

## Appendix

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## **Appendix A: Example abstracts**

### **Hypothesis-consistency**

#### **Hypothesis-consistent result**

Social anxiety disorder (SAD) affects approximately 2% of adults worldwide, most commonly during adolescence. Despite skepticism from many practitioners, telepsychotherapy (TPT) represents an efficacious alternative to regular face-to-face psychotherapy (FTF-P) for various mental disorders. Unfortunately, many studies examining TPT excluded patients with SAD due to their often-found deficits in adapting to new forms of social situations. However, since telepsychotherapy represents a less intense social exposure for individuals with SAD, we assumed that the favorable effects of exposure would be less intense in TPT compared to FTF-P for patients with SAD. In an experimental design, we gathered 12-month follow-up data for 164 individuals diagnosed with SAD. Participants were randomized either to regular cognitive behavioral psychotherapy (n = 83) or to telepsychotherapy (n = 81). SAD symptom severity was evaluated using the Liebowitz Social Anxiety Scale. Confirming our hypothesis, symptom severity declined in both conditions over time, but the effect was stronger in the FTF-P condition. These results suggest that individuals with SAD benefit more from FTF-P compared to TPT. A possible mechanism for this might be that FTF-P itself represents a more intense social exposure compared to TPT.

#### **Hypothesis-inconsistent result**

Social anxiety disorder (SAD) affects approximately 2% of adults worldwide, most commonly during adolescence. Despite skepticism from many practitioners, telepsychotherapy (TPT) represents an efficacious alternative to regular face-to-face psychotherapy (FTF-P) for various mental disorders. Unfortunately, many studies examining TPT excluded patients with SAD due to their often-found deficits in adapting to new forms of social situations. However, since telepsychotherapy represents a less intense social exposure for individuals with SAD, we assumed that the favorable effects of exposure would be less intense in TPT compared to FTF-P for patients with SAD. In an experimental design, we gathered 12-month follow-up data for 164 individuals diagnosed with SAD. Participants were randomized either to regular cognitive behavioral psychotherapy (n = 83) or to telepsychotherapy (n = 81). SAD symptom severity was evaluated using the Liebowitz Social Anxiety Scale. Symptom severity declined in both conditions over time, but contrary to our hypothesis, the effect was stronger in the TPT condition. These results suggest that individuals with SAD benefit more from TPT compared to FTF-P. A possible mechanism for this might be that in TPT, social cues are experienced as less threatening compared to FTF-P.

## **Statistical Significance**

### **Statistically Significant result**

Clinical trials have consistently found empirical evidence of beneficial effects of exposure therapy (ET) in individuals with obsessive-compulsive disorder (OCD). However, individuals differ significantly in their reactions to ET, with some remitting fully and others still reporting impairment from symptoms. Recent studies on anxiety disorders suggest that a patient's conscientiousness predicts the efficacy of ET. We therefore investigated whether conscientiousness predicts the efficacy of ET in individuals with OCD by conducting a representative survey study encompassing 166 patients with a recent OCD diagnosis. Severity of OCD symptoms was assessed using the Yale–Brown Obsessive Compulsive Scale (Y-BOCS) at baseline (1 week before first CBT session) and 9 months later. Conscientiousness was measured only at baseline, using the Big Five Inventory-10 (BFI-10). Conscientiousness at baseline significantly predicted the efficacy of ET. Our results might suggest that comparable to anxiety disorders, treatment success in OCD might depend on an individual's level of conscientiousness.

### **Statistically Non-significant result**

Clinical trials have consistently found empirical evidence of beneficial effects of exposure therapy (ET) in individuals with obsessive-compulsive disorder (OCD). However, individuals differ significantly in their reactions to ET, with some remitting fully and others still reporting impairment from symptoms. Recent studies on anxiety disorders suggest that a patient's conscientiousness predicts the efficacy of ET. We therefore investigated whether conscientiousness predicts the efficacy of ET in individuals with OCD by conducting a representative survey study encompassing 166 patients with a recent OCD diagnosis. Severity of OCD symptoms was assessed using the Yale–Brown Obsessive Compulsive Scale (Y-BOCS) at baseline (1 week before first CBT session) and 9 months later. Conscientiousness was measured only at baseline using the Big Five Inventory-10 (BFI-10). Conscientiousness at baseline did not significantly predict the efficacy of ET. Our results might suggest that there is no relevant relation between treatment success and an individual's level of conscientiousness in patients with OCD.

## Appendix B: R Code and statistical approach

### Stage 1 Models

```
# Libraries
library(lme4)
library(report)
library(lmerTest)

# Model X.1.1
# Null model with Fixed Effects only (without predictor)
model_X.1.1 <- lmer(LoSRC ~ 1 + (1|id) + (1|stimulus), data = df)
report(model_X.1.1)

# Model X.1.2
# Adding Significance as a predictor
model_X.1.2 <- lmer(LoSRC ~ treatment + (1|id) + (1|stimulus), data = df)
report(model_X.1.2)

##Model X.1.3
## Adding a random slope for significance within participants (id)
model_X.1.3 <- lmer(LoSRC ~ treatment + (treatment|id) + (1|stimulus), data = df)
report(model_X.1.3)

##Model X.1.4
## Adding covariates to the model
model_X.1.4 <- lmer(LoSRC ~ treatment * familiarity_PB +
                    treatment * pub_pressure +
                    postdoc + professor + position +
                    nd + uk + us + can + aus + other +
                    (treatment|id) + (1|stimulus), data = df)
report(model_X.1.4)

# Model comparison 1
anova(model1, model2)

# Modellcomparison 2
anova(model2, model3)

# Modellcomparison 2
anova(model3, model4)
```

## Stage 2 Models

```
# Libraries
library(lme4)
library(mediation)

# Model X.2.1
# Path a. treatment → FOR
model_X.2.1_med <- lmer(FOR ~ treatment + (treatment|id), data = df)
# Path c and b. treatment + FOR → C-LoSRC
model_X.2.1_out <- lmer(C-LoSRC ~ FOR + treatment + (treatment|id), data = df)
# Fit mediation model
model_X.2.1 <- mediation::mediate(model_X.2.1_med, model_X.2.1_out,
                                  treat = "treatment", mediator = "FOR", sims = 1000)
summary(model_X.2.1)

# Model X.2.2
# Path a. treatment → FOR
model_X.2.2_med <- lmer(FOR ~ treatment * familiarity_PB +
                        treatment * pub_pressure + (treatment|id), data = df)
# Path c and b. treatment + FOR → C-LoSRC
model_X.2.2_out <- lmer(C-LoSRC ~ treatment * familiarity_PB +
                        treatment * pub_pressure + FOR + conscientiousness +
                        nd + uk + us + can + aus + other +
                        position + (treatment|id), data = df)
# Fit mediation model
model_X.2.2 <- mediation::mediate(model_X.2.2_med, model_X.2.2_out,
                                  treat = "treatment", mediator = "FOR",
                                  sims = 1000)
summary(model_X.2.2)
```

## Plots

## QQ-Plots

## Applied to each Model

```
qqnorm(resid(model_XX))
```

## Boxplots

## Applied to each Model

```
plot_exp1<-ggplot(aes(y = y, x = factor(experimental_factor)),  
  data = data + geom_boxplot(outlier.shape = NA) + theme_apa()+  
  xlab("Experimental Factor") + ylab("Reported Likelihood of Submitting an Abstract for  
Publication/ Reading / Citing") + ggtitle("Experiment XX"))
```

## Effect size plots

## Reproducible beta effect sizes plot

# sd

```
sd1<-sd(data$response_exp1)  
sd2<-sd(data$response_exp2)  
sd3a<-sd(data$response_exp3a)  
sd3b<-sd(data$response_exp3a)  
sd4a<-sd(data$response_exp4a)  
sd4b<-sd(data$response_exp4b)
```

# b

```
b1<-sum_model2_ex1$coefficients[1,2]/sd1  
b2<-sum_model2_ex2$coefficients[1,2]/sd2  
b3a<-sum_model2_ex3a$coefficients[1,2]/sd3a  
b3b<-sum_model2_ex3b$coefficients[1,2]/sd3a  
b4a<-sum_model2_ex4a$coefficients[1,2]/sd4a  
b4b<-sum_model2_ex4b$coefficients[1,2]/sd4b
```

