

Mass pre-registered replications of classic findings in judgment and decision-making

Gilad Feldman, University of Hong Kong (gfeldman@hku.hk)

Project overview

~45 pre-registered replication projects of impactful Judgment and Decision Making literature, outlined in <http://mgto.org/pre-registered-replications/>

~10000 participants recruited on MTurk (turkprime.com) and Hong Kong undergraduate students

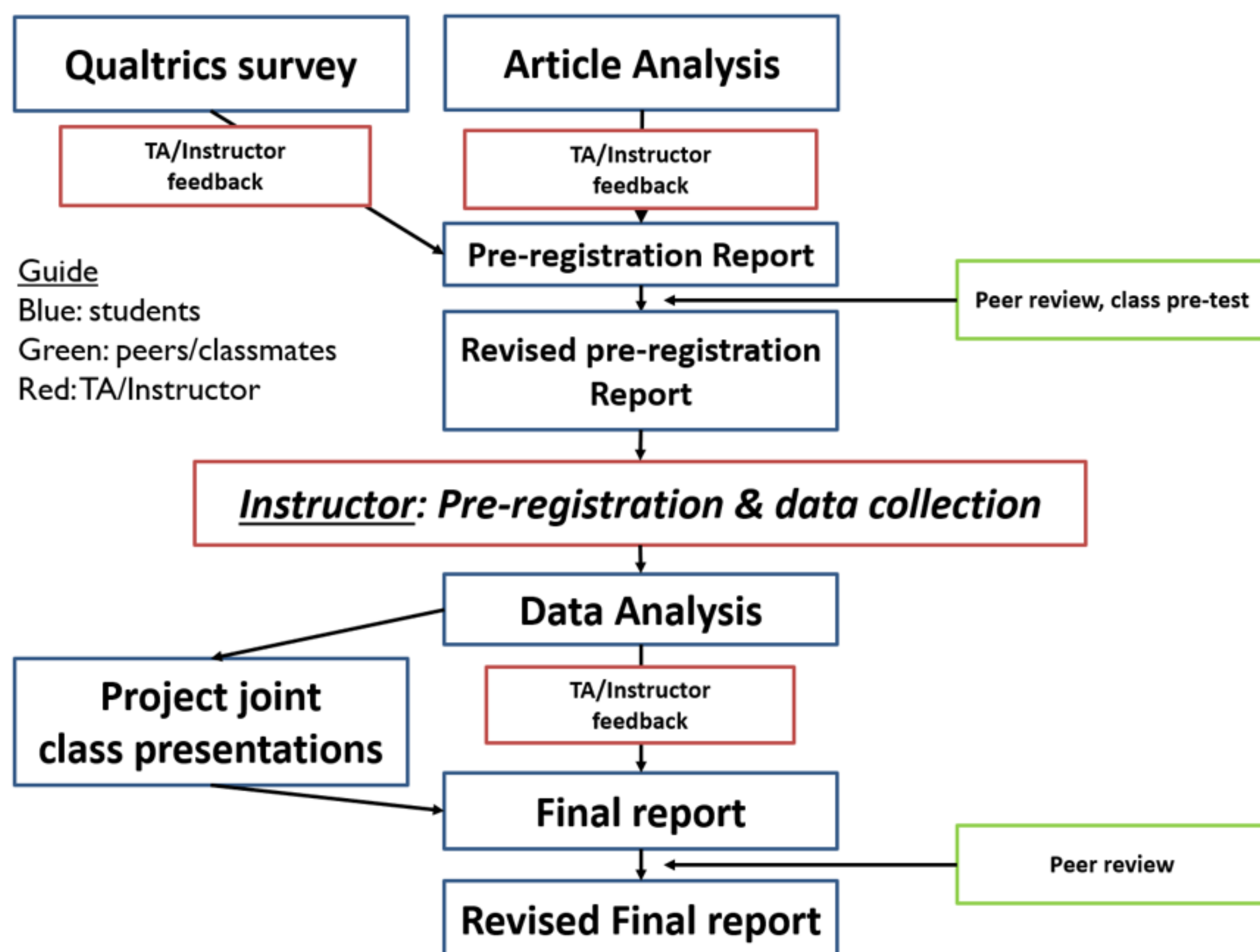
Full transparency and open-science: Pre-registrations, all procedures, decisions, materials, datasets, and analyses/code - > [Open Science Framework](#)

