Pronin et al. (2002) replication + extension: Supplementary materials

Contents

Power analyses

Study 1a

Pronin et al. (2002) study that compared participants' rating on their own biases, personal shortcomings, and self-other differences between biases and personal shortcomings with classmates' biases (within-subjects design). The effect sizes of the original study were directly calculated from the t-value and the number of participants using the formula suggested by Rosenthal (1991). The effects size (Cohen d) for the differences in susceptibility to biases between self and referent other in the original study (Study 1 Survey 2; Pronin et al., 2002) was .86. For two other contrasts (personal shortcomings, and difference in self-other difference between biases and personal shortcomings with classmates' biases) the effect sizes were (Cohen d) .28 and .62, respectively. Using G*Power alpha = .05, one-tail (as the direction of hypothesis known), d = 0.5 and power .95 we required sample size of 138. The final sample was 46.

Study 1b

Study 2 of Pronin et al. (2002) tested participants' susceptibility for better than average effect. The original study contained three findings that suggested support toward participants' susceptibility for better than average effect. The effect sizes for each of the predictions were: Positive traits in comparison to others (one-sample t-test; Cohen's d = 1.61); Negative traits in comparison to others (one sample t-test; Cohen's d = -1.24); Better-than-average effect (Chi-squared test; Cohen's d= 0.76). Using G*Power alpha = .05, one-tail (the direction of hypothesis known), d = 0.76 and power .95 we required sample size of 21. The final sample was 43.

Study 2

The data for the Experiments 1 and 2 were collected around the same time. We took the approach to conduct replication based on a larger sample. Further, as part of the extension of the replication we pre-registered the hypothesis between belief in free will and susceptibility to personal shortcomings. We based the sample size on the Pearson Correlation Coefficient of 0.21, the average correlation coefficient in Social Psychology. Using GPower 3.1.9.2 for .95 power and .05 alpha with an estimated correlation coefficient of .21 we required a sample size of 289. The final sample was 303.

Study 3

The data for Study 3 was collected after conducting analyzing the data from Study 1 and Study 2. The aim of Study 3 was to replicate the original finding with a larger sample and also to test the pre-registered extension hypothesis (with sufficient power) that were documented after analyzing data from Study 2.

We based the sample size on the Pearson Correlation Coefficient of 0.21, the average correlation coefficient in Social Psychology. Using GPower 3.1.9.2 for .95 power and .05 alpha with an estimated correlation coefficient of .17 we required a sample size of 439. The final sample was 621.

Open Science

Data and code

Data and code will be shared using the Open Science Framework. Review link for data and code of all studies: https://osf.io/3df5s/

Pre-registrations and Qualtrics study designs

- Study 1a - https://osf.io/f4rb6/;
- Study 1b - https://osf.io/tez7m/;
- Study 2 - https://osf.io/4m35x/;
- Study 3 - https://osf.io/kqatx/.

Procedure and data disclosures

Data collection

Data collection was completed before conducting an analysis of the data.

The data collection for Studies 1a and 1b were combined with data collection of 11 other pre-registered replications, in randomized order.

Study 2 data collection was combined with data collection of other pre-registered replications, in randomized order.

Study 3 was pre-registered and ran data collection with other research on free will beliefs, unrelated to the topic of biases. See pre-registration for Study 3 to learn about the other projects.

Conditions reporting

All collected conditions are reported.

Data exclusions

Details are reported in each of the two studies in the materials section of this document

Variables reporting

All variables collected for this study are reported and included in the provided data.

Adjustments to original design

We attempted a close replication of the original study by Pronin et al. (2002) yet made several needed adjustments. First, we administered all surveys via an online Qualtrics survey. Second, the two studies from Pronin et al. (2002) chosen for replication included Stanford University undergraduate students and were not paid for completion of the study. The current replication effort of three studies included one undergraduate sample from a university in HK, and two paid samples using Amazon Mechanical Turk (MTurk). Thirdly, Study 2 and Study 3 replications combined the original article' Studies 1 and 2 into an integrated design. Forth, we went beyond the replication and added extensions to the original design to examine the link between agency beliefs and self-other bias asymmetries.

Measures used in the experiments

Perceived biases and personal shortcomings

In this part, you will be asked to evaluate different aspects of yourself and others, and will then be asked to reflect back on your answers.

Remember, there are no right or wrong answers, so answer to the best of your understanding based on what you believe to be true.

Perceived susceptibility to biases and personal shortcomings (of self)

Instruction: In the following, please to read descriptions of human tendencies and biases and indicate to what extent do you believe that **you** show this effect or tendency? (1 = Not at all; 5 = Somewhat; 9 = Strongly)

Perceived susceptibility to biases and personal shortcomings (of others)

Instruction: In the following, please to read descriptions of human tendencies and biases and indicate to what extent do you believe that **others** show this effect or tendency? (1 = Not at all; 5 = Somewhat, 9 = Strongly)

Biases

Self-Interest Bias

Psychologists have claimed that some people show a "self-interest" effect in the way they view political candidates. That is, people's assessments of qualifications, and their judgments about the extent to which particular candidates would pursue policies good for the American people as a whole, are influenced by their feelings about whether the candidates' policies would serve their own particular economic and social interests.

Reactive Devaluation

Psychologists have claimed that some people on both sides of a negotiation show a "reactive devaluation" tendency in their view of the opposing side's offers for compromise. That is, each side views the other's compromise proposal less positively than they would view that same proposal if it were presented by a neutral third-party, or if it were not offered at all.

Assimilation Bias

Psychologists have claimed that some people show a "disconfirmation" tendency in the way they evaluate research about potentially dangerous habits. That is, they are more critical and skeptical in evaluating evidence of danger when they personally engage in such behavior than when they do not personally engage in such behavior.

Dissonance Reduction

Psychologists have claimed that some people show a "rationalizing" tendency in the way they feel about things they buy. That is, after choosing to buy a particular product, and thereby foregoing other alternatives, people are inclined to see the product they bought as higher in quality, more attractive in its features, and a better "deal" than the alternatives.

Self-Serving Bias

Psychologists have claimed that some people show a "self-serving" tendency in the way they view their academic or job performance. That is, they tend to take credit for success but deny responsibility for failure; they see their successes as the result of personal qualities, like drive or ability, but their failures as the result of external factors, like unreasonable work requirements or inadequate instruction.

Fundamental Attribution Error

Psychologists have claimed that some people show a tendency to make "overly dispositional inferences" in the way they view victims of assault crimes. That is, they are overly inclined to view the victim's plight as one he or she brought on by carelessness, foolishness, misbehaviour, or naiveté.

Hostile Media Effect

Psychologists have claimed that some people show a "hostile media" effect in the way they view television or newspaper coverage of controversial or partisan issues. That is, they tend to perceive <u>neutral</u> media reports as presenting an inaccurately <u>favourable</u> view of the other side, and an inaccurately <u>negative</u> view of their own side. As a result, they see the media as "hostile," or "biased against" their side.

Positive Halo Effect

Psychologists have claimed that some people show a "halo" effect in the way they form impressions of attractive people. That is, when it comes to assessing how nice, interesting, social, able, etc. someone is, people tend to judge an attractive person more positively than he or she deserves.

Personal Shortcomings
Planning Fallacy

Psychologists have claimed that some people show an "optimistic planning" tendency in the way they complete work-related projects. That is, they tend to underestimate the amount of time it takes to get a job done and fail to budget adequate time for themselves.

Procrastination

Psychologists have claimed that some people show a "delay of effort" tendency in the way they approach challenging or strenuous tasks. That is, they tend to put off starting or finishing projects which they believe will be undesirably time-consuming, arduous, or likely to end in failure.

Fear of Public Speaking

Psychologists have claimed that some people show a "speaking apprehension" effect in the way they perceive situations involving talking in front of others. That is, they tend to be fearful or nervous when giving an oral presentation or addressing a group of people.

Belief in Free Will scales

Scale 1: The Free Will Inventory (Nadelhoffer, Shepard, Nahmias, Sripada, & Ross, 2014)
(To what extent do you agree with the following statements?) (7-point scale; 1 = Strongly disagree, 7 = Strongly agree)

> 1. People always have the ability to do otherwise.

2. People always have free will.

3. How people's lives unfold is completely up to them.

4. People ultimately have complete control over their decisions and their actions.

5. People have free will even when their choices are completely limited by external circumstances.

Scale 2: Belief in Free Will Scale- personal agency items (Rakos, Laurene, Skala & Slane, 2008)

(To what extent do you think the following statements are true?) (5-point scale; 1 = Not true at all, 5 = Almost always true)

1. I am in charge of the decisions I make
2. I decide what action to take in a particular situation
3. I am in charge of my actions even when my life's circumstances are difficult
4. I have free will

Scale 3: Free Will and Determinism-personal will subscales of FWD scale (Rakos et al., 2008)

(To what extent do you think the following statements are true?) (5-point scale; 1 = Not true at all, 5 = Almost always true)

1. I am in charge of the decisions I make.
2. I actively choose what to do from among the options I have.
3. I am in charge of my actions even when my life's circumstances are difficult.
4. My decisions are influenced by a higher power. (R)
5. I have free will even when my choices are limited by external circumstances.
6. I decide what action to take in a particular situation.
7. My choices are limited because they fit into a larger plan. (R)
8. I have free will.

Scale 4: Free Will and Determinism Plus scale (FAD+; Paulhus & Carey, 2011)

Instructions - For each of the following statement, please indicate how true those statements are to you
(0 - "not true at all", 4 - "always true")

1. People have complete control over the decisions they make.
2. People must take full responsibility for any bad choices they make.
3. People can overcome any obstacles if they truly want to.
4. Criminals are totally responsible for the bad things they do.
5. People have complete free will.
6. People are always at fault for their bad behavior.
7. Strength of mind can always overcome the body's desires.

Scale of susceptibility to better-than-average effect

Part 1

Instruction: Please rate yourself relative to the average HKU student on a scale between 1 (much less than the average the average student of the university) to 9 (much more than the average student of the university):

- Dependability (being able to be counted on or relied upon)
- Objectivity (being objective, basing thoughts and actions on objective facts and truth)
- Consideration for others (caring for and about others)
- Snobbery (being a snob, thinking about oneself, and acting as being better than others)
- Deceptiveness (inclination or practice of misleading others through lies or trickery)
- Selfishness (Prioritising oneself over others)

Part 2

Below is a description of the "Better Than Average" effect. Please read it carefully and then answer the questions in the following page.

Studies have shown that people show a "better than average" effect when assessing themselves relative to other members within their group. That is, 70-80% of individuals consistently rate themselves "better than average" on qualities that they perceive as positive, and conversely, evaluate themselves as having "less than average" amounts of characteristics they believe are negative. Having just read the description about the "better than average" effect, it would be useful to know the accuracy of your self-assessments on the previous part (Part 1).

Please indicate how you think you would be rated on the relevant dimensions by the "most accurate, valid, and objective resources available"

- The objective measures would rate me lower on positive characteristics and higher on negative characteristics than I rated myself. (1)
- The objective measures would rate me neither more positively nor more negatively than I rated myself. (2)
- The objective measures would rate me higher on positive characteristics and lower on negative characteristics than I rated myself. (3)

Summary Tables Across Study 1, Study 2, and Study 3

Table S3

Summary of findings

Hypothesis	N	Statistic	df	p	Mean difference	Cohen's d with CI
The original study						
Study 1-Survey 2	29	*t-statistic*				
Self-other asymmetry in susceptibility to biases		-4.64	28	*p < .001*	-0.8	-0.86 [-1.28, -0.43]
Self-other asymmetry in personal shortcomings		1.49	28	*p = .15*	0.63	0.28 [-0.10, 0.65]
Differences in self-other asymmetry between susceptibility to biases and personal shortcomings		-3.31	28	*p = .003*	-1.43	-0.61 [-1.01, -0.21]
Study 2	79	*t-statistic*				
Positive personality dimensions in comparison to others		14.19	78	*p < .001*	6.44	1.60 [1.26, 1.93]
Negative personality dimensions in comparison to others		-10.94	78	*p < .001*	3.64	-1.23[-1.52, -0.94]
		Chi-Square				
Denial of Better-than-average effect		9.97	1	*p = .002*	2.8	0.76 [0.29, 1.23]
Study 1a	45	*t-statistic*				
Self-other asymmetry in susceptibility to biases		-4.54	44	*< .001*	-0.75	-0.68 [-1.01, -0.35]
Self-other asymmetry in personal shortcomings		-1.13	44	*0.265*	-0.29	-0.17 [-0.47, 0.13]
Differences in self-other asymmetry between susceptibility to biases and personal shortcomings		-1.97	44	*0.055*	-0.46	-0.29 [-0.60, 0.01]

Study 1b	43	t-statistic				
Positive personality dimensions compared to others		5.09	42	< .001	0.74	0.78 [0.43, 1.11]
Negative personality dimensions compared to others		-4.55	42	< .001	-0.84	-0.69 [-1.02, -0.36]
		Chi-square				
Denial of better-than-average effect		14.53	1	< .001	--	1.43 [0.69, 2.16]
Study 2	303	t-statistic				
Self-other asymmetry in susceptibility to biases		-16.16	302	< .001	-1.15	-0.93 [-1.06, -0.79]
Self-other asymmetry in personal shortcomings		-5.22	302	< .001	-0.52	-0.30 [-0.42, -0.18]
Differences in self-other asymmetry between susceptibility to biases and personal shortcomings		-6.39	302	< .001	-0.62	-0.37 [-0.48, -0.25].
Study 3	621	t-statistic				
Self-other asymmetry in susceptibility to biases		-32.04	620	<.001	-1.8	-1.29 [-1.39, -1.18]
Self-other asymmetry in personal shortcomings		-10.54	620	<.001	-0.73	-0.42 [-0.51, -0.34]
Differences in self-other asymmetry between susceptibility to biases and personal shortcomings		-13.01	620	<.001	-1.06	-0.52 [-0.61, -0.44]
Positive personality dimensions compared to others		31.74	620	<.001	1.42	1.27 [1.17, 1.38]
Negative personality dimensions compared to others		-30.38	620	<.001	1.79	-1.22 [-1.32, -1.11]
		Chi-square				
Denial of better-than-average effect		261.53	1	<.001	--	1.71 [1.50, 1.91].

Note. In the original article, effect sizes were not reported; we computed Cohen's d and confidence intervals using the non-central t method (Rosenthal, 1991).

