**Sadder ≠ Wiser: Depressive Realism is not Robust to Replication**

 **Supplementary Material**

# Procedure

**Power analysis**

In three experiments, Alloy and Abramson (1979) compared nondepressed and depressed participants on their perception of control over a contingency task. We calculated partial *η²*,and 90% confidence intervals around partial *η²*, for each experiment:

Experiment 2: *F* (1, 28) = 12.70, *η²* = 0.312, 90% CI [**0.084**, 0.473]
Experiment 3: *F* (l, 56) = 20.73, *η²* = 0.270, 90% CI [**0.105**, 0.385]
Experiment 4: *F* (1*,* 48) = 8.46, *η²* = 0.150, 90% CI [**0.019**, 0.228]

We followed the suggestion by Anderson and Maxwell (2017) to conduct a priori power analyses based on the lower bound effect size of each confidence interval (bolded above). Results indicated that to achieve 90% power for detecting the lower bound of the 90% CI around the effects reported by Alloy and Abramson, we should recruit a total of 116, 92, and 547 participants, respectively, for our ANOVA analysis. We averaged these suggested sample sizes to obtain a final suggested sample size of 252.

Using the lower bound of the 90% confidence interval around reported effect sizes represents a conservative estimate of the true effect, making for a conservative power analysis (Anderson and Maxwell, 2017). Power analyses using the *reported* effect sizes (i.e., confidence interval midpoints) of each Alloy & Abramson (1979) experiment would indicate that to obtain 90% power, we should recruit 26, 31, and 62 participants, respectively, for an averaged total sample size of only 40 participants. Thus, we expect that a sample size of 252 conveys greater than 90% power for detecting the depressive realism effect reported by Alloy & Abramson (1979).

# Results

We present results across two distinct samples. Participants in Sample One (S1) were recruited using Amazon’s Mechanical Turk (MTurk), while Sample Two (S2) participants were undergraduate students who received course credit for participation.

**Descriptive Statistics**

 See Supplementary Table 1a and Table 1b for descriptive statistics, skewness, kurtosis, and reliability results for the self-report scales for Sample One and Sample Two, respectively.

**Supplementary Table 1a**

*Descriptive Statistics for Self-Report Measures: Sample One*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Measure | *M* | *SD* | Min | Max | Skew | Kurtosis | *ωt* |
| ATS | 12.11 | 4.78 | 4 | 20 | -0.12 | -1.15 | 0.87 [0.85, 0.90] |
| HPS | 66.79 | 12.62 | 41 | 106 | 0.36 | -0.17 | 0.94 [0.93, 0.95] |
| IDD-C | 18.15 | 16.8 | 0 | 64 | 0.73 | -0.54 | 0.95 [0.94, 0.96] |
| IDD-L | 28.53 | 20.0 | 0 | 76 | 0.19 | -1.03 | 0.95 [0.94, 0.96] |
| MASQAD | 34.43 | 10.06 | 10 | 50 | -0.30 | -0.91 | 0.94 [0.92, 0.95] |
| MASQAA | 18.77 | 9.74 | 10 | 50 | 1.14 | 0.3 | 0.94 [0.93, 0.95] |
| RF | 33.19 | 8.66 | 18 | 57 | 0.46 | -0.77 | 0.92 [0.90, 0.93] |

*Note. ATS = Attitudes Toward Self. HPS = Hypomanic Personality Scale. IDD-C = Inventory to Diagnose Depression – Current. IDD-L = Inventory to Diagnose Depression – Lifetime. MASQ AD = Mood and Anxiety Symptoms Questionnaire Anhedonic Depression. MASQ AA = Mood and Anxiety Symptoms Questionnaire Anxious Arousal. RF = Risky Families.*

