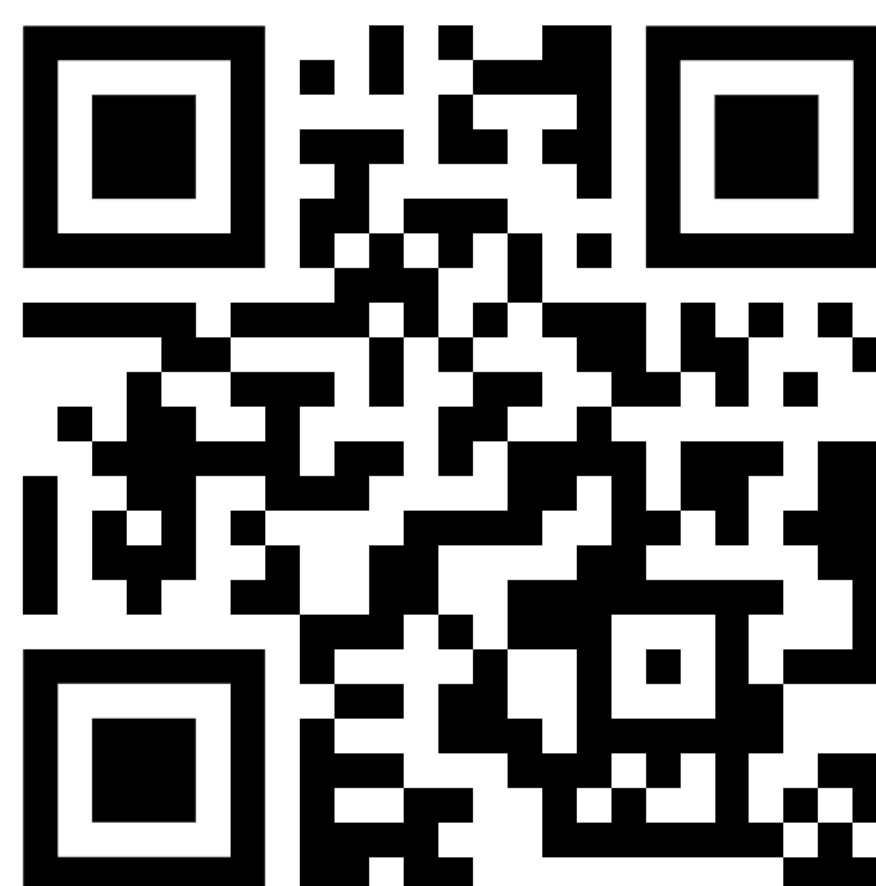


Is overconfidence an individual difference?



<https://osf.io/tb2me/>

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Overconfidence is **thinking you are better than you actually are**.

It takes 3 forms (Moore and Schatz, 2017):

