

## REFERENCE

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**A theory of syllabification and segmental alternation.** With studies on the phonology of French, German, Tonkawa and Yawelmani. By ROLAND NOSKE. (*Linguistische Arbeiten*, 296) Tübingen: Max Niemeyer, 1993. Pp. ix, 248. Paper DM 114.00.

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Noske's aim in this work is to develop a theory expressing the relationship between syllable-structure assignment and rules that delete and insert segments. The Introduction (1–4) presents N's goals and an outline of the chapters. Ch. 1, 'Syllable assignment and the true constituent model', (4–30), introduces autosegmental phonology and proposes that syllable-structure assignment parallels autosegmental association. Ch. 2, 'Moraic versus constituent syllables' (31–63), compares N's theory of subsyllabic autosegments with moraic representations (Hyman 1984, 1985, Hayes 1989), arguing that moraic phonology is unsatisfactory. Chs. 3, 'Syllabification in Tonkawa' (64–89), 4, 'Syllabification in Yawelmani' (90–140), 5, 'Schwa in German' (141–83), and 6, 'Schwa and gliding in French' (184–234), apply N's theory to four case studies. Ch. 7, 'Conclusions' (235–38), briefly summarizes the preceding discussions. Also included is a half-sheet of *Corrigenda*, which should be expanded given the number of typographical errors.

N adopts a parameter-based approach, with four syllable-related parameters. Two are widely accepted (the direction and level of syllable-structure assignment), and the third (the basic syllable-structure size) extends McCarthy and Prince 1986's templates for reduplication to ordinary syllabification. Most interesting perhaps is the parameter that governs which segments trigger syllable structure building. In Tonkawa, for example, N argues that consonants trigger syllabification but vowels do not, with vowels being deleted when they do not fit into the syllable structures built for consonants.

N proposes an unusual model of syllable constituency, with onset, nucleus and coda nodes that 'play a role similar to that of autosegments' (3). He equates relations between syllable constituents and the segments they dominate with relations between elements on autosegmental tiers, treating subsyllabic nodes as segment-bearing units parallel to tone-bearing units. This conception of subsyllabic nodes allows general principles of autosegmental association to syllabify segments by one-to-one directional association, spreading, and default filling. However, it also blurs distinctions between timing and constituency. In

N's account, subsyllabic structure is assigned by associations establishing timing relations, but subsyllabic nodes also serve as members of the prosodic hierarchy for stating co-occurrence restrictions, for example.

Among the book's strong points is N's well-formulated criticism against using moras to represent subsyllabic constituents. N discusses problems in Hayes 1989's moraic account of compensatory lengthening (CL), arguing that more traditional models of the syllable can handle all attested cases of CL, while the moraic approach has trouble with foot-based CL, like that found in Early Middle English. Furthermore, N shows that moraic models permit undesirable representational possibilities.

Although much of the data in this work has appeared previously in the phonological literature, N's analyses illuminate its syllable-related nature. For example, N argues for treating schwa alternations in German and French as syllable-related, proposing a limited use of underlying schwas in order to distinguish them from syllable-based alternating schwas. By doing so, he avoids conflating rules that generate schwas needed for syllabification with more specific rules generating unpredictable schwas. In discussing Yawelmani, N's comments on Stanley Newman's 1944 monograph clarify some rather obscure points of both Newman's work and the subsequent analyses based on it.

However, N's approach raises some theoretical questions that deserve more discussion. For example, although sometimes avoiding rules with the power to look ahead (111), elsewhere N seems to give his rules exactly such powers. If syllabification fails in one direction, it reverses direction; N does not discuss how this is accomplished without looking ahead, failing, and backtracking (72). Similarly, his Segmental Tier Association Rule (132) allows association only if the resyllabified output contains fewer empty syllabic nodes than the input. N does not fully discuss the implementation and implications of output-based rules and conditions.

N's specific model of subsyllabic nodes and syllable-structure assignment will not survive intact. However, given the current theoretical climate for explanations based on structural goals such as well-formed syllables, N's analyses along those lines will certainly contribute to our understanding of syllable-based alternations.

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