Phonetics *vs.* Phonology

**1. Phonetics *vs.* phonology**

**Phonetics** deals with the production of speech sounds by humans, often without prior knowledge of the language being spoken. **Phonology** is about **patterns** of sounds, especially different patterns of sounds in different languages, or within each language, different patterns of sounds in different positions in words etc.

**2. Phonology as grammar of phonetic patterns**

* The consonant cluster /st/ is OK at the beginning, middle or end of words in English.
* At beginnings of words, /str/ is OK in English, but /ftr/ or /http://www.phon.ox.ac.uk/jcoleman/phon77.giftr/ are not (they are ungrammatical).
* /http://www.phon.ox.ac.uk/jcoleman/phon77.giftr/ is OK in the middle of words, however, e.g. in "ashtray".
* /http://www.phon.ox.ac.uk/jcoleman/phon77.giftr/ is OK at the beginnings of words in German, though, and /ftr/ is OK word-initially in Russian, but not in English or German.

**3. A given sound have a different function or status in the sound patterns of different languages**

For example, the glottal stop [http://www.phon.ox.ac.uk/jcoleman/phon98.gif] occurs in both English and Arabic BUT ...

**In English,** at the beginning of a word, [http://www.phon.ox.ac.uk/jcoleman/phon98.gif] is a just way of beginning vowels, and does not occur with consonants. In the middle or at the end of a word, [http://www.phon.ox.ac.uk/jcoleman/phon98.gif] is one possible pronunciation of /t/ in e.g. "pat" [pahttp://www.phon.ox.ac.uk/jcoleman/phon98.gif].

**In Arabic,** /http://www.phon.ox.ac.uk/jcoleman/phon98.gif/ is a consonant sound like any other (/k/, /t/ or whatever): [http://www.phon.ox.ac.uk/jcoleman/phon98.gifíktib] "write!", [dahttp://www.phon.ox.ac.uk/jcoleman/phon98.gifíihttp://www.phon.ox.ac.uk/jcoleman/phon98.gifa] "minute (time)", [http://www.phon.ox.ac.uk/jcoleman/phon35.gifahttp://www.phon.ox.ac.uk/jcoleman/phon98.gifhttp://www.phon.ox.ac.uk/jcoleman/phon98.gif] "right".

**4. Phonemes and allophones, or sounds and their variants**

The vowels in the English words "cool", "whose" and "moon" are all similar but slightly different. They are three variants or allophones of the /u/ phoneme. The different variants are dependent on the different contexts in which they occur. Likewise, the consonant phoneme /k/ has different variant pronunciations in different contexts. Compare:

|  |  |  |  |
| --- | --- | --- | --- |
| **k**eep | /kip/ | The place of articulation is fronter in the mouth | [k+h] |
| **c**art | /khttp://www.phon.ox.ac.uk/jcoleman/phon1.gift/ | The place of articulation is not so front in the mouth | [kh] |
| **c**oot | /kut/ | The place of articulation is backer, and the lips are rounded | [khw] |
| see**k** | /sik/ | There is less aspiration than in initial position | [k`] |
| s**c**oop | /skup/ | There is no aspiration after /s/ | [k] |

These are all examples of variants according to position (contextual variants). There are also variants between speakers and dialects. For example, "toad" may be pronounced [tëUd] in high-register RP, [toUd] or [tohttp://www.phon.ox.ac.uk/jcoleman/phon113.gifd] in the North. All of them are different pronunciations of the same sequence of phonemes. But these differences can lead to confusion: [toUd] is "toad" in one dialect, but may be "told" in another.

**5. Phonological systems**

Phonology is not just (or even mainly) concerned with categories or *objects* (such as consonants, vowels, phonemes, allophones, etc.) but is also crucially about *relations*. For example, the English stops and fricatives can be grouped into related pairs which differ in voicing and (for the stops) aspiration:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Voiceless/aspirated | ph | th | kh | f | s | http://www.phon.ox.ac.uk/jcoleman/phon83.gif | http://www.phon.ox.ac.uk/jcoleman/phon77.gif | h |
| Voiced/unaspirated | b | d | http://www.phon.ox.ac.uk/jcoleman/phon28.gif | v | z | ð | http://www.phon.ox.ac.uk/jcoleman/phon96.gif | (unpaired) |

Patterns lead to expectations: we expect the voiceless fricative [h] to be paired with a voiced [http://www.phon.ox.ac.uk/jcoleman/phon36.gif], but we do not find this sound as a distinctive phoneme in English. And in fact /h/ functions differently from the other voiceless fricatives (it has a different distribution in words etc.) So even though [h] is *phonetically* classed as a voiceless fricative, it is phonologically quite different from /f/, /s/, /http://www.phon.ox.ac.uk/jcoleman/phon83.gif/ and /http://www.phon.ox.ac.uk/jcoleman/phon77.gif/.

Different patterns are found in other languages. In Classical Greek a three-way distinction was made between stops:

|  |  |  |  |
| --- | --- | --- | --- |
| Voiceless/aspirated | ph | th | kh |
| Voiced/unaspirated | p | t | k |
| Voiced (and unaspirated) | b | d | http://www.phon.ox.ac.uk/jcoleman/phon28.gif |