Language and Perception – Insights from Psychological Science

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New research published in *Psychological Science*, a journal of the Association for Psychological Science, examines the nuanced relationship between language and different types of perception.

Bilingual Infants Can Tell Unfamiliar Languages Apart

Speaking more than one language can improve our ability to control our behavior and focus our attention, recent research has shown. But are there any advantages for bilingual children before they can speak in full sentences? We know that bilingual children can tell if a person is speaking one of their native languages or the other, even when there is no sound, by watching the speaker's mouth for visual cues. But Núria Sebastián-Gallés of Universitat Pompeu Fabra and colleagues wanted to know whether bilingual infants could also do this with two *unfamiliar* languages. They studied 8-month-old infants, half of whom lived in either Spanish- or Catalan-speaking households and half of whom lived in Spanish-Catalan bilingual households. The researchers looked at whether the infants could discriminate between English and French, two unfamiliar languages, using only visual cues. They found that the bilingual infants could tell the difference between the two languages, while the infants who lived in single-language households could not. These findings suggest that infants who are immersed in bilingual environments are more sensitive to the differences in visual cues associated with the sounds of various languages.

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Skilled Deaf Readers Have an Enhanced Perceptual Span in Reading

Though people born deaf are better able to use information from peripheral vision than those who can hear, they have a harder time learning to read. Researchers have proposed that the extra information coming in could distract from, rather than enhance, the process of reading. But no research has actually compared visual attention in reading between hearing and deaf readers. In a new study, Nathalie Bélanger of the University of California, San Diego and colleagues investigated this issue by measuring the *perceptual span*, or the number of letter spaces used when reading, of skilled deaf readers, less-skilled deaf readers, and hearing readers. The experimenters manipulated the number of letter spaces that the participants saw while reading text on a screen. They found that, compared to the other two groups, skilled deaf readers read fastest when they were given the largest number of letter spaces, showing that

they had the largest perceptual span. Regardless, they were able to read just as fast as skilled hearing readers. Contrary to previous hypotheses, these findings suggest that enhanced visual attention and perceptual span are not the cause of reading difficulties common among deaf individuals.

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