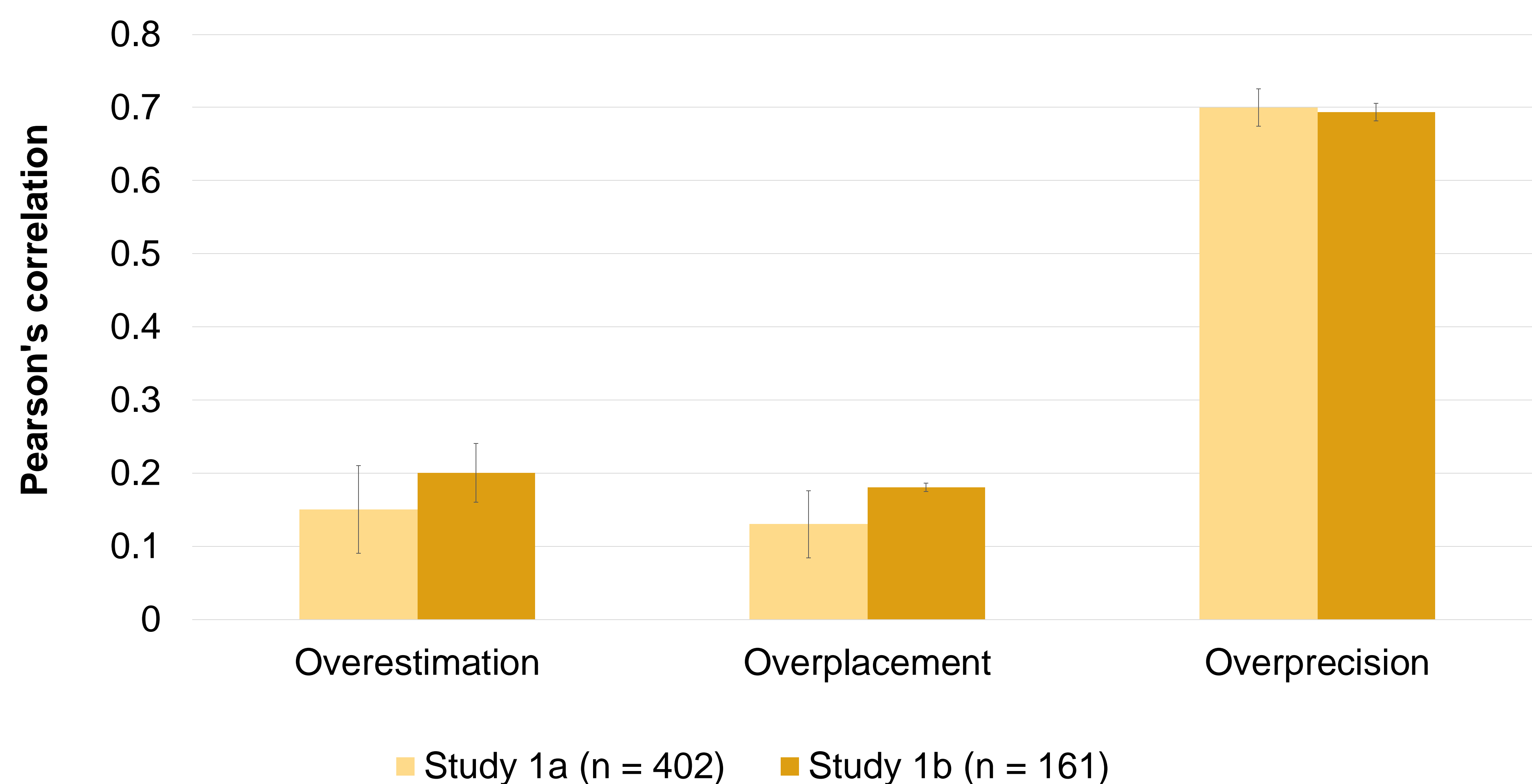
- 1) Overestimation – thinking you’re better than you are, in absolute terms
- 2) Overplacement – thinking you’re better than you are, relative to others
- 3) Overprecision – being too sure that you are right.

Many scholars treat overconfidence as an individual difference, i.e. **assuming that some people are more overconfident than others**. We suggest that it is more of a function of situation and elicitation method.

Overestimation and overplacement are not stable across tasks.

Overprecision might be, depending on the elicitation method.

