Supplementary Material

Additional information regarding the tests used in Studies 1-3

We created the tests in Studies 1 and 2 by choosing antonym problems from a GRE test preparation guide (Educational Testing Service, 1996). This guide provides over 5000 questions previously used on GRE tests administered over a 5-year period along with answers and information regarding the percentage of GRE test takers who had answered each question correctly. We used this normative information to select items that we labeled as "easy" (> 90% of previous GRE test takers had answered these question correctly), "difficult" (< 50% correct), and "moderate" (>65% correct and <85% correct). We selected these cutoffs, in particular, because they mapped onto the grade categories of A, F, and C, respectively. We created the Study 3 test by collecting general knowledge questions from multiple online sources and pretesting the questions to select items that could be categorized as easy (using the same >90% criteria) and difficult (< 50% correct).

Example problems from the tests used in Studies 1, 2, and 3

	Antonym Problems used in Studies 1 and 2	**General Knowledge Problems used in Study 3**
Example Easy Item	The antonym of CONCUR is _____ A. Expose B. Incite C. Prolong D. Dissent E. Forgive	What was the first state to secede from the Union? A. Alaska B. Hawaii C. South Carolina D. Washington D.C.
Example Difficult Item	The antonym of OPPROBRIOUS is _____ A. Meretricious B. Innocuous C. Invulnerable D. Irreproachable E. Ambitious	What is the only organ of the human body that can be transplanted without risk of rejection? A. Kidney B. Liver C. Cornea D. Eardrum

Table 1: Descriptive Statistics for Participants' Theories of Intelligence (Studies 1 and 3)

Study	**Mean (SE)**	**Minimum**	**Maximum**
1	3.44 (0.12)	2.0	5.0
3	3.39 (0.10)	1.0	5.75

Note: No comparable information is available for Study 2 because theories of intelligence were manipulated rather than measured in that study.

Table 2: Mean Actual Percentile Score for Entity and Incremental Theorists (Studies 1-3)

Study	Incremental Mean Score	Entity Mean Score	Difference	Test Statistic
1	49.05 (5.53)	50.96 (5.53)	-1.92	β=-.03, $t(51)$=-.24, p=.81
2	53.05 (3.97)	45.68 (4.32)	7.37	$t(92)$=1.26, p=.21
3	43.89 (3.88)	56.47 (3.89)	-12.58*	β=-.22, $t(99)$=-2.28, p<.05

Note: The means presented for Studies 1 and 3 represent point estimates for participants 1 SD above the mean (a stronger incremental theory) and 1 SD below the mean (a stronger entity theory) in a regression that controls for differences in actual percentile score. Study 2 means are drawn from an ANCOVA comparing the Incremental and Entity Article conditions, controlling for differences in score. The SE of each mean is shown in parentheses.

Across the three studies, the relationship between an incremental theory and participants' test score varies. No relationship exists in Study 1. In Study 2, there is a nonsignificant trend toward those in the Incremental Article condition scoring higher than those in the Entity Article condition on a test of antonym problems. Finally, in Study 3, entity theorists score higher than incremental theorists on a trivia quiz. This lack of consistency across studies supports our argument that it is critical to control for participants' actual scores in analyses that examine overconfidence.

Table 3: Descriptive Statistics for Attention Allocated to Easy and Difficult Problems (Study 2)

	Easy Problems	Difficult Problems	Complete Test
Mean # of Seconds	25.40 (1.29)	21.19 (.97)	356.90 (14.23)
Range	7.60-80.00	9.60-48.40	159.0-929.0
Skewness of Raw Data	1.85 (2.49)	1.16 (2.49)	1.53 (.249)
Skewness of Log-Transformed Data	.34 (2.49)	.55 (2.49)	.46 (.249)

Note: Mean values represent the number of seconds spent on the average easy test problem, on the average difficult test problem, and on the full 15-item test. SE is shown in parentheses. Note that the average time spent on difficult problems is less than the average time spent on easy problems in Study 2. This finding is consistent with past work suggesting that people choose how much time to devote to problems, in part, based on their perceptions that the time will be well spent (e.g., Finn, 2008; Metcalfe & Finn, 2008). As such, people will often speed past problems that they deem too difficult for them to solve. As an example, participants might choose not to spend time trying to solve antonym problems for which they cannot define the target words.