Table S4

Summary and comparison of findings of the three replication studies to the original article

	Effect size (*d*)	Effect size (*d*) - Original article	NHST Summary	Replication summary
Study 1a: Hong Kong (N = 45)				
Self-other asymmetry in susceptibility to biases	-0.68 [-1.01, -0.35]	-0.86 [-1.28, -0.43]	Supported	Signal - consistent
Self-other asymmetry in personal shortcomings	-0.17 [-0.47, 0.13]	0.28 [-0.10, 0.65]	Not supported	No signal - inconsistent, opposite
Differences in self-other asymmetry between susceptibility to biases and personal shortcomings	-0.29 [-0.60, 0.01]	-0.61 [-1.01, -0.21]	Supported	Signal - inconsistent, smaller
Study 1b: Hong Kong (N = 43)				
Positive personality dimensions compared to others	0.78 [0.43, 1.11]	1.60 [1.26, 1.93]	Supported	Signal - inconsistent, smaller
Negative personality dimensions compared to others	-0.69 [-1.02, -0.36]	-1.23[-1.52, -0.94]	Supported	Signal - inconsistent, smaller
Denial of better-than-average effect	1.43 [0.69, 2.16]	0.76 [0.29, 1.23]	Supported	Signal - consistent
Study 2: United states (N = 303)				
Self-other asymmetry in susceptibility to biases	-0.93 [-1.06, -0.79]	-0.86 [-1.28, -0.43]	Supported	Signal - consistent
Self-other asymmetry in personal shortcomings	-0.30 [-0.42, -0.18]	0.28 [-0.10, 0.65]	Not supported	Signal- inconsistent, opposite
Differences in self-other asymmetry between susceptibility to biases and personal shortcomings	-0.37[-0.48, -0.25]	-0.61 [-1.01, -0.21]	Supported	Signal - inconsistent, smaller
Study 3: United states (N = 621)				
Self-other asymmetry in susceptibility to biases	-1.29 [-1.39, -1.18]	-0.86 [-1.28, -0.43]	Supported	Signal - inconsistent, larger
Self-other asymmetry in personal shortcomings	-0.42 [-0.51, -0.34]	0.28 [-0.10, 0.65]	Not supported	Signal- inconsistent, opposite
Differences in self-other asymmetry between susceptibility to biases and personal shortcomings	-0.52 [-0.61, -0.44]	-0.61 [-1.01, -0.21]	Supported	Signal - consistent

Positive personality dimensions compared to others	1.27 [1.17, 1.38]	1.60 [1.26, 1.93]	Supported	Signal - inconsistent, smaller
Negative personality dimensions compared to others	-1.22 [-1.32, -1.11]	-1.23[-1.52, -0.94]	Supported	Signal - consistent
Denial of better-than-average effect	1.71 [1.50, 1.91]	0.76 [0.29, 1.23]	Supported	Signal -inconsistent, larger

Note. Effect size is Cohen's *d*. Replication summary directly based on LeBel et al., (2018) that considered following three statistical aspects: (1) whether a signal was detected (i.e., whether the 95% confidence interval, or CI, represented here by the error bars, excludes 0); (2) the consistency of the replication effect-size (ES) estimate with that observed in the original study (i.e., whether the replication's CI includes the original ES point estimate); and (3) the precision of the replication's ES estimate (i.e., the width of its CI relative to the CI in the original study). NHST summary is based on the interpretation of a one-tail p-value with alpha set at 0.05.

Study 1a

Table S5

Study 1a's Descriptive statistics of the measures of participants' perceptions of their own susceptibility to eight biases

	Self-serving	Self-interest	Reactive devaluation	Assimilation Bias	Cognitive dissonance	Fundamental attribution error	Hostile media	Halo effect	Original 8 biases	Planning fallacy	Procrasti nation	Fear of public speaking	Personal shortcomings avg.
N	45	45	45	45	45	45	45	45	45	45	45	45	45
Mean	5.60	5.89	5.73	4.20	4.91	5.84	5.89	6.71	5.60	6.47	5.93	6.20	6.20
Standard deviation	1.78	1.32	1.53	1.85	2.02	1.66	1.93	1.52	0.86	1.98	2.29	2.41	1.78
Skewness	0.06	-0.10	-0.09	0.25	-0.17	-0.36	-0.43	-0.79	0.69	-0.60	-0.28	-0.48	-0.30
Std. error skewness	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Kurtosis	-0.65	-0.46	-0.01	-0.41	-0.75	-0.24	-0.71	1.23	1.00	-0.76	-1.05	-1.04	-1.02
Std. error kurtosis	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70

Table S6

Study 1a's Descriptive statistics of the measures of participants' perceptions of others' susceptibility to eight biases

	Self-serving	Self-interest	Reactive devaluation	Assimilation Bias	Cognitive dissonance	Fundamental attribution error	Hostile media	Halo effect	Original 8 biases	Planning fallacy	Procrastination	Fear of public speaking	Personal shortcomings avg.
N	45	45	45	45	45	45	45	45	45	45	45	45	45
Mean	6.62	6.58	6.47	6.42	6.44	5.47	5.87	6.93	6.35	6.87	7.02	5.58	6.49
Standard deviation	1.39	1.56	1.32	1.44	1.55	1.93	1.79	1.29	0.91	1.47	1.74	1.78	1.23
Skewness	-0.51	-0.57	-0.14	-0.32	-0.34	-0.11	-0.26	-0.21	-0.04	-0.75	-1.18	-0.06	-0.48
Std. error skewness	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Kurtosis	-0.23	-0.03	-0.39	-0.32	0.11	-0.50	-0.52	-0.65	0.05	0.71	1.88	-0.56	-0.04
Std. error kurtosis	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70

Figure S1. Study 1a- Participants' perceptions of their own and the others' susceptibility to eight biases in judgment and inference. Error bars indicate ±1 SEM.
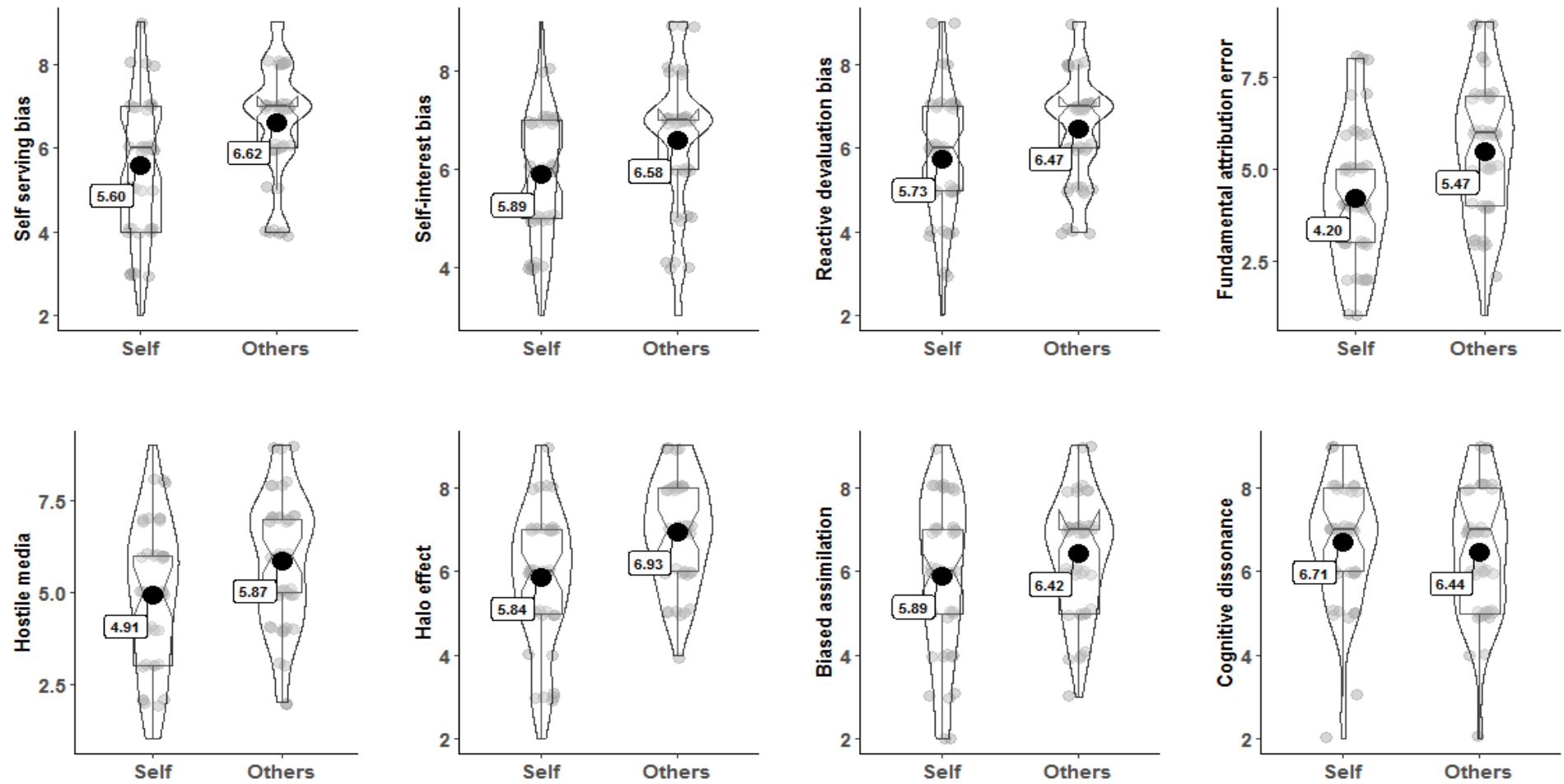
Figure S2. Study 1a- Boxplot and violin-plot with jittered data points of the measures of participants' perceptions of their own and the others' susceptibility to eight biases.
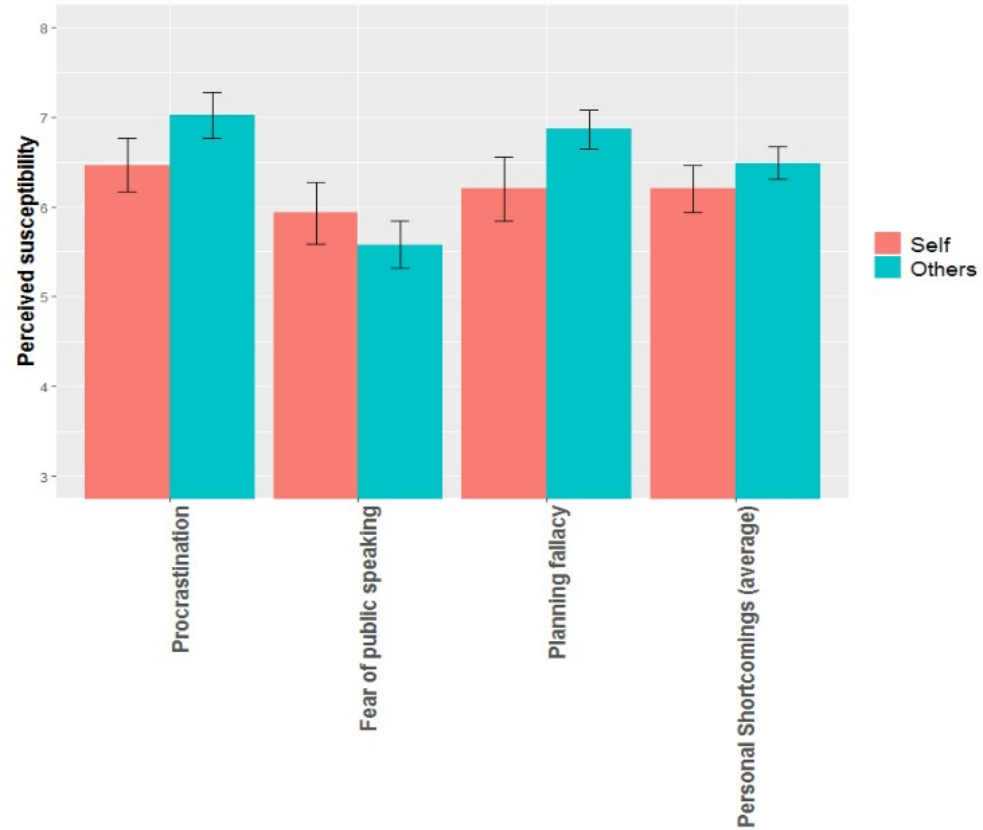
Figure S3. Study 1a-The participants'' perception of their own and others' personal shortcomings. Error bars indicate ±1 SEM.
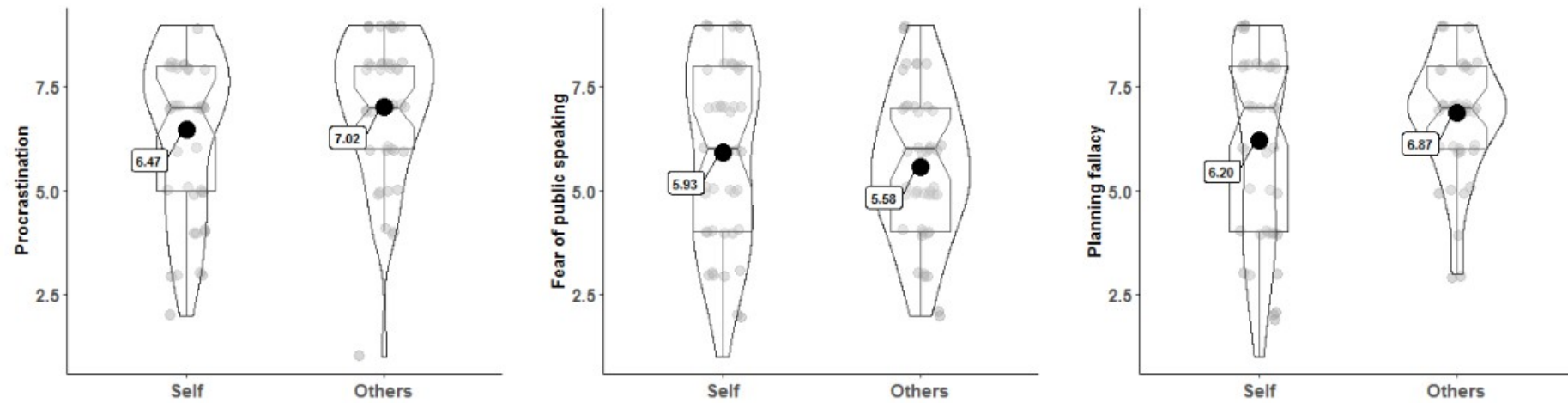
Figure S4. Boxplot and violin-plot with jittered data points of the three measures of participants' perceptions of their own and the others' personal shortcomings

Table S7

Study 1a-The results of dependent t-test of self-other asymmetry in each of eight biases

	t-statistic	df	p	Mean difference	Cohen's d
Original 8 biases (Average)	-4.54	44	< .001	-0.75	-0.68
Self-serving	-3.06	44	0.002	-1.02	-0.46
Reactive devaluation	-2.95	44	0.003	-0.73	-0.44
Assimilation Bias	-1.71	44	0.047	-0.53	-0.26
Cognitive dissonance	0.99	44	0.837	0.27	0.15
Fundamental attribution error	-4.17	44	< .001	-1.27	-0.62
Hostile media	-2.76	44	0.004	-0.96	-0.41
Halo effect	-3.88	44	< .001	-1.09	-0.58
Self-interest	-3.27	44	0.001	-0.69	-0.49
Procrastination	-1.45	44	0.154	-0.56	-0.22
Fear of public speaking	1.14	44	0.260	0.36	0.17
Planning fallacy	-1.59	44	0.119	-0.67	-0.24
Personal shortcomings (Average)	-1.13	44	0.265	-0.29	-0.17

