Abstract

Bilinguals shift between languages in natural discourses, a behavior known as codeswitching, with ease during day-to-day communication. However, substantial costs associated with code-switches relative to non-switched words had been reported in previous studies, in which costs were manifested in the form of longer processing time behaviorally, as well as amplified event-related potential (ERP) components related to language processing. Using electroencephalography (EEG) in a reading paradigm, where interview transcriptions were presented word-by-word, the current study aimed to ascertain whether two types of expectations, interlocutor-based and switch-based anticipation, were able to modulate the neural costs related to intra-sentential code-switching (switching between languages within a sentence). Interlocutor-based anticipation is the phenomenon in which the listener predicts whether the speaker would code-switch or not based on the listener's social identity (e.g., education, social status, age, etc.). A manipulation in whether the speaker's background was 'fit' or 'unfit' differentiated by social information was expected to yield a global difference in amplitude (reduced for fit conditions) in the late positive complex (LPC; 500-900 ms) for codeswitched words compared to non-switched words. On the other hand, switch-based anticipation is based on whether a particular word is expected to be switched (natural-switch pattern) or not (random-switch pattern) according to social conventions within a particular language community. This type of specific anticipation was expected to modulate the N400 component (less negative for natural-switch conditions), where amplified negativity was reported when the lexical-semantic integration of a word into a sentence was more difficult. As such, ERPs were used to determine the time course of processing code-switch instances that occurred under different conditions. The speakers that participants encountered were manipulated to be perceived as either a fit or an unfit switcher, while code-switches occurred