

Hall
Ling 503
Spring 2006

In Class Activity: Feature Theory Practice

You are a field linguist who has just discovered a new language (let's call it "Schmerewe"), spoken by 42 people on a remote island off the coast of Tanzania. After a careful phonetic analysis of the language, you have determined its segmental inventory. It consists of the following segments (in APA):

[w y h ? i ε a o ɔ u m ɱ l r ŋ p t k^y k q b ð d d^y g γ]

You have also discovered some phonological patterns. You decide that this is the perfect opportunity to test whether this whole "naturalness" thing is realistic or just baloney (or is that bologna?).

A. The first pattern involves the following set of sounds:

[m ɱ l r ŋ p t k^y k q b ð d d^y g γ]

Let's call this set of sounds A. These sounds are subject to the following rule:

Any sound from set A will delete if it is before another sound from this set.

Can you write this rule using simple feature theory? That is, do the sounds in set A form a natural class in Schmerewe? If so, what feature or set of features unifies them to the exclusion of all the other sounds in the Schmerewe inventory? Rewrite the rule using the feature notation.

B. The second pattern involves the following two sets of segments:

Set B1: [w y i ε a o ɔ u m ɱ l r ŋ]

Set B2: [w a o ɔ u ŋ k q g γ]

Apparently, a sound from set B1 becomes velarized when it comes after any sound in set B2. Is this a natural rule according to our definition? That is, can you reformulate this rule by making reference to natural classes of features? If not, why not?

C. The third pattern you find involves the following set of sounds:

Set C: [w y h i ε a o ɔ u l r q ð γ]

These sounds are the only sounds that can appear at the end of a word in Schmerewe. Is this a natural class of sounds? Can you characterize it with the features we have developed? If so, what is the characterization? If not, what is the problem?

D. Similarly, every word in Schmerewe has at least one of the following set of sounds in it:

Set D: [i ε a o ɔ u m]

Is this a natural set of sounds? Does it make sense that every word would have one of these sounds in it? Do you think that if you introduced the new word [gn] into Schmerewe, they would accept it as a possible word? Why or why not? What about the new word [ql]?

E. Here are a couple of other rules in Schmerewe:

Rule E1: [ε] --> [i] / ____ [y i k^y d^y]

Rule E2: [ɔ, u] --> [ε, i] / [y i ε a l r ŋ ð d d^y g γ] ____

Can each of them be re-written using the features we have developed? Why or why not? What does this tell you about naturalness?