Study 1b

Table S8

Study 1b-*Descriptive statistics of the measures of susceptibility to better than average effect*

	Dependability	Objectivity	Consideration for others	Mean of positive traits	Snobbery	Deceptiveness	Selfishness	Mean of negative traits	Denial of bias
N	43	43	43	43	43	43	43	43	43
Mean	5.37	5.42	6.44	5.74	4.19	3.95	4.33	4.16	1.98
Std. error mean	0.25	0.21	0.22	0.15	0.23	0.28	0.24	0.19	0.10
Standard deviation	1.65	1.35	1.45	0.96	1.50	1.84	1.55	1.22	0.64
Skewness	-0.20	-0.34	-1.03	-0.18	0.20	0.43	0.66	0.27	0.02
Std. error skewness	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Kurtosis	-0.39	-0.36	1.50	-0.16	-0.71	-0.39	0.03	-0.11	-0.38
Std. error kurtosis	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71

Table S9

Study 1b-*The results of one sample t-test of better than average effect*

	t-statistic	df	p	Difference from mid-point of the scale (i.e., 5)	Cohen's d
Dependability	1.48	42	0.073	0.37	0.23
Objectivity	2.03	42	0.024	0.42	0.31
Consideration for others	6.51	42	<.001	1.44	0.99
Mean of positive traits	5.09	42	<.001	0.74	0.78
Snobbery	-3.56	42	<.001	-0.81	-0.54
Deceptiveness	-3.73	42	<.001	-1.05	-0.57
Selfishness	-2.85	42	0.003	-0.67	-0.43
Mean of negative traits	-4.55	42	<.001	-0.85	-0.69

Note. H_a population mean > 5 for positive traits; H_a population mean < 5 for negative traits

Study 2
Table S10

Study 2- *Descriptive statistics of the measures of participants' perceptions of their own susceptibility to eight biases*

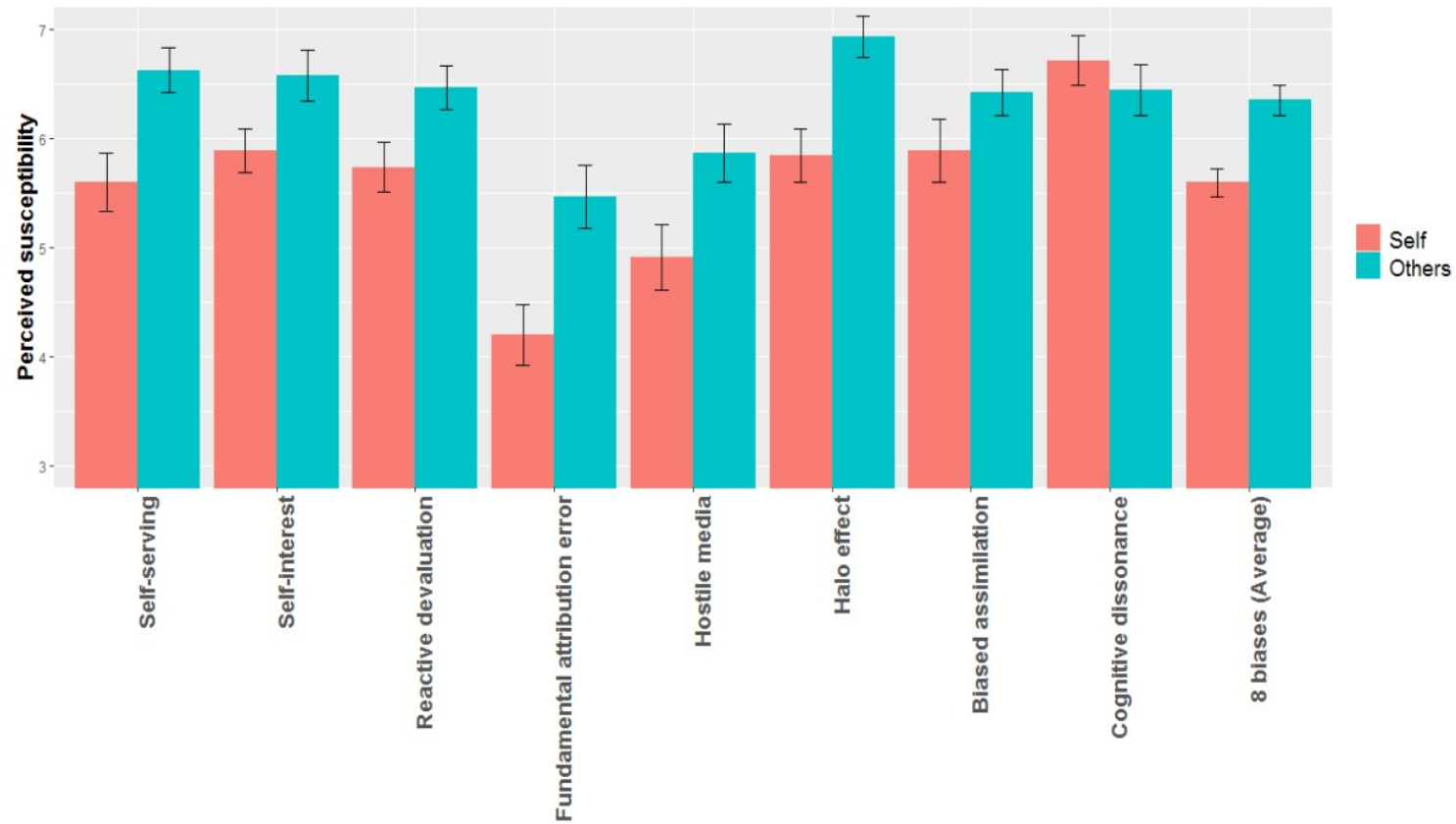|	Self-serving	Self-interest	Reactive devaluation	Assimilation Bias	Cognitive dissonance	Fundamental attribution error	Hostile media	Halo effect	Original 8 biases	Planning fallacy	Procrastination	Fear of public speaking	Personal shortcomings avg.
N	303	303	303	303	303	303	303	303	303	303	303	303	303
Mean	4.29	5.42	4.88	3.57	4.09	4.76	4.77	5.31	4.64	5.27	5.85	4.91	5.35
Std. error mean	0.13	0.12	0.11	0.11	0.12	0.13	0.12	0.12	0.08	0.15	0.15	0.13	0.11
Standard deviation	2.18	2.01	1.84	1.94	2.06	2.22	2.11	2.07	1.35	2.52	2.66	2.24	1.88
Skewness	0.16	-0.23	-0.13	0.44	0.29	-0.06	-0.12	-0.33	-0.22	-0.16	-0.44	0.00	-0.28
Std. error skewness	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Kurtosis	-0.79	-0.47	-0.23	-0.44	-0.58	-0.84	-0.60	-0.38	0.05	-1.10	-1.02	-0.88	-0.40
Std. error kurtosis	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28

Table S11

Study 2- *Descriptive statistics of the measures of participants' perceptions of others' susceptibility to eight biases*

	Self-serving	Self-interest	Reactive devaluation	Assimilation Bias	Cognitive dissonance	Fundamental attribution error	Hostile media	Halo effect	Original 8 biases	Planning fallacy	Procrastination	Fear of public speaking	Personal shortcomings avg.
N	303	303	303	303	303	303	303	303	303	303	303	303	303
Mean	5.70	6.36	5.63	4.90	5.70	6.17	5.65	6.17	5.78	5.85	6.08	5.69	5.87
Std. error mean	0.10	0.10	0.08	0.10	0.10	0.10	0.09	0.09	0.07	0.11	0.10	0.10	0.08
Standard deviation	1.77	1.70	1.47	1.78	1.66	1.70	1.64	1.62	1.16	1.91	1.71	1.66	1.35
Skewness	-0.18	-0.25	-0.04	0.00	-0.29	-0.20	-0.02	-0.26	-0.15	-0.20	-0.28	-0.11	-0.03
Std. error skewness	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Kurtosis	0.00	-0.45	0.36	-0.14	0.27	-0.36	0.00	-0.08	0.73	-0.49	0.05	-0.07	-0.04
Std. error kurtosis	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28

Table S12

Study 2- Means, standard deviations, and correlations with confidence intervals

Variable	M	SD	1	2	3	4	5	6	7
1 - Free Will Inventory	5.16	1.38	(0.91)						
2 - Belief in Free Will personal will	4.31	0.74	.70**	(0.92)					
			[.64, .76]						
3 - Susceptibility to biases: Self	4.64	1.35	-0.01	-0.11	(0.81)				
			[-.13, .10]	[-.22, .00]					
4 - Susceptibility to biases: Others	5.78	1.16	0.02	0.05	.52**	(0.84)			
			[-.09, .13]	[-.06, .16]	[.44, .60]				
5 - Personal shortcomings: Self	5.35	1.88	-.22**	-.17**	.52**	.36**	(0.63)		
			[-.32, -.11]	[-.28, -.06]	[.43, .60]	[.25, .45]			
6 - Personal shortcomings: Others	5.87	1.35	0.00	0.05	.40**	.66**	.45**	(0.65)	
			[-.11, .12]	[-.06, .16]	[.30, .49]	[.59, .72]	[.36, .54]		
7 - Susceptibility to biases: Self-other asymmetry	-1.15	1.24	-0.03	-.17**	.60**	-.37**	.23**	-.18**	
			[-.15, .08]	[-.28, -.06]	[.52, .67]	[-.46, -.27]	[.13, .34]	[-.29, -.07]	
8 - Personal shortcomings: Self-other asymmetry	-0.52	1.75	-.24**	-.22**	.25**	-.13*	.73**	-.29**	.39**
			[-.34, -.13]	[-.33, -.11]	[.14, .35]	[-.24, -.01]	[.67, .77]	[-.39, -.18]	[.29, .49]

Note. M = mean; SD = standard deviation; N = 303; * $p < .05$ and ** $p < .01$. The values in the diagonal indicate the reliability measures (Cronbach alpha); Free Will Inventory = Free Will Inventory (Nadelhoffer et al., 2014); Belief in Free Will personal will = Free-will and determinism personal will sub-scale (Rakos, Laurene, Skala, & Slane, 2008).
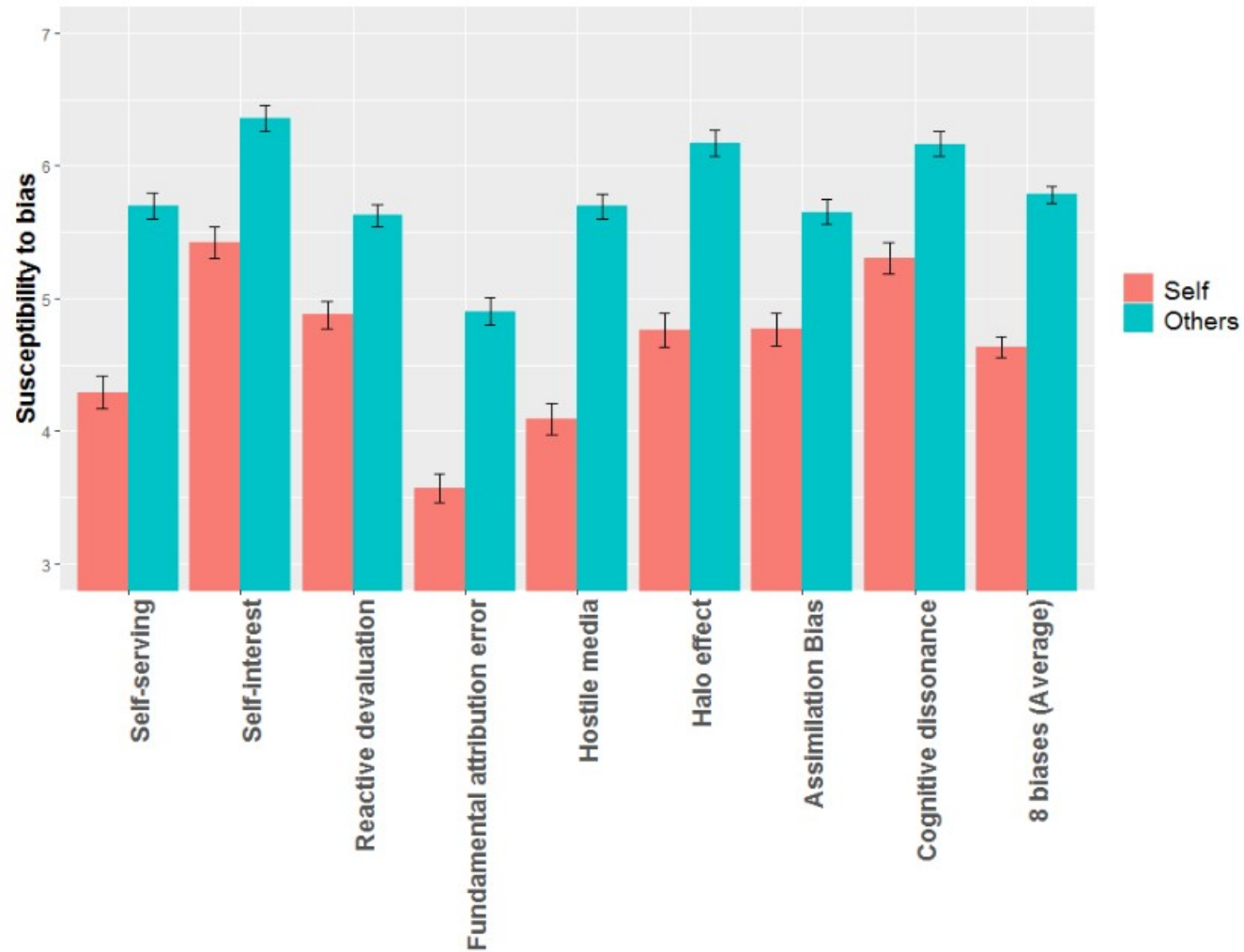
Figure S5. Study 2-The participants' perception of their own and others' susceptibility to the eight biases measures. Error bars indicate ±1 SEM.

Figure S6. Study 2- Boxplot and violin-plot with jittered data points of the measures of participants' perceptions of their own and the others' susceptibility to eight biases.

