

*The difficulty of acquiring a second language in adulthood: Is emotionally-mediated learning the missing ingredient?*

The ability to learn a second language to native speaker levels declines continuously as a function of age of acquisition. This "sensitive period" for language acquisition contributed to the cognitive revolution of the mid-20th century, including the proposal that the human genetic endowment includes blueprints for discovering grammatical rules. On this account, the difficulty of second language acquisition (SLA) occurs because maturation turns off language-learning genes. Cognitive scientists who are skeptical about innate knowledge need to propose alternative mechanisms to explain the sensitive period for language acquisition. This talk will evaluate the following non-genetic proposals: biological (a general decline in brain plasticity with maturation), cognitive (prior commitment to first-language structures interfere with learning new patterns) and social/motivational (the opportunity and motivation to acquire a second language declines dramatically across the lifespan). All of these alternative mechanisms are argued to be important and necessary for explaining SLA age-effects, but they still may not be sufficient. This talk will propose that emotionally-mediated learning is a crucial, missing ingredient. Recent developments in the cognitive neurosciences point to the importance of endogenous emotional rewards for mediating learning. The emotional associations of speech are the most intense during childhood because of the need to bond with caregivers. Learning occurs when the learner's brain provides a reward for correctly predicting a piece of information, such as the next word in a sentence or the reaction of conversation partners to hearing our utterances. Organisms prefer mental activities that provide high rewards. Even adults who highly desire the end-state of foreign-language fluency may not be able to disengage from the immediate diverse and high-quality rewards (e.g., joking, story-telling) of using their first language.