

Zabrocki's structural phonetics and the substance of speech

Małgorzata Haładewicz-Grzelak (Opole University of Technology)

In throwing over all human ideas, because they are infected with humanity,
all human ideas are being sacrificed to one of them – the idea of absolute reality.

George Santayana

This study discusses the tenets of Zabrocki's structural phonetics (1960[1980]) with respect to the substance of speech. There are two main analytical axes in the paper. One is meta-grammatical, which consists in transposing philosophical retrospective of substantive aspects of speech onto Zabrocki's linguistic theory. The ensuing conclusion is that phonology can be interpreted as a mooring rope for matter. I motivate the claim that phonology comes into being only in languages that, in Humboldtian terms, involve matter as a carrier and I show that this statement is consistent with the tenets of structural phonetics. In functional terms, this is meant to say that phonology is a concomitant of communicative (speaker-hearer) interaction. In formal languages, which do not entail communicative interaction, there is no phonology.

The other research axis is empirical and subsumes the application of Zabrocki's structural phonetics to give a Beat-and-Binding (e.g. Dziubalska-Kołodziej 1995, 2002) account of:

- the phonological velarization of /l/,
- the deletion of /r/,
- the phonotactics of RP's glides and /h/ in RP English.

Furthermore, the results of the research corroborate congruity of Zabrocki's theory of cybernetic systems of language communication with the tenets Cognitive Linguistics (e.g. Fauconnier 1997).

My B&B analysis captures some crucial generalizations about the RP's most sonorous consonantal groups. The basis was Zabrocki's sound arrangement according to the parameter of the mass of aperture: (...) – n) – l – r – h – j – w – [i – (...). As can be seen, in this sequence /h/ is placed between the glides and the liquids. I collapsed all the environments of phonological change affecting RP's liquids and glides against the parameter of the ability to propagate {B←n} binding. As Zabrocki predicts, the linear advance in this structure does not entail any empty cells. Within the set of sounds in question, [l] has the smallest aperture mass (the greatest mass of closure), hence it can develop {B←n} binding, although at the cost of the change of quality of the phoneme into [ɫ], which is a velarised (vocalized) variant of /l/. For the remaining sounds in question, i.e. /r, h, j, w/, the mass of aperture is too big to enable sustaining B←n binding in the discussed phonotactic position. Therefore in RP these phonemes in a word-final position do not occur and remain mute in loanwords (e.g. savannah, where the word-final /h/ is not pronounced).

The generalization captured in the analysis consists in treating /r/ _ Ø and /l/ _ [ɫ] as the outcome of the same phonological process affecting both RP glides and liquids. I give an explanation in terms of the B&B tenets: the consonantal phonemes of RP inventory which have the smallest mass of aperture (/j, w, h, r, l/) are unable to propagate B←n binding, which would sustain them in an off-beat position.

Works cited

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A George Santayana's homepage: <http://members.aol.com/santayana/>