*\* ωt is omega total. Bracketed values represent 95% confidence intervals.*

**Supplementary Table 1b**

*Descriptive Statistics for Self-Report Measures: Sample Two*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Measure | *M* | *SD* | Min | Max | Skew | Kurtosis | *ωt* |
| ATS | 11.71 | 4.1 | 4 | 20 | -0.3 | -0.93 | 0.79 [0.73, 0.85] |
| HPS | 68.24 | 15.47 | 23 | 112 | 0.04 | 0.94 | 0.84 [0.80, 0.89] |
| IDD-C | 10.49 | 11.14 | 0 | 54 | 1.35 | 1.47 | 0.94 [0.92, 0.95] |
| IDD-L | 22.5 | 16.43 | 0 | 61 | 0.43 | -0.82 | 0.94 [0.93, 0.96] |
| MASQAD | 32.61 | 9 | 10 | 50 | -0.2 | -0.38 | 0.93 [0.91, 0.95] |
| MASQAA | 15.96 | 6.13 | 10 | 35 | 1.43 | 1.48 | 0.85 [0.8, 0.9] |
| RF | 29.53 | 6.46 | 20 | 46 | 0.6 | -0.67 | 0.88 [0.85, 0.91] |
| SDS | 9.24 | 7.7 | 0 | 30 | 0.48 | -0.77 | 0.92 [0.89, 0.94] |

*Note. ATS = Attitudes Toward Self. HPS = Hypomanic Personality Scale. IDD-C = Inventory to Diagnose Depression – Current. IDD-L = Inventory to Diagnose Depression – Lifetime. MASQ AD = Mood and Anxiety Symptoms Questionnaire Anhedonic Depression. MASQ AA = Mood and Anxiety Symptoms Questionnaire Anxious Arousal. RF = Risky Families. SDS = Sheehan Disability Scale.*

*\* ωt is omega total. Bracketed values represent 95% confidence intervals.*

## Contingency Task

 This section shows full model results for the contingency task analyses, including model results for both the continuous and binary IDD-C models for each sample.

## *Direct Replication*

Supplementary Table 2a and Table 2b show the full ANOVA results for the direct replication analysis for each sample.

**Supplementary Table 2a**

*Control Bias ANOVA Results: Sample One*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | *Sum of* *Squares* | *df* | *Mean square* | *F* | eta2 |
| IDD-C score | 9576.58 |  3 | 3192.19 | 3.88\* | 0.05 [0.00, 0.11] |
| Contingency condition  | 113771.26 | 2 | 56885.63 | 69.06\*\*\* | 0.39 [0.29, 0.48] |
| Gender | 2789.57 | 2 | 1394.79 | 1.69 | 0.02 [0.00, 0.06] |
| IDD-C score x Contingency condition | 5385.29 | 6 | 897.55 | 1.09 | 0.03 [0.00, 0.06] |
| IDD-C score x Gender | 1022.86 | 3 | 340.95 | 0.41 | 0.00 [0.00, 0.03] |
| Contingency condition x Gender | 186.82 | 2 | 93.41 | 0.11 | 0.00 [0.00, 0.01] |
| IDD-C score x contingency condition x Gender | 2162.92 | 6 | 360.49 | 0.44 | 0.01 [0.00, 0.02] |

*Note.* \* *p < .05* \*\* *p < .01* \*\*\* *p < .001*

**Supplementary Table 2b**

*Control Bias ANOVA Results: Sample Two*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | *Sum of* *Squares* | *df* | *Mean square* | *F* | eta2 |
| IDD-C score | 1416.21 |  3 | 472.07 | 0.82 | 0.02 [0.00, 0.08] |
| Contingency condition  | 47821.14 | 2 | 23910.57 | 41.6\*\*\* | 0.43 [0.29, 0.54] |
| Gender | 185.86 | 2 | 92.93 | 0.16 | 0.00 [0.00, 0.03] |
| IDD-C score x Contingency condition | 2827.37 | 4 | 706.84 | 1.23 | 0.04 [0.00, 0.11] |
| IDD-C score x Gender | 1097.47 | 2 | 548.74 | 0.95 | 0.02 [0.00, 0.08] |
| Contingency condition x Gender | 1067.59 | 2 | 533.79 | 0.93 | 0.02 [0.00, 0.08] |
| IDD-C score x contingency condition x Gender | 1953.63 | 2 | 976.82 | 1.7 | 0.03 [0.00, 0.11] |

*Note.* \* *p < .05* \*\* *p < .01* \*\*\* *p < .001*

**Hierarchical Models**

Below, we display model comparison and full model results for all outcome variables. See Table 1 in the main paper for a summary of the pre-registered models.

### *Control Bias*

###  Supplementary Table 3a and Table 3b show full model results for the Step 1 model. Step 1 accounted for significant variance in both samples (S1: *F* (3, 236) = 46.4, *p* < .001, R2 = 0.36; S2: *F* (3, 124) = 29.01, *p* < .00001, R2 = 0.40). No other model steps accounted for significantly increased variance (S1: R2 change < .025, *p* > .06; S2: R2 change < .023, *p* > .294). To test for potential curvilinear effects of the IDD-C, we compared Step 1 models with and without a quadratic IDD-C term, and with and without a cubic IDD-C term added. The models including the quadratic and cubic terms did not account for significantly increased variance in either sample (S1: R2 change < .01, *p* > .072; S2: R2 change < .01, *p* > .729).

