The notion of Segment as a Challenge to a Sonority Syllable Model

At least since Jespersen (1897-99: 521ff, for a longer pre-history, cf. Ohala 2008) a "sonority hierarchy" or "strength hierarchy" has been used to account for segment order in the syllable (cf., e.g., Laver 1994: 503ff and Blevins 1995: 211ff).

John Ohala has insisted (e.g. Ohala 1992, Ohala & Kawasaki-Fukumori 1997, Ohala 2008) that "As explanations for syllable shapes they are circular...terms such as sonority, etc., are just labels for the rank ordering of segment types; they do not explain it" (Ohala & Kawasaki-Fukumori 1997: 344).

Hans Basbøll has been developing a Sonority Syllable Model (first presented in 1973, developed e.g. in 1999, see now 2005: 173-201) which is derived from the Universal Logic of Segment Types. This model is, he claims, neither circular nor ill defined. In the talk I shall briefly present the basic foundations of the model and then show that Ohala's claims about circularity do not apply to Basbøll's Sonority Syllable Model. I shall also attempt to demonstrate that the model does contribute to a better understanding of segment order in the syllable than standard versions of such hierarchies.

![Diagram of the Sonority Syllable Model]

The figure just above (fig. 6.7 from Basbøll 2005: 184) illustrates the model: when the arrow of time is disregarded, the fig. exemplifies a set of Euler's circles: [vocoid] implies [sonorant] (all vocoids are sonorant, not the other way round, cf. sonorant nasals/laterals); [sonorant] implies [voiced] (all sonorant segments are voiced, not the other way round, cf. voiced obstruents). When the time dimension is introduced in fig. 6.7, the model is turned into a non-circular model of sonority sequencing in the syllable.

The notion of Segment can in several respects be seen as presenting a challenge to such a Sonority Syllable Model: (1) are adjacent sequences which have the same sonority one or two phonological segments (cf. diphthongs)?; (2) what is the order principle applying to sequences with the same sonority? (here I give a solution to the /st/-problem stated in Ohala & Kawasaki-Fukumori 1997: 348, without treating such clusters as (composite) segments); (3) Danish syllable structure presents great challenges to any simple-minded notion of the segment: Rischel (2003) gives examples like those in fig. 2 (next page) where what seems to be, segmentally speaking, one segment, is distributed over several syllables, e.g. the last example (h)årdere at åre(lade) 'harder to bleed' (said by a veterinarian before two elephants in a zoo).
References


2) *Koge ø(vergence), (L)uge u(denfor), (H)årdere at åre(lade); Rischel 2003*