Binaural interaction between acoustic and electrical stimulation in single-sided deafness

Yoojin Chung, Bertrand Delgutte

Due to the remarkable success of cochlear implants (CI), an increasing number of people with substantial residual hearing receive CIs. For those who have residual hearing in the non-implanted ear, the acoustic information provided through a hearing aid (HA) (bimodal hearing) can provide additional improvement in their performance. Psychophysical studies performed with controlled stimulation bypassing clinical processors show that bimodal listeners are sensitive to interaural time and level differences (ITD and ILD) to some degree and therefore could potentially benefit from improved fitting and processing strategy.