

Confidence-based decision-making

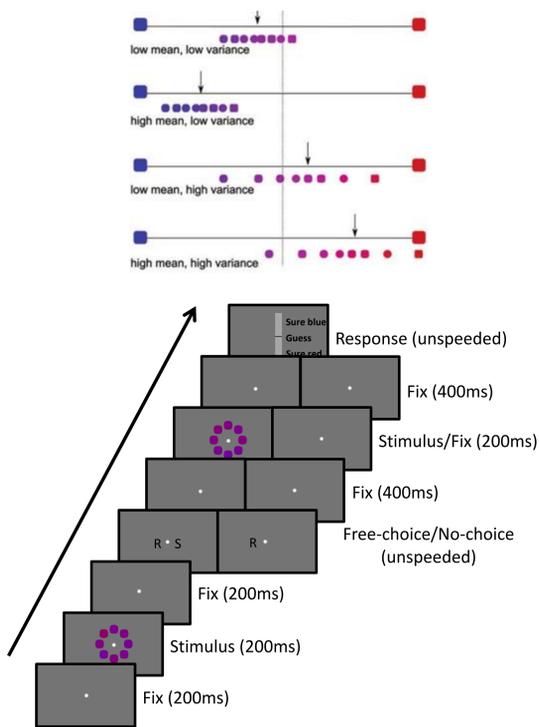
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Introduction

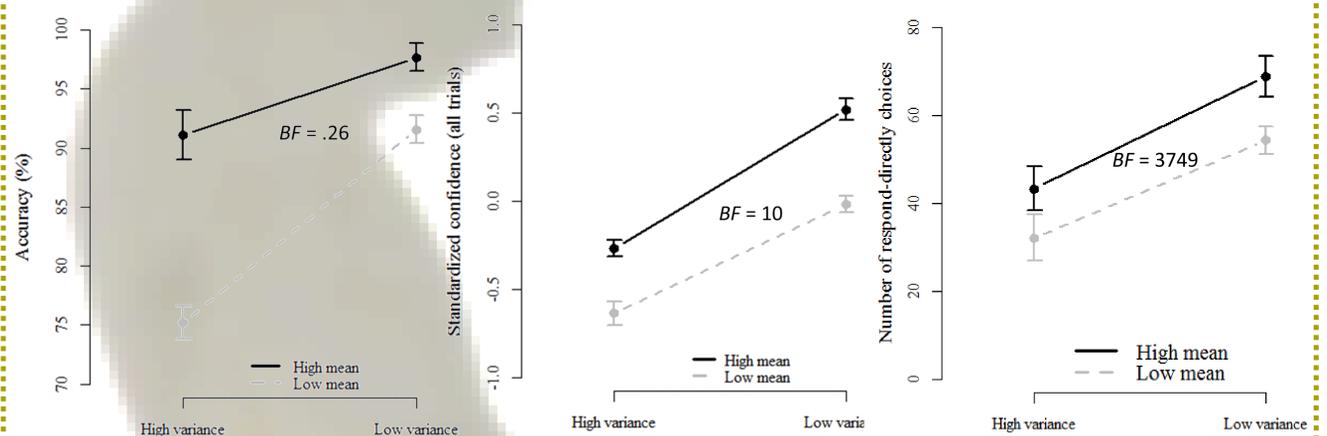
The influence of subjective confidence on strategic decision making has been unexposed so far. Mainly, this results from the close association between first-order performance and confidence, which makes it hard to isolate the influence of confidence on decision making. Capitalizing on the observation that evidence variability has more influence on confidence than on performance, we were able to create conditions that were matched in accuracy but differed in subjective confidence. This allowed us to examine the influence of subjective confidence on decision making.

Method

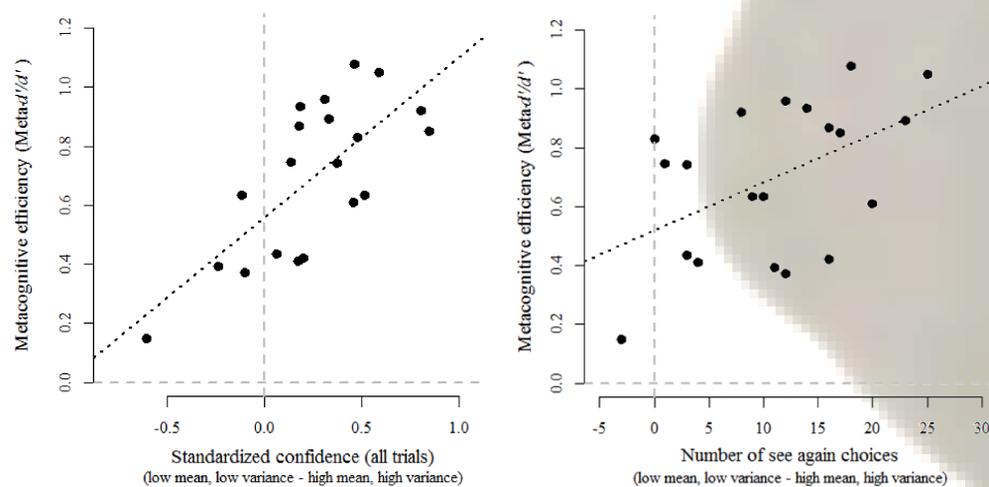


Results

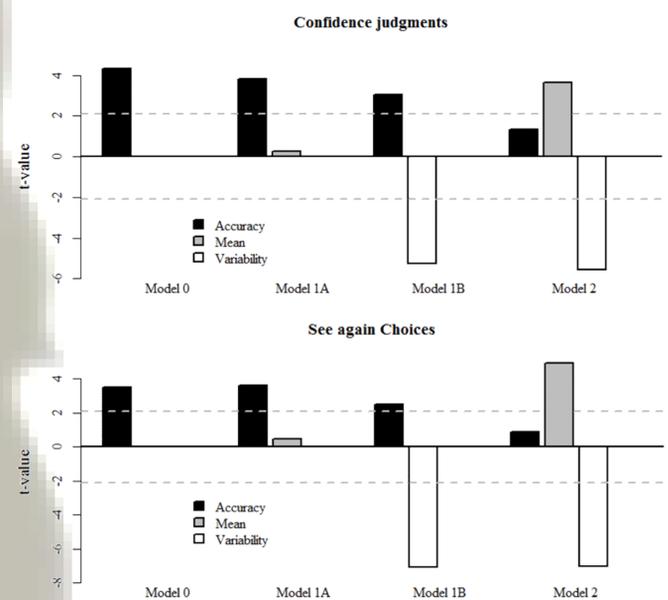
1. The low mean - low variance and high mean - high variance conditions were matched in accuracy but differed in confidence and in the number of times participants selected the option to see the stimulus again in an easier version.



2. People with good metacognitive capacities are more susceptible to this influence of evidence variability on confidence



3. Fitting several regression models to all data, showed that evidence variability consistently influenced both subjective confidence and see again choices.



Discussion

Our results showed a clear association between subjective confidence and strategic decision making. Crucially, this was found even in conditions that were matched with regard to first-order performance. A notorious implication of these findings is that the act of making a decision does not purely depend on the available evidence for a given response, but it can also be driven by the subjective appreciation of the evidence. Explaining these dynamics in standard models of decision making will be invaluable to grasp a better understanding of the nature of subjective confidence.



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