Figure S7. Study 2-The participants' perception of their own and of others' personal shortcomings. Error bars indicate ±1 SEM.
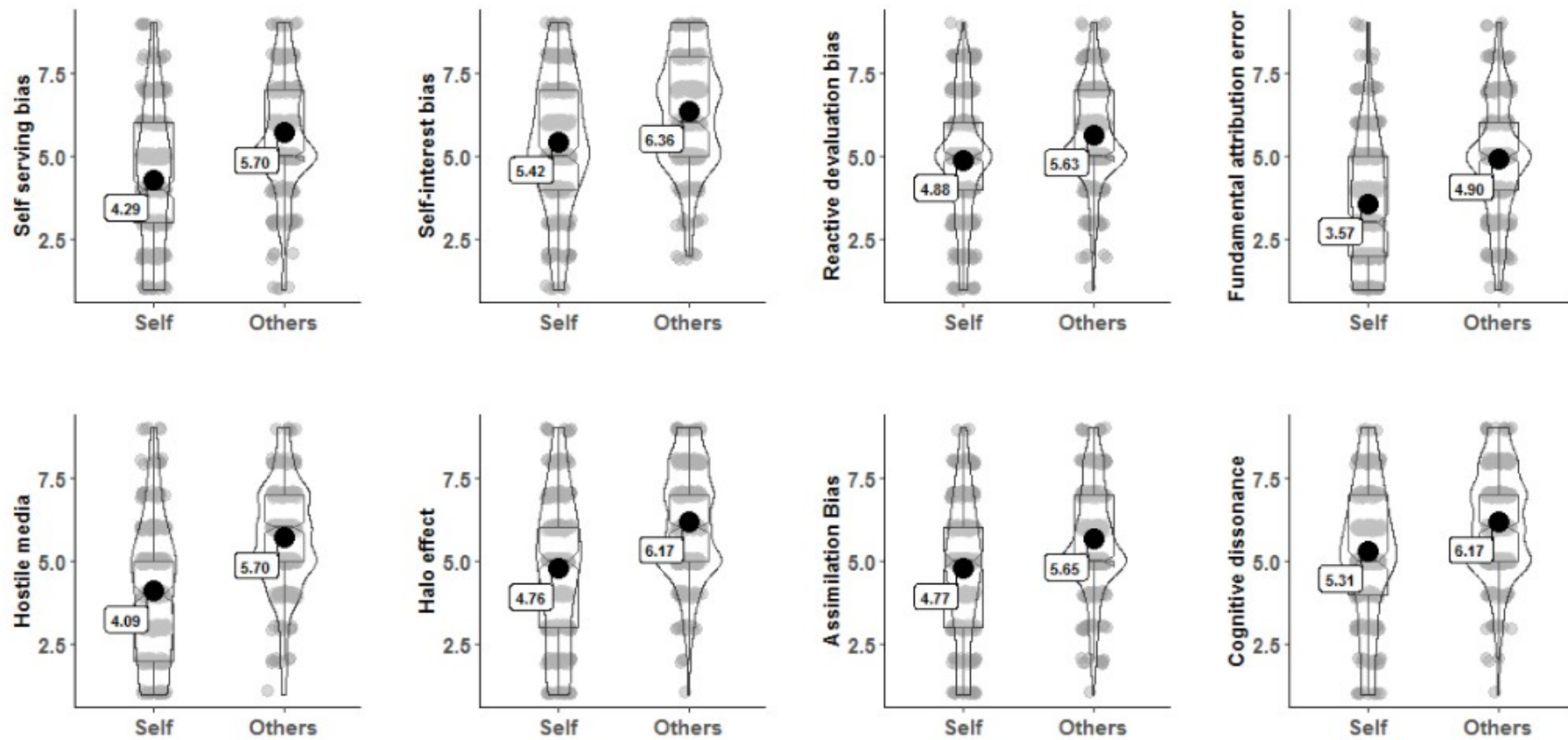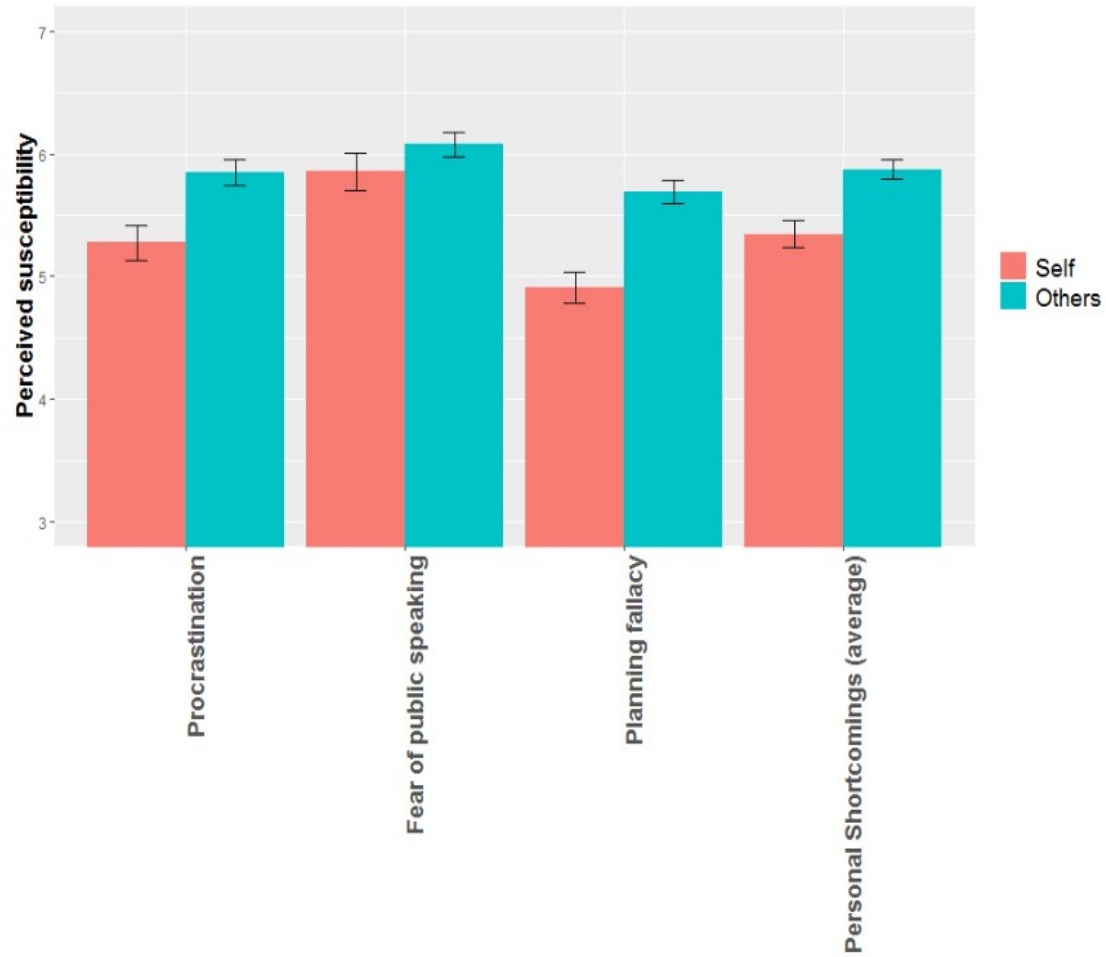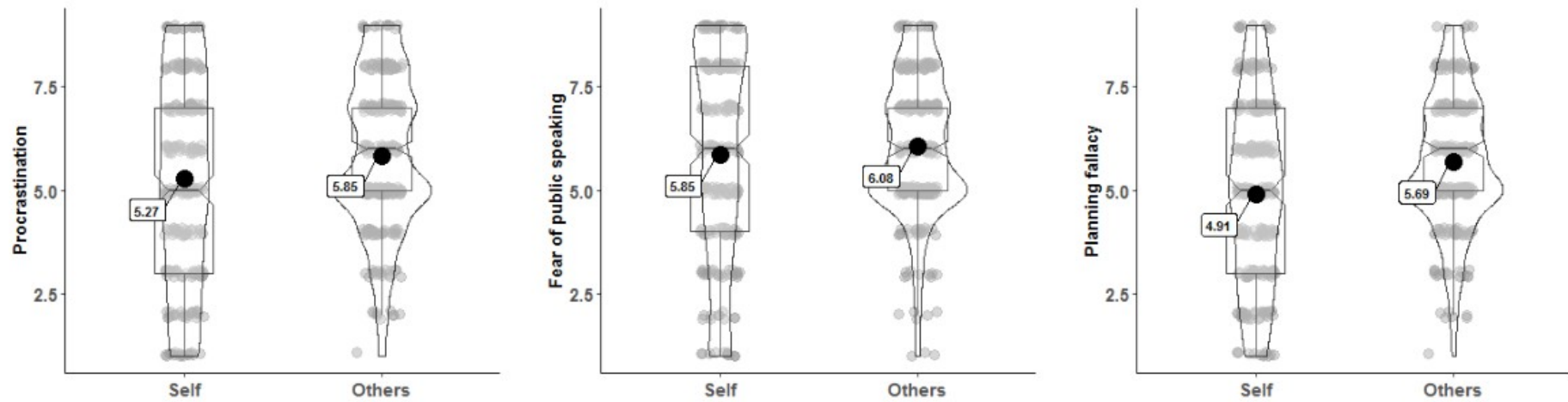
Figure S8. Study 2- Boxplot and violin-plot with jittered data points of the three measures of participants' perceptions of their own and the others' personal shortcomings

Table S13

Study 2-Results of dependent t-test of self-other asymmetry on the susceptibility to biases

	t-statistic	df	p	Mean difference	Cohen's d
Original 8 biases (Average)	-16.16	302	< .001	-1.15	-0.93
Self-serving	-11.04	302	< .001	-1.41	-0.63
Self-interest	-8.11	302	< .001	-0.94	-0.47
Reactive devaluation	-6.79	302	< .001	-0.75	-0.39
Fundamental attribution error	-10.82	302	< .001	-1.33	-0.62
Hostile media	-12.64	302	< .001	-1.61	-0.73
Halo effect	-11.21	302	< .001	-1.41	-0.64
Assimilation Bias	-7.42	302	< .001	-0.88	-0.43
Cognitive dissonance	-7.25	302	< .001	-0.86	-0.42
Personal shortcomings (Average)	-5.22	302	< .001	-0.53	-0.3
Procrastination	-3.84	302	< .001	-0.57	-0.22
Fear of public speaking	-1.4	302	0.164	-0.22	-0.08
Planning fallacy	-5.94	302	< .001	-0.78	-0.34

Table S14

Study 2-*Correlations and confidence intervals of free will beliefs measures and measures of participants' perception of their own susceptibility to biases and of their own perceived personal shortcomings*

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Free Will Inventory	5.16	1.38												
2. Personal will	4.31	0.74	.70**											
			[.64, .76]											
3. Others-serving-Self	4.29	2.18	-.12*	-.21**										
			[-.23, -.01]	[-.32, -.10]										
4. Others-interest bias—Self	5.42	2.01	0.08	0.07	.39**									
			[-.04, .19]	[-.05, .18]	[.29, .48]									
5. Reactive devaluation—Self	4.88	1.84	-0.02	-0.08	.40**	.34**								
			[-.13, .10]	[-.19, .03]	[.31, .49]	[.24, .44]								
6. Fundamental attribution error-Self	3.57	1.94	0.06	-.14*	.37**	.15**	.27**							
			[-.05, .17]	[-.25, -.03]	[.27, .46]	[.04, .26]	[.16, .37]							
7. Perceptions of hostile media--Self	4.09	2.06	0.04	-0.08	.38**	.27**	.43**	.39**						
			[-.08, .15]	[-.19, .03]	[.28, .47]	[.16, .37]	[.33, .52]	[.29, .48]						
8. Halo effect-Self	4.76	2.22	0.00	-0.02	.36**	.27**	.44**	.33**	.37**					
			[-.11, .11]	[-.13, .10]	[.26, .45]	[.17, .37]	[.34, .52]	[.22, .43]	[.26, .46]					
9. Assimilation Bias-Self	4.77	2.11	-.11*	-.11*	.41**	.35**	.39**	.22**	.33**	.40**				
			[-.22, -.00]	[-.22, -.00]	[.31, .50]	[.25, .45]	[.30, .49]	[.11, .33]	[.23, .43]	[.30, .49]				
11. Cognitive dissonance-Self	5.31	2.07	0.02	0.00	.32**	.33**	.45**	.27**	.35**	.40**	.38**			
			[-.10, .13]	[-.11, .11]	[.21, .41]	[.23, .43]	[.35, .53]	[.16, .37]	[.25, .45]	[.31, .49]	[.28, .47]			
11. Procrastination-Self	5.27	2.52	-.22**	-.13*	.26**	.19**	.28**	.16**	.15**	.39**	.37**	.31**		
			[-.33, -.11]	[-.24, -.02]	[.15, .36]	[.08, .30]	[.18, .38]	[.05, .27]	[.04, .26]	[.29, .48]	[.27, .46]	[.20, .41]		
12. Fear of public speaking-Self	5.85	2.66	-.15**	-0.11	.15**	.17**	.26**	.20**	.15*	.18**	.24**	.28**	.36**	
			[-.26, -.04]	[-.22, .01]	[.04, .26]	[.06, .27]	[.15, .36]	[.09, .30]	[.04, .26]	[.07, .29]	[.13, .34]	[.17, .38]	[.26, .46]	
13. Planning fallacy-Self	4.91	2.24	-.12*	-.15**	.38**	.14*	.36**	.34**	.27**	.33**	.36**	.38**	.48**	.26**
			[-.23, -.01]	[-.26, -.04]	[.28, .47]	[.03, .25]	[.26, .46]	[.24, .44]	[.16, .37]	[.23, .43]	[.26, .46]	[.27, .47]	[.38, .56]	[.15, .36]

Note: *p <.05; **p <.01; ***p <.001; Values in square brackets indicate the 95% confidence interval for each correlation. Free Will Inventory = Free Will Inventory (Nadelhoffer et al., 2014); Belief in Free Will- Personal Will Subscale = Free-will and determinism personal will sub-scale (Rakos, Laurene, Skala, & Slane, 2008).

