

# **Reducing the illusion of explanatory depth: A new approach to boosting intervention**

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## **Abstract**

This study demonstrates a new approach for boosting peoples decision-making abilities. Previous studies have demonstrated that those who have less knowledge are more likely to make a scientifically biased decision. Therefore, we can expect that providing them with more knowledge can reduce their biases. However, since people have difficulty changing their minds in response to knowledge that contradicts their opinions, it is unclear whether people accept and appropriately understand the provided knowledge. To more efficiently help these people, this study focused on the illusion of explanatory depth, which means that the knowledge people think they have is greater than the knowledge they actually possess. We conducted two experiments and demonstrated that (i) those who had a stronger illusion of explanatory depth were more likely to make a logically biased decision, and (ii) by informing them of their illusion and providing them with objective knowledge, we could reduce their bias.