in the first.

Now determine the similarities and differences between the consonants after the vowels in each word pair. You should find that the consonant in the first word is the voiceless version of the consonant in the second word. Turning our attention again to the vowels in each word pair: how are they related? We hope you said that they were very similar vowels, specifically, short and long versions of the same vowel.

You should now be able to determine a very general rule of English. When are vowels lengthened and when are they not lengthened? Your answer should be something along the lines of: English vowels are lengthened when they occur before a voiced consonant; otherwise they are not lengthened. So far we've seen [ɪ] and [i:], [ʊ] and [u:], [ɒ] and [o:], [ɪ] and [i:], and [e] and [e:]; in each case the longer vowel occurs before a voiced consonant. We've also noted that the vowels are otherwise virtually identical—they differ only in length. So it makes good sense to regard these pairs of vowel sounds as slightly different pronunciations of the same vowel, and that whether the vowel is lengthened or not depends on whether the consonant that follows it is voiced or not. Importantly, the long and short pairs of vowels do not contrast with each other: English contains no pairs of words that are identical except that where one contains a short version of a vowel, the other contains the longer version of the same vowel. Consequently, the long and short versions of Delahunty and Garvey 110 vowels do not represent separate phonemes. Let's now turn our attention to some consonants. We represent the aspirated [t] as [tʰ], with the diacritic [h] indicating aspiration. We represent the unaspirated [t] as [t] with no diacritic. The important point here is that English speakers do not signal any difference in meaning with the difference between [tʰ] and [t]. They treat the two sounds as variant ways of pronouncing the “the same sound.” Substituting one of these sounds for the other would not affect the meaning of a word, but it would create an odd and perhaps non-native pronunciation of the word. No pair of English words is distinguished solely by the difference between [t] and [tʰ]. You can satisfy yourself that this is so by trying to find a minimal pair of English words differentiated solely by the fact that where one has an aspirated consonant the other has an unaspirated version of that same consonant. (Don't spend too long trying!) Let's now look at a different pair of English sounds. If we replace the [t] in [rɒt] (rot) with [d], then we get the sequence of sounds [rɒd] (rod), which, of course, is quite distinct in meaning from rot.

Clearly, English speakers treat the difference between [d] and [t] differently from the way they treat the difference between [t h] and [t] and between longer and shorter versions of vowels. In the case of [t] and [d], the difference can signal a difference in meaning; in the other cases it cannot. Differences in sound that signal differences in meaning are said to be phonemic, distinctive, or contrastive. Differences in sound that do not signal meaning differences are non-distinctive or non-contrastive. One objective of phonology is to identify which sound differences are contrastive and which are not. As we have seen, the contrastive sound units are called phonemes. For example, English speakers pronounce the [t] in toll differently from that in stole. The [t] of toll is breathier than the [t] of stole. The former is said to be aspirated, and the latter unaspirated.