# se

```
se1<-sum_model2_ex1$coefficients[2,2]/sd1  
se2<-sum_model2_ex2$coefficients[2,2]/sd2  
se3a<-sum_model2_ex3a$coefficients[2,2]/sd3a  
se3b<-sum_model2_ex3b$coefficients[2,2]/sd3b  
se4a<-sum_model2_ex4a$coefficients[2,2]/sd4a  
se4b<-sum_model2_ex4b$coefficients[2,2]/sd4b
```

```
d<-data.frame(effect =c(b1,b2,b3a,b3b,b4a,b4b),  
  se=c(se1,se2,se3a,se3b,se4a,se4b),
```

```

expNr=factor(c("Exp.1: Publish","Exp.2: Publish","Exp.3a: Cite","Exp.3b:
Read","Exp.4a: Cite", "Exp.4b: Read")),
expFac=factor(c("Significance","Hyp.-Consistency","Significance","Significance","Hyp.-
Consistency","Hyp.-Consistency")),
decision=factor(c("Publish","Publish","Cite","Read","Cite","Read")))

p<-ggplot(data=d, aes(effect, expNr),group=expFac,color=expFac) +
  geom_point(data=d,aes(effect, expNr,shape=expFac)) +
  geom_errorbar(aes(xmin=effect-se, xmax=effect+se), width=.2,
position=position_dodge(width=.4))+
  labs(x = "Response", y = "Experiment")+
  scale_y_discrete(limits = levels(d$effect))+
  geom_vline(xintercept = 0, linetype = "dotted")+
  theme(axis.text = element_text(size = rel(0.8)), axis.title = element_text(size = rel(1)),
panel.grid.major = element_blank(), panel.grid.minor = element_blank(),
panel.background = element_blank(), axis.line = element_line(colour = "black")) +
  theme_apo(legend.pos = "bottom")

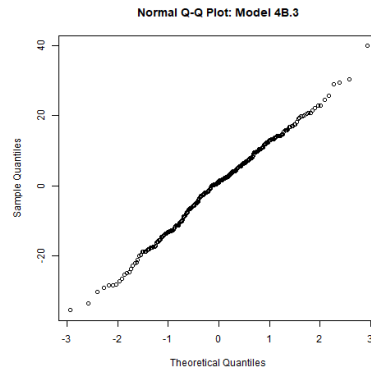
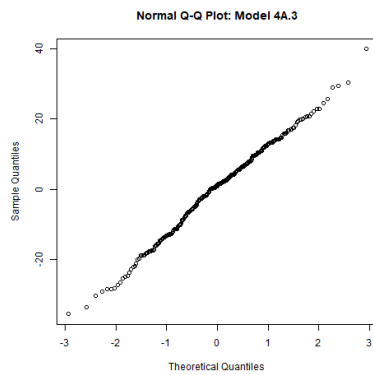
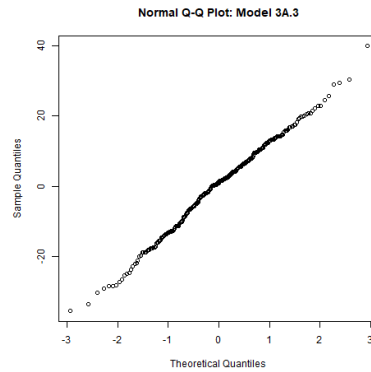
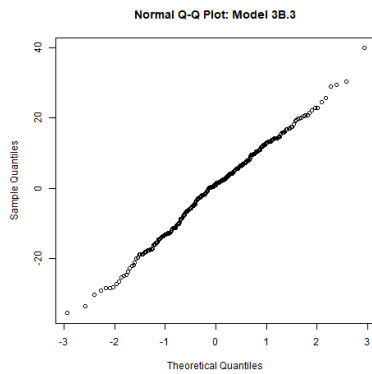
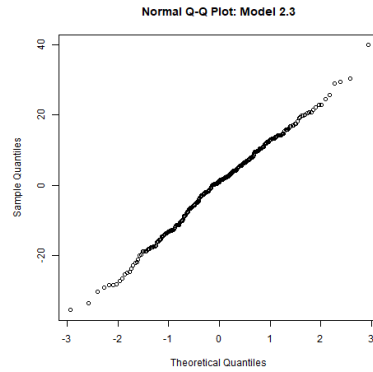
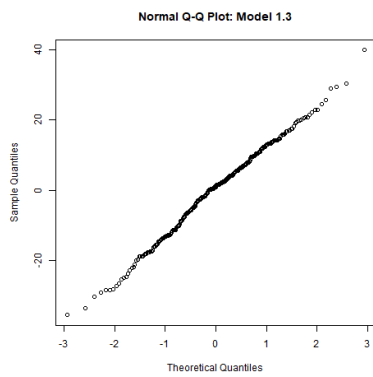
```

p

## Appendix C: Q-Q Plots: Normality of Residuals

Figure C1

**Simulated Data:** *Q-Q Plots for Graphical Examination of the Assumption of Normality of Residuals in Random Slope Model for Stage 1: Model 1.1.3, Model 2.1.3, Model 3A.1.3, Model 3B.1.3, Model 4A.1.3, Model 4B.1.3.*





## Appendix D: Additional Tables

### Tables for Stage 1 Models

**Table D1**

*Stage 1: Model Parameters for Experiment 1: Likelihood of Publishing an Abstract*

|  | Model 1.1.1 |           | Model 1.1.2     |           | Model 1.1.3     |           | Model 1.1.4     |           |
|--|-------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|
|  | Null        |           | + Fixed         |           | + Random        |           | + Covariates    |           |
| Fixed Effects                              | <i>Beta</i> | <i>SE</i> | <i>Beta</i>     | <i>SE</i> | <i>Beta</i>     | <i>SE</i> | <i>Beta</i>     | <i>SE</i> |
| Intercept                                  | 69.71***    | 1.67      | 64.29***        | 0.96      | 64.30***        | 1.76      | 69.68***        | 1.79      |
| Non-Significant Abstract                   |             |           | -11.14***       | 0.65      | -11.13***       | 0.65      | -11.10***       | 0.65      |
| Postdoc Level                              |             |           |                 |           |                 |           | -12.35***       | 0.13      |
| Professorial Level                         |             |           |                 |           |                 |           | -20.08***       | 0.24      |
| Familiarity w. PB <sup>a</sup>             |             |           |                 |           |                 |           | -11.69***       | 0.14      |
| Pressure to Publish                        |             |           |                 |           |                 |           | -14.12***       | 0.10      |
| Abstract Position                          |             |           |                 |           |                 |           | -13.08***       | 0.09      |
| NS <sup>b</sup> * Familiarity w. PB        |             |           |                 |           |                 |           | 4.04***         | 0.01      |
| NS * Pressure to Publish                   |             |           |                 |           |                 |           | 0.01            | 0.05      |
| Random Effects                             | <i>SD</i>   |           | <i>SD</i>       |           | <i>SD</i>       |           | <i>SD</i>       |           |
| Subject: $\sigma^2_{(Int Subject)}$        | 11.89       |           | 11.87           |           | 12.49           |           | 10.24           |           |
| Item: $\sigma^2_{(Int Item)}$              | 5.23        |           | 5.41            |           | 5.42            |           | 5.40            |           |
| Residuum: $\sigma^2_{(Residuum)}$          | 14.41       |           | 13.28           |           | 13.26           |           | 13.25           |           |
| Slope: $\sigma^2_{(Significance Subject)}$ |             |           |                 |           | 1.44            |           | 1.53            |           |
| Model Quality                              | <i>Est.</i> |           | <i>Est.</i>     |           | <i>Est.</i>     |           | <i>Est.</i>     |           |
| <i>R<sup>2</sup> Marginal</i>              | .00         |           | .08             |           | .08             |           | .31             |           |
| <i>R<sup>2</sup> Conditional</i>           | 0.45        |           | 0.53            |           | 0.53            |           | 0.76            |           |
| AIC  | 19525.4     |           | 19159.9         |           | 19158.7         |           | 19117.8         |           |
| BIC  | 19548.5     |           | 19188.7         |           | 19199.1         |           | 19181.2         |           |
| logLik                                     | -2123.55    |           | -2101.66        |           | -2016.07        |           | -1980.77        |           |
| Model Comparison                           |             |           | 1.1.1 vs. 1.1.2 |           | 1.1.2 vs. 1.1.3 |           | 1.1.3 vs. 1.1.4 |           |
| $\chi^2$                                   |             |           | 366.86          |           | 15.14           |           | 35.49           |           |
| df   |             |           | 1               |           | 2               |           | 7               |           |
| p  |             |           | <.001           |           | <.001           |           | <.001           |           |

*Note.* \*  $p \leq 0.05$  \*\*  $p \leq 0.01$  and \*\*\*  $p \leq 0.001$ . <sup>a</sup> PB. = Publication Bias; <sup>b</sup> NS = Non-Significant.

