



Rhythmical and Syntactic Variation in Speech Production

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Recent investigations in diachronic and synchronic linguistics have identified rhythm as an important factor influencing the choice among different options provided by the grammar in English, as well as the direction of language change (Schlüter, 2005; Shih et al., 2009). A previous empirical study confirmed similar effects for German in the domain of function words (Imhof, 2007): In a simple speech repetition task it was verified that subjects tend to make more errors given a sentence that has an uneven rhythm. Not only are rhythmically irregular sentences more error prone during repetition, subjects tend to actively change the word order in a way that the sentence initial rhythmical pattern (dactylic) is upheld throughout the entire utterance. The subjects achieve this by varying the syntactic position of auxiliary verbs and prepositional pro-forms. Furthermore, the rhythmic-prosodic status of such function words is ambiguous, they tend to be neither strongly accented or reduced (Wagner, 2000). In a subsequent phonetic investigation, the subjects' productions were subject to a detailed acoustic analysis. First measurements revealed that – depending on the rhythmical environment – subjects vary their stress patterns in order to maintain a dactylic rhythm or to create an alternating rhythm. The results show that speakers use various strategies in order to maintain a – preferred or primed – rhythmical pattern in their speech production. They either actively change word order (if possible) or carry out prosodic readjustments, i.e. accentuation or deaccentuation. Function words seem to play an important role in these rhythmically driven adaptation processes, since they provide more room for prosodic variation. This also explains their high liability to take part in processes of linguistic change, given the important role of rhythm in these processes.

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