Listening in two languages: What eye movements tell us about language switching costs in auditory comprehension

Previous research on bilingual language switching and lexical access has demonstrated a consistent reaction time cost associated with producing a switched token. This cost has generally been shown to be asymmetrical, with bilinguals evidencing a greater delay when producing switches into their dominant language relative to the non-dominant/second language (e.g., Meuter & Allport, 1999), although such costs are variable depending on individual (e.g., Costa & Santesteban, 2004) and contextual (e.g., Gollan & Ferreira, 2009; Olson, 2015) factors. While these findings have been crucial for theories of bilingual language selection and control, both research and theory has failed to adequately account for the comprehension of language switches (Linck, Hoshino, & Kroll, 2008; Litcofsky, Tanner, & van Hell, 2015).

The current study, employing an eye-tracking paradigm, extends this line of research by examining the potential for switch costs during auditory comprehension. Paralleling previous production-oriented research, overall results of the current study demonstrate asymmetrical switch costs, such that bilinguals incur greater switch costs when comprehending a switch into the dominant language than the non-dominant language. Furthermore, switch costs during comprehension are modulated by language mode. Results are discussed with respect to bilingual language selection mechanisms and theory in both production and comprehension.