Affixation by Place of Articulation: Rare AND Mysterious

LARRY M. HYMAN
Department of Linguistics
University of California, Berkeley

The Niger-Congo languages of Africa are well-known for the complexity of their verb extension systems. In subgroups as far apart as Bantu and Atlantic, a verb root may be extended by several derivational suffixes marking such notions as causative, applicative, reciprocal, and passive. There may also be suffixes marking middle voice, pluractionality, or various inflectional categories (tense, aspect, mood, polarity). A rather complex example comes from the Eastern Bantu language, Ciyao (Ngunga 2000):

    taam-uk-ul-igw-aasy-an-il-a   'cause each other to be unseated for/at'   (cf. /taam-/ 'sit')
    sit-tr-rev-pass-cause-rec-appl-infl

The Ciyao example shows that multiple suffixes can combine to form derived stems with no apparent principled upper limit, many Northwest Bantu (NWB) and other more westerly Niger-Congo languages impose prosodic constraints on the stem. The most common such constraints involves an upper limit of syllables, e.g. four in Yaka, Punu (NWB); three in Koyo, Basaa (NWB); two in Mankon (Grassfields Bantu). In addition, whereas all consonants can appear in all positions in stem-unrestricted languages such as Ciyao, the same westerly languages tend to restrict the inventory and combinatorics of consonants in non-stem-initial position.

In this talk I will be concerned with the morphological consequences of such phonological constraints. Not surprisingly, if there is an upper limit on the number of syllables permitted, there may not be enough room for a suffix or suffixes to be added to certain verb bases. Much more surprising, however, is what happens when the sequence of non-initial consonants is constrained by place of articulation. In Tiene (NWB), for example, stems are maximally C1VC2VC3V (Ellington 1977). In addition, C2 must be coronal (alveolar or palatal), while C3 must be noncoronal (labial or velar). This works out fine in the following example, where the C2 of the root is alveolar and the C3 of the stative extension is velar:

    faasa 'drive through' -->   fas-ak-a   'be driven through'

However, in the following example, the C2 of the root is velar and the C3 of the causative extension is alveolar:

    lóka 'vomit' -->   lósek-E 'cause to vomit'   (expected: *lók-es-E)

As a result of the place restrictions, the /s/ of the causative occurs as C2, i.e. preceding root /k/, which appears as C3. In both examples, the stem has the shape CVsVk-V, but two outputs are obtained in different ways.

What this means is that an extension may be suffixed vs. infixed depending on its place of articulation and/or that of the base to which is is affixed.

This is highly unusual--and mysterious--and yet I have found such phenomena in two separate Niger-Congo language clusters: (i) the Teke languages, including Tiene, spoken in the Democratic Republic of the Congo, Congo-Brazzaville and Gabon; (ii) the Central Plateau group of Nigeria, e.g. Izere (Wolff & Meyer-Bahlburg 1979, Gerhardt 1984, Blench 2000) and Birom (Bouquiaux 1970, Blench 2005). Since these groups have independently innovated very similar distribution patterns and infixation by place of articulation, the questions that naturally arise are how did the coronal-noncoronal

sequential constraint come into being-and why?

There seem to be two logical possibilities: (i) The sequential constraint is an historical "accident": Earlier statistically skewed distributions by place of articulation, which may have had to do with noncoronal consonants being more prevalent in outlying suffixes, have been regularized through analogy. (ii) The sequential constraint is principled: There is a phonological motivation for coronals to precede noncoronals in prosodic constituents.

In my talk I will show that the first hypothesis cannot be correct for several reasons. This leads me therefore to consider different explanations as to why coronals might tend to precede noncoronals in the way described.