How Wise Is the Crowd: Can We Infer People Are Accurate and Competent Merely Because They Agree With Each Other?

PRESENTER:
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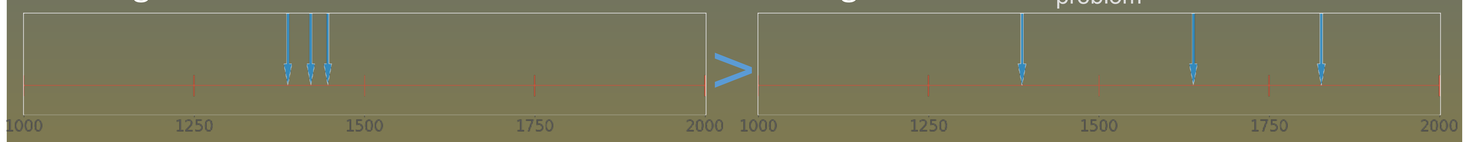
INTUITION Imagine that you live in ancient Greece. A fellow called Eratostenes claims the circumference of the earth is 252000 stades (approximately 40000 kilometers).
You know nothing about this and (mis)take Eratosthenes for a pretentious loon. But what if other scholars had arrived at very similar measurements, independently of Eratosthenes? If you don't suspect a conspiracy, wouldn't you infer that: (i) they are likely approximately correct and (ii) they are likely very competent?

RELEVANCE The wisdom of crowds literature—in particular the Condorcet Jury Theorem—generally assumes a degree of competence of informants (individuals who provide answers). From that competence, it can be inferred that the individuals will tend to agree, and that their answers will tend to be accurate. In 2 experiments, we show that people do the reverse inference: from agreement to competence. Using analytical arguments and simulations, we argue that this inference is warranted under a wide range of assumptions - most importantly independence of informants and the absence of a systematic bias.

METHODS

- 2 online experiment (Exp. 1 in a numeric scenario, Exp. 2 in a categorical one)
- UK participants (total N = 399) on Prolific
- Participants saw (fictional) advisors' predictions for stock values (Exp. 1) or choices of investment options (Exp. 2)
- We varied convergence (degree to which advisors agree; within participants) and independence (independence vs. A shared a conflict of interest; between participants)
- We asked about perceived accuracy and competence of the advisors (scales from 1-7)

The more informants converge, the more people tend to believe them to be correct and competent…



…given people know nothing else and informants are independent.

These inferences are weaker when informants share a systematic bias.

Maybe these results can help us understand why people trust scientists.

Take a picture to download the full paper

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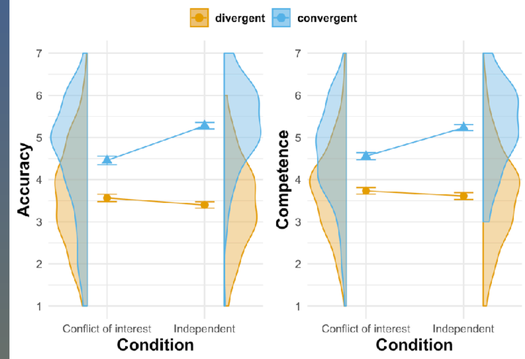
RESULTS:

Experiment 1



Experiment 2