# Article information:

Unconscious information changes decision accuracy but not confidence | PNAS  
<https://www.pnas.org/doi/full/10.1073/pnas.1403619111>

# Article summary:

1. Unconscious information can influence decision-making without conscious awareness, leading to an increase in decision accuracy.

2. This effect was observed in a novel dichoptic suppression paradigm that allowed for the control of conscious and unconscious decision-relevant information.

3. However, the boost in accuracy from unconscious information did not lead to an increase in confidence, suggesting poor metacognition for unconscious decisional evidence.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article discusses a study that explores the idea that unconscious information can influence decision-making. The study used a novel dichoptic suppression paradigm to control the amount of decision-relevant information available during both conscious and nonconscious processing. The results showed that unconscious information can be accumulated over time and integrated with conscious elements presented either before or after to boost or diminish decision accuracy. However, unlike conscious information, unconscious information did not seem to boost decision confidence.

The article provides a detailed explanation of the experimental design and results, including the use of computational models to explain both conscious and unconscious accumulation of decisional evidence. The article also acknowledges the controversial nature of the idea that unconscious information can influence behavior and notes previous studies that have failed to find evidence for inattentional deliberation.

One potential bias in the article is its focus on supporting the idea that unconscious information can influence behavior without fully exploring counterarguments or alternative explanations for the results. For example, while the study ruled out priming as an account for the boost in decision accuracy, it does not consider other potential explanations such as response bias or demand characteristics.

Additionally, while the article notes that many thinkers have struggled to model illogical and unexpected behavioral choices, it does not explore how this study's findings could contribute to a better understanding of these phenomena. It also does not discuss any potential risks associated with relying on unconscious information in decision-making.

Overall, while the article provides interesting insights into how unconscious information can influence decision-making, it could benefit from a more balanced exploration of alternative explanations and potential limitations of the study's findings.

# Topics for further research:

* Criticisms of the idea that unconscious information can influence behavior
* Response bias as an alternative explanation for the boost in decision accuracy
* Demand characteristics and their potential impact on the study's results
* Models of illogical and unexpected behavioral choices
* Risks associated with relying on unconscious information in decision-making
* Previous studies that have failed to find evidence for inattentional deliberation

# Report location:

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