Adaptive Prediction in Code-switching as a window into language regulation

A key discovery in bilingualism research is the robust evidence for non-selectivity in production and in comprehension, even when staying in one language. This discovery creates an apparent problem that bilinguals solve: How is the intended language used without interference? Past research has focused on inhibition and/or attention as domain-general cognitive processes that might be engaged to provide a solution to the control problem. However, bilingual code-switching flips this premise on its head: how do bilinguals purposefully maintain both languages maximally active yet avoid unwanted interference during code-switching? I will present the Adaptive Prediction hypothesis as a framework to understanding the psycholinguistics of code-switching. This hypothesis draws upon two findings: bilinguals adapt the cues they utilize in sentence processing as a function of cumulative language experience, cognitive control is a domain-general mechanism that support rapid integration of code-switching in sentence processing. Adaptive prediction underlies an optimal strategy in bilingual sentence processing. By examining the real-time processing of code-switching, we can begin to understand how the regulation of the two languages may draw on aspects of domain general cognitive control in coordination with a dynamic language system.