

Is overconfidence an individual difference?

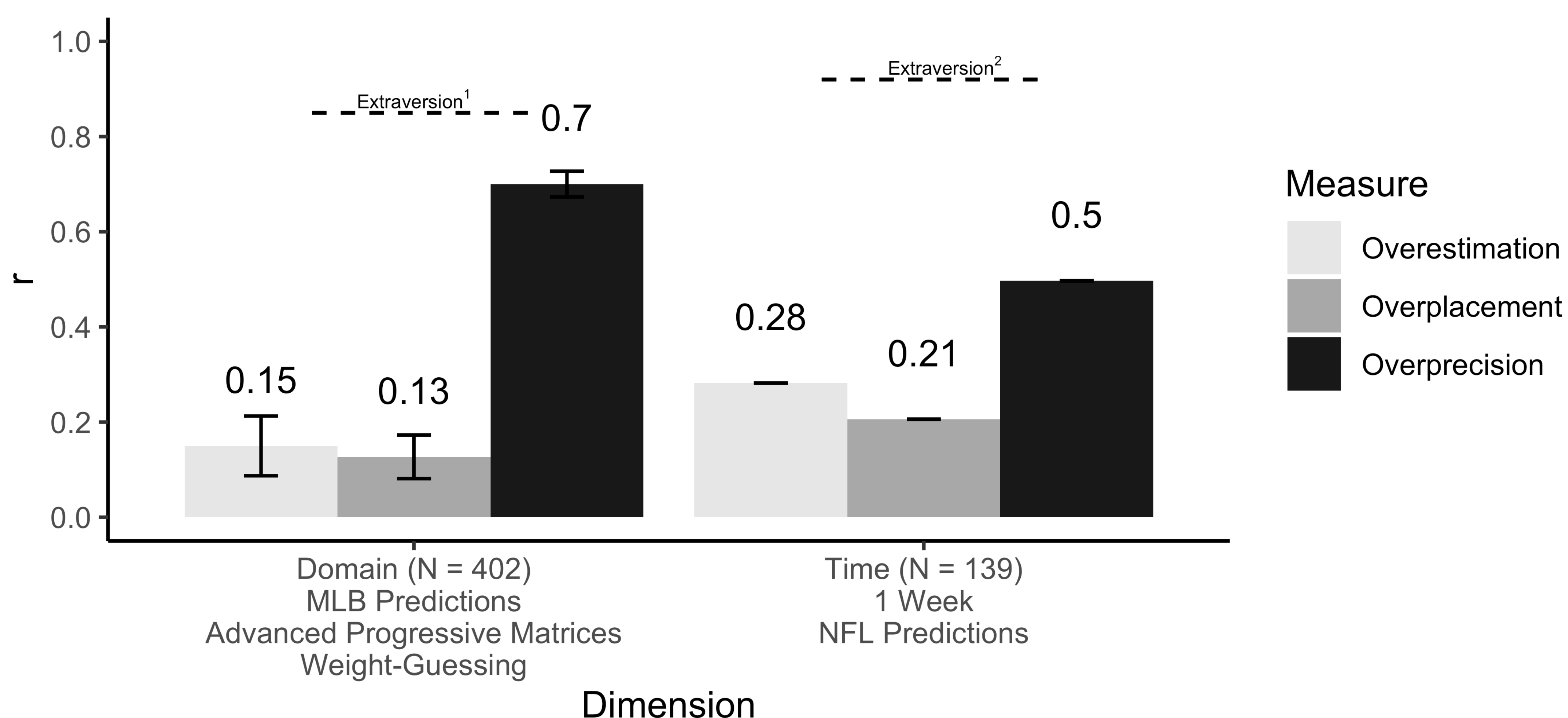


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Overestimation and overplacement are not stable individual differences.
Overprecision might be, depending on the elicitation method.

Correlations of overconfidence across domain and time, by measure



Bars for Domain represent the Standard Error of 3 correlations.

Bars for Time represent 95% Confidence Intervals (each bar is one correlation).

¹Sheldon et al. (1997) asked 193 students to describe their extraversion in different roles (student, employee, child, friend, and romantic partner).

²Kurtz and Parish (2001) asked 132 students to report extraversion 1 week apart using the NEO-PI-R (Costa and McCrae, 1992).

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.

Different measures of overprecision don’t correlate well with each other.

Pearson correlations between precision measures.

N = 241, Fuzzy Image Recognition.

Variable	Bet (\$1.00)	Likert (1-7)	Histogram Peak
Bet (\$1.00)			
Likert (1-7)	0.29***		
Histogram Peak	0.08	0.20**	
90% Confidence Interval Width (Reverse)	0.02	0.10	0.09

27 experts from the Social Science Prediction Platform predicted that these exact 6 correlations would fall between .24 and .34.

Nor with other individual difference measures.

Pearson correlations between precision measures and individual differences

N = 189, NBA Predictions.

Variable	BET	LIKERT	NUMERIC	Histogram Peak	CI Width
BFI Extraversion	-0.010	0.217	0.049	-0.044	-0.027
BFI Openness	-0.048	-0.000	0.003	0.061	-0.025
Actively Open-minded Thinking	0.015	-0.157	-0.084	0.072	0.137
Intellectual Humility F1	-0.002	-0.006	-0.068	-0.225	0.027
Intellectual Humility F4	0.032	0.219	0.059	-0.078	0.060
Narcissism	0.040	-0.207	0.033	0.097	-0.018
Need for Cognition	0.033	0.091	0.044	0.000	0.062
Need for Cognitive Closure	0.013	0.167	0.119	-0.004	0.017
Male	0.022	0.154	0.018	0.085	-0.026
Age	0.086	0.144	0.159	0.189	-0.095

Note. Asterisks follow the preregistered significance levels; *p<.00064

Measures

Overestimation

- Estimated number of correct answers – actual number of correct answers.
- “Correct answers” depends on the study, e.g. number of game winners guessed correctly for NFL / MLB / NBA predictions, or number of fuzzy images guessed correctly

Overplacement

- (Estimated number of correct answers – Estimated number of correct numbers among others)
- (Actual number of correct answers – Actual average of correct answers among others)

Overprecision

- Bet (0 to 1): “How much of a \$1.00 bonus would you like to bet that your estimate is within 1 point of your true score?”
- Likert (1 to 7): “How confident are you that your estimate is within 1 point of your true score?” (1 = “not at all confident”, 7 = “certain”)
- 90% Confidence Interval Width (-10 to 0): “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.” Reverse-scored (negated)
- Histogram Peak: Sum of peak probability (see picture on the right) of a subjective probability distribution, plus the probabilities from neighboring bins.

Tell us how likely it is that you got each of the possible scores below, by dragging the bars to the desired location.

(Note that while theoretically the probabilities should sum to 100, we will scale your responses to each possible score appropriately if you do not drag the bars precisely).