**Supplementary Table 3a**

*Control Bias Regression Results (IDD-C Model): Sample One*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 |
|  | Constant | -20.64 | 3.78 |  | 5.45 |  |
| Step 1 |  |  |  |  |  | 0.36 |
|  | Contingency type (positive vs. 0) | -49.66 | 4.58 | -0.65 [-0.77, -0.53] | -10.70\*\*\* |  |
|  | Contingency outcome probability (75%) | 7.85 | 4.64 | 0.10 [-0.02, 0.22] | 1.72 |  |
|  | IDD-C score | 0.38 | 0.11 | 0.18 [0.07, 0.28] | 3.38\*\*\* |  |

*Note. \* p < .05 \*\* p < .01 \*\*\* p < .001*

*a β represents standardized beta. Bracketed values indicate 95% CIs.*

**Supplementary Table 3b**

*Control Bias Regression Results (IDD-C Model): Sample Two*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 |
|  | Constant | 16.36 | 4.51 |  | 3.63\*\*\* |  |
| Step 1 |  |  |  |  |  | 0.4 |
|  | Contingency type (positive vs. 0) | -47.13 | 5.1 | -0.74 [-0.9, -0.58] | -9.24\*\*\* |  |
|  | Contingency outcome probability (75%) | 19.29 | 5.33 | 0.29 [0.13, 0.45] | 3.62\*\*\* |  |
|  | IDD-C score | 0.14 | 0.19 | 0.05 [-0.09, 0.19] | 0.72 |  |

*Note. \* p < .05 \*\* p < .01 \*\*\* p < .001*

*a β represents standardized beta. Bracketed values indicate 95% CIs.*

***Control Bias: MASQ Model***

We ran a version of the control bias model replacing the IDD-C with the MASQ Anhedonic Depression and Anxious Arousal subscales for Sample One. Supplementary Table 4 shows full model results for the Step 1 model. When compared to Step 1, the Step 2 model predicted significantly increased variance (*F* (8, 232) = 23.75, *p* < .001, R2 = 0.43). No other model steps accounted for significantly increased variance, all R2 change < .009, *p* > .46.

**Supplementary Table 4**

*Control Bias Regression Results (MASQ Model).*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 | ΔR2 |
|  | Constant | 26.05 | 13.87 | 0.00 | 1.88 |  |  |
| Step 1 |  |  |  |  |  | 0.42 |  |
|  | Contingency type (positive)  | -52.36 | 17.40 | -0.68[-1.13, -0.24] | -3.01\*\* |  |  |
|  | Contingency outcome probability (75%)  | 1.91 | 18.49 | 0.03[-0.46, 0.51] | 1.10 |  |  |
|  | Anhedonia depression | -0.55 | 0.32 | -0.15 [-0.33, 0.02] | -1.73 |  |  |
|  | Anxious arousal | 1.10 | 0.30 | 0.30[0.14, 0.46] | 3.72\*\*\* |  |  |
| Step 2 |  |  |  |  |  | 0.43 | 0.01\* |
|  | Contingency outcome probability (75%) x Anhedonia depression | -0.04 | 0.44 | -0.02 [-0.46, 0.42] | -0.092 |  |  |
|  | Contingency outcome probability (75%) x Anxious arousal | 0.36 | 0.44 | 0.12[-0.16, 0.39] | 0.83 |  |  |
|  | Contingency type (positive) x Anhedonia depression | 0.74 | 0.42 | 0.36[-0.04, 0.42] | 1.77 |  |  |
|  | Contingency type (positive) x Anxious arousal | -1.17 | 0.46 | -0.34 [-0.60, -0.08] | -2.55\* |  |  |

*Note. \* p < .05 \*\* p < .01 \*\*\* p < .001
a β represents standardized beta. Bracketed values indicate 95% CIs.*

***Outcome Prediction Bias***

Supplementary Table 5a and Table 5b show full model results for the Step 1 model estimating outcome bias. The Step 1 model accounted for significant variance in both samples (S1: *F* (3, 236) = 142.7, *p* < .001, R2 = 0.64; S2: *F* (3, 124) = 50.33, *p* < .001, R2 = 0.54). No other model steps accounted for significantly increased variance (S1: R2 change < .004, *p* > .36; S2: R2 change < .03, *p* > .403). To test for potential curvilinear effects of the IDD-C, we compared Step 1 models with and without a quadratic IDD-C term added. The model including the quadratic term accounted for significantly increased variance in Sample One (R2 change = .01, *p* = .03) but did not qualitatively change the nature of our findings. Models incorporating quadratic and cubic terms did not account for significantly increased variance in Sample Two (R2 change < .01, *p* > .133).

