Statistical word segmentation in Catalan- and Spanish-learning infants and adult speakers: a pupillometry study on vowel reduction

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Both adults and infants can compute transitional probabilities (TPs) to segment words from fluent speech (Aslin et al., 1998). However, word segmentation can also be influenced by previous linguistic knowledge, such as phonological constraints (Finn & Hudson, 2007; Toro et al., 2011). In a series of studies, I explored how a phonological rule (vowel reduction) can interfere with the computation of TPs. Two groups of 8-month-old infants (Spanish- and Catalan-learning; n = 20 each) and two groups of adult speakers (n = 48 per group) were tested using an eye-tracker. We measured pupil dilation and collected keyboard responses. The interference of the phonological system with TPs during language processing across development will be discussed.