

Les bases cérébrales de l'apprentissage du langage et de l'expertise

Narly A.Golestani

Functional Brain Mapping Laboratory, Université de Genève

We have previously shown that both functional and structural brain differences underlie individual differences in foreign speech sound learning. This leads to the question of the relative influences of pre-existing, possibly 'innate' brain structural differences between individuals which might predict domain-specific language capacities, and of experience-dependent plasticity following systematic differences in learning. I will present recent evidence for both experience-dependent structural plasticity in experts, and aspects of brain anatomy that likely pre-date expertise training. Our results suggest that both pre-existing, possibly innate factors and environment influences play a role in brain structure and in specific language-related skills, with different relative contributions in different brain areas.