

Tracking the emergence of the consonant bias in visual-word recognition: Evidence
with developing readers

Ana Paula Soares , Manuel Perea, and Montserrat Comesaña

Abstract

Recent research with skilled adult readers has consistently revealed an advantage of consonants over vowels in visual-word recognition (i.e., the so-called “consonant bias”). Nevertheless, little is known about how early in development the consonant bias emerges. This work aims to address this issue by studying the relative contribution of consonants and vowels at the early stages of visual-word recognition in developing readers (2nd and 4th Grade children) and skilled adult readers (college students) using a masked priming lexical decision task. Target words starting either with a consonant or a vowel were preceded by a briefly presented masked prime (50 ms) that could be the same as the target (e.g., *pirata-PIRATA* [pirate-PIRATE]), a consonant-preserving prime (e.g., *pureto-PIRATA*), a vowel-preserving prime (e.g., *gicala-PIRATA*), or an unrelated prime (e.g., *bocelo -PIRATA*). Results revealed significant priming effects for the identity and consonant-preserving conditions in adult readers and 4th Grade children, whereas 2nd graders only showed priming for the identity condition. In adult readers, the advantage of consonants was observed both for words starting with a consonant or a vowel, while in 4th graders this advantage was restricted to words with an initial consonant. Thus, the present findings suggest that a Consonant/Vowel skeleton should be included in future (developmental) models of visual-word recognition and reading.

Key words: consonant bias; consonant/vowel asymmetry; developing readers; masked priming; lexical decision; visual-word recognition.

