

## **The accumulation of evidence for perception and confidence**

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Perceptual decisions are accompanied by feelings of confidence that reflect the likelihood that the decision was correct. Computational frameworks describe these feelings of confidence as an evaluation of the evidence used for making the perceptual decision. However, perceptual decisions themselves are described by a process of evidence accumulation that evolves over time. By examining this evidence accumulation process in relation to both perception and confidence, we show a partial dissociation in the evidence used for perceptual decisions and confidence evaluations. In particular, confidence can rely on evidence that continues to accumulate after perceptual decision commitment. We isolate separable neural signatures of confidence that are present both during perceptual evidence accumulation and after perceptual decision commitment. This ongoing evidence accumulation contributes to confidence even for perceptual decisions based on brief stimulus presentations, and largely rely on ongoing perceptual processes that can be interrupted by backward masking independently of the perceptual decision processes. Together, these findings highlight the dynamic processes involved in forming feelings of confidence, which are closely related, but distinguishable from, the processes involved in making perceptual decisions.