Rhythmic abilities in prereaders predict future reading skills

Camila Zugarramurdi
Universidad de la Republica, Montevideo, Uruguay

Manuel Carreiras
Basque Center on Cognition, Brain and Language, Donostia, Spain

Juan Valle-Lisboa
Universidad de la Repblica, Montevideo, Montevideo, Uruguay

Abstract

Rhythmic abilities have been related to language processing skills such as phonological awareness, rise time discrimination and verbal memory. Following this reasoning, they have also been linked to reading acquisition. In particular, in prereaders, tapping to a beat, a task that entails rhythmic processing through auditory-motor synchronization (AMS), has shown to discriminate children with poor and good phonological skills. However, evidence regarding how the AMS-reading link develops through time, starting before reading instruction, is scarce. In the present study, we followed a large sample of 600 children from kindergarten to second grade, through a digital assessment of literacy and literacy-related skills, as well as rhythmic abilities. We found that AMS in K5 uniquely contributes to future reading performance, above and beyond phonological skills. These findings underscore the role of rhythmic abilities in reading acquisition, and its relation to phonological processing.