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Effects of syllable structure on reaction times in a delayed naming task

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Syllable complexity has been found to affect the time the speaker needs for planning and initiating utterance production. Shorter latencies for complex onsets (CCV) as compared to simple onsets (CV) have been explained by effects of segment-specific biomechanical constraints at the level of motor execution, and by neighborhood density at the planning level. Within the framework of Articulatory Phonology, shorter planning latencies for CV syllables (compared to VC) have been attributed to quicker stabilization for tighter gestural coupling hypothesized for in-phase coupling of the onset consonant and release with the vowel. We attempted to test both onset complexity (C vs. CC) and coda complexity (open vs. closed syllables) within a single experiment, so that we could evaluate the relative magnitudes of these effects and uncover potential interactions. To do so, American English monosyllabic words varying in syllable structure were presented using a delayed naming paradigm. The results replicated both effects, showing additive effects of roughly comparable magnitudes. Whether these effects are due to planning or motor execution will be tested by further simple naming and picture naming experiments.