Results 2nd semester

St	Authors	Studies	Bias	Predictor/Replication				Conclusion
				Direction	CS	CNS	IS	
1	Baron, & Hershey, 1988	1	Outcome bias	Success	1			Successful
2	Epley & Gilovich 2006	1b	Anchoring-and-adjustment heuristic	Success	Too messy			Estimated low replicability.
3	Epstein, Lipson, Holstein, & Huh 1992	1 & 2	Irrational reactions to negative outcomes	Success	2	1		Mostly successful
4	Fischhoff, 1975	2	Hindsight bias	Success	11	4		Successful
5	Hamill, Wilson, & Nisbett, 1980	1	Insensitivity to sample bias	Success	2			Inconclusive, found typical-
6	Hsee & Weber, 1997	1	Fundamental predictor error	Success	2	1		Mostly successful
7	Hsee, 1998	1, 2, 4	Less is better	Success	2		1	Mostly successful
8	Kruger et al, 2004	1 & 2	Effort heuristic	Success	1			1 semi-successful, 1 failed
9	Kruger, Wirtz & Miller 2005	2	First instinct fallacy	Success	3			Successful, stronger effects
10	Mellers, Hertwig, & Kahneman, 2001	1	Conjunction effect	Success	2			Successful
11	Miller, & McFarland, 1987	1	Pluralistic ignorance	Success	2		1	Mixed findings, main hypot
12	Schwarz, Strack, Hilton, & Naderer, 1991	1	Relevance of irrelevant information	Failure		1		Failure to replicate
13	Shafir, 1993	1 to 8	Choosing versus rejecting	Failure	2	2	2	Failure to replicate
14	Shafir, Diamond, & Tversky, 1997	1 to 4	Money illusion	Success	4			Successful
15	Slovic & Fischhoff, 1977	1	Hindsight bias	Success	5	3		Successful
16	Staw, 1976	1	Escalation of commitment	Success	1		1	Inconclusive -> Failure
17	Tversky & Shafir, 1992	1	Disjunction effect	Success	1			1 successful, 1 failed
18	Zeelenberg et al 1996	1	Regret aversion	Success		1		Inconclusive -> Failure

CS = Consistent signal CNS = Consistent no signal IS = Inconsistent signal INS = Inconsistent no signal
WARNING: Preliminary student findings, need to be rechecked and verified

