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# Watch the loose hanging wire! Conditioned fear modulates visual selection

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## Abstract

From an evolutionary viewpoint, it is suggested that our visual system is specialized in detecting threat automatically. Accordingly, previous studies investigated emotional modulation of visual selection with pictures of biological relevant stimuli. However, in our everyday lives we often learn what to fear by experience, such as a shock when touching a loose hanging electric wire. The current study is the first to investigate whether conditioned fear also modulates visual selection. Using the method of differential fear conditioning, we presented a threatening and a non-threatening stimulus distractor during an oculomotor selection task. For short as well as long saccade latencies, the deviation of the saccade trajectory was stronger for the threatening distractor than for the non-threatening distractor. Moreover, the eyes were captured more often by the threatening distractor. The results demonstrate that conditioned fear modulates visual selection immediately and fast. The current findings are interpreted in terms of a neurobiological model of threat detection.

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