Table S15

Study 2-*Correlations and confidence intervals of free will belief measures and measures of participants' perception of others' susceptibility to biases and of others' personal shortcomings variables*

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Free Will Inventory	5.16	1.38												
2. Personal will	4.31	0.74	.70** [.64, .76]											
3. Others-serving – Others	5.70	1.77	-0.04 [-.15, .07]	-0.03 [-.14, .08]										
4. Others-interest bias-Others	6.36	1.70	0.10 [-.02, .21]	.16** [.04, .26]	.58** [.50, .65]									
5. Reactive devaluation-Others	5.63	1.47	0.02 [-.10, .13]	0.00 [-.11, .11]	.52** [.44, .60]	.41** [.31, .50]								
6. Fundamental attribution error -Others	4.90	1.78	0.00 [-.11, .11]	-0.07 [-.18, .04]	.44** [.34, .52]	.25** [.14, .35]	.36** [.26, .45]							
7. Perceptions of hostile media -Others	5.70	1.66	-0.03 [-.14, .08]	0.05 [-.07, .16]	.43** [.34, .52]	.43** [.33, .52]	.46** [.37, .55]	.35** [.25, .44]						
8. Halo effect –Others	6.17	1.70	0.03 [-.08, .15]	0.09 [-.02, .20]	.39** [.28, .48]	.46** [.37, .55]	.39** [.29, .48]	.20** [.09, .30]	.45** [.36, .54]					
9. Assimilation Bias –Others	5.65	1.64	-0.02 [-.13, .10]	0.04 [-.07, .15]	.49** [.40, .57]	.38** [.28, .47]	.41** [.31, .50]	.35** [.25, .45]	.47** [.38, .56]	.47** [.38, .56]				
11. Cognitive dissonance -Others	6.17	1.62	0.05 [-.06, .16]	0.06 [-.05, .18]	.41** [.31, .50]	.45** [.36, .54]	.31** [.21, .41]	.18** [.07, .29]	.48** [.38, .56]	.53** [.44, .60]	.46** [.37, .54]			
11. Procrastination –Others	5.85	1.91	0.00 [-.12, .11]	0.03 [-.08, .14]	.39** [.29, .48]	.39** [.29, .48]	.39** [.29, .48]	.28** [.17, .38]	.45** [.35, .53]	.41** [.31, .50]	.31** [.20, .41]	.37** [.26, .46]		
12. Fear of public speaking -Others	6.08	1.71	-0.02 [-.13, .10]	0.05 [-.06, .16]	.41** [.31, .50]	.40** [.30, .49]	.27** [.16, .37]	.23** [.12, .34]	.43** [.34, .52]	.43** [.34, .52]	.42** [.33, .51]	.46** [.36, .54]	.41** [.31, .50]	
13. Planning fallacy –Others	5.69	1.66	0.03 [-.08, .14]	0.05 [-.07, .16]	.34** [.24, .44]	.29** [.18, .39]	.28** [.17, .38]	.24** [.13, .34]	.30** [.19, .39]	.37** [.27, .46]	.28** [.17, .38]	.31** [.21, .41]	.45** [.36, .54]	.27** [.16, .37]

Note: *p <.05; **p <.01; ***p <.001; Values in square brackets indicate the 95% confidence interval for each correlation. Free Will Inventory = Free Will Inventory (Nadelhoffer et al., 2014); Belief in Free Will- Personal Will Subscale = Free-will and determinism personal will sub-scale(Rakos, Laurene, Skala, & Slane, 2008).

Study 3

Exploratory analyses

We conducted a series of exploratory analyses probing the association between free will beliefs and susceptibility to biases and found that personal will was negatively correlated with susceptibility to bias in self (r = -0.14, p < .001, 95% CI [-0.22, -0.06]) and positively correlated with others' susceptibility to bias (r = 0.12, p = .003, 95% CI [0.04, 0.20]). Put together, personal will was negatively correlated with self-other asymmetry for susceptibility to bias (r = -0.22, p < .001, 95% CI [-0.29, -0.14]). We found no support for a correlation with the two other measures of free will beliefs (correlations ranged between 0.01 CI [-0.07, 0.09] and -0.03 CI [-0.11, 0.05]).

In an exploratory analysis we found a negative relationship between free-will beliefs and ratings on negative personality dimensions (Free Will Inventory: r = -0.09, p = .033, 95% CI [-0.16, -0.01]; personal agency: r = -0.16, p < .001, 95% CI [-0.23, -0.08]; personal will: r = -0.12, p = .003, 95% CI [-0.20, -0.04]). Positive personality dimensions were generally positively correlated with personal will (r = 0.15, p < .001, 95% CI [0.07, 0.23]; Free Will Inventory: r = 0.04, p = .341, 95% CI [-0.04, 0.12]; Personal agency: r = 0.05, p = .222, 95% CI [-0.03, 0.13]). Denial of bias correlated with Free Will Inventory scale (r = 0.11, p = .007, 95% CI [0.03, 0.19]) and personal agency (r = 0.14, p < .001, 95% CI [0.06, 0.22]), with no support for personal will (r = 0.03, p = .531, 95% CI [-0.05, 0.10]).

Additional tables and figures

Table S16

Study 3- *Descriptive statistics of the measures of participants' perceptions of their own susceptibility to biases, and of their own personal shortcomings*

	Self-serving	Self-interest	Reactive devaluation	Assimilation Bias	Cognitive dissonance	Fundamental attribution error	Hostile media	Halo effect	Original 8 biases (avg.)	Planning fallacy	Procrastination	Fear of public speaking	Personal shortcomings avg.
N	621	621	621	621	621	621	621	621	621	621	621	621	621
Mean	4.11	5.47	4.85	3.74	4.04	4.90	5.11	5.28	4.69	5.30	6.33	4.94	5.52
Std. error mean	0.08	0.08	0.07	0.09	0.09	0.08	0.08	0.08	0.05	0.10	0.10	0.09	0.07
Standard deviation	2.09	1.91	1.81	2.12	2.14	2.11	2.01	2.08	1.30	2.49	2.51	2.29	1.71
Skewness	0.29	-0.24	-0.12	0.51	0.32	-0.17	-0.12	-0.24	0.02	-0.22	-0.60	0.00	-0.12
Std. error skewness	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Kurtosis	-0.60	-0.12	-0.28	-0.61	-0.68	-0.72	-0.40	-0.55	0.29	-1.04	-0.84	-0.91	-0.47
Std. error kurtosis	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20

Table S17

Study 3-*Descriptive statistics of the measures of participants' perception of others' susceptibility to biases and of others' personal shortcomings*

	Self-serving	Self-interest	Reactive devaluation	Assimilation Bias	Cognitive dissonance	Fundamental attribution error	Hostile media	Halo effect	Original 8 biases (avg)	Planning fallacy	Procrastination	Fear of public speaking	Personal shortcomings avg.
N	621	621	621	621	621	621	621	621	621	621	621	621	621
Mean	6.74	7.14	6.26	5.61	6.34	7.03	6.2	6.54	6.48	6.27	6.42	6.08	6.25
Std. error mean	0.06	0.06	0.06	0.07	0.07	0.06	0.07	0.06	0.04	0.06	0.07	0.06	0.05
Standard deviation	1.58	1.52	1.51	1.76	1.83	1.60	1.64	1.52	1.04	1.59	1.62	1.58	1.16
Skewness	-0.55	-0.56	-0.09	-0.12	-0.43	-0.86	-0.14	-0.26	-0.29	-0.33	-0.46	-0.06	-0.04
Std. error skewness	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Kurtosis	-0.08	-0.31	-0.24	-0.36	-0.24	0.70	-0.34	-0.28	0.28	-0.10	0.05	-0.32	-0.37
Std. error kurtosis	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20

Table S18

Study 3 - Means, standard deviations, and correlations

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11
1- FWI	5.17	1.25	(.89)										
2-FAD+	2.88	0.69	.78** [.74, .81]	(.85)									
3-FWD	4.10	0.56	.58** [.53, .63]	.56** [.50, .61]	(.74)								
4-Biases: Self	4.69	1.30	0.01 [-.07, .09]	0.01 [-.07, .08]	-.14** [-.22, -.06]								
5-Biases: Others	6.48	1.04	-0.03 [-.11, .05]	-0.02 [-.10, .06]	.12** [.04, .20]	.30** [.23, .37]							
6-Shortcomings: Self	5.52	1.71	-.16** [-.23, -.08]	-.15** [-.22, -.07]	-.09* [-.17, -.01]	.38** [.31, .44]	.30** [.23, .37]						
7-Shortcomings: Other	6.25	1.16	0.02 [-.05, .10]	0.05 [-.03, .13]	.11** [.03, .18]	.37** [.30, .44]	.55** [.49, .60]	.32** [.25, .39]					
8-Bias: Self-other asymmetry	-1.80	1.40	0.03 [-.05, .11]	0.02 [-.06, .10]	-.22** [-.29, -.14]	.71** [.66, .74]	-.46** [-.52, -.40]	.13** [.05, .21]	-0.06 [-.14, .02]				
9-Shortcomings: Self-other asymmetry	-0.73	1.73	-.17** [-.25, -.09]	-.18** [-.25, -.10]	-.16** [-.24, -.09]	.12** [.05, .20]	-0.07 [-.15, .01]	.77** [.74, .80]	-.35** [-.42, -.28]	.17** [.09, .25]			
10-Positive personality dimensions	6.42	1.12	0.04 [-.04, .12]	0.05 [-.03, .13]	.15** [.07, .23]	-.13** [-.21, -.05]	.22** [.14, .29]	-.13** [-.21, -.05]	.14** [.07, .22]	-.28** [-.35, -.21]	-.22** [-.30, -.15]		
11-Negative personality dimensions	3.21	1.47	-.09* [-.16, -.01]	-.16** [-.23, -.08]	-.12** [-.20, -.04]	.32** [.25, .39]	0.01 [-.07, .09]	.11** [.03, .19]	0.07 [-.01, .15]	.30** [.22, .37]	0.07 [-.01, .14]	-.34** [-.40, -.26]	
12- Better-than-average denial	2.07	0.65	.11** [.03, .19]	.14** [.06, .22]	0.03 [-.05, .10]	0.03 [-.05, .11]	-0.03 [-.11, .05]	-0.04 [-.12, .04]	0.01 [-.07, .09]	0.05 [-.03, .13]	-0.05 [-.13, .03]	.14** [.06, .22]	-0.06 [-.13, .02]