Process



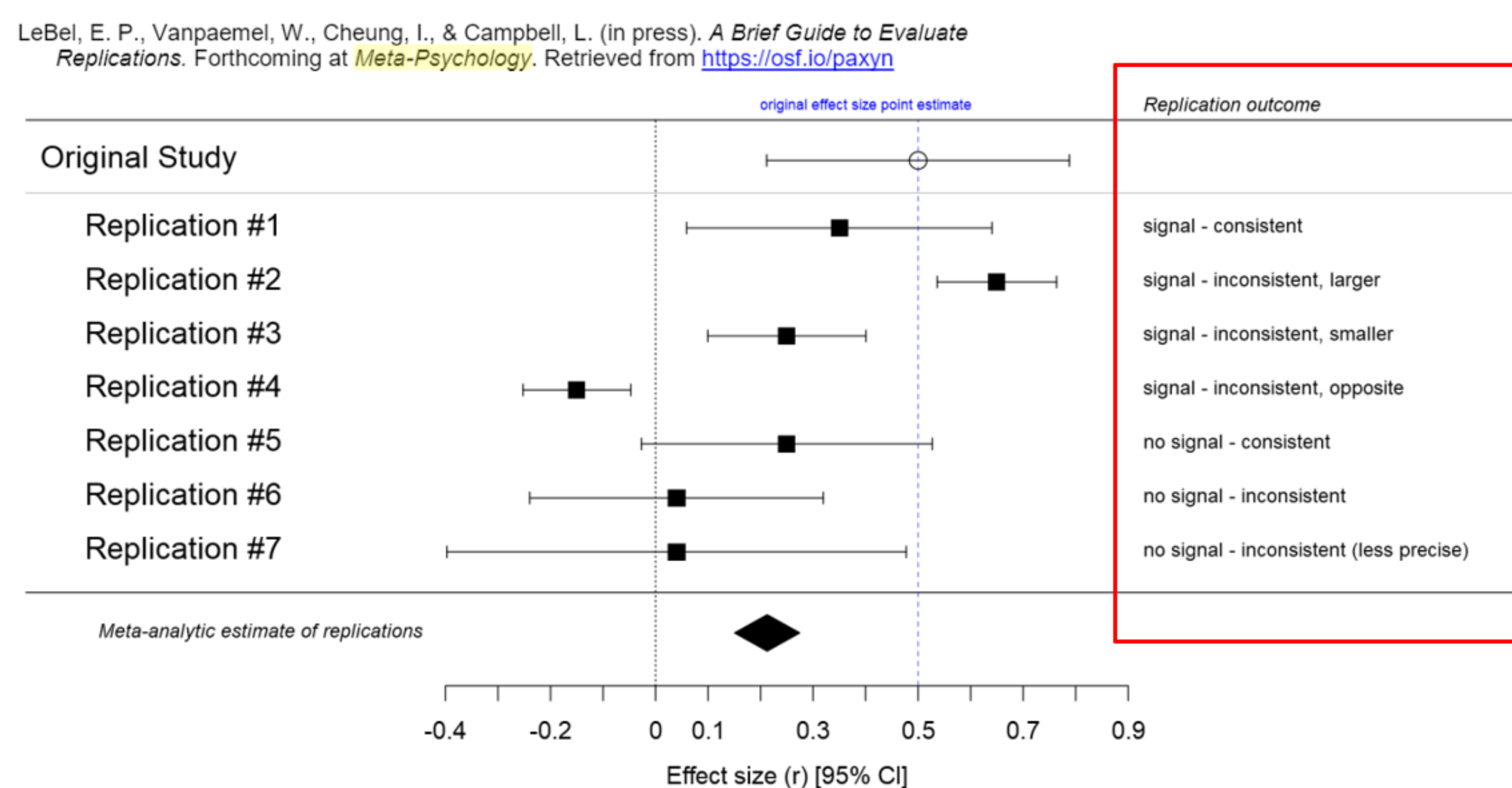
Summary of replications so far

- Successful: 17 + 9 = 26 (67%)
- Inconclusive: 1 + 5 = 6 (15%)
- Unsuccessful: 3+4 = 7 (18%)

Resources developed & shared

- Teaching JDM and open-science: <http://mgto.org/teaching-courses/>
- Collaborative pre-registered replication guide: <https://tinyurl.com/replicationguide>
- Replications Google drive: <https://tinyurl.com/hku2019replications>
- Collaborative JAMOVI / JASP/ R guides: <https://tinyurl.com/jamovijasprguide>
- Collaborative extensions guide: <https://tinyurl.com/extensionsguide>
- Effect-size and power calculations; JAMOVI workshops / materials, contact me

Evaluating replications



Early Caer JDM researchers: Join us!

