

The wisdom of (smaller) crowds

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Credit: Santa Fe Institute

When guessing the weight of an ox or estimating how many marbles fill a jar, the many have been shown to be smarter than the few. These collective displays of intelligence have been dubbed 'the wisdom of crowds,' but exactly how many people make a crowd wise?

New research by SFI Professor Mirta Galesic and her colleagues from the Max Planck Institute for Human Development in Berlin suggests that larger [crowds](#) do not always produce wiser decisions. In fact, when it comes to qualitative decisions such as "Which candidate will win the election" or "which diagnosis fits the patient's symptoms," moderately-sized 'crowds,' around five to seven members, are likely to outperform larger ones. In the real world, these moderately-sized crowds manifest as physician teams making medical diagnoses; top bank officials forecasting unemployment, economic growth, or inflation; and panels of election forecasters predicting political wins.

"When we ask 'how many people should we have in this group?' the impulse might be to create as big a group as possible because everyone's heard of the wisdom of crowds," Galesic says. But in many real world situations, it's actually better to have a group of moderate size."

Where previous research on collective intelligence

deals mainly with decisions of 'how much' or 'how many,' the current study applies to 'this or that' decisions under a majority vote. The researchers mathematically modeled group accuracy under different group sizes and combinations of task difficulties. They found that in situations similar to a real world expert panel, where group members encounter a combination of mostly easy tasks peppered with more difficult ones, small groups proved more accurate than larger ones.

"In the real world we often don't know whether a group will always encounter only easy or only difficult tasks," Galesic says. "And in many [real world](#) situations, an expert group will encounter a combination of mostly (for them) easy tasks and a few difficult tasks. In these circumstances, moderately-sized crowds will perform better than larger groups or individuals. Organizations might take this research to heart when designing groups to solve a series of problems."

More information: Mirta Galesic et al. Smaller Crowds Outperform Larger Crowds and Individuals in Realistic Task Conditions., *Decision* (2016). [DOI: 10.1037/dec0000059](https://doi.org/10.1037/dec0000059)

Provided by Santa Fe Institute

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