

Asymmetry in Auditory Priming: Evidence from the Perception of Words, Sounds, and Talkers

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Marsolek and colleagues have found support for two dissociable and parallel neural subsystems underlying the recognition of written words, visual objects, and visual shapes: an abstract-category subsystem that operates more effectively in the left cerebral hemisphere (LH), and a specific-exemplar subsystem that operates more effectively in the right cerebral hemisphere (RH). Thus, in the visual domain, evidence of this asymmetry exists for linguistic (words, pseudoword forms) and non-linguistic (objects) stimuli. Our work in this area was originally motivated by the idea that asymmetry may not be limited to the visual domain. Indeed, we have since obtained hemispheric differences in priming effects in the auditory domain for linguistic (spoken words) and non-linguistic (environmental sounds) stimuli. More precisely, we observed specificity effects when listeners heard auditory stimuli in their left ear (RH), but not when they heard these same stimuli in their right ear (LH). Furthermore, our more recent data on talker identification once again reveal this same pattern of asymmetry. Taken together, this consistent pattern of data from both domains may be indicative of a more general property of the human perceptual processing system.