**Table D2***Stage 1: Model Parameters for Experiment 2: Likelihood of Publishing an Abstract*

|   | Model 2.1.1 |           | Model 2.1.2     |           | Model 2.1.3     |           | Model 2.1.4     |           |
|---|-------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|
|   | Null        |           | + Fixed         |           | + Random        |           | + Covariates    |           |
| Fixed Effects                                 | <i>Beta</i> | <i>SE</i> | <i>Beta</i>     | <i>SE</i> | <i>Beta</i>     | <i>SE</i> | <i>Beta</i>     | <i>SE</i> |
| Intercept                                     | 69.71***    | 1.67      | 64.29***        | 0.96      | 64.30***        | 1.76      | 69.68***        | 1.79      |
| H-Inc. <sup>a</sup> Abstract                  |             |           | -11.14***       | 0.65      | -11.13***       | 0.65      | -11.10***       | 0.65      |
| Postdoc Level                                 |             |           |                 |           |                 |           | -12.35***       | 0.13      |
| Professorial Level                            |             |           |                 |           |                 |           | -20.08***       | 0.24      |
| Familiarity w. PB <sup>b</sup>                |             |           |                 |           |                 |           | -11.69***       | 0.14      |
| Pressure to Publish                           |             |           |                 |           |                 |           | -14.12***       | 0.10      |
| Abstract Position                             |             |           |                 |           |                 |           | -13.08***       | 0.09      |
| H-Inc. * Familiarity w. PB                    |             |           |                 |           |                 |           | 4.04***         | 0.01      |
| H-Inc. * Pressure to Publish                  |             |           |                 |           |                 |           | 0.01            | 0.05      |
| Random Effects                                | <i>SD</i>   |           | <i>SD</i>       |           | <i>SD</i>       |           | <i>SD</i>       |           |
| Subject: $\sigma^2_{(Int Subject)}$           | 11.89       |           | 11.87           |           | 12.49           |           | 10.24           |           |
| Item: $\sigma^2_{(Int Item)}$                 | 5.23        |           | 5.41            |           | 5.42            |           | 5.40            |           |
| Residuum: $\sigma^2_{(Residuum)}$             | 14.41       |           | 13.28           |           | 13.26           |           | 13.25           |           |
| Slope: $\sigma^2_{(HC Subject)}$ <sup>c</sup> |             |           |                 |           | 1.44            |           | 1.53            |           |
| Model Quality                                 | <i>Est.</i> |           | <i>Est.</i>     |           | <i>Est.</i>     |           | <i>Est.</i>     |           |
| <i>R<sup>2</sup> Marginal</i>                 | .00         |           | .08             |           | .08             |           | .31             |           |
| <i>R<sup>2</sup> Conditional</i>              | 0.45        |           | 0.53            |           | 0.53            |           | 0.76            |           |
| AIC   | 19525.4     |           | 19159.9         |           | 19158.7         |           | 19117.8         |           |
| BIC   | 19548.5     |           | 19188.7         |           | 19199.1         |           | 19181.2         |           |
| logLik  | -2123.55    |           | -2101.66        |           | -2016.07        |           | -1980.77        |           |
| Model Comparison                              |             |           | 2.1.1 vs. 2.1.2 |           | 2.1.2 vs. 2.1.3 |           | 2.1.3 vs. 2.1.4 |           |
| $\chi^2$                                      |             |           | 366.86          |           | 15.14           |           | 35.49           |           |
| df  |             |           | 1               |           | 2               |           | 7               |           |
| p   |             |           | <.001           |           | <.001           |           | <.001           |           |

*Note.* \*  $p \leq 0.05$  \*\*  $p \leq 0.01$  and \*\*\*  $p \leq 0.001$ . <sup>a</sup> H-Inc. = Hypothesis-Inconsistent; <sup>b</sup> PB = Publication Bias; <sup>c</sup> HC = Hypothesis-Consistency.

**Table D3***Stage 1: Model Parameters for Experiment 3: Likelihood of Reading an Abstract*

|  | Model 3A.1.1 |           | Model 3A.1.2    |           | Model 3A.1.3    |           | Model 3A.1.4    |           |
|--|--------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|
|  | Null         |           | + Fixed         |           | + Random        |           | + Covariates    |           |
| Fixed Effects                              | <i>Beta</i>  | <i>SE</i> | <i>Beta</i>     | <i>SE</i> | <i>Beta</i>     | <i>SE</i> | <i>Beta</i>     | <i>SE</i> |
| Intercept                                  | 69.71***     | 1.67      | 64.29***        | 0.96      | 64.30***        | 1.76      | 69.68***        | 1.79      |
| Non-Significant Abstract                   |              |           | -11.14***       | 0.65      | -11.13***       | 0.65      | -11.10***       | 0.65      |
| Postdoc Level                              |              |           |                 |           |                 |           | -12.35***       | 0.13      |
| Professorial Level                         |              |           |                 |           |                 |           | -20.08***       | 0.24      |
| Familiarity w. PB <sup>a</sup>             |              |           |                 |           |                 |           | -11.69***       | 0.14      |
| Pressure to Publish                        |              |           |                 |           |                 |           | -14.12***       | 0.10      |
| Abstract Position                          |              |           |                 |           |                 |           | -13.08***       | 0.09      |
| NS <sup>b</sup> * Familiarity w. PB        |              |           |                 |           |                 |           | 4.04***         | 0.01      |
| NS * Pressure to Publish                   |              |           |                 |           |                 |           | 0.01            | 0.05      |
| Random Effects                             | <i>SD</i>    |           | <i>SD</i>       |           | <i>SD</i>       |           | <i>SD</i>       |           |
| Subject: $\sigma^2_{(Int Subject)}$        | 11.89        |           | 11.87           |           | 12.49           |           | 10.24           |           |
| Item: $\sigma^2_{(Int Item)}$              | 5.23         |           | 5.41            |           | 5.42            |           | 5.40            |           |
| Residuum: $\sigma^2_{(Residuum)}$          | 14.41        |           | 13.28           |           | 13.26           |           | 13.25           |           |
| Slope: $\sigma^2_{(Significance Subject)}$ |              |           |                 |           | 1.44            |           | 1.53            |           |
| Model Quality                              | <i>Est.</i>  |           | <i>Est.</i>     |           | <i>Est.</i>     |           | <i>Est.</i>     |           |
| <i>R<sup>2</sup> Marginal</i>              | .00          |           | .08             |           | .08             |           | .31             |           |
| <i>R<sup>2</sup> Conditional</i>           | 0.45         |           | 0.53            |           | 0.53            |           | 0.76            |           |
| AIC  | 19525.4      |           | 19159.9         |           | 19158.7         |           | 19117.8         |           |
| BIC  | 19548.5      |           | 19188.7         |           | 19199.1         |           | 19181.2         |           |
| logLik                                     | -2123.55     |           | -2101.66        |           | -2016.07        |           | -1980.77        |           |
| Model Comparison                           |              |           | 1.1.1 vs. 1.1.2 |           | 1.1.2 vs. 1.1.3 |           | 1.1.3 vs. 1.1.4 |           |
| $\chi^2$                                   |              |           | 366.86          |           | 15.14           |           | 35.49           |           |
| df   |              |           | 1               |           | 2               |           | 7               |           |
| p  |              |           | <.001           |           | <.001           |           | <.001           |           |

Note. \*  $p \leq 0.05$  \*\*  $p \leq 0.01$  and \*\*\*  $p \leq 0.001$ . <sup>a</sup> PB. = Publication Bias; <sup>b</sup> NS. = Non-significant.

**Table D4**

| <i>Stage 1: Model Parameters for Experiment 3: Likelihood of Citing an Abstract</i> | Model 3B.1.1 |           | Model 3B.1.2    |           | Model 3B.1.3    |           | Model 3B.1.4    |           |
|---|--------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|
|   | Null         |           | + Fixed         |           | + Random        |           | + Covariates    |           |
| Fixed Effects   | <i>Beta</i>  | <i>SE</i> | <i>Beta</i>     | <i>SE</i> | <i>Beta</i>     | <i>SE</i> | <i>Beta</i>     | <i>SE</i> |
| Intercept   | 69.71***     | 1.67      | 64.29***        | 0.96      | 64.30***        | 1.76      | 69.68***        | 1.79      |
| Non-Significant Abstract  |              |           | -11.14***       | 0.65      | -11.13***       | 0.65      | -11.10***       | 0.65      |
| Postdoc Level   |              |           |                 |           |                 |           | -12.35***       | 0.13      |
| Professorial Level  |              |           |                 |           |                 |           | -20.08***       | 0.24      |
| Familiarity w. PB <sup>a</sup>  |              |           |                 |           |                 |           | -11.69***       | 0.14      |
| Pressure to Publish   |              |           |                 |           |                 |           | -14.12***       | 0.10      |
| Abstract Position   |              |           |                 |           |                 |           | -13.08***       | 0.09      |
| NS <sup>b</sup> * Familiarity w. PB   |              |           |                 |           |                 |           | 4.04***         | 0.01      |
| NS * Pressure to Publish  |              |           |                 |           |                 |           | 0.01            | 0.05      |
| Random Effects  | <i>SD</i>    |           | <i>SD</i>       |           | <i>SD</i>       |           | <i>SD</i>       |           |
| Subject: $\sigma^2_{(Int Subject)}$   | 11.89        |           | 11.87           |           | 12.49           |           | 10.24           |           |
| Item: $\sigma^2_{(Int Item)}$   | 5.23         |           | 5.41            |           | 5.42            |           | 5.40            |           |
| Residuum: $\sigma^2_{(Residuum)}$   | 14.41        |           | 13.28           |           | 13.26           |           | 13.25           |           |
| Slope: $\sigma^2_{(Significance Subject)}$  |              |           |                 |           | 1.44            |           | 1.53            |           |
| Model Quality   | <i>Est.</i>  |           | <i>Est.</i>     |           | <i>Est.</i>     |           | <i>Est.</i>     |           |
| <i>R<sup>2</sup> Marginal</i>   | .00          |           | .08             |           | .08             |           | .31             |           |
| <i>R<sup>2</sup> Conditional</i>  | 0.45         |           | 0.53            |           | 0.53            |           | 0.76            |           |
| AIC   | 19525.4      |           | 19159.9         |           | 19158.7         |           | 19117.8         |           |
| BIC   | 19548.5      |           | 19188.7         |           | 19199.1         |           | 19181.2         |           |
| logLik  | -2123.55     |           | -2101.66        |           | -2016.07        |           | -1980.77        |           |
| Model Comparison  |              |           | 1.1.1 vs. 1.1.2 |           | 1.1.2 vs. 1.1.3 |           | 1.1.3 vs. 1.1.4 |           |
| $\chi^2$  |              |           | 366.86          |           | 15.14           |           | 35.49           |           |
| df  |              |           | 1               |           | 2               |           | 7               |           |
| p   |              |           | <.001           |           | <.001           |           | <.001           |           |

