

# The role of language-specific cues in predictive behaviours in monolingual and bilingual infants

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Prediction, which involves encoding patterns in the environment and updating expectations in light of new information, is an important component of language processing. Recent evidence suggests that early bilingual experience may shape the development of early prediction abilities. Specifically, bilinguals' experience of monitoring two linguistic systems is proposed to shape their information encoding patterns. That is, bilinguals may establish stronger predictions compared to monolinguals when these predictions are relevant to encoding language-specific information. We designed a novel version of an anticipatory looking task to test infants' ability to establish and update predictions when provided with language-specific information. We collected gaze data from 9-month-old Spanish or Basque monolinguals (n=24; M L2 exposure=4.6%) and Spanish-Basque bilinguals (n=18; M L2 exposure=39.5%). Following an auditory cue and a 1-second anticipatory period, infants predicted the location of a target appearing on one side of a screen for 9 trials (pre-switch), and then on the opposite side for 9 trials (post-switch). The auditory cues comprised 4-syllable strings matching Spanish and Basque word orders (VO/OV) and prosodic properties (duration/pitch). Each phase presented infants with cues from only one language (e.g., Spanish pre-switch and Basque post-switch). Gaze proportions to the expected target location during the anticipatory period were analysed. Overall, infants accurately predicted the target location, performing significantly better in the pre- compared to the post-switch phase, with target anticipation increasing throughout each phase. This indicates that infants persisted at first in their previously-learned behaviour before updating their predictions. Interestingly, the same patterns emerged between monolinguals and bilinguals, irrespective of degree of L2 exposure. We will discuss these findings in light of theories on the effects of bilingualism on attention, and present vocabulary data for these infants at 18-months to explore the link between early prediction abilities and later individual language outcomes.