**Supplementary Table 5a**

*Outcome Bias Regression Results: Sample One*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 |
|  | Constant | 12.73 | 2.38 |  | 5.40\*\*\* |  |
| Step 1 |  |  |  |  |  | 0.64 |
|  | Contingency type (positive)  | -53.92 | 2.92 | -0.84[-0.93, -0.75] | -18.45\*\*\* |  |
|  | Contingency outcome probability (75%)  | 5.93 | 2.88 | 0.09 [0.00, 0.18] | 2.06\* |  |
|  | IDD-C score | -0.08 | 0.07 | -0.04 [-0.12, 0.04] | -1.07 |  |

*Note. \* p < .05 \*\* p < .01 \*\*\* p < .001
a β represents standardized beta. Bracketed values indicate 95% CIs.*

Our survey allowed us to track the experience of participants in the two zero-contingency conditions with regard to button-pushes and bulb-lightings. Some participants, by pure chance, will have happened to experience contingency between their button-pushing (or lack thereof) and the light (or lack thereof). This “experienced control” variable emerges as a significant covariate in a regression analysis on the self-reported control measured during the task. A regression on self-reported control, with trial number and fixed effects for participant reveals a significant effect of experienced control, *B* = .38, *t* = 6.25, *p* < .001. When fixed effects for participant are replaced with participants’ IDD-C scores and an interaction term with experienced control intended to capture effects of depression on learning, neither the main effect of IDD-C score, *B* = -.001, *t* = -1.46, *p* =.15, nor its interaction with experienced control, *B* = .003, *t* = 1.31, *p* = .19, are significant.

**Supplementary Table 5b**

*Outcome Bias Regression Results: Sample Two*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 |
|  | Constant | 10.24 | 3.73 |  | 2.75\*\* |  |
| Step 1 |  |  |  |  |  | 0.54 |
|  | Contingency type (positive)  | -49.64 | 4.22 | -0.83[-0.96, -0.69] | -11.77\*\*\* |  |
|  | Contingency outcome probability (75%)  | 13.08 | 4.41 | 0.21 [0.07, 0.35] | 2.97\*\* |  |
|  | IDD-C score | 0.05 | 0.16 | 0.02 [-0.1, 0.14] | 0.29 |  |

*Note. \* p < .05 \*\* p < .01 \*\*\* p < .001
a β represents standardized beta. Bracketed values indicate 95% CIs.*

***Frequency of Responding***

Supplementary Table 6a and 6b show full model results for the Step 1 model estimating frequency of responding. The Step 1 model accounted for significant variance in both samples (S1: *F* (3, 236) = 4.76, *p* = .003, R2 = 0.04; S2: *F* (3, 124) = 7.88, *p* < .001, R2 = 0.14. As with control and outcome bias, no other model steps accounted for significantly increased variance (S1: R2 change < .026, *p* > .26; S2: R2 change < .078, *p* > .164). To test for potential curvilinear effects of the IDD-C, we compared Step 1 models with and without a quadratic and cubic IDD-C term added. The models including the quadratic and cubic terms did not account for significantly increased variance in either sample (S1: R2 change < .01, *p* > .424; S2: R2 change < .01, *p* > .425).

