

Two Heads Are Not Always Better Than One

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From the corporate boardroom to the kitchen table, important decisions are often made in collaboration. But are two—or three or five—heads better than one? Not always, according to new research from the University of Pennsylvania's Wharton School. "People who make judgments by working with someone else are more confident in those judgments. As a result they take less input from other people"—and this myopia wipes out any advantage a pair may have over an individual, says psychologist Julia A. Minson, who conducted the study with Jennifer S. Mueller. "The collaborative process itself is the problem." The findings appear in the journal [Psychological Science](#), published by the [Association for Psychological Science](#).

To test the hypothesis that confidence born of collaboration takes a toll on the quality of judgment, Minson and Mueller asked 252 people to estimate nine quantities related to U.S. geography, demographics, and commerce, either individually or in pairs after discussion. They were then offered the estimates of other individuals and pairs and allowed to revise their own; the final estimates therefore could come from the efforts of two to four people. To sweeten the pot, participants earned a \$30 bonus for each of two estimation rounds, but lost \$1 for each percentage point their answer deviated from correct. Individuals also rated their confidence in their judgments.

The results: People working with a partner were more confident in their estimates and significantly less willing to take outside advice. The pairs' guesses were marginally more accurate than those of the individuals at first. But after revision (or lack thereof), that difference was gone. Even the combined judgments of four people yielded no better results than those of two or three. Finally, the researchers found that had the pairs yielded to outside input, their estimates would have been significantly more accurate. Their confidence was costly.

So should we toss out teamwork? No, says Minson, but since collaboration is expensive and time consuming, managers should use it efficiently. For one thing, a group of 10 is not 10 times better. "Mathematically, you get the biggest bang from the buck going from one decision-maker to two. For each additional person, that benefit drops off in a downward sloping curve." Most important is awareness of the costs of teamwork. "If people become aware that collaboration leads to an increase in overconfidence, you can set up ways to mitigate it. Teams could be urged to consider and process each others' inputs more thoroughly."

The same goes for a couple choosing a mortgage or a car, Minson cautions. "Just because you make a decision with someone else and you feel good about it, don't be so sure that you've solved the problem and you don't need help from anybody else."