

Máster Universitario en
Neurociencia Cognitiva
y del Comportamiento

Talk Dr. H. Slagter: "Plasticity of the attentive mind"

~~Desde~~ el Mar, 02/12/2025 - 13:00

Plasticity of the attentive mind

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**Date, time,
and venue:** December 2nd, 12.00, Sala de
Conferencias 1, CIMCYC

Abstract: Selective attention is often conceptualized as a mental spotlight that can be directed at will to illuminate any item of interest, acting as a sensory filter that selectively gates goal-relevant information for higher-order processing and conscious representation. Yet, over the past decade or so, it has become clear that our brains continuously predict what sensory signals are likely informative for goal-directed behavior based on the statistics of past agent-environment interactions, and hence, that action-oriented probabilistic learning is a much more pervasive feature of selective attention than generally assumed. In this talk, I will first present findings from several behavioral and EEG studies that reveal how, at the neural level, such probabilistic learning rapidly structures attention: what we automatically attend to or ignore. I will then discuss more recent work suggesting that these attentional biases may be sensorimotor in nature, rendering attention habit-like in character, and that internal attention (in working memory) is similarly structured by action-oriented learning. Finally, I will discuss the idea that attention training as cultivated by meditation may provide a method to unlearn to attend or mentally behave in

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habitual ways. Altogether the work presented in this talk suggests a reconsideration of how attention is typically approached: from a mere sensory filter to a relational process that optimizes agent-environment interactions based on past experiences.