Note. \*  $p \leq 0.05$  \*\*  $p \leq 0.01$  and \*\*\*  $p \leq 0.001$ . <sup>a</sup> PB. = Publication Bias; <sup>b</sup> NS. = Non-significant.

**Table D5***Stage 1: Model Parameters for Experiment 4: Likelihood of Reading an Abstract*

|                                     | Model 4A.1.1 |           | Model 4A.1.2    |           | Model 4A.1.3    |           | Model 4A.1.4    |           |
|-------------------------------------|--------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|
|                                     | Null         |           | + Fixed         |           | + Random        |           | + Covariates    |           |
| Fixed Effects                       | <i>Beta</i>  | <i>SE</i> | <i>Beta</i>     | <i>SE</i> | <i>Beta</i>     | <i>SE</i> | <i>Beta</i>     | <i>SE</i> |
| Intercept                           | 69.71***     | 1.67      | 64.29***        | 0.96      | 64.30***        | 1.76      | 69.68***        | 1.79      |
| H-Inc. <sup>a</sup> Abstract        |              |           | -11.14***       | 0.65      | -11.13***       | 0.65      | -11.10***       | 0.65      |
| Postdoc Level                       |              |           |                 |           |                 |           | -12.35***       | 0.13      |
| Professorial Level                  |              |           |                 |           |                 |           | -20.08***       | 0.24      |
| Familiarity w. PB <sup>b</sup>      |              |           |                 |           |                 |           | -11.69***       | 0.14      |
| Pressure to Publish                 |              |           |                 |           |                 |           | -14.12***       | 0.10      |
| Abstract Position                   |              |           |                 |           |                 |           | -13.08***       | 0.09      |
| H-Inc. * Familiarity w. PB          |              |           |                 |           |                 |           | 4.04***         | 0.01      |
| H-Inc. * Pressure to Publish        |              |           |                 |           |                 |           | 0.01            | 0.05      |
| Random Effects                      | <i>SD</i>    |           | <i>SD</i>       |           | <i>SD</i>       |           | <i>SD</i>       |           |
| Subject: $\sigma^2_{(Int Subject)}$ | 11.89        |           | 11.87           |           | 12.49           |           | 10.24           |           |
| Item: $\sigma^2_{(Int Item)}$       | 5.23         |           | 5.41            |           | 5.42            |           | 5.40            |           |
| Residuum: $\sigma^2_{(Residuum)}$   | 14.41        |           | 13.28           |           | 13.26           |           | 13.25           |           |
| Slope: $\sigma^2_{(HC Subject)}$    |              |           |                 |           | 1.44            |           | 1.53            |           |
| Model Quality                       | <i>Est.</i>  |           | <i>Est.</i>     |           | <i>Est.</i>     |           | <i>Est.</i>     |           |
| <i>R<sup>2</sup> Marginal</i>       | .00          |           | .08             |           | .08             |           | .31             |           |
| <i>R<sup>2</sup> Conditional</i>    | 0.45         |           | 0.53            |           | 0.53            |           | 0.76            |           |
| AIC                                 | 19525.4      |           | 19159.9         |           | 19158.7         |           | 19117.8         |           |
| BIC                                 | 19548.5      |           | 19188.7         |           | 19199.1         |           | 19181.2         |           |
| logLik                              | -2123.55     |           | -2101.66        |           | -2016.07        |           | -1980.77        |           |
| Model Comparison                    |              |           | 2.1.1 vs. 2.1.2 |           | 2.1.2 vs. 2.1.3 |           | 2.1.3 vs. 2.1.4 |           |
| $\chi^2$                            |              |           | 366.86          |           | 15.14           |           | 35.49           |           |
| df                                  |              |           | 1               |           | 2               |           | 7               |           |
| p                                   |              |           | <.001           |           | <.001           |           | <.001           |           |

Note. \*  $p \leq 0.05$  \*\*  $p \leq 0.01$  and \*\*\*  $p \leq 0.001$ . <sup>a</sup> H-Inc. = Hypothesis-Inconsistent; <sup>b</sup> PB = Publication Bias; <sup>c</sup> HC = Hypothesis-Consistency.

**Table D6***Stage 1: Model Parameters for Experiment 4: Likelihood of Citing an Abstract*

|                                     | Model 4B.1.1 |           | Model 4B.1.2    |           | Model 4B.1.3    |           | Model 4B.1.4    |           |
|-------------------------------------|--------------|-----------|-----------------|-----------|-----------------|-----------|-----------------|-----------|
|                                     | Null         |           | + Fixed         |           | + Random        |           | + Covariates    |           |
| Fixed Effects                       | <i>Beta</i>  | <i>SE</i> | <i>Beta</i>     | <i>SE</i> | <i>Beta</i>     | <i>SE</i> | <i>Beta</i>     | <i>SE</i> |
| Intercept                           | 69.71***     | 1.67      | 64.29***        | 0.96      | 64.30***        | 1.76      | 69.68***        | 1.79      |
| H-Inc. <sup>a</sup> Abstract        |              |           | -11.14***       | 0.65      | -11.13***       | 0.65      | -11.10***       | 0.65      |
| Postdoc Level                       |              |           |                 |           |                 |           | -12.35***       | 0.13      |
| Professorial Level                  |              |           |                 |           |                 |           | -20.08***       | 0.24      |
| Familiarity w. PB <sup>b</sup>      |              |           |                 |           |                 |           | -11.69***       | 0.14      |
| Pressure to Publish                 |              |           |                 |           |                 |           | -14.12***       | 0.10      |
| Abstract Position                   |              |           |                 |           |                 |           | -13.08***       | 0.09      |
| H-Inc. * Familiarity w. PB          |              |           |                 |           |                 |           | 4.04***         | 0.01      |
| H-Inc. * Pressure to Publish        |              |           |                 |           |                 |           | 0.01            | 0.05      |
| Random Effects                      | <i>SD</i>    |           | <i>SD</i>       |           | <i>SD</i>       |           | <i>SD</i>       |           |
| Subject: $\sigma^2_{(Int Subject)}$ | 11.89        |           | 11.87           |           | 12.49           |           | 10.24           |           |
| Item: $\sigma^2_{(Int Item)}$       | 5.23         |           | 5.41            |           | 5.42            |           | 5.40            |           |
| Residuum: $\sigma^2_{(Residuum)}$   | 14.41        |           | 13.28           |           | 13.26           |           | 13.25           |           |
| Slope: $\sigma^2_{(HC Subject)}$    |              |           |                 |           | 1.44            |           | 1.53            |           |
| Model Quality                       | <i>Est.</i>  |           | <i>Est.</i>     |           | <i>Est.</i>     |           | <i>Est.</i>     |           |
| <i>R<sup>2</sup> Marginal</i>       | .00          |           | .08             |           | .08             |           | .31             |           |
| <i>R<sup>2</sup> Conditional</i>    | 0.45         |           | 0.53            |           | 0.53            |           | 0.76            |           |
| AIC                                 | 19525.4      |           | 19159.9         |           | 19158.7         |           | 19117.8         |           |
| BIC                                 | 19548.5      |           | 19188.7         |           | 19199.1         |           | 19181.2         |           |
| logLik                              | -2123.55     |           | -2101.66        |           | -2016.07        |           | -1980.77        |           |
| Model Comparison                    |              |           | 2.1.1 vs. 2.1.2 |           | 2.1.2 vs. 2.1.3 |           | 2.1.3 vs. 2.1.4 |           |
| $\chi^2$                            |              |           | 366.86          |           | 15.14           |           | 35.49           |           |
| df                                  |              |           | 1               |           | 2               |           | 7               |           |
| p                                   |              |           | <.001           |           | <.001           |           | <.001           |           |

Note. \*  $p \leq 0.05$  \*\*  $p \leq 0.01$  and \*\*\*  $p \leq 0.001$ . <sup>a</sup> H-Inc. = Hypothesis-Inconsistent; <sup>b</sup> PB = Publication Bias; <sup>c</sup> HC = Hypothesis-Consistency.