**Supplementary Table 6a**

*Frequency of Responding Regression Results: Sample One*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 |
|  | Constant | 0.52 | 0.02 |  | 20.85\*\*\* |  |
| Step 1 |  |  |  |  |  | 0.05 |
|  | Contingency type (positive)  | 0.07 | 0.03 | 0.17[0.02, 0.32] | 2.29\* |  |
|  | Contingency outcome probability (75%)  | 0.04 | 0.03 | 0.09[-0.06, 0.23] | 1.17 |  |
|  | IDD-C score | 0.00 | 0.00 | 0.06[-0.06, 0.19] | 0.95 |  |

*Note. \* p < .05 \*\* p < .01 \*\*\* p < .001
a β represents standardized beta. Bracketed values indicate 95% CIs.*

**Supplementary Table 6b**

*Frequency of Responding Regression Results: Sample Two*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 |
|  | Constant | 0.00 | 0.02 |  | 16.31\*\*\* |  |
| Step 1 |  |  |  |  |  | 0.14 |
|  | Contingency type (positive)  | 0.26 | 0.10 | 0.26[0.07, 0.45] | 2.68\*\* |  |
|  | Contingency outcome probability (75%)  | 0.17 | 0.10 | 0.17[-0.02, 0.36] | 1.76 |  |
|  | IDD-C score | 0.17 | 0.08 | 0.17[0.00, 0.33] | 2.02\* |  |

*Note. \* p < .05 \*\* p < .01 \*\*\* p < .001
a β represents standardized beta. Bracketed values indicate 95% CIs.*

## *Binary IDD-C Analyses*

## We examined whether endorsing symptoms parallel to the DSM-5 criteria for major depressive disorder (MDD) influenced estimates of control. As such, we repeated the analyses above, replacing continuous IDD variables with binary variables reflecting screener thresholds for DSM-5 criteria for current or lifetime MDD. Effects were largely of the same size, and the current MDD variable did not significantly predict control bias, outcome prediction bias, or frequency of responding in either sample. The effect of the lifetime MDD variable barely obtained significance in the control bias model in Sample One, *β* = -0.17, (95% CI [-0.35, 0.00]), *t*(236) = -1.99, *p* = .047, and did not reach significance for any of the outcome variables in Sample Two.

## Overconfidence Task

From their subjective probability distributions, we inferred participants’ estimated Raven’s Progressive Matrices score for both themselves and a random other. We computed four overconfidence measures:

1. Overestimation:The participant’s estimated score for themself compared to their actual score.
2. Overplacement:The participant’s estimated score for themself compared to their estimated score for a random other, corrected for the actual degree to which their score was better than others.
3. Overprecision:If the Gini index of the subjective probability distributions for estimating the score of a random other is higher than the actual concentration in others’ scores, it is evidence of our first overprecision measure, Gini overprecision. Another measure of overprecision is the maximum confidence attached to any single score when estimating subjective probability distributions for a random other. If these estimates are higher than the rate at which others actually obtained that score, it is evidence of item confidence overprecision.

## As with the contingency task, we ran parallel hierarchical linear regressions predicting overestimation, overplacement, Gini overprecision, and item confidence overprecision. Supplementary Table 7 shows the pre-registered models.

**Supplementary Table 7**

*Hierarchical Regression Models for Overconfidence Measures*

|  |  |
| --- | --- |
|  | Variable(s) |
| Step 1 |  |
|  | Inventory to Diagnose Depression - Current (IDD-C) score |
| Step 2 |  |
|  | Negative affect |
|  | Inventory to Diagnose Depression - Lifetime (IDD-L) score |
| Step 3 |  |
|  | Negative affect x IDD-L score |
|  | Treatment history (dummy coded; no history of treatment = 0 and lifetime treatment = 1) |
|  | Hypomanic Personality Scale (HPS) score |
|  | Risky Families (RF) score |
|  | Attitudes Toward Self (ATS) - Negative Generalization score |
|  | Sheehan Disability Scale (SDS)\* |
|  | Depression diagnosis\* |
|  | Depression treatment\* |
|  | Anxiety diagnosis\* |
|  | Anxiety treatment\* |

*Note.* \* *Additional variables included in Sample Two were depression diagnosis, depression treatment, anxiety diagnosis, anxiety treatment, as well as the Sheehan Disability Scale. Diagnosis and treatment variables captured both current diagnosis/treatment, lifetime diagnosis/treatment, or no history of diagnosis/treatment.*

***Hierarchical Models***

Below, we display model comparison and full model results for all outcome variables.

### Overestimation.

### *Sample One.* Supplementary Table 8a shows full model results for the Step 3 model. Higher HPS scores were associated with greater overestimation, *β* = 0.32 (95% CI [0.20, 0.45])*, t* (232) = 5.01, *p* < .001. To test for potential curvilinear effects of the IDD-C, we compared Step 3 models with and without a quadratic IDD-C term added. The models including the quadratic and cubic terms did not account for significantly increased variance (R2 change < .01, *p* > .654).

