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The segment as the minimal planning unit in speech production: Evidence based on absolute response latencies

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Abstract

A minimal amount of information about a word must be phonologically and phonetically encoded before a person can begin to utter that word. Most researchers assume that the minimum is the complete word or possibly the initial syllable. However, there is some evidence that the initial segment is sufficient based on longer durations when the initial segment is primed. In two experiments in which the initial segment of a monosyllabic word is primed or not primed, we present additional evidence based on very short absolute response times determined on the basis of acoustic and articulatory onset relative to presentation of the complete target. We argue that the previous failures to find very short absolute response times when the initial segment is primed are due in part to the exclusive use of acoustic onset as a measure of response latency, the exclusion of responses with very short acoustic latencies, the manner of articulation of the initial segment (i.e., plosive vs. nonplosive), and individual differences. Theoretical implications of the segment as the minimal planning unit are considered.