## Tables for Response Change Models

**Table D7**

*Multilevel Mediation Model for Response Change. Model Parameters for Experiment 1: Likelihood of Submitting an Abstract to Publication as a Function of Statistical Significance*

|   | Model 1.2.1 |                | Model 1.2.2  |                |
|---|-------------|----------------|--------------|----------------|
|   | + Random    |                | + Covariates |                |
| Fixed Effects                               | <i>Beta</i> | <i>95%-CI</i>  | <i>Beta</i>  | <i>95%-CI</i>  |
| Response: FOR <sup>a</sup>                  |             |                |              |                |
| N-Sig. <sup>b</sup>                         | -0.11***    | [-0.14; -0.09] | -0.11***     | [-0.14; -0.09] |
| Response: C-LoS <sup>c</sup>                |             |                |              |                |
| ADE <sup>d</sup> N-Sig.                     | 0.26***     | [0.18; 0.34]   | 0.26***      | [0.18; 0.34]   |
| ACME <sup>e</sup> N-Sig.                    | 0.03***     | [0.01; 0.05]   | 0.03***      | [0.01; 0.05]   |
| FOR   | -0.11***    | [-0.14; -0.09] | -0.11***     | [-0.14; -0.09] |
| Total Effect                                | 0.29***     | [0.21; 0.37]   | 0.29***      | [0.21; 0.37]   |
| Proportion Mediated                         | 0.10***     | [0.05; 0.18]   | 0.10***      | [0.05; 0.18]   |
| Covariates: FOR                             |             |                |              |                |
| Pressure to Publish                         |             |                | -0.27***     | [-0.31; -0.22] |
| Familiarity w. PB <sup>f</sup>              |             |                | 0.26***      | [0.18; 0.34]   |
| Pressure to Publish * N-Sig.                |             |                | 0.29***      | [0.21; 0.37]   |
| Familiarity w. PB * N-Sig                   |             |                | 0.29***      | [0.21; 0.37]   |
| Covariates: C-LoS                           |             |                |              |                |
| Pressure to Publish                         |             |                | -0.27***     | [-0.31; -0.22] |
| Familiarity w. PB                           |             |                | 0.26***      | [0.18; 0.34]   |
| Pressure to Publish * N-Sig                 |             |                | 0.29***      | [0.21; 0.37]   |
| Familiarity w. PB * N-Sig                   |             |                | 0.29***      | [0.21; 0.37]   |
| Postdoc Level                               |             |                | -0.27***     | [-0.31; -0.22] |
| Professorial Level                          |             |                | 0.26***      | [0.18; 0.34]   |
| Abstract Position                           |             |                | 0.29***      | [0.21; 0.37]   |
| Conscientiousness                           |             |                | 0.29***      | [0.21; 0.37]   |
| Random Effects                              | <i>SD</i>   |                | <i>SD</i>    |                |
| Intercept C-LoS: $\sigma^2_{(Int Subject)}$ | 0.23        |                | 0.23         |                |
| Slope C-LoS: $\sigma^2_{(N-Sig. Subject)}$  | 0.01        |                | 0.00         |                |
| Residuum C-LoR: $\sigma^2_{(Residuum)}$     | 0.68        |                | 0.65         |                |

*Note.* \*  $p \leq 0.05$  \*\*  $p \leq 0.01$  and \*\*\*  $p \leq 0.001$ ; <sup>a</sup> FOR = Feeling of Rightness; <sup>b</sup> N-Sig. = Statistically Non-Significant; <sup>c</sup> C-LoS = Changed likelihood of Submitting to Publish; <sup>d</sup> ADE = Average Direct Effect; <sup>e</sup> ACME = Average Causal Mediation Effect; <sup>f</sup> PB = Publication Bias.

**Table D8**

*Multilevel Mediation Model for Response Change. Model Parameters for Experiment 2: Likelihood of Submitting an Abstract to Publication as a Function of Hypothesis-Consistency*

|   | Model 2.2.1 |                | Model 2.2.2  |                |
|---|-------------|----------------|--------------|----------------|
|   | + Random    |                | + Covariates |                |
| Fixed Effects                               | <i>Beta</i> | <i>95%-CI</i>  | <i>Beta</i>  | <i>95%-CI</i>  |
| Response: FOR <sup>a</sup>                  |             |                |              |                |
| H-Inc. <sup>b</sup>                         | -0.11***    | [-0.14; -0.09] | -0.11***     | [-0.14; -0.09] |
| Response: C-LoS <sup>c</sup>                |             |                |              |                |
| ADE <sup>d</sup> H-Inc.                     | 0.26***     | [0.18; 0.34]   | 0.26***      | [0.18; 0.34]   |
| ACME <sup>e</sup> H-Inc.                    | 0.03***     | [0.01; 0.05]   | 0.03***      | [0.01; 0.05]   |
| FOR   | -0.11***    | [-0.14; -0.09] | -0.11***     | [-0.14; -0.09] |
| Total Effect                                | 0.29***     | [0.21; 0.37]   | 0.29***      | [0.21; 0.37]   |
| Proportion Mediated                         | 0.10***     | [0.05; 0.18]   | 0.10***      | [0.05; 0.18]   |
| Covariates: FOR                             |             |                |              |                |
| Pressure to Publish                         |             |                | -0.27***     | [-0.31; -0.22] |
| Familiarity w. PB <sup>f</sup>              |             |                | 0.26***      | [0.18; 0.34]   |
| Pressure to Publish * H-Inc.                |             |                | 0.29***      | [0.21; 0.37]   |
| Familiarity w. PB * H-Inc                   |             |                | 0.29***      | [0.21; 0.37]   |
| Covariates: C-LoS                           |             |                |              |                |
| Pressure to Publish                         |             |                | -0.27***     | [-0.31; -0.22] |
| Familiarity w. PB                           |             |                | 0.26***      | [0.18; 0.34]   |
| Pressure to Publish * H-Inc                 |             |                | 0.29***      | [0.21; 0.37]   |
| Familiarity w. PB * H-Inc                   |             |                | 0.29***      | [0.21; 0.37]   |
| Postdoc Level                               |             |                | -0.27***     | [-0.31; -0.22] |
| Professorial Level                          |             |                | 0.26***      | [0.18; 0.34]   |
| Abstract Position                           |             |                | 0.29***      | [0.21; 0.37]   |
| Conscientiousness                           |             |                | 0.29***      | [0.21; 0.37]   |
| Random Effects                              | <i>SD</i>   |                | <i>SD</i>    |                |
| Intercept C-LoS: $\sigma^2_{(Int Subject)}$ | 0.23        |                | 0.23         |                |
| Slope C-LoS: $\sigma^2_{(H-Inc. Subject)}$  | 0.01        |                | 0.00         |                |
| Residuum C-LoR: $\sigma^2_{(Residuum)}$     | 0.68        |                | 0.65         |                |

*Note.* \*  $p \leq 0.05$  \*\*  $p \leq 0.01$  and \*\*\*  $p \leq 0.001$ ; <sup>a</sup> FOR = Feeling of Rightness; <sup>b</sup> H-Inc. = Hypothesis-Inconsistent Abstract; <sup>c</sup> C-LoS = Changed likelihood of Submitting to Publish; <sup>d</sup> ADE = Average Direct Effect; <sup>e</sup> ACME = Average Causal Mediation Effect; <sup>f</sup> PB = Publication Bias.



**Table D9**

*Multilevel Mediation Model for Response Change. Model Parameters for Experiment 3: Likelihood of Reading an Abstract as a Function of Statistical Significance*