**Supplementary** **Table 8a**

*Overestimation Regression Results: Sample One*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 | ΔR2 |
|  | Constant | -5.62 | 0.94 |  | -5.99\*\* |  |  |
| Step 1 |  |  |  |  |  | 0.00 |  |
|  | IDD-C score | 0.00 | 0.01 | -0.02[-0.20, 0.17] | -0.16 |  |  |
| Step 2 |  |  |  |  |  | 0.02 | 0.02\* |
|  | Negative affect | 0.01 | 0.01 | 0.15[-0.09, 0.39] | 1.19 |  |  |
|  | IDD-L score | -0.01 | 0.01 | -0.10[-0.30, 0.10] | -1.00 |  |  |
| Step 3 |  |  |  |  |  | 0.10 | 0.12\*\*\* |
|  | Negative affect x IDD-L score | 0.00 | 0.00 | -0.10[-0.39, 0.19] | -0.68 |  |  |
|  | Treatment history | 0.44 | 0.32 | 0.09[-0.04, 0.22] | 1.36 |  |  |
|  | HPS score | 0.06 | 0.01 | 0.32[ 0.20, 0.45] | 5.00\*\*\* |  |  |
|  | Risky Families score | 0.02 | 0.02 | 0.08[-0.06, 0.22] | 1.12 |  |  |
|  | ATS-R Negative Generalization score | 0.00 | 0.03 | 0.01[-0.13, 0.15] | 0.10 |  |  |

*Note.* \* *p < .05* \*\* *p < .01* \*\*\* *p < .001
a β represents standardized beta. Bracketed values indicate 95% CIs.*

### *Sample Two.* Supplementary Table 8b shows full model results for the Step 1 model, *β* = 0.32 (95% CI [0.20, 0.45])*, t* (120) = 0.44, *p* = 0.51. None of the variables significantly explained variance in overestimation. To test for potential curvilinear effects of the IDD-C, we compared Step 1 models with and without a quadratic IDD-C term added. The models including the quadratic and cubic terms did not account for significantly increased variance (R2 change < .01, *p* > .370).

**Supplementary** **Table 8b**

*Overestimation Regression Results: Sample Two*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 |
|  | Constant | 0.00 | 0.09 |  | -4.94\*\*\* |  |
| Step 1 |  |  |  |  |  | 0.00 |
|  | IDD-C score | -0.06 | 0.09 | -0.06[-0.24, 0.12] | -0.66 |  |

*Note.* \* *p < .05* \*\* *p < .01* \*\*\* *p < .001
a β represents standardized beta. Bracketed values indicate 95% CIs.*

### Overplacement.

### *Sample One.* Higher HPS scores were associated with greater overplacement, *β* = 0.27 (95% CI [0.14, 0.39])*, t* (232) = 4.22, *p* < .001. Also associated with greater overplacement was higher RF scores, *β* = 0.14 [0.00, 0.28]*, t* (232) = 2.04, *p* = .043, and lower IDD-L scores, *β* = 0.27 [-0.47, -0.07], *t* (232) = -2.69, *p* = .008. To test for potential curvilinear effects of the IDD-C, we compared Step 3 models with and without a quadratic IDD-C term added. The models including the quadratic and cubic terms did not account for significantly increased variance (R2 change < .01, *p* > .505). See Supplementary Table 9a for overplacement results.

**Supplementary Table 9a**

*Overplacement Regression Results: Sample One*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | B | SE B | *βa* | *t* | Adj. R2 | ΔR2 |
|  | Constant | -4.53 | 1.06 |  | -4.30\*\*\* |  |  |
| Step 1 |  |  |  |  |  | 0.00 |  |
|  | IDD-C score | -0.01 | 0.02 | -0.04[-0.23, 0.15] | -0.43 |  |  |
| Step 2 |  |  |  |  |  | 0.06 | 0.06\*\*\* |
|  | Negative affect | 0.02 | 0.01 | 0.18[-0.05, 0.42] | 1.54 |  |  |
|  | IDD-L score | -0.04 | 0.01 | -0.27[-0.47, -0.07] | -2.69\*\* |  |  |
| Step 3 |  |  |  |  |  | 0.15 | 0.07\*\*\* |
|  | Negative affect x IDD-L score | 0.00 | 0.00 | -0.08[-0.36, 0.21] | -0.53 |  |  |
|  | Treatment history | 0.45 | 0.36 | 0.08[-0.05, 0.21] | 1.26 |  |  |
|  | HPS score | 0.06 | 0.01 | 0.27[ 0.14, 0.39] | 4.21\*\*\* |  |  |
|  | Risky Families score | 0.04 | 0.02 | 0.14[ 0.00, 0.28] | 2.04\* |  |  |
|  | ATS-R Negative Generalization score | 0.01 | 0.04 | 0.01[-0.13, 0.15] | 0.05 |  |  |