Note. M = Mean; SD = Standard deviation; * $p < .05$; ** $p < .01$; The values in the diagonal indicate the reliability measures (Cronbach alpha); Free Will Inventory = Free Will Inventory scale (Nadelhoffer et al., 2014; 1-7 scale); FAD+ = Free will and determinism plus scale (Paulhus & Carey, 2011; 1-5 scale); FWD = Free-will and determinism personal will sub-scale (Rakos, Laurene, Skala, & Slane, 2008; 0-4 scale).
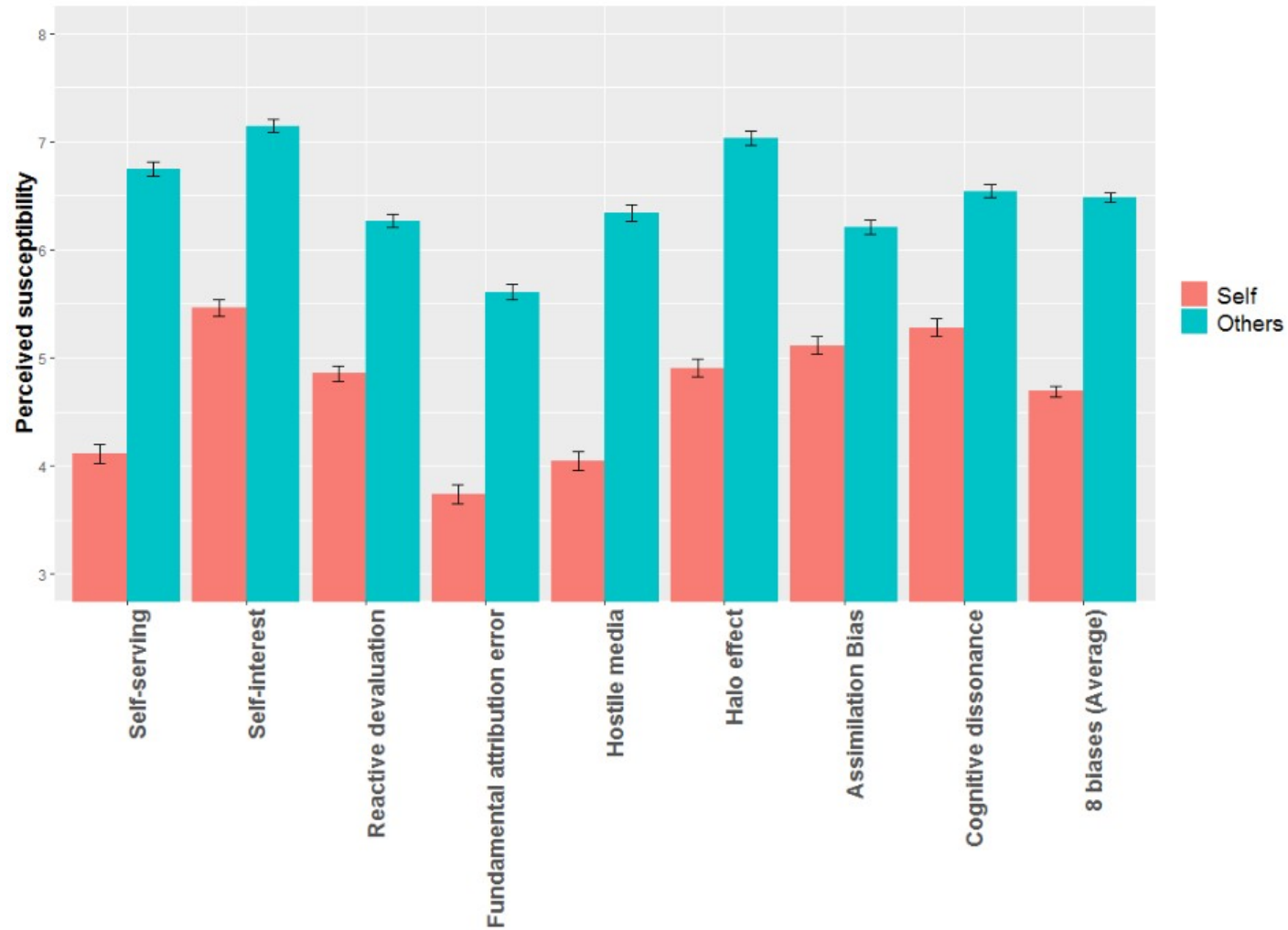
Figure S9. Study 3-The participants' perception of their own and others' susceptibility to each of the eight biases. Error bars indicate ±1 SEM.
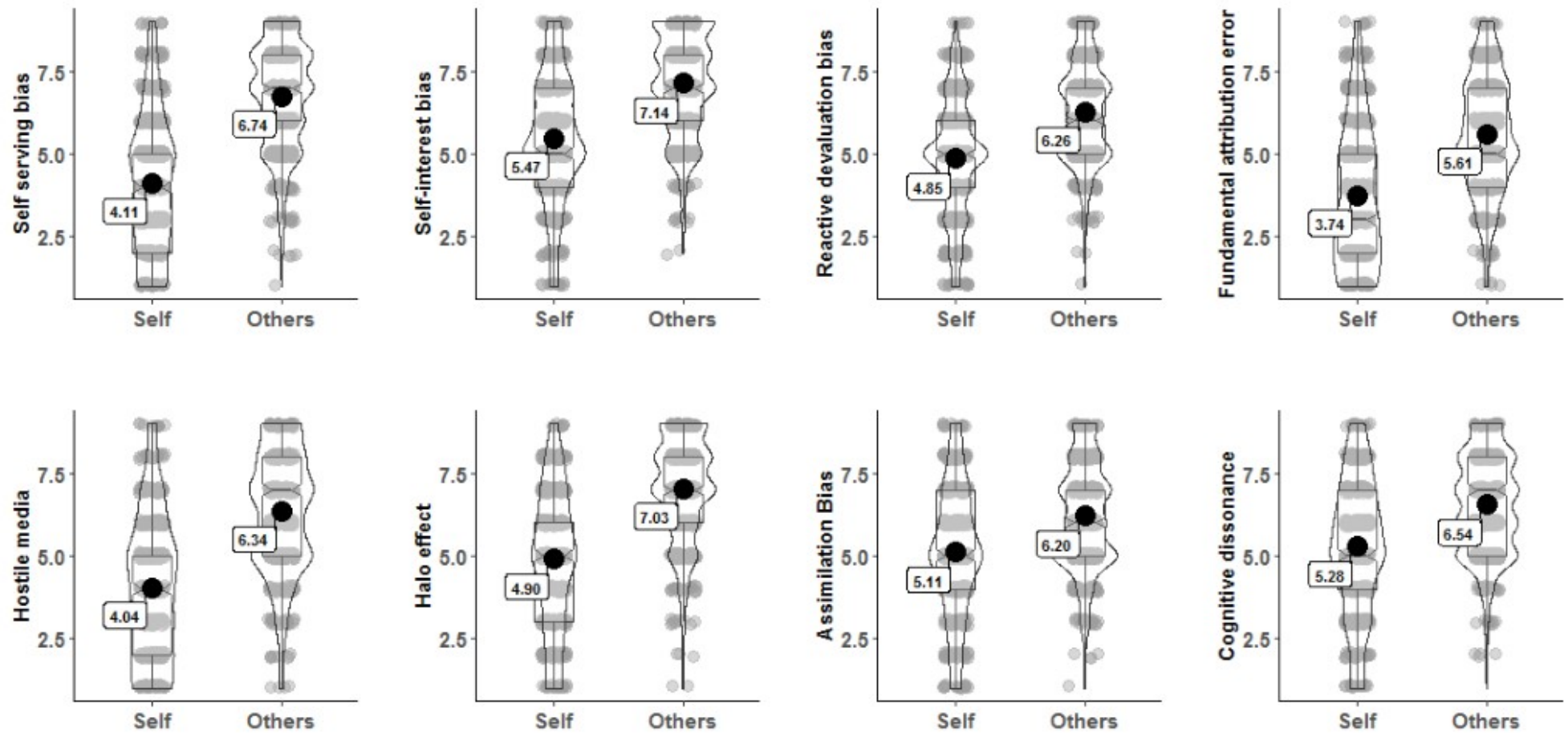
Figure S10. Study 3- Boxplot and violin-plot with jittered data points of the measures of participants' perceptions of their own and the others' susceptibility to eight biases.
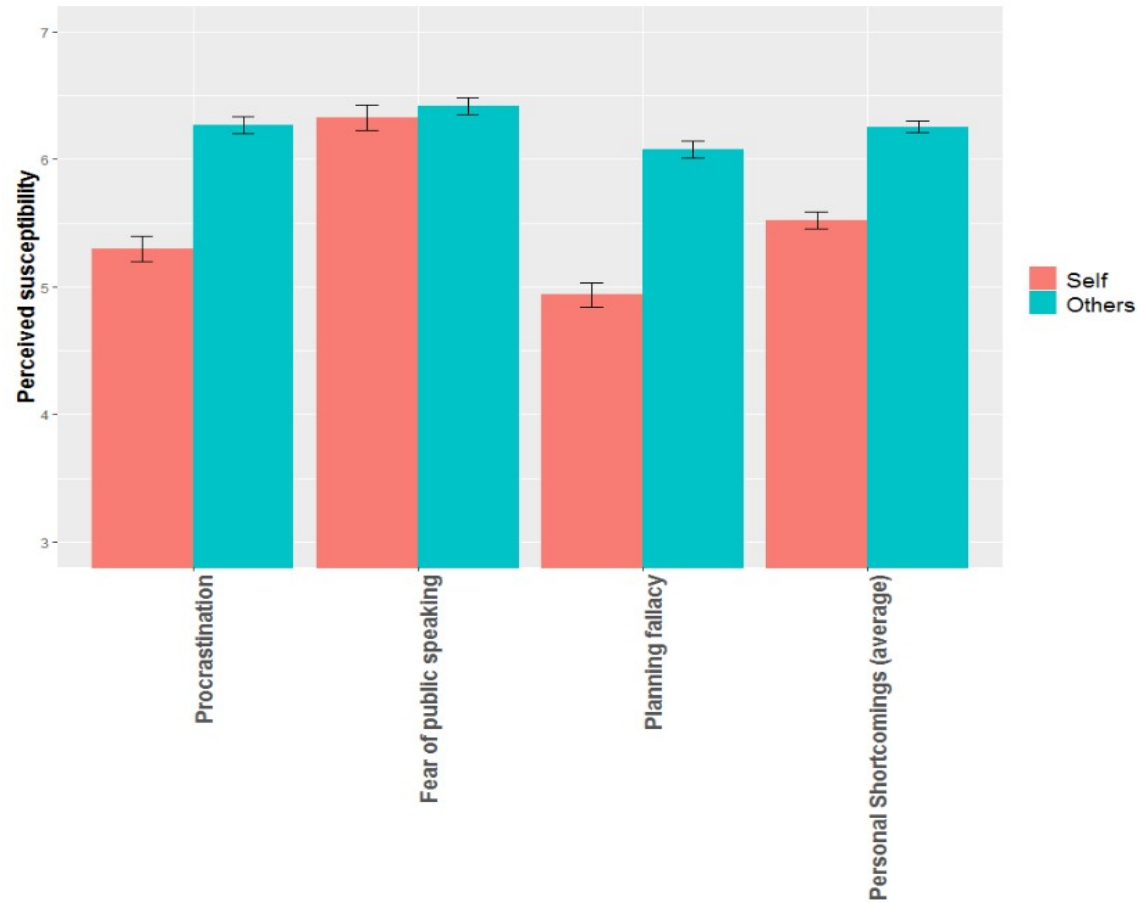
Figure S11. Study 3-The participants' perception of their own and others' personal shortcomings. Error bars indicate ±1 SEM.
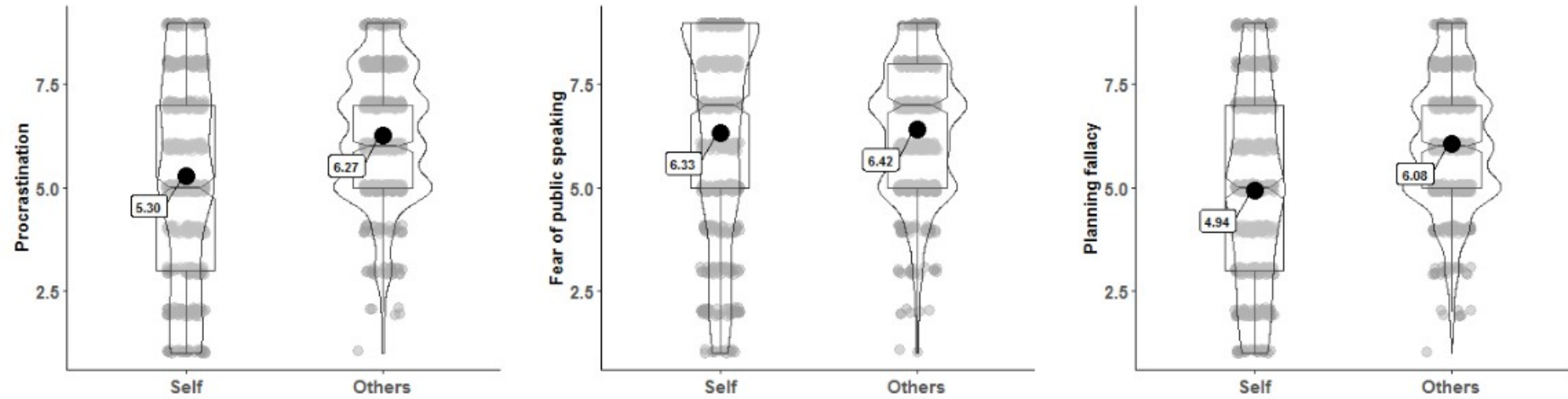
Figure S12. Study 3- Boxplot and violin-plot with jittered data points of the three measures of participants' perceptions of their own and the others' personal shortcomings

Table S19

Study 3- The results of dependent t-test of self-other asymmetry on each of eight biases, and perceived personal shortcomings

	t-statistic	df	p	Mean difference	Cohen's d
Original 8 biases (Average)	-32.00	620	<.001	-1.80	-1.29
Self-serving	-27.60	620	<.001	-2.63	-1.11
Self-interest	-20.40	620	<.001	-1.68	-0.82
Reactive devaluation	-16.90	620	<.001	-1.41	-0.68
Fundamental attribution error	-18.50	620	<.001	-1.87	-0.74
Hostile media	-22.60	620	<.001	-2.29	-0.91
Halo effect	-21.10	620	<.001	-2.13	-0.85
Assimilation Bias	-12.50	620	<.001	-1.09	-0.50
Cognitive dissonance	-14.40	620	<.001	-1.26	-0.58
Personal shortcomings (Average)	-10.54	620	<.001	-0.73	-0.42
Procrastination	-9.62	620	<.001	-0.97	-0.39
Fear of public speaking	-0.82	620	0.412	-0.09	-0.03
Planning fallacy	-12.40	620	<.001	-1.14	-0.50

Table S20

Study 3-*Descriptive statistics of the measures of susceptibility to better than average effect*

	Dependability	Objectivity	Consideration for others	Mean of positive traits	Snobbery	Deceptiveness	Selfishness	Mean of negative traits	Denial of bias
N	621	621	621	621	621	621	621	621	621
Mean	6.55	6.32	6.40	6.43	2.88	2.97	3.79	3.22	2.07
Std. error mean	0.06	0.07	0.06	0.04	0.07	0.07	0.07	0.06	0.03
Standard deviation	1.61	1.66	1.59	1.11	1.77	1.81	1.84	1.47	0.65
Skewness	-0.41	-0.67	-0.32	-0.11	0.87	0.86	0.37	0.47	-0.07
Std. error skewness	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Kurtosis	-0.13	0.81	-0.03	0.22	0.10	0.12	-0.10	-0.12	-0.62
Std. error kurtosis	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20

Table S21

Study 3-*The results of one sample t-test of better than average effect*

	T- statistic	df	*p*	Difference from mid-point	Cohen's d
Dependability	24.00	620	<.001	1.55	0.96
Objectivity	19.70	620	<.001	1.32	0.79
Consideration for others	22.00	620	<.001	1.40	0.88
Mean of positive traits	31.70	620	<.001	1.42	1.27
Snobbery	-29.90	620	< .001	-2.12	-1.20
Deceptiveness	-27.90	620	< .001	-2.03	-1.12
Selfishness	-16.40	620	< .001	-1.21	-0.66
Mean of negative traits	-30.40	620	< .001	-1.79	-1.22

Note. H$_a$ population mean > 5 for positive traits; H$_a$ population mean < 5 for negative traits

Table S22

Study 3-*Correlations with confidence intervals of the measures of susceptibility to biases and perceived personal shortcomings variables (of the self) and belief in free-will scales*

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Free Will Inventory	5.17	1.25													
2. Personal agency	2.88	0.69	.78** [.74, .81]												
3. Personal will	4.10	0.56	.58** [.53, .63]	.56** [.50, .61]											
4. Self-serving – Self	4.11	2.09	-0.05 [-.13, .03]	-0.07 [-.15, .01]	-.16** [-.23, -.08]										
5. Self-interest bias-Self	5.47	1.91	0.07 [-.01, .15]	.11** [.03, .18]	0.05 [-.03, .13]	.36** [.29, .42]									
6. Reactive devaluation-Self	4.85	1.81	-0.02 [-.10, .06]	-0.04 [-.12, .04]	-.10* [-.17, -.02]	.43** [.36, .49]	.31** [.24, .38]								
7. Fundamental attribution error –Self	3.74	2.12	0.02 [-.06, .09]	0.04 [-.04, .11]	-.17** [-.24, -.09]	.36** [.29, .43]	.25** [.18, .32]	.34** [.26, .40]							
8. Perceptions of hostile media –Self	4.04	2.14	.09* [.01, .17]	0.06 [-.02, .14]	-.12** [-.20, -.05]	.32** [.25, .39]	.25** [.17, .32]	.41** [.35, .48]	.46** [.39, .52]						
9. Halo effect –Self	4.90	2.11	-0.01 [-.09, .07]	-0.02 [-.10, .06]	-.09* [-.17, -.01]	.40** [.33, .46]	.30** [.23, .37]	.36** [.29, .43]	.33** [.26, .40]	.31** [.24, .38]					
10. Assimilation Bias –Self	5.11	2.01	-0.07 [-.15, .01]	-0.07 [-.15, .01]	-.08* [-.16, -.01]	.24** [.17, .32]	.27** [.20, .35]	.31** [.24, .38]	.31** [.23, .38]	.25** [.17, .32]	.34** [.27, .41]				
11. Cognitive dissonance –Self	5.28	2.08	0.01 [-.07, .08]	0.02 [-.06, .10]	-0.03 [-.11, .05]	.37** [.30, .43]	.28** [.20, .35]	.35** [.28, .42]	.25** [.17, .32]	.22** [.15, .30]	.38** [.31, .45]	.30** [.22, .37]			
12. Procrastination –Self	5.30	2.49	-.21** [-.28, -.13]	-.22** [-.30, -.15]	-.12** [-.20, -.05]	.26** [.18, .33]	.16** [.09, .24]	.21** [.14, .29]	.21** [.13, .28]	.11** [.03, .18]	.19** [.11, .27]	.24** [.17, .31]	.15** [.07, .22]		
13. Fear of public speaking –Self	6.33	2.51	-.11** [-.18, -.03]	-0.06 [-.14, .02]	-0.01 [-.09, .07]	0.03 [-.05, .11]	0.01 [-.07, .09]	.08* [.00, .16]	0.06 [-.02, .14]	.10* [.02, .17]	.09* [.02, .17]	.11** [.03, .18]	0.03 [-.05, .11]	.21** [.13, .28]	
14. Planning fallacy –Self	4.94	2.29	-0.01 [-.09, .07]	-0.02 [-.10, .06]	-0.06 [-.14, .02]	.32** [.24, .38]	.21** [.13, .28]	.32** [.25, .39]	.29** [.21, .36]	.26** [.18, .33]	.27** [.20, .34]	.24** [.17, .31]	.23** [.16, .31]	.42** [.35, .48]	.11** [.03, .19]

Note: *p <.05; **p <.01; ***p <.001. Values in square brackets indicate the 95% confidence interval for each correlation. Free Will Inventory = Free Will Inventory scale (Nadelhoffer et al., 2014); Personal agency = Free will and determinism plus scale (Paulhus & Carey, 2011); Personal will = Free-will and determinism personal will sub-scale(Rakos, Laurene, Skala, & Slane, 2008).

