

**What are the mental representations of speech segments during speech preparation,
as revealed by self-monitoring for speech errors?**

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Segmental speech errors can be detected by self-monitoring both before and after speech is initiated. This allows us to answer four questions about speech preparation: (1) What is the delay between self-monitoring internal and external speech? (2) What are the representations of speech sounds on which self-monitoring focuses during “early” and “late” error detection? (3) Why are some speech errors detected by self-monitoring before and others after speech initiation, and others again not at all? (4) What is the role of cognitive control in self-monitoring for speech errors? For answering those questions we use responses from 6 of our earlier SLIP experiments. We find that (1) the delay between “early” and “late” error detection is roughly 4 segments or nearly 500 ms. (2) Speech sounds are represented very differently before and after speech initiation. This is not predicted from articulatory phonology but supports the proposal that in internal speech sounds are represented as targets in auditory perceptual space. (3) Phonetic contrast between segments is a major factor determining whether speech errors are detected internally, externally or not at all. (4) Degree of conflict between competing items during speech preparation controls frequency of speech errors, but not necessarily of error detection.