

Hey! What's New? 2026-53

When Do Teams Outperform Individuals?

Seb Murray asks, in an article in *Knowledge at Wharton*, do groups outperform individuals? “For more than 80 years, researchers across the social and behavioral sciences have wrestled with that fundamental question, often reaching conflicting conclusions. According to fresh research from Wharton’s Computational Social Science Lab (CSSLab), that’s because there isn’t a single answer. Whether collaboration pays off depends on the task at hand.”

He points to a paper – a “The Task Space: An Integrative Framework for Team Research” – published recently in *Management Science*, where the outcome of group work hinged on its nature. The researchers recruited 1,231 participants to complete 20 different tasks, either alone or in groups of three or six. “The outcome swung dramatically, from teams lagging the strongest individual by a factor of three, to outperforming them by 60%, depending on the task,” he writes.

“These experimental results highlight the difficulty in knowing whether a team will succeed in tackling a particular task, he says.” Intuitions are conflicting. He quotes Xinlan Emily Hu, a postdoctoral associate at MIT, as saying that “we often think groups are best at tackling ambiguous problems because they pool together different perspectives. But that’s a double-edged sword. The same process is very inefficient and can ultimately lead to conflict.”

Hu co-authored the study with Wharton professor Duncan Watts, Wharton PhD student Linnea Gandhi, CSSLab research fellow Mark Whiting and MIT professor Abdullah Almaatouq.

Murray notes that “the findings challenge a common management assumption: that tasks fall into broad categories with consistent rules. For example, one assumption might be that creativity is inherently a team sport. In their experiment, however, Hu and colleagues found that groups did not in fact automatically perform better (or worse) on creative work. While teams excelled at tasks with clear right answers, such as constructing words from letters, they struggled with open-ended creative tasks, such as writing and selecting the best slogan for a product.

“It turned out that creative tasks with verifiable answers led to highly efficient teamwork because everyone could quickly spot when someone had found the right solution, while those without a single best answer led to greater uncertainty, and hence, greater team conflict. Ultimately, that conflict hampered teams’ performance on those tasks.”

“There’s no silver bullet for team building,” said Hu. “When managers design teams, there’s often a focus on just getting brilliant people together in the room, without looking at whether the task supports those brilliant people.”

To reach their conclusions, notes Murray, “the researchers developed a framework that describes every task using the same 24 features. They then showed that those characteristics help predict when teams are likely to best individuals (which is more accurate, they say, than older methods). The framework, called the Task Space, is also available online, allowing managers to evaluate and design tasks for their own teams.”

According to Murray, “the findings may explain why more than 80 years of research into when groups outperform individuals has produced such conflicting results. Previous studies reached sharply different conclusions; some found groups could outperform even their strongest member, while others found collaboration actually reduced the number of creative ideas people generated.”

“All too often, we draw broad lessons from individual case studies without recognizing how dependent they are on the task itself,” Hu said. “One of the big messages from this research is that many of the lessons we think are universal are actually task dependent.”

Adds Murray, “rather than sorting tasks into broad categories such as planning or brainstorming like older studies have done, the authors argue it is their underlying features — particularly whether a task has a correct answer that can be verified — that better predicts when teams are likely to gain an edge. And by describing every task using the same set of features, the Task Space makes them directly comparable and does a much better job of predicting when groups will outperform individuals than previous methods.”

Lear more at [When Do Teams Outperform Individuals? - Knowledge at Wharton](#).