|   | Model 3A.2.1 |                | Model 3A.2.2 |                |
|---|--------------|----------------|--------------|----------------|
|   | + Random     |                | + Covariates |                |
| Fixed Effects                               | <i>Beta</i>  | <i>95%-CI</i>  | <i>Beta</i>  | <i>95%-CI</i>  |
| Response: FOR <sup>a</sup>                  |              |                |              |                |
| N-Sig. <sup>b</sup>                         | -0.11***     | [-0.14; -0.09] | -0.11***     | [-0.14; -0.09] |
| Response: C-LoR <sup>c</sup>                |              |                |              |                |
| ADE <sup>d</sup> N-Sig.                     | 0.26***      | [0.18; 0.34]   | 0.26***      | [0.18; 0.34]   |
| ACME <sup>e</sup> N-Sig.                    | 0.03***      | [0.01; 0.05]   | 0.03***      | [0.01; 0.05]   |
| FOR   | -0.11***     | [-0.14; -0.09] | -0.11***     | [-0.14; -0.09] |
| Total Effect                                | 0.29***      | [0.21; 0.37]   | 0.29***      | [0.21; 0.37]   |
| Proportion Mediated                         | 0.10***      | [0.05; 0.18]   | 0.10***      | [0.05; 0.18]   |
| Covariates: FOR                             |              |                |              |                |
| Pressure to Publish                         |              |                | -0.27***     | [-0.31; -0.22] |
| Familiarity w. PB <sup>f</sup>              |              |                | 0.26***      | [0.18; 0.34]   |
| Pressure to Publish * N-Sig.                |              |                | 0.29***      | [0.21; 0.37]   |
| Familiarity w. PB * N-Sig                   |              |                | 0.29***      | [0.21; 0.37]   |
| Covariates: C-LoR                           |              |                |              |                |
| Pressure to Publish                         |              |                | -0.27***     | [-0.31; -0.22] |
| Familiarity w. PB                           |              |                | 0.26***      | [0.18; 0.34]   |
| Pressure to Publish * N-Sig                 |              |                | 0.29***      | [0.21; 0.37]   |
| Familiarity w. PB * N-Sig                   |              |                | 0.29***      | [0.21; 0.37]   |
| Postdoc Level                               |              |                | -0.27***     | [-0.31; -0.22] |
| Professorial Level                          |              |                | 0.26***      | [0.18; 0.34]   |
| Abstract Position                           |              |                | 0.29***      | [0.21; 0.37]   |
| Conscientiousness                           |              |                | 0.29***      | [0.21; 0.37]   |
| Random Effects                              | <i>SD</i>    |                | <i>SD</i>    |                |
| Intercept C-LoR: $\sigma^2_{(Int Subject)}$ | 0.23         |                | 0.23         |                |
| Slope C-LoR: $\sigma^2_{(N-Sig. Subject)}$  | 0.01         |                | 0.00         |                |
| Residuum C-LoR: $\sigma^2_{(Residuum)}$     | 0.68         |                | 0.65         |                |

*Note.* \*  $p \leq 0.05$  \*\*  $p \leq 0.01$  and \*\*\*  $p \leq 0.001$ ; <sup>a</sup> FOR = Feeling of Rightness; <sup>b</sup> N-Sig. = Statistically Non-Significant Abstract; <sup>c</sup> C-LoR = Changed likelihood of Reading; <sup>d</sup> ADE = Average Direct Effect; <sup>e</sup> ACME = Average Causal Mediation Effect; <sup>f</sup> PB = Publication Bias.

**Table D10**

*Multilevel Mediation Model for Response Change. Model Parameters for Experiment 3: Likelihood of Citing an Abstract as a Function of Statistical Significance*

|   | Model 3B.2.1 |                | Model 3B.2.2 |                |
|---|--------------|----------------|--------------|----------------|
|   | + Random     |                | + Covariates |                |
| Fixed Effects                               | <i>Beta</i>  | <i>95%-CI</i>  | <i>Beta</i>  | <i>95%-CI</i>  |
| Response: FOR <sup>a</sup>                  |              |                |              |                |
| N-Sig. <sup>b</sup>                         | -0.11***     | [-0.14; -0.09] | -0.11***     | [-0.14; -0.09] |
| Response: C-LoC <sup>c</sup>                |              |                |              |                |
| ADE <sup>d</sup> N-Sig.                     | 0.26***      | [0.18; 0.34]   | 0.26***      | [0.18; 0.34]   |
| ACME <sup>e</sup> N-Sig.                    | 0.03***      | [0.01; 0.05]   | 0.03***      | [0.01; 0.05]   |
| FOR   | -0.11***     | [-0.14; -0.09] | -0.11***     | [-0.14; -0.09] |
| Total Effect                                | 0.29***      | [0.21; 0.37]   | 0.29***      | [0.21; 0.37]   |
| Proportion Mediated                         | 0.10***      | [0.05; 0.18]   | 0.10***      | [0.05; 0.18]   |
| Covariates: FOR                             |              |                |              |                |
| Pressure to Publish                         |              |                | -0.27***     | [-0.31; -0.22] |
| Familiarity w. PB <sup>f</sup>              |              |                | 0.26***      | [0.18; 0.34]   |
| Pressure to Publish * N-Sig.                |              |                | 0.29***      | [0.21; 0.37]   |
| Familiarity w. PB * N-Sig                   |              |                | 0.29***      | [0.21; 0.37]   |
| Covariates: C-LoC                           |              |                |              |                |
| Pressure to Publish                         |              |                | -0.27***     | [-0.31; -0.22] |
| Familiarity w. PB                           |              |                | 0.26***      | [0.18; 0.34]   |
| Pressure to Publish * N-Sig                 |              |                | 0.29***      | [0.21; 0.37]   |
| Familiarity w. PB * N-Sig                   |              |                | 0.29***      | [0.21; 0.37]   |
| Postdoc Level                               |              |                | -0.27***     | [-0.31; -0.22] |
| Professorial Level                          |              |                | 0.26***      | [0.18; 0.34]   |
| Abstract Position                           |              |                | 0.29***      | [0.21; 0.37]   |
| Conscientiousness                           |              |                | 0.29***      | [0.21; 0.37]   |
| Random Effects                              | <i>SD</i>    |                | <i>SD</i>    |                |
| Intercept C-LoC: $\sigma^2_{(Int Subject)}$ | 0.23         |                | 0.23         |                |
| Slope C-LoC: $\sigma^2_{(N-Sig Subject)}$   | 0.01         |                | 0.00         |                |
| Residuum C-LoC: $\sigma^2_{(Residuum)}$     | 0.68         |                | 0.65         |                |

*Note.* \*  $p \leq 0.05$  \*\*  $p \leq 0.01$  and \*\*\*  $p \leq 0.001$ ; <sup>a</sup> FOR = Feeling of Rightness; <sup>b</sup> N-Sig. = Statistically Non-Significant Abstract; <sup>c</sup> C-LoC = Changed likelihood of Citing; <sup>d</sup> ADE = Average Direct Effect; <sup>e</sup> ACME = Average Causal Mediation Effect; <sup>f</sup> PB = Publication Bias.

**Table D11**

*Multilevel Mediation Model for Response Change. Model Parameters for Experiment 4: Likelihood of Reading an Abstract as a Function of Hypothesis-Consistency*

|   | Model 3A.2.1 |                | Model 3A.2.2 |                |
|---|--------------|----------------|--------------|----------------|
|   | + Random     |                | + Covariates |                |
| Fixed Effects                               | <i>Beta</i>  | <i>95%-CI</i>  | <i>Beta</i>  | <i>95%-CI</i>  |
| Response: FOR <sup>a</sup>                  |              |                |              |                |
| H-Inc. <sup>b</sup>                         | -0.11***     | [-0.14; -0.09] | -0.11***     | [-0.14; -0.09] |
| Response: C-LoR <sup>c</sup>                |              |                |              |                |
| ADE <sup>d</sup> H-Inc.                     | 0.26***      | [0.18; 0.34]   | 0.26***      | [0.18; 0.34]   |
| ACME <sup>e</sup> H-Inc.                    | 0.03***      | [0.01; 0.05]   | 0.03***      | [0.01; 0.05]   |
| FOR   | -0.11***     | [-0.14; -0.09] | -0.11***     | [-0.14; -0.09] |
| Total Effect                                | 0.29***      | [0.21; 0.37]   | 0.29***      | [0.21; 0.37]   |
| Proportion Mediated                         | 0.10***      | [0.05; 0.18]   | 0.10***      | [0.05; 0.18]   |
| Covariates: FOR                             |              |                |              |                |
| Pressure to Publish                         |              |                | -0.27***     | [-0.31; -0.22] |
| Familiarity w. PB <sup>f</sup>              |              |                | 0.26***      | [0.18; 0.34]   |
| Pressure to Publish * H-Inc.                |              |                | 0.29***      | [0.21; 0.37]   |
| Familiarity w. PB * H-Inc                   |              |                | 0.29***      | [0.21; 0.37]   |
| Covariates: C-LoR                           |              |                |              |                |
| Pressure to Publish                         |              |                | -0.27***     | [-0.31; -0.22] |
| Familiarity w. PB                           |              |                | 0.26***      | [0.18; 0.34]   |
| Pressure to Publish * H-Inc                 |              |                | 0.29***      | [0.21; 0.37]   |
| Familiarity w. PB * H-Inc                   |              |                | 0.29***      | [0.21; 0.37]   |
| Postdoc Level                               |              |                | -0.27***     | [-0.31; -0.22] |
| Professorial Level                          |              |                | 0.26***      | [0.18; 0.34]   |
| Abstract Position                           |              |                | 0.29***      | [0.21; 0.37]   |
| Conscientiousness                           |              |                | 0.29***      | [0.21; 0.37]   |
| Random Effects                              | <i>SD</i>    |                | <i>SD</i>    |                |
| Intercept C-LoR: $\sigma^2_{(Int Subject)}$ | 0.23         |                | 0.23         |                |
| Slope C-LoR: $\sigma^2_{(H-Inc. Subject)}$  | 0.01         |                | 0.00         |                |
| Residuum C-LoR: $\sigma^2_{(Residuum)}$     | 0.68         |                | 0.65         |                |

*Note.* \*  $p \leq 0.05$  \*\*  $p \leq 0.01$  and \*\*\*  $p \leq 0.001$ ; <sup>a</sup> FOR = Feeling of Rightness; <sup>b</sup> H-Inc. = Hypothesis-Inconsistent Abstract; <sup>c</sup> C-LoR = Changed likelihood of Reading; <sup>d</sup> ADE = Average Direct Effect; <sup>e</sup> ACME = Average Causal Mediation Effect; <sup>f</sup> PB = Publication Bias.

