Interplay between predictive processing and working memory demands in real-time language comprehension

Much research has shown that comprehenders can generate predictions about upcoming language on the fly, but less is known about (i) how predictive processing might interact with working memory demands, and (ii) what cognitive processes are engaged when we encounter cues that are inconsistent with our predictions. In the first part of the talk I will discuss two reading eye-tracking experiments in English that investigate when comprehenders posit a dependency between two non-adjacent elements in a sentence (e.g., between a verb and its subject/object) and how the working memory demands associated with prediction may impact their parsing decisions. In the second part of the talk I will discuss a project in Mandarin Chinese which examine whether and how comprehenders may revise their predictions on the fly. I will present convergent findings from a visual world eye-tracking study and an event-related potential (ERP) experiment which suggest that, even in the absence of a supportive visual context, comprehenders can quickly revise their existing predictions upon encountering a cue that is inconsistent with their existing predictions.