*Note.* \* *p < .05* \*\* *p < .01* \*\*\* *p < .001
a β represents standardized beta. Bracketed values indicate 95% CIs.*

### *Sample Two.* Higher negative affect was associated with greater overplacement, *β* = 0.27 (95% CI [0.08, 0.46])*, t* (118) = 2.77, *p* = .006. To test for potential curvilinear effects of the IDD-C, we compared Step 2 models with and without a quadratic IDD-C term added. The models including the quadratic and cubic terms did not account for significantly increased variance (R2 change < .02, *p* > .077). See Supplementary Table 9b for overplacement results.

**Supplementary Table 9b**

*Overplacement Regression Results: Sample Two*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | B | SE B | *βa* | *t* | Adj. R2 | ΔR2 |
|  | Constant | 0.00 | 0.09 |  | 1.1 |  |  |
| Step 1 |  |  |  |  |  | 0.00 |  |
|  | IDD-C score | -0.09 | 0.11 | -0.09[-0.31, 0.13] | -0.84 |  |  |
| Step 2 |  |  |  |  |  | 0.04 | 0.07\* |
|  | Negative affect | 0.27 | 0.1 | 0.27[0.08, 0.46] | 2.77\*\* |  |  |
|  | IDD-L score | -0.08 | 0.1 | -0.08[-0.28, -0.13] | -0.77 |  |  |

*Note.* \* *p < .05* \*\* *p < .01* \*\*\* *p < .001
a β represents standardized beta. Bracketed values indicate 95% CIs.*

###

### Overprecision.

### *Sample One.* IDD-L score was associated with greater Gini overprecision, *β* = -0.22 (95% CI [-0.42, -0.01]), *t*(232) = -2.07, *p* = .04, and RF score significantly predicted increased Gini overprecision, *β* = 0.22 [0.07, 0.36], *t*(232) = 2.95, *p* = .003. RF score also significantly predicted *decreased* item confidence overprecision, *β* = -0.22 [-0.37, -0.07], *t*(232) = -2.94, *p* = .004. To test for potential curvilinear effects of the IDD-C, we compared the Step 3 model with and without a quadratic IDD-C term added. The model including the quadratic term did not account for significantly increased variance in predicting Gini overprecision (R2 change < .01, *p* > .344) nor item confidence overprecision (R2 change < .01, *p* > .280). See Supplementary Tables 10 and 11 for Gini overprecision and item confidence overprecision results, respectively.

**Supplementary Table 10a**

*Gini Overprecision Regression Results: Sample One*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 | ΔR2 |
|  | Constant | -0.27 | 0.08 |  | -3.55\*\*\* |  |  |
| Step 1 |  |  |  |  |  | 0.00 |  |
|  | IDD-C score | 0.00 | 0.00 | 0.04 [-0.16, 0.23] | 0.39 |  |  |
| Step 2 |  |  |  |  |  | 0.04 | 0.04\*\* |
|  | Negative affect | 0.00 | 0.00 | 0.16[-0.09, 0.40] | 1.26 |  |  |
|  | IDD-L score | 0.00 | 0.01 | -0.22[-0.42, -0.01] | -2.07\* |  |  |
| Step 3 |  |  |  |  |  | 0.08 | 0.04\* |
|  | Negative affect x IDD-L score | 0.00 | 0.00 | -0.04[-0.34, 0.25] | -0.28 |  |  |
|  | Treatment history | 0.02 | 0.03 | 0.05[-0.09, 0.18] | 0.66 |  |  |
|  | HPS score | 0.06 | 0.00 | 0.10[-0.03, 0.23] | 1.44 |  |  |
|  | Risky Families score | 0.00 | 0.00 | 0.22[0.07, 0.36] | 2.95\*\* |  |  |
|  | ATS-R Negative Generalization score | 0.00 | 0.03 | -0.06[-0.20, 0.08] | -0.93 |  |  |

*Note.* \* *p < .05* \*\* *p < .01* \*\*\* *p < .001* *a β represents standardized beta. Bracketed values indicate 95% CIs.*