**Table D12**

*Multilevel Mediation Model for Response Change. Model Parameters for Experiment 4: Likelihood of Citing an Abstract as a Function of Hypothesis-Consistency*

|   | Model 3B.2.1 |                | Model 3B.2.2 |                |
|---|--------------|----------------|--------------|----------------|
|   | + Random     |                | + Covariates |                |
| Fixed Effects                               | <i>Beta</i>  | <i>95%-CI</i>  | <i>Beta</i>  | <i>95%-CI</i>  |
| Response: FOR <sup>a</sup>                  |              |                |              |                |
| H-Inc. <sup>b</sup>                         | -0.11***     | [-0.14; -0.09] | -0.11***     | [-0.14; -0.09] |
| Response: C-LoC <sup>c</sup>                |              |                |              |                |
| ADE <sup>d</sup> H-Inc.                     | 0.26***      | [0.18; 0.34]   | 0.26***      | [0.18; 0.34]   |
| ACME <sup>e</sup> H-Inc.                    | 0.03***      | [0.01; 0.05]   | 0.03***      | [0.01; 0.05]   |
| FOR   | -0.11***     | [-0.14; -0.09] | -0.11***     | [-0.14; -0.09] |
| Total Effect                                | 0.29***      | [0.21; 0.37]   | 0.29***      | [0.21; 0.37]   |
| Proportion Mediated                         | 0.10***      | [0.05; 0.18]   | 0.10***      | [0.05; 0.18]   |
| Covariates: FOR                             |              |                |              |                |
| Pressure to Publish                         |              |                | -0.27***     | [-0.31; -0.22] |
| Familiarity w. PB <sup>f</sup>              |              |                | 0.26***      | [0.18; 0.34]   |
| Pressure to Publish * H-Inc.                |              |                | 0.29***      | [0.21; 0.37]   |
| Familiarity w. PB * H-Inc                   |              |                | 0.29***      | [0.21; 0.37]   |
| Covariates: C-LoC                           |              |                |              |                |
| Pressure to Publish                         |              |                | -0.27***     | [-0.31; -0.22] |
| Familiarity w. PB                           |              |                | 0.26***      | [0.18; 0.34]   |
| Pressure to Publish * H-Inc                 |              |                | 0.29***      | [0.21; 0.37]   |
| Familiarity w. PB * H-Inc                   |              |                | 0.29***      | [0.21; 0.37]   |
| Postdoc Level                               |              |                | -0.27***     | [-0.31; -0.22] |
| Professorial Level                          |              |                | 0.26***      | [0.18; 0.34]   |
| Abstract Position                           |              |                | 0.29***      | [0.21; 0.37]   |
| Conscientiousness                           |              |                | 0.29***      | [0.21; 0.37]   |
| Random Effects                              | <i>SD</i>    |                | <i>SD</i>    |                |
| Intercept C-LoC: $\sigma^2_{(Int Subject)}$ | 0.23         |                | 0.23         |                |
| Slope C-LoC: $\sigma^2_{(H-Inc. Subject)}$  | 0.01         |                | 0.00         |                |
| Residuum C-LoC: $\sigma^2_{(Residuum)}$     | 0.68         |                | 0.65         |                |

*Note.* \*  $p \leq 0.05$  \*\*  $p \leq 0.01$  and \*\*\*  $p \leq 0.001$ ; <sup>a</sup> FOR = Feeling of Rightness; <sup>b</sup> H-Inc. = Hypothesis-Inconsistent Abstract; <sup>c</sup> C-LoC = Changed likelihood of Citing; <sup>d</sup> ADE = Average Direct Effect; <sup>e</sup> ACME = Average Causal Mediation Effect; <sup>f</sup> PB = Publication Bias.

## Abstract Tables

**Table D13**

*Abstract Title and Reported Sample Size for Abstract Pool 1 (Significance) for Experiments 1 and 3*

| <b>Nr.</b> | <b>Title of Abstract</b>   | <b>Sample Size</b> |
|------------|--|--------------------|
| 1          | MBCT Efficacy on Emotion Regulation in Bulimia Nervosa                                       | 129                |
| 2          | Antenatal Depressive Symptoms Predict Postnatal Depersonalization/Derealization Symptoms     | 124                |
| 3          | Intolerance of Uncertainty in PTSD   | 165                |
| 4          | Therapist's Empathy and Symptom Severity Bias in First Therapy Session                       | 153                |
| 5          | Gender Differences in Long-Term QoL after CBT for OCD  | 171                |
| 6          | Stressful Life Events and Symptom Aggravation in Adult ADHD                                  | 164                |
| 7          | Emotion Recognition Bias and Satisfaction with Intimate Relationships in Bipolar II Disorder | 144                |
| 8          | Panic Disorder, Cognitive Bias and Tinnitus  | 123                |
| 9          | Behavioral Activation and Working Memory Capacity in MDD                                     | 145                |
| 10         | Polygenic Risk Scores and Heart Rate in Exposure in Patients with Agoraphobia                | 132                |
| 11         | Socioeconomic Adaptation Theory of Rehabilitation in Schizophrenia                           | 146                |
| 12         | Efficacy of Behavioral Activation and Age in MDD   | 163                |
| 13         | Deficits in Defensive Reactivity and QoL in Antisocial Personality Disorder                  | 143                |
| 14         | Heart Rate Variability and Therapy Dropout in Spider Phobia                                  | 146                |
| 15         | Therapist's and Patient's Age Effects on Dropout and Symptoms in Borderline PD               | 145                |
| 16         | Contrast Avoidance and Residual Symptoms in GAD Patients after CBT                           | 128                |

**Table D14**

*Abstract Title and Reported Sample Size for Abstract Pool 2 (Hypothesis-Consistency) for Experiments 2 and 4*

| <b>Nr.</b> | <b>Title of Abstract</b>   | <b>Sample Size</b> | <b>Consistent Result</b>  | <b>Non-Consistent Result</b>  |
|------------|--|--------------------|---|---|
| 1          | Delayed Diagnosis of Antisocial PD in Rural Areas                        | 183                | Group difference: $A > B$ & $A > C$   | Group equality: $A = B = C$   |
| 2          | Laxative abuse in Bulimia nervosa and Prolonged Inpatient Stay           | 154                | Group difference: $A > B$   | Group equality: $A = B$   |
| 3          | Trauma-Focused Cognitive Behavior Therapy in Borderline PD               | 89                 | Group improvement difference: $\text{diff}(At0-At1) > \text{diff}(Bt0-Bt1)$               | Reverse group improvement difference: $\text{diff}(At0-At1) < \text{diff}(Bt0-Bt1)$       |
| 4          | Gender & Mindful-Based Cognitive Therapy                                 | 145                | Group difference: $A > B$   | Group difference: $A < B$   |
| 5          | Pretreatment symptom severity in Psychodynamic Therapy for PTSD          | 153                | Prediction: Positive Relationship   | Prediction: Negative Relationship   |
| 6          | Telepsychotherapy in Social Anxiety Disorder                             | 164                | Group improvement difference: $\text{diff}(At0-At1) > \text{diff}(Bt0-Bt1)$               | Reversed group improvement difference: $\text{diff}(At0-At1) < \text{diff}(Bt0-Bt1)$      |
| 7          | Systemic Psychotherapy in OCD  | 147                | No Group improvement difference: $\text{diff}(At0-At1) = \text{diff}(Bt0-Bt1)$            | Group improvement difference: $\text{diff}(At0-At1) > \text{diff}(Bt0-Bt1)$               |
| 8          | Extraversion and Group-Based Approaches in GAD                           | 134                | Correlation in one group: $\text{Cor}(X,Y)$ in A & $\text{Cor}(X,Y)$ not in B             | Correlation in the other group: No $\text{Cor}(X,Y)$ in A, but $\text{Cor}(X,Y)$ in B     |
| 9          | Hindsight Bias in MDD and GAD  | 169                | Group equality: $A = B$   | Group difference: $A > B$   |
| 10         | Schema therapy & Openness in Borderline PD                               | 125                | Positive Correlation in one group: Pos $\text{Cor}(X,Y)$ in A & no $\text{Cor}(X,Y)$ in B | Negative Correlation in this group: Neg $\text{Cor}(X,Y)$ in A, no $\text{Cor}(X,Y)$ in B |
| 11         | Life Satisfaction & Interpersonal Teletherapy for Alcohol Abuse Disorder | 153                | No Group improvement difference: $\text{diff}(At0-At1) = \text{diff}(Bt0-Bt1)$            | Group improvement difference: $\text{diff}(At0-At1) > \text{diff}(Bt0-Bt1)$               |
| 12         | Primary Agoraphobia and Agoraphobia with Fearful Spells                  | 177                | Group improvement difference: $\text{diff}(At0-At1) > \text{diff}(Bt0-Bt1)$               | Reverse group improvement difference: $\text{diff}(At0-At1) < \text{diff}(Bt0-Bt1)$       |
| 13         | Systemic Therapy & Metacognitive Therapy in Bipolar 1 Disorder           | 163                | Group improvement difference: $\text{diff}(At0-At1) > \text{diff}(Bt0-Bt1)$               | Reverse group improvement difference: $\text{diff}(At0-At1) < \text{diff}(Bt0-Bt1)$       |
| 14         | Therapist and Patient Agreeableness in Histrionic PD                     | 152                | 1. Positive Relationship & 2. Positive Relationship                                       | 1. Negative Relationship & 2. Negative Relationship                                       |
| 15         | Metacognitive Training & Acceptance and Commitment Therapy in GAD        | 164                | Group improvement difference: $\text{diff}(At0-At1) > \text{diff}(Bt0-Bt1)$               | Reverse group improvement difference: $\text{diff}(At0-At1) < \text{diff}(Bt0-Bt1)$       |
| 16         | Transdiagnostic Social Anxiety and Group Therapy Outcomes                | 181                | Group improvement difference: $\text{diff}(At0-At1) > \text{diff}(Bt0-Bt1)$               | Reverse group improvement difference: $\text{diff}(At0-At1) < \text{diff}(Bt0-Bt1)$       |