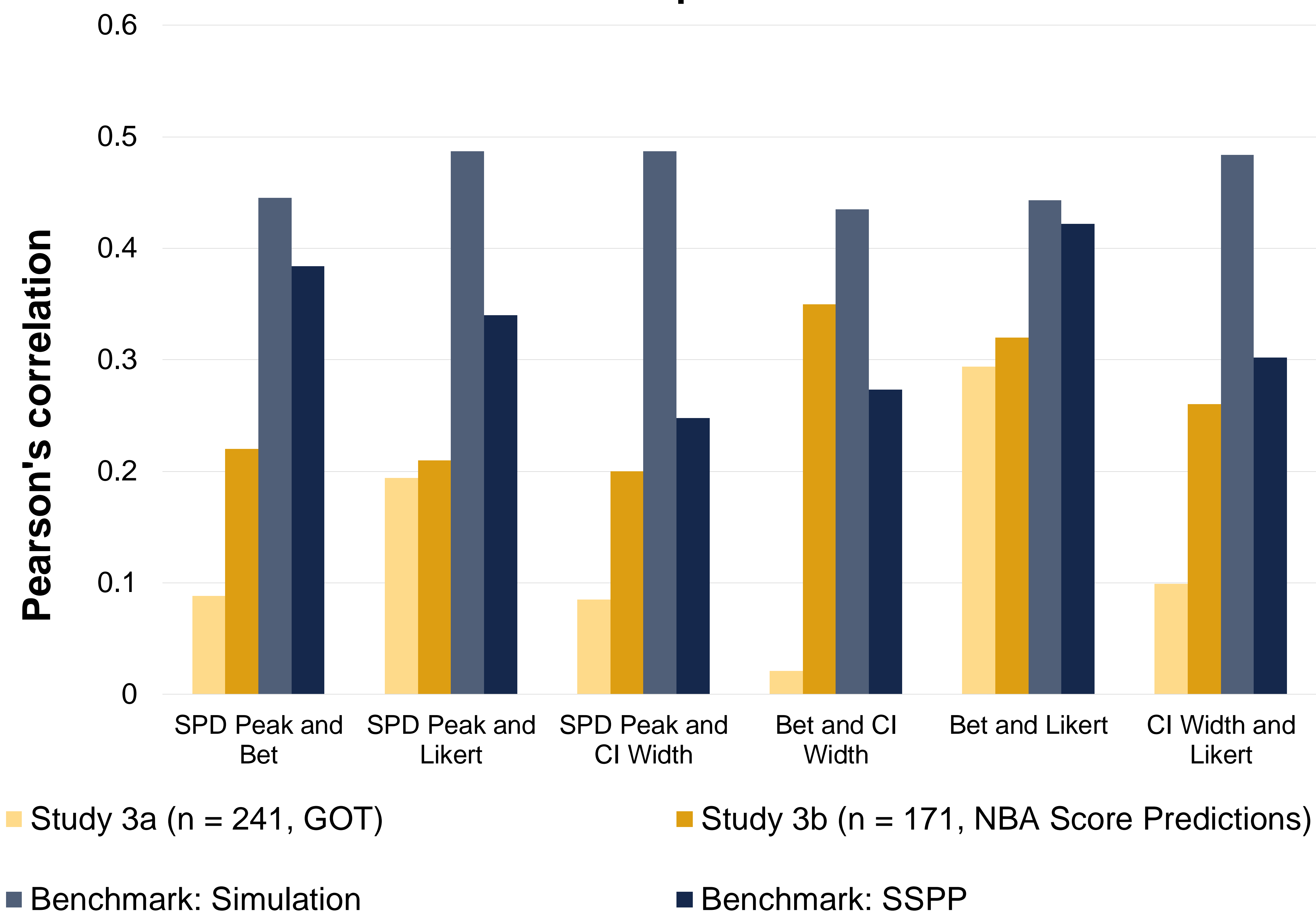
Average inter-task correlations



Bars for Domain represent the Standard Error of 3 correlations.
Study 1b followed up with participants from Study 1a 10 months later.
In Study 1b, we added a fourth task (GOT from Binnendyk and Pennycook, 2024), but do not show the data here for comparability. Overconfidence on the GOT is correlated at similar magnitudes with the three tasks shown here.
The tasks here were MLB forecasting, Raven’s matrices, and weight-guessing. See Measures for more details.

Different measures of precision correlate with each other less than they “should”.

Correlations between precision measures



Study 1a and 1b

Who will win?

Los Angeles Dodgers

Texas Rangers

Choose the figure that best completes the empty space in the picture below.

(text below is for the MLB forecasting task)

Overestimation: “You guessed the winners of 10 games. How many of your estimates do you think are correct?”

Overplacement: “Several hundred other participants also completed this test. What do you think the average score of all participants in the study will be?”

Overprecision: “Each of the rows listed below represents a possible score. For each row, estimate the percentage of participants who scored that many points on this MLB Prediction test.”

Study 3a and 3b

How much does this person weigh?

Was that a chimpanzee or a baseball player?

You indicated that you think the [Miami Heat / Denver Nuggets] will win against the [Miami Heat / Denver Nuggets]. By how many points do you think the [Miami Heat / Denver Nuggets] will win?

(text below is from the GOT, or image-guessing task. On the NBA point prediction, a “correct” answer was within 5 points of the true outcome.)

SPD Peak: “Consider every possible score you could have received (0/10, 1/10, 2/10,... 10/10). For each possible score, consider the probability (from 0 to 100) that it is your actual score.” We then summed the probability in the peak bin, plus the probability in the immediately-adjacent bins.

Likert: “How confident are you that you scored somewhere between [estimate – 1] and [estimate + 1], inclusive, in the image guessing game?” (1 = “not at all confident” to 7 = “certain”)

CI Width: “Please identify two numbers: one BELOW your estimate and another ABOVE your estimate. These numbers should be far enough apart that you are 90% sure your true score is between them.”

Bet: “How much of your \$1 bonus would you like to bet that you scored anywhere from [estimate – 1] through [estimate + 1], inclusive? If your estimate is correct, the money you bet will be doubled. If your estimate is incorrect, the money you bet is lost. You keep the portion of the \$1 you choose not to bet.”