**Supplementary Table 11a**

*Item Confidence Regression Results: Sample One*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 | ΔR2 |
|  | Constant | 0.24 | 0.06 |  | 4.34\*\*\* |  |  |
| Step 1 |  |  |  |  |  | 0.00 |  |
|  | IDD-C score | 0.00 | 0.00 | -0.03[-0.23, 0.17] | -0.30 |  |  |
| Step 2 |  |  |  |  |  | 0.00 | 0.00 |
|  | Negative affect | 0.00 | 0.00 | -0.11[-0.36, 0.14] | -0.88 |  |  |
|  | IDD-L score | 0.00 | 0.00 | 0.06[-0.15, 0.27] | 0.53 |  |  |
| Step 3 |  |  |  |  |  | 0.03 | 0.03\* |
|  | Negative affect x IDD-L score | 0.00 | 0.00 | 0.14[-0.17, 0.44] | 0.89 |  |  |
|  | Treatment history | -0.02 | 0.02 | -0.07[-0.21, 0.06] | -1.05 |  |  |
|  | HPS score | 0.00 | 0.01 | -0.03[-0.16, 0.11] | -0.40 |  |  |
|  | Risky Families score | 0.00 | 0.00 | -0.22[-0.37, -0.07] | -2.94\*\* |  |  |
|  | ATS-R Negative Generalization score | 0.00 | 0.03 | 0.06[-0.09, 0.21] | 0.82 |  |  |

*Note.* \* *p < .05* \*\* *p < .01* \*\*\* *p < .001
a β represents standardized beta. Bracketed values indicate 95% CIs.*

### *Sample Two.* Negative affect was associated with greater Gini overprecision, *β* = 0.28 (95% CI [0.09, 0.47]), *t*(124) = 2.96, *p* = .004. No other variables significantly explained variance in Gini overprecision or item confidence overprecision. See Supplementary Tables 10b and 11b for Gini overprecision and item confidence overprecision results, respectively.

**Supplementary Table 10b**

*Gini Overprecision Regression Results: Sample Two*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 | ΔR2 |
|  | Constant | 0.00 | 0.09 |  | -2.05\* |  |  |
| Step 1 |  |  |  |  |  | 0.00 |  |
|  | IDD-C score | -0.04 | 0.11 | -0.04 [-0.26, 0.17] | -0.4 |  |  |
| Step 2 |  |  |  |  |  | 0.06 | 0.07\* |
|  | Negative affect | 0.28 | 0.09 | 0.28[0.09, 0.47] | 2.96\*\* |  |  |
|  | IDD-L score | 0.06 | 0.01 | 0.06[-0.14, 0.26] | 0.61 |  |  |

*Note.* \* *p < .05* \*\* *p < .01* \*\*\* *p < .001
a β represents standardized beta. Bracketed values indicate 95% CIs.*

**Supplementary Table 11b**

*Item Confidence Regression Results: Sample Two*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Model step | Variable | *B* | *SE B* | *βa* | *t* | Adj. R2 |
|  | Constant | 0.00 | 0.09 |  | 8.85\*\*\* |  |
| Step 1 |  |  |  |  |  | -0.01 |
|  | IDD-C score | -0.04 | 0.09 | -0.04[-0.21, 0.14] | -0.4 |  |

*Note.* \* *p < .05* \*\* *p < .01* \*\*\* *p < .001
a β represents standardized beta. Bracketed values indicate 95% CIs.*

### To test for potential curvilinear effects of the IDD-C on overprecision, we compared the above models to models with and without a quadratic and cubic IDD-C term added. The Step 2 model including the cubic IDD-C term explained significantly increased variance in predicting Gini overprecision, relative to the model incorporating the quadratic IDD-C term (R2 change = .05, *p* = .004). In this model, the cubic IDD-C term significantly predicted Gini overprecision (*β* = -0.25 (95% CI [-0.41, -0.08]), *t*(121) = -2.92, *p* = .004).

### Similarly, the Step 1 model including the cubic IDD-C term explained significantly increased variance in predicting item confidence overprecision, relative to the model incorporating the quadratic IDD-C term (R2 change = .02, *p* = .047). In this model, the cubic IDD-C term just reached significance in predicting item confidence overprecision (*β* = -0.18 (95% CI [0.001, 0.35]),  *t*(124) = 2.01, *p* = .047).

**References**

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