

Planning time effects of phonological competition: articulatory and acoustic data. Christine R. Mooshammer (Haskins Laboratories, 300 George St., New Haven, CT 06511, [tine@haskins.yale.edu](mailto:tine@haskins.yale.edu)), Louis Goldstein (Department of Linguistics, USC, CA and Haskins Laboratories), Mark Tiede (MIT Research Lab of Electronics, MA and Haskins Laboratories), Manisha Kulshreshtha (Haskins Laboratories), Scott McClure, and Argyro Katsika (Haskins Laboratories and Yale University)

One major cause for speech production variability and errors is competition between phonologically similar sequences in an utterance. Since one recent model of speech production planning (Nam 2004) also posits a systematic relation between planning time and kinematic variability, we decided to directly investigate whether competition increases planning time, i.e. whether it takes longer to initiate a sequence such as "tape cape" compared with "tape tape". Effects of competition in the onset were compared to competition in the coda (e.g. "tape take"). Results from two studies are reported: articulatory latencies from a delayed naming task recorded using EMA (4 speakers), and acoustic latencies from a delayed naming task, a simple naming task and a picture naming task (10 speakers). Latencies were significantly affected by competition, i.e. latencies were longer for items like "tape cape" and "tape take" than for "tape tape". However, no significant differences were found in competition effects between onset and coda positions. Apart from latency, overall duration increased and clusters formed across words showed less overlap. Observed effects on latency were largest for picture naming, followed by simple naming and least for delayed naming. [supported by NIH DC008780]

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Telephone number: 203 865 6163 x315

email address: [tine@haskins.yale.edu](mailto:tine@haskins.yale.edu)

Send notice to: Christine Mooshammer.

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