

Developmental plasticity and lateralization of function for language

Elissa L. Newport (Georgetown University Medical Center)

Adults show striking lateralization of function; for example, sentence processing is typically lateralized to the left hemisphere, whereas processing vocal emotion or intonation is typically lateralized to the right hemisphere. A number of investigators have hypothesized inherent differences between the hemispheres that might underlie these processing differences, which produce lateralization differences in over 90% of healthy adults. However, our own recent research finds that both hemispheres are surprisingly capable of conducting either of these processes perfectly well when one hemisphere is damaged at birth. I will show the evidence for this claim and then try to clarify what I think these findings tell us about lateralization of function and what kinds of differences there may be between the hemispheres in early development that set the stage for the strong laterality we see in healthy adult language processing.