

**Open review / endorsement of “*Production, perception, and comprehension of subphonemic detail*” by Dominic Schmitz**

The monograph by Dominic Schmitz is situated in a highly innovative and dynamic research field – known as “Spoken Morphology” – which investigates whether and how morphological information impacts acoustic realization. The book addresses this question via various case studies on the acoustic realization of the segment S in English, which may convey various morphological information: it may mark the plural, the genitive, 3<sup>rd</sup> person singular, or be an *is*-clitic or *has*-clitic. A number of previous studies, most of which relied on corpus data, investigated this phenomenon and reported differences in duration depending on the morphological status of S. These findings suggest that morphology impacts phonetic realization, which is at odds with established linguistic as well as psycholinguistic theories. Beyond this general effect, existing research does however not agree on which morphemes are characterized by which duration. The book by Dominic Schmitz sets out to resolve this puzzle by employing innovative experimental approaches.

In the first parts of the book, the author discusses the results of a sophisticated production experiment, which allows for a more systematic and controlled investigation of S-acoustics. An important advantage of Dominic’s approach compared to previous studies is that carrier sentences are constructed in a way as to control for the effects of sentence prosody. Even more importantly, the word stimuli employed were pseudowords, avoiding various lexical effects that may have influenced acoustic properties of S in previous research. The results of these experiments confirm the interaction between morphology and phonetics and thus put the finding of durational differences of S on a firm empirical footing.

The book does not stop at documenting these results but analyses and models the production data within the highly innovative framework Linear Discriminatory Learning (LDL) by Harald Baayen and colleagues. LDL connects a form to a meaning matrix and rests on principles of discriminatory learning. Quantitative analysis shows that durational differences between different types of S can be explained – at least to a considerable extent – by LDL measures. This shows that differences in duration seemingly brought about by differences in morphological status may also be explained by a more general form-to-meaning mapping without assuming an explicit morphological level, a finding that has far-reaching implications for our understanding of the representation of morphological information. Furthermore, given that the data modelled is obtained from the articulation of pseudowords demonstrates that pseudowords are affected by representations in the lexicon.

Schmitz then turns to perception and comprehension, testing whether acoustic differences found in production affect the processing of S in a same-different task and two mouse tracking experiments. Some of the results of these experiments show that processing is indeed affected by acoustics, demonstrating the role of sub-phonemic detail in comprehension.

All empirical studies are carried out with an enormous degree of sophistication and the data obtained are analyzed with quantitative models that push the boundaries of the state-of-the-art. From the aforementioned LDL analyses to innovative regression modeling approaches, such as QGAMS (additive quantile regression models) that are used for the analysis of the mousetracking data, the book encompasses an impressive range of quantitative approaches that constitute a feast for the quantitative linguist.

In sum, the book offers an excellent empirical approach to the field of morphophonetics. At the same time, the results are of great theoretical relevance as they show that central assumptions about the independence of these levels need to be questioned. The book is a highly interesting read that is set to inspire any empirically-minded linguist.