## Appendix E: Power Analysis

### Effect Size Computation

The reported effect size  $d = 0.55$  is derived from the study “*The null result penalty*” by Chopra et al. We thank Felix Chopra for providing the necessary means and standard deviations to calculate this effect size.

Reference: Chopra, F., Haaland, I., Roth, C., & Stegmann, A. (2022). The null result penalty.

### R-Code

```
# Means
m_null_result <- 42.7855          # Mean of the null result group
m_no_null_result <- 57.1931      # Mean of the non-null result group

# Standard Deviations
sd_null_result <- 26.88988       # SD of the null result group
sd_no_null_result <- 25.41849    # SD of the non-null result group

# Sample Sizes
n_null_result <- 993            # Number of null result vignettes
n_no_null_result <- 927         # Number of non-null result vignettes
n <- n_null_result + n_no_null_result # Total number of vignettes

# Pooled Standard Deviation
sd = sd_null_result * (n_null_result / n) + sd_no_null_result * (n_no_null_result / n)

# Compute Cohen's d
d = (m_null_result - m_no_null_result) / sd # d: Cohen's d

# Print the result
print(d)
# -0.5503395
```

## Power Analysis

Westfall, J., Kenny, D. A., & Judd, C. M. (2014). Statistical power and optimal design in experiments in which samples of participants respond to samples of stimuli. *Journal of Experimental Psychology: General*, 143 (5), 2020-2045.

Link: [https://jakewestfall.shinyapps.io/two\\_factor\\_power/](https://jakewestfall.shinyapps.io/two_factor_power/)

### Design parameters

*n stimuli:* 16 abstract pairs  
*n participants:* 75 participants  
*Type:* Counterbalanced

### Additional power analysis information

Noncentrality parameter: 3.09  
Degrees of freedom: 19.6  
Effect size d: 0.55  
Residual VPC: 0.4  
Participant intercept VPC: 0.2  
Stimulus intercept VPC 0.2  
Participant slope VPC: 0.1  
Stimulus slope VPC: 0.1

### Solution from power analysis

Power: 0.836

### R code for estimating the mixed model

```
model <- lmer(y ~ condition + (condition|participant) + (condition|stim), data=myData)
summary(model)
restrictedModel <- update(model, . ~ . -condition)
KRmodcomp(model, restrictedModel)
```



## **Appendix F: Project Description**

The experiment presented in the registered report is embedded in a comprehensive study in which publication bias is investigated comparatively in two disciplines: On the one hand, a discipline is considered in which publication bias is already known as a concept and is currently being discussed more broadly, and which primarily conducts quantitative and hypothesis-driven research (psychology), and on the other hand, a discipline which, due to its primarily qualitative or hermeneutic empirical methods, has no focus on (non-)significant results and has not used the term publication bias so far (history). A mixed-methods approach with quantitative and qualitative approaches is applied: In work package 1, experiments on intuitive and explicit decision-making processes will be conducted. The sample consists of researchers from clinical psychology and history. In work package 2, meta-reviews will be conducted. In order to record the number of non-significant (psychology) and non-hypothesis-compliant (history) results in the publications of working groups with high and low output, a systematic meta-review of the publication results of the last 10 years will be carried out. The aim is also to compare the objective findings of the review with the results of the other APs with regard to the subjective evaluation and decision-making processes of the scientists. In work package 3, guided interviews will be conducted with researchers from clinical psychology and history that focus on their research practices. About 15 researchers from different status groups and the two disciplines of psychology and history will be selected. In work package 4, participant observations of research groups in clinical psychology and history will be carried out in order to examine the negotiation processes in everyday work with regard to the publication of their own research results. The findings of all four work packages will be incorporated into the development of an intervention, i.e. a participatory workshop for young researchers, in which a higher awareness of the conditioning factors and consequences of publication and reception bias is to be promoted. Measurements of change in knowledge and attitudes (before and after the workshop) will be carried out.

## Appendix G: Instruction

### Terms and Conditions

#### **Thank you for your interest in our study on the working practices of clinical psychology researchers**

Dear participant,

As part of the online study *Research Abstracts in Clinical Psychology*, we are interested in exploring how research abstracts are read and assessed in the context of routine procedures for literature review and in preparing one's own publications in clinical psychology research practice. We aim to gain an understanding of the factors influencing decision-making behaviors during this process. For this purpose, we have generated prototypical abstracts in the field of Clinical Psychology that we would like you to evaluate. Please assume that all abstracts presented here are based on carefully conducted studies with sufficient statistical power.

The study is aimed at all clinical psychology researchers in Germany and the United States and will take approximately 15-20 minutes to complete. Participation in the study is voluntary and you can end the survey at any time by closing the browser window, without providing reasons or facing disadvantages. Your responses are anonymous. As is customary in scientific studies, the data will be kept in an anonymized form for at least 10 years.

If you have any questions about the study, you can contact the following address at any time:

[will be added after revision]

The full compliance with the German Federal Data Protection Act is ensured. The responsibility for data processing lies with the [will be added after revision]

You have the right to lodge a complaint with a supervisory authority if you believe that the processing of your data is not compliant with data protection regulations. The complaint to the supervisory authority can be made informally. For the [will be added after revision], the relevant authority is the [will be added after revision].

As a prerequisite for participation, the following criteria need to be fulfilled:

- I am currently employed at a university in Australia, Canada, Germany, the Netherlands, the United Kingdom or the United States in a clinical psychology, psychotherapy, or comparable research group (including PhD/ doctoral scholarship).
- I am completing the study on a laptop, desktop PC, or tablet for presentation purposes and not on a smartphone.
- I understand academic English and am familiar with reading English-language abstracts.

- I have read and understood the study information and voluntarily agree to participate in the online survey "Research Abstracts in Clinical Psychology."
- Buttons
  - I agree to the terms and conditions of participation and would like to take part in the study.
  - I do not wish to participate in the study.

## **Instruction**

### ***Experiments 1 & 2: Submitting to Publish***

#### *Instruction for this study*

Imagine this study is part of your typical daily work in clinical psychology at your university. The following abstracts have been written by your research group, and you now have the opportunity to decide whether the papers should be submitted for publication based on their abstracts. Naturally, you don't have the capacity to bring all the papers to publication, only a small proportion.

*Please make your decision as quickly as possible.* There is no right or wrong answer; we are interested in capturing your intuitive judgment. We are interested in your first impression and will ask you to report the certainty of your first decision. Furthermore, we will ask for a second assessment of the abstract for methodological purposes and kindly request you to evaluate the abstracts a second time. You'll be able to read the abstracts again, if you do not remember the abstracts sufficiently.

After evaluating 16 research abstracts, we kindly ask you to answer some demographic questions.

Thank you for your understanding and participation!

### ***Experiments 3 & 4: Reading and Citing***

#### *Instruction for this study*

Imagine this study is part of your typical daily work in clinical psychology at your university. You retrieved the following abstracts during a literature search, and now you have the opportunity to decide whether you would (a) cite the respective papers of the abstracts in your work, and (b) read the papers based on the abstracts. Naturally, you don't have the capacity to cite or read all of the papers, only a small proportion.

*Please make your decision as quickly as possible.* There is no right or wrong answer; we are interested in capturing your intuitive judgment. We are interested in your first impression and will

ask you to report the certainty of your first decision. Furthermore, we will ask for a second assessment of the abstract for methodological purposes and kindly request you to evaluate the abstracts a second time. You'll be able to read the abstracts again, if you do not remember the abstracts sufficiently.

After evaluating 16 research abstracts, we kindly ask you to answer some demographic questions.

Thank you for your understanding and participation!