

## PHONETICS AND PHONOLOGY: TEACHING THE DIFFERENCE

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One of the most difficult concepts to get across in introductory linguistics courses is the concept of the phoneme or the phonological 'level' of analysis. Here is a classic case where analogies are needed to help build a bridge to a concept which in the experience of many leads to more misunderstanding than any other.

In teaching introductory phonology, I employ four analogies, each of which is designed to underscore a different aspect in the distinction between phonetics and phonology. These are the distinctions between 1) abstract and concrete, 2) same and different, 3) physical phenomena and (abstract) rules, and 4) individual items and patterns.

The first, inspired by Ferdinand de Saussure, is drawn from music. Saussure drew the distinction between the musical scale as an abstraction and the actual playing of the notes, which is audible. This is a distinction most everyone is familiar with. It is clear that a page of sheet music (as a visual prop) is not audible, but is the pre-supposition behind every performance of the piece (which is audible). The obvious analogy relates to the distinction between phonology (abstract) and phonetics (concrete).

A second analogy from music illustrates the notion 'same-different'. A theme and a variation on the theme are played (such as J. S. Bach's 'Musical Offering', where the theme is very simple and brief). The students are then asked to judge whether the two excerpts are the same or different. Typically, the class is divided, most protesting that it depends on what one means by 'the same'. This leads into a discussion of choosing a perspective. The two excerpts are the same from the perspective of the theme, but different when one focusses on the realization of the theme, or its instrumentation. This analogy proves useful in demonstrating that two physical phenomena, say aspirated and unaspirated stops, may be interpreted as 'the same' or 'different' depending on the perspective one chooses. Phonetically, they are different no matter what language is being examined. But phonologically they may be the same or different (i.e., distinctive) depending on the language under investigation. Here minimal pairs from such languages as Thai, Hindi or Bengali, serve to underscore the fact that the difference aspirated-unaspirated can be distinctive in some languages.

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A third analogy comes from baseball. The students are asked to imagine taking a friend from another country to a game, and explaining, among other things, that when a batter swings three times, he is 'out'. When this happens, the friend is satisfied that he or she has understood how the game is played. However, the next batter takes two swings only, and then on the next pitch is called out by the umpire. The friend's puzzlement over this development is met by the explanation that a swinging third strike and a called third strike are the same thing. But the friend (a physicist) protests that in terms of energy, the two events could not possibly be the same, since in the first instance (the swinging third strike) it is a question of measurable kinetic energy, whereas the second event involves none. The objection is met by the observation that it is the rules of the game which consider both events to be the same, not the laws of physics. This analogy proves useful when discussing languages in which two sounds evaluated as phonemes in English, e.g., [l] and [r], are considered the same by speakers of other languages, e.g., Korean. It is the 'rules' of the language which determine what is to count as the same or different, not the sounds in and of themselves. The analogy encourages the students to see the necessity of examining sounds from two different perspectives.

The final analogy is drawn from Impressionist painting to point up the possibility of taking different perspectives on the same phenomenon. The viewer can focus on the individual dots of paint (say, in a painting by Monet), and describe the painting in terms of the shape, composition and spacing of the dots, or he/she can stand back and view the painting as a whole, i.e., appreciate the overall patterns which the innumerable dots converge to create. This analogy can be used to underscore the fact that sounds in languages are patterned. The linguist is interested, to be sure, in the individual sounds (phonetics), but the task of analysis does not stop there. Observing the patterning of sounds is the task of phonology. Both perspectives are not only valid, but necessary. The sounds of a language are patterned, just as the dots in an Impressionist painting are, which results in the viewer perceiving a unified whole.