Table 4: Mean Confidence Judgments (Estimated Percentile Score) for Entity and Incremental Theorists (Studies 1-3)

Study	Group	Incremental	Entity
Study 1	Full sample	55.59 (3.49)	76.78 (3.49)
	Men	61.84 (5.04)	86.22 (4.10)
	Women	54.01 (4.36)	68.48 (4.89)
Study 2	Full sample	59.31 (2.13)	68.80 (2.32)
	Men	59.76 (3.44)	61.88 (3.94)
	Women	60.03 (2.87)	71.74 (3.03)
Study 3: Attention Toward Ease Condition	Full sample	55.66 (3.83)	67.10 (3.69)
	Men	56.00 (5.25)	73.91 (4.52)
	Women	56.82 (5.59)	56.44 (6.30)
Study 3: Attention Toward Difficulty Condition	Full sample	61.76 (3.16)	58.68 (3.22)
	Men	67.73 (5.15)	60.57 (4.75)
	Women	57.81 (3.83)	58.41 (6.30)

Note: The means presented for Studies 1 and 3 represent point estimates for participants 1 SD above the mean (a stronger incremental theory) and 1 SD below the mean (a stronger entity theory) in a regression that controls for participants' actual percentile score. Study 2 means are drawn from an ANCOVA comparing the Incremental and Entity Article conditions, controlling for differences in score. The SE of each mean is shown in parentheses. See Table 4 below for test statistics regarding main and interactive effects of gender on confidence judgments.

Table 5: Main Effects and Interaction Effects of Gender on Overconfidence (Studies 1-3)

Study	Type of effect	Test Statistic
1	Gender	**β=.29, t(48)=2.54, p=.01**
	Gender X Intelligence Theory	β=-.13, t(48)=-1.13, p=.26
2	Gender	F(1,90)=2.30, p=.13, η_p^2= .03
	Gender X Article Condition	F(1,90)=2.06, p=.16, η_p^2= .02
3	Gender	**β=.19, t(95)=2.03, p=.05**
	Gender X Intelligence Theory	β=-.03, t(95)=-.28, p=.77
	Gender X Theory X Attention Condition	β=-.18, t(95)=-1.83, p=.07

Note: Test statistics represent, for each study, the main effect of gender and the interaction between gender and theories of intelligence. Across all studies, male was coded as a higher number than female. As such, the significant effects of gender on confidence, seen in Studies 1 and 3, suggest that male participants were, on average, more overconfident than female participants in those studies.

Importantly, there was no evidence that gender moderated the effects of participants' theories of intelligence on overconfidence in any of the three studies. It is worth noting, however, that there was an unexpected, marginally significant 3-way interaction in Study 3 between gender, intelligence theories, and attention condition. In Study 3, entity theorists whose attention was directed toward easy problems were more overconfident than participants with more incremental theories of intelligence. However, directing entity theorists' attention to difficult problems lead to a dramatic drop in their confidence. The marginally significant 3-way interaction suggested that this effect of directing entity theorists' attention toward either easy or difficult problems had a larger effect on men's, compared to women's, confidence judgments. That said, the sample size in this study (n = 104) was too small to confidently interpret 3-way interactions (average

participants per cell = 13). Consequently, we suggest that this finding should be interpreted with caution.

Table 6: Correlation between Participants' Confidence Estimates and their Actual Score (Studies 1-3)

Study	Correlation b/n Estimated & Actual Score
1	$r(53)=0.19$, $p=.16$
2	$r(94)=0.28$, $p=.006$
3	$r(104)=0.30$, $p=.002$
Average Across Studies	$r_{average}= 0.26$