Table S23

Study 3-*Correlations with confidence intervals of the measurers of susceptibility to biases and perceived personal shortcomings variables (of others) and belief in free-will scales*
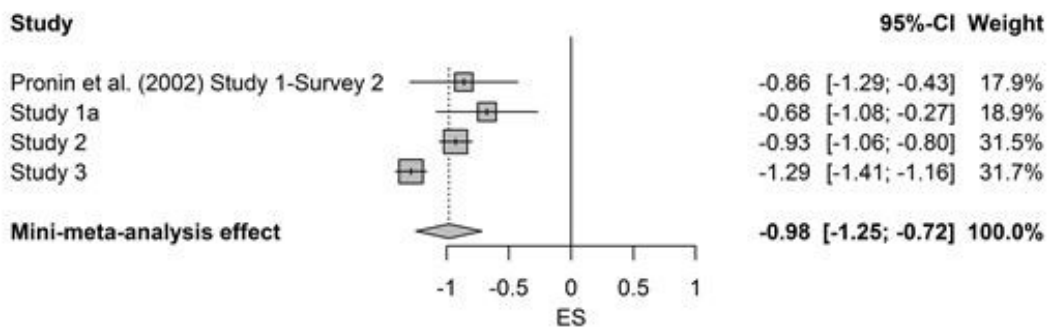
Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Free Will Inventory	5.17	1.25													
2. Personal agency	2.88	0.69	.78** [.74, .81]												
3. Personal will	4.10	0.56	.58** [.53, .63]	.56** [.50, .61]											
4. Others-serving – Others	6.74	1.58	-0.01 [-.09, .07]	0.01 [-.07, .08]	.13** [.05, .21]										
5. Others-interest bias-Others	7.14	1.52	-0.01 [-.09, .07]	0.03 [-.04, .11]	.17** [.09, .24]	.41** [.34, .47]									
6. Reactive devaluation-Others	6.26	1.51	0 [-.08, .08]	0.03 [-.05, .11]	.12** [.04, .19]	.36** [.29, .43]	.39** [.33, .46]								
7. Fundamental attribution error –Others	5.61	1.76	-.13** [-.21, -.06]	-.14** [-.22, -.06]	-.10* [-.17, -.02]	.37** [.30, .43]	.33** [.26, .40]	.30** [.23, .37]							
8. Perceptions of hostile media –Others	6.34	1.83	-0.03 [-.11, .05]	-0.04 [-.12, .04]	0.03 [-.05, .11]	.36** [.29, .43]	.36** [.29, .42]	.42** [.35, .48]	.37** [.30, .43]						
9. Halo effect –Others	7.03	1.60	0.01 [-.06, .09]	0.02 [-.06, .10]	.17** [.10, .25]	.38** [.31, .44]	.37** [.30, .44]	.39** [.32, .45]	.20** [.13, .28]	.27** [.20, .34]					
10. Assimilation Bias –Others	6.20	1.64	-0.02 [-.09, .06]	-0.02 [-.10, .06]	0.01 [-.07, .09]	.33** [.26, .40]	.33** [.26, .40]	.31** [.24, .38]	.25** [.18, .33]	.28** [.20, .35]	.31** [.23, .38]				
11. Cognitive dissonance –Others	6.54	1.52	0.05 [-.03, .13]	0.02 [-.06, .10]	.11** [.03, .19]	.37** [.30, .44]	.34** [.27, .41]	.28** [.21, .35]	.20** [.13, .28]	.22** [.14, .29]	.34** [.27, .41]	.32** [.24, .39]			
12. Procrastination –Others	6.27	1.59	-0.05 [-.13, .03]	0.02 [-.06, .10]	0.07 [-.01, .15]	.41** [.34, .47]	.31** [.24, .38]	.32** [.25, .39]	.32** [.25, .39]	.23** [.16, .31]	.27** [.19, .34]	.33** [.26, .40]	.33** [.26, .40]		
13. Fear of public speaking –Others	6.42	1.62	.09* [.01, .17]	.10* [.02, .18]	.11** [.03, .18]	.22** [.15, .30]	.16** [.08, .23]	.15** [.07, .22]	.14** [.06, .21]	.08* [.00, .16]	.14** [.06, .21]	.24** [.17, .32]	.23** [.16, .31]	.30** [.23, .37]	
14. Planning fallacy –Others	6.08	1.58	0.01 [-.07, .09]	-0.02 [-.10, .06]	0.05 [-.03, .13]	.34** [.27, .41]	.27** [.19, .34]	.33** [.25, .40]	.26** [.19, .34]	.24** [.16, .31]	.28** [.21, .35]	.31** [.24, .38]	.29** [.22, .36]	.39** [.32, .46]	.19** [.11, .26]

Note: *p <.05; **p <.01; ***p <.001. Values in square brackets indicate the 95% confidence interval for each correlation. Free Will Inventory = Free Will Inventory scale (Nadelhoffer et al., 2014); Personal agency = Free will and determinism plus scale (Paulhus & Carey, 2011); Personal will = Free-will and determinism personal will sub-scale(Rakos, Laurene, Skala, & Slane, 08).
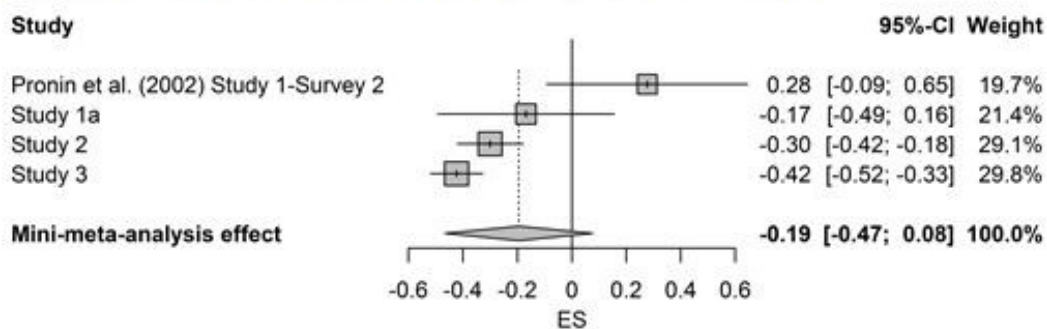
Summary and Mini-meta analysis

Mini-meta analysis including the original study

Self-Other asymmetry on susceptibility to biases

Study		95%-CI	Weight
Pronin et al. (2002) Study 1-Survey 2		-0.86 [-1.29; -0.43]	17.9%
Study 1a		-0.68 [-1.08; -0.27]	18.9%
Study 2		-0.93 [-1.06; -0.80]	31.5%
Study 3		-1.29 [-1.41; -1.16]	31.7%
Mini-meta-analysis effect		-0.98 [-1.25; -0.72]	100.0%

ES axis: -1 -0.5 0 0.5 1

Self-Other asymmetry on susceptibility to personal shortcomings

Study		95%-CI	Weight
Pronin et al. (2002) Study 1-Survey 2		0.28 [-0.09; 0.65]	19.7%
Study 1a		-0.17 [-0.49; 0.16]	21.4%
Study 2		-0.30 [-0.42; -0.18]	29.1%
Study 3		-0.42 [-0.52; -0.33]	29.8%
Mini-meta-analysis effect		-0.19 [-0.47; 0.08]	100.0%

ES axis: -0.6 -0.4 -0.2 0 0.2 0.4 0.6

Contrast of Self-Other asymmetry on biases and personal shortcomings

Study		95%-CI	Weight
Pronin et al. (2002) Study 1-Survey 2		-0.61 [-1.02; -0.21]	7.8%
Study 1a		-0.29 [-0.61; 0.02]	11.9%
Study 2		-0.37 [-0.50; -0.24]	37.5%
Study 3		-0.52 [-0.63; -0.41]	42.8%
Mini-meta-analysis effect		-0.44 [-0.56; -0.32]	100.0%

ES axis: -1 -0.5 0 0.5 1

Figure S13

Forest plots of the mini meta-analyses. CI = confidence interval. ES = effect size (Cohen's d).
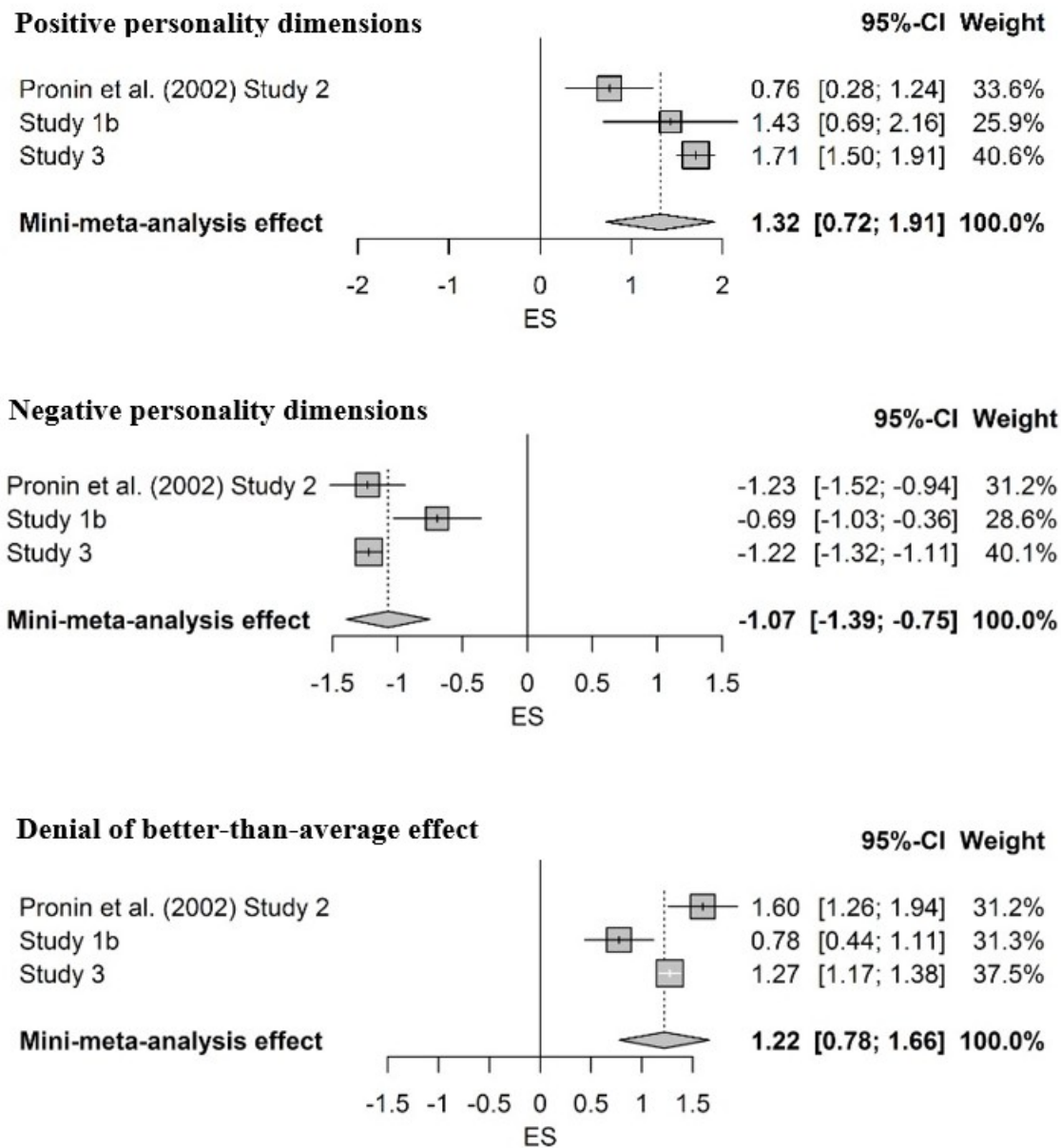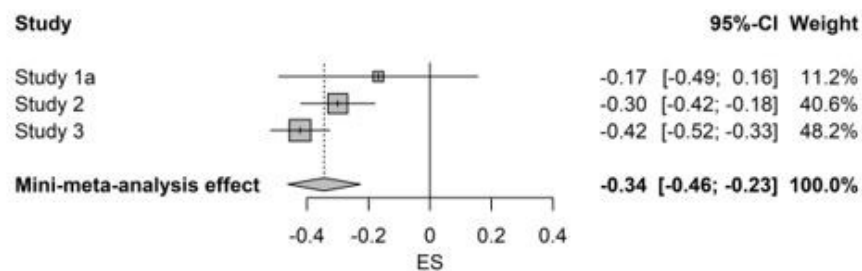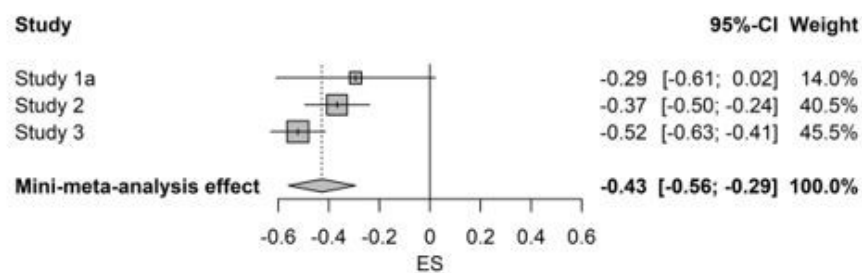
Figure S14

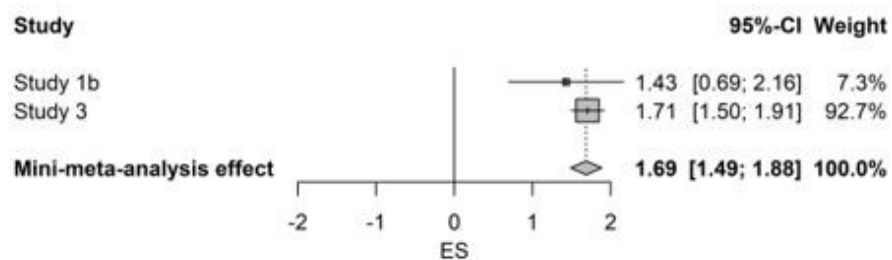Forest plots of the mini meta-analyses testing the Better-than-average effect. CI = confidence interval. ES = effect size (Cohen's d).

