PSYCHOLOGY COLLOQUIUM

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Affective vision: Prioritization does not imply automaticity

Abstract

The processing of emotion-laden information is often described as "automatic", namely, independent of attention and even visual awareness. In a series of studies we have sought to carefully test this idea with both behavioral and fMRI methods. Our findings do not favor the "automaticity" assumption and, instead, reveal that both attention and task relevance (whether a stimulus was a target or a distractor) strongly modulate responses evoked by emotional faces. In more recent studies we have investigated the neural correlates of near-threshold emotional perception. Unlike previous studies, we did not find evidence for differential responses to masked fearful faces. In addition, responses were reliably driven by the subject's percept, and less so by the physical stimulus per se – this was the case even in the amygdala. Finally, we will present recent results on the neural correlates of perceptual decision making while subjects performed difficult detection and discrimination tasks. Collectively, these studies show that while emotional stimuli may comprise a privileged stimulus category, their processing is highly dynamic and depends on the interplay of a host of factors that sculpt the associated neural responses, including task context, attention, awareness, and perceptual interpretation.