

5th Barcelona Lecture Series in

Brain, Cognition & Behaviour



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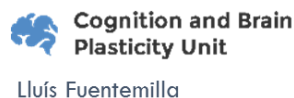
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Serial Dependencies in perception and their functional role

Natural scenes contain strong serial correlations as the world tends to be stable from moment to moment. A common concept in perceptual science is that the brain adapts to the environmental statistics and exaggerates repulsively stimuli which deviate from the norm. Recently however it has become clear that under many circumstances the brain can also use the past information as a prior that attracts current estimates. In this talk I will review evidence showing that serial dependence is quite common phenomenon occurring in many perceptual domains. Importantly the weight attributed to the previous stimuli depends on the reliability of the stimuli in sequence and their similarity. This is an optimal strategy akin to a Kalman filter that updates the estimate of the world depending on the quality of the new information as well as their novelty. Consistently when human observers can exploit serial dependencies their estimates are closer to veridical and their response times are faster. Possible locus for integration of previous and current information will be also discussed.

Date: Thursday, 30 March 2017**Hour: 15:00****Place: Sala de Graus, Facultat de Psicologia, Campus Mundet**

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