Would Two Walk Together Except They have Made an Appointment? Motivation and Implicit Learning

We live and function in a complex world. Learning patterns of events, outcomes of actions, or, generally, the structure of our current environment – enables us to adapt our behavior appropriately. While learning of environmental contingencies is sometimes intentional, the lion’s share of such learning is incidental. Indeed, numerous studies have demonstrated that people can learn complex environmental structures unintentionally, a process known as 'Implicit Learning' (Reber, 1967). Implicit learning is especially important for the success of goal-directed action. Yet, this powerful process has traditionally been considered as largely independent of the perceiver’s goals and motivation. In the present talk I will challenge this underlying assumption. In the first part, I will present two sets of studies demonstrating that both the content and degree of implicit learning is affected by current goals and motivation. Importantly, the studies show that both conscious and nonconscious goals determine the products of the implicit learning process. In the second part, I will present preliminary data speaking to a possible mechanism underlying the direction of implicit learning and other ‘unintentional’ processes and discuss the implications of these findings for understanding Autism Spectrum Disorders (ASD).