If you're an ECR (advanced PhD, post-doc, assistant professor) committed to open-science and interested in JDM, we invite you to join us. Read about **joining the project**: <https://tinyurl.com/joinmassreplication>

Results 1st semester

Article	St	Effect	Original findings	Replication MTurk 2022	Replication HKU 2020	Conclusions	Notes
Arkes and Blumer (1985)	1	Sunk Cost Fallacy	54%-46%	17%-83%	50%-50%	Successful Likely over-estimated effect	
Arkes and Blumer (1985)	4	Sunk Cost Fallacy	0.32 [0.01, 0.64]	0.42 [0.28, 0.56]	0.54 [-.08, 1.16]*	Successful	
Arkes and Blumer (1985)	4	Sunk Cost Fallacy	Extensions intent to proceed	1.08 [0.93, 1.23]	Not conducted	In-line with literature attributions	
Cushman et al (2008)	1	Doing/Allowing morality	Doing: 0.84 [0.60, 1.07] Morality: 0.50 [0.27, 0.73]	0.89 [0.64, 1.13] 1.16 [0.90, 1.41]	0.05ns 1.05	Successful	Found error in table/figure
Greene et al (2002)	1b		Force: 0.69 [-.41, .97] Contact: "null"	0.01 [-0.27, 0.29] "null"	0.44ns 0.24ns	Failed MTurk Inconclusive HKU	
Walle-krobe (1997)	1	No actor-observer intentionality	Actor-Obs: .14 [-.29, .56] Definition: .09 [-.30, .48]	0.23 [0.06, 0.34] 0.10 [-0.04, 0.24]	0.60 [0.01, 0.67]* 0.17 [-0.25, 0.45]	Mixed - has effect	Effect needs power. Need to revise conclusions of no-effect.
Pronin et al (2002)	1b	Bias blind spot Actor-observer bias	Biases: 0.86 Shortcomings: 0.28	0.93 [0.69, 1.16] 0.31 [0.08, 0.53]	0.65*** 0.24ns	Successful Mixed - has effect	Missing item in article. Effect needs power. Need to revise conclusions of no-effect.
Pronin et al (2002)	2	Bias blind spot	Positive: 1.60 [1.09, 2.11] Negative: 1.23 [0.75, 1.71]	Not conducted	0.88 [0.65, 1.17] 0.90 [0.67, 1.11]	Successful	
Pronin et al (2007)	1	Actor-observer bias Conformity	0.71 [0.09, 1.36]	0.17 [-0.23, 0.56]	0.11ns	Failed	
Pronin Kugler (2010)	1	Actor-observer bias Freewill	1.08 [0.47, 1.68]	0.32 [-0.03, 0.67]	0.84	Fairly successful, much weaker effect	NHST failed, need much higher power. Past-future difference.
Pronin & Kugler (2007)		Bias Blind Spot	SSB: 1.24 [1.02, 1.45] PHE: 0.48 [0.27, 0.69] FAC: 0.88 [0.62, 1.09]	0.68 [0.45, 0.91] 0.15 [-0.07, 0.37] 0.49 [0.18, 0.63]	0.52ns 0.40ns 0.45ns	Fairly successful (MTurk 2/3)	Effects likely over-estimated
Royzman & Baron (2002)	2	Preference for indirect harm	0.70 [0.14, 1.24]	Sc1: .26 [0.04, .49] Sc2: .32 [-.10, .54]	0.43* 0.37*	Successful, weaker effect	
Royzman & Baron (2002)	3	Preference for indirect harm	0.63	Not conducted	0.39*	Successful	Forest scenario had issues with clarity
Tykcinski et al. (1995)	1	Inaction inertia	Ski: 2.43 [2.05, 2.80] Car: 1.07 [0.85, 1.30] Flyer: 2.17 [1.84, 2.50] Fitness: 2.29 [1.95, 2.63]	0.78 [0.59, 0.85] 0.67 [0.54, 0.79] 0.26 [0.15, 0.38] 0.78 [0.66, 0.92]	Medium Medium Medium	Successful, weaker effects	
Wong & Kwong	1					Failed replication	Serious issues with materials.