Mini-meta analysis excluding the original study
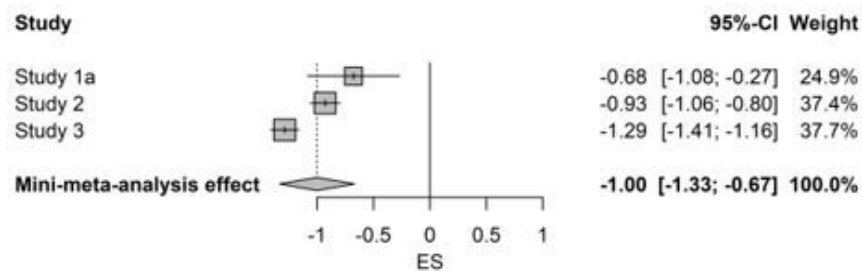
Self-other asymmetry on susceptibility to biases

Study	95%-CI	Weight
Study 1a	-0.68 [-1.08; -0.27]	24.9%
Study 2	-0.93 [-1.06; -0.80]	37.4%
Study 3	-1.29 [-1.41; -1.16]	37.7%
Mini-meta-analysis effect	-1.00 [-1.33; -0.67]	100.0%

ES: -1 -0.5 0 0.5 1

Self-other asymmetry on susceptibility to personal

Study	95%-CI	Weight
Study 1a	-0.17 [-0.49; 0.16]	11.2%
Study 2	-0.30 [-0.42; -0.18]	40.6%
Study 3	-0.42 [-0.52; -0.33]	48.2%
Mini-meta-analysis effect	-0.34 [-0.46; -0.23]	100.0%

ES: -0.4 -0.2 0 0.2 0.4

Contrast of Self-other asymmetry on biases and personal

Study	95%-CI	Weight
Study 1a	-0.29 [-0.61; 0.02]	14.0%
Study 2	-0.37 [-0.50; -0.24]	40.5%
Study 3	-0.52 [-0.63; -0.41]	45.5%
Mini-meta-analysis effect	-0.43 [-0.56; -0.29]	100.0%

ES: -0.6 -0.4 -0.2 0 0.2 0.4 0.6

Figure S15

Forest plots of the mini meta-analyses. CI = confidence interval. ES = effect size (Cohen's d).
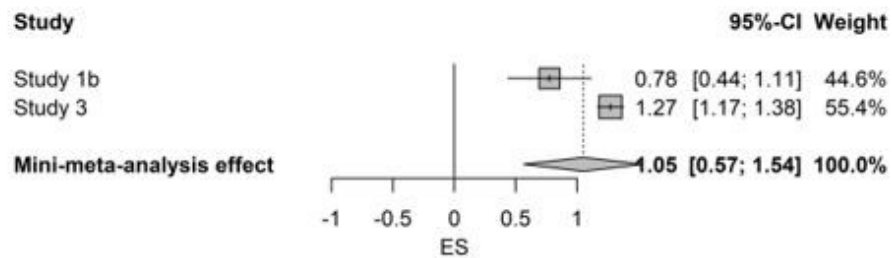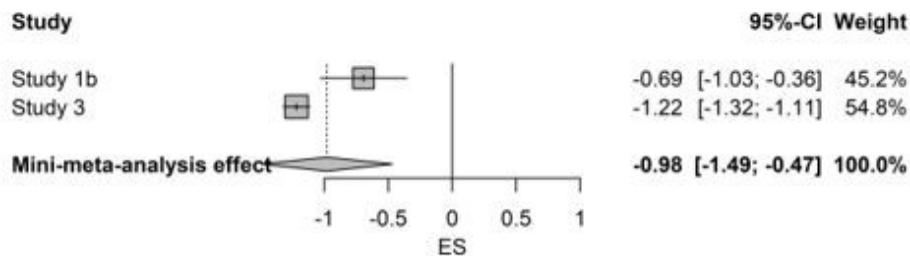
Figure S16

Forest plots of the mini meta-analyses. CI = confidence interval. ES = effect size (Cohen's d).

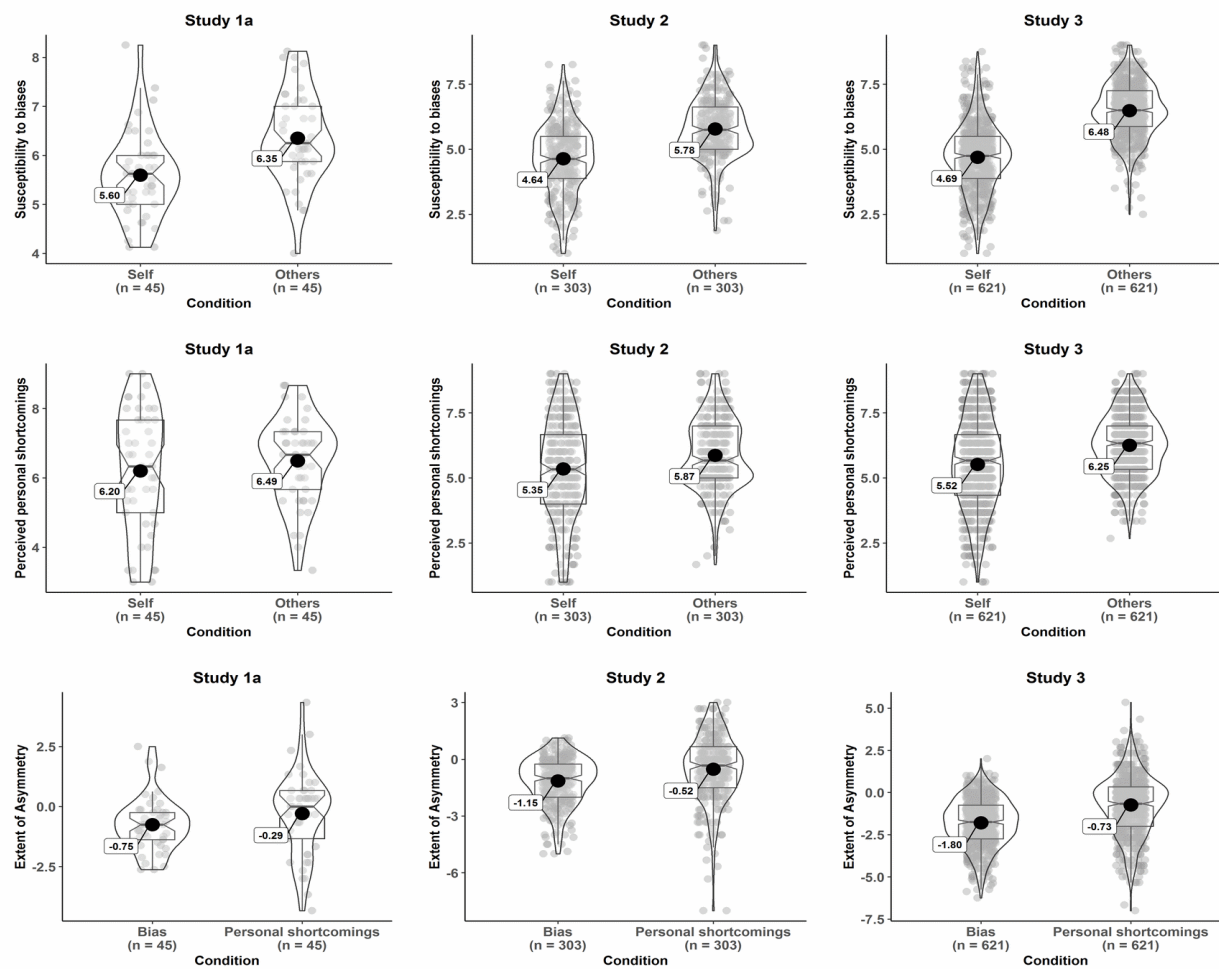## Summary of findings on *'bias blind spot'* across 3 studies

Figure S17.

Violin plots for mean ratings of the outcome variables. The density of the violin plots represents the density of the data at each value, with wider sections indicating higher density.

Summary of extension hypotheses

Table S24

Summary of the additional results on exploratory extension hypotheses (exploratory).

Predictions	Effect size and CIs (*r*)	NHST *p*
Study 2: United States (N = 303)		
BFW and perceived bias: Self-others differences		
FWI	-0.03 [-.15, .08]	0.565
FWD	-0.17 [-.28, -.06]	0.003
Study 3: United States (N = 621)		
BFW and perceived bias: Self-others differences		
FWI	0.03 [-.05, .11]	0.869
FAD+	0.02 [-.06, .10]	0.886
FWD	-0.22 [-.29, -.14]	< .001
BFW and negative personality dimensions		
FWI	-0.09 [-.16, -.01]	0.033
FAD+	-0.16 [-.23, -.08]	< .001
FWD	-0.12 [-.20, -.04]	0.003
BFW and positive personality dimensions		
FWI	0.04 [-.04, .12]	0.341
FAD+	0.05 [-.03, .13]	0.222
FWD	0.15 [.07, .23]	< .001
BFW and denial of better-than-average effect		
FWI	0.11 [.03, .19]	< .007
FAD+	0.14 [.06, .22]	< .001
FWD	0.03 [-.05, .10]	0.531

Note. r = Pearson correlation coefficient. BFW = free will beliefs; Asymmetry = self-other asymmetry. General free will = Nadelhoffer et al. (2014); Personal agency = Paulhus & Carey (2011); Personal will = Rakos, Laurene, Skala, & Slane, (2008).

Framework for evaluation of the replications

Table S25. Criteria for evaluation of replications by LeBel et al. (2018). A classification of relative methodological similarity of a replication study to an original study. "Same" ("different") indicates the design facet in question is the same (different) compared to an original study. IV = independent variable. DV = dependent variable. "Everything controllable" indicates design facets over which a researcher has control. Procedural details involve minor experimental particulars (e.g., task instruction wording, font, font size, etc.).

Target similarity	Highly similar				Highly dissimilar
Category	Direct replication				Conceptual replication
Design facet	**Exact replication**	**Very close replication**	**Close replication**	**Far replication**	**Very far replication**
Effect/ Hypothesis	Same/similar	Same/similar	Same/similar	Same/similar	Same/similar
IV operationalization	Same/similar	Same/similar	Same/similar	Different	Different
DV operationalization	Same/similar	Same/similar	Same/similar	Different	Different
IV stimuli	Same/similar	Same/similar	Different	Different	
DV stimuli	Same/similar	Same/similar	Different		
Procedural details	Same/similar	Different			
Physical setting	Same/similar	Different			
Contextual variables	Different				

Figure S18. Criteria for evaluation of replications by LeBel et al. (2019). A taxonomy for comparing replication effects to target article original findings.
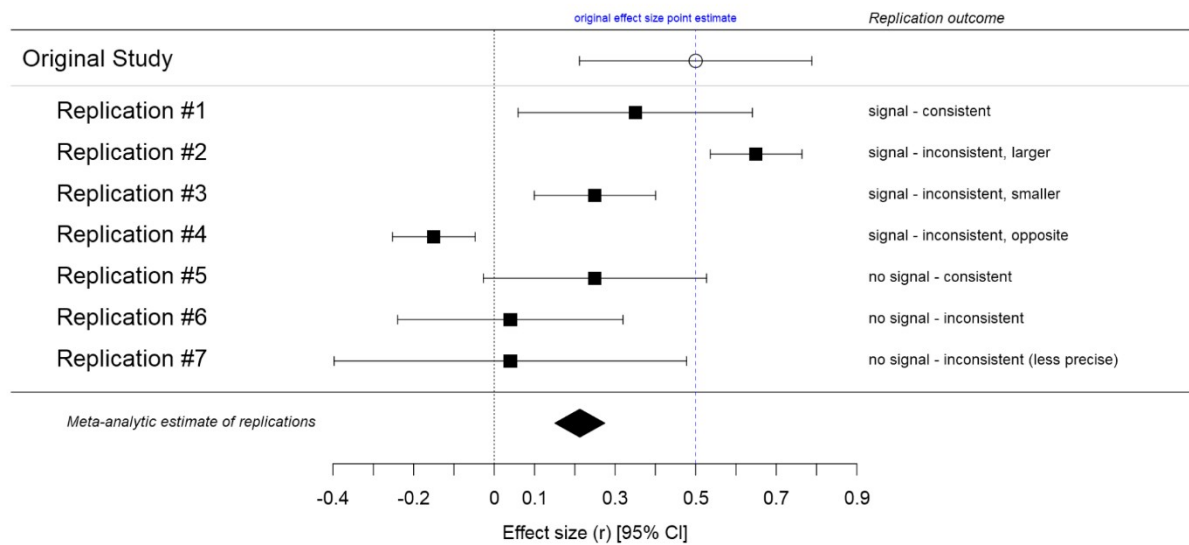
References

Brandt, M. J., IJzerman, H., Dijksterhuis, A., Farach, F. J., Geller, J., Giner-Sorolla, R., & Van't Veer, A. (2014). The replication recipe: What makes for a convincing replication?. *Journal of Experimental Social Psychology*, *50*, 217-224. DOI: 10.1016/j.jesp.2013.10.005

Kennedy, M. (2010, April). V—Naive Realism and Experiential Evidence. In *Proceedings of the Aristotelian Society (Hardback)* (Vol. 110, No. 1pt1, pp. 77-109). Oxford, UK: Blackwell Publishing Ltd.

Litman, L., Robinson, J., & Abberbock, T. (2017). TurkPrime. com: A versatile crowdsourcing data acquisition platform for the behavioral sciences. *Behavior research methods*, *49*, 433-442. DOI 10.3758/s13428-016-0727-z

Malle, B. F. (2006). The actor-observer asymmetry in attribution: A (surprising) meta-analysis. *Psychological Bulletin*, *132*, 895–919. DOI: 10.1037/0033-2909.132.6.895

Nadelhoffer, T., Shepard, J., Nahmias, E., Sripada, C., & Ross, L. T. (2014). The free will inventory: Measuring beliefs about agency and responsibility. *Consciousness and Cognition*, *25*, 27-41. DOI: 10.1016/j.concog.2014.01.006

Park, J., Choi, I., & Cho, G. (2006). The actor-observer bias in beliefs of interpersonal insights. *Journal of Cross-Cultural Psychology*, *37*, 630-642. DOI: 10.1177/0022022106290482

Paulhus, D. L., & Carey, J. M. (2011). The FAD–Plus: Measuring lay beliefs regarding free will and related constructs. *Journal of personality assessment*, *93*, 96-104. DOI: 10.1080/00223891.2010.528483

Pronin, E., Lin, D. Y., & Ross, L. (2002). The bias blind spot: Perceptions of bias in self versus others. *Personality and Social Psychology Bulletin*, *28*, 369-381. DOI: 10.1177/0146167202286008

Rakos, R. F., Laurene, K. R., Skala, S., & Slane, S. (2008). Pervasiveness and correlates of belief in free will. *Behavior and Social Issues*, *17*, 20-39. DOI: 10.5210/bsi.v17i1.1929

Rosenthal,R.(1991). *Meta-analytic procedures for social research*. Newbury Park, CA: SAGE Publications, Incorporated. DOI: 10.4135/9781412984997