Supplemental Online Material for:

Relative Power and Interpersonal Trust

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1) Supplemental Mediation Analyses

For exploratory purposes, we replicated the mediation analyses of Studies 2 and 3a using an alternative mediation test. Specifically, we used the causal mediation approach proposed by Imai, Keele, and Tingley (2010), which does not rely on the framework of linear structural equation models and instead relies on the counterfactual framework of causal inference. To do so, we used the "mediate" package for STATA developed by Hicks and Tingley (2011). We used 5,000 simulations across all analyses to estimate the average causal mediation effect (ACME).

Study 2

We first estimated the causal mediation effects using a single contrast variable as the independent variable ($1 = high\ power$, $-2 = equal\ power$, $1 = low\ power$) to compare both conditions of unequal power (high/low power) jointly with the equal power condition. In line with the analyses presented in the manuscript, the average causal mediation effect of power on cooperation via interpersonal trust was negative and significant, $\beta = -.02$, CI₉₅ [-.03; -.01], and explained 24.08% of the total effect (CI₉₅ [.17; .44]).

Second, we estimated separate mediation effects for high (vs. equal) power and low (vs. equal) power using the same indicator coding approach as for the primary analyses in the manuscript (Hayes & Preacher, 2014). There was a significant negative average causal mediation effect of high (vs. equal) power on cooperation via trust, $\beta = -.04$, CI₉₅ [-07; -.01], which explained 13.90% (CI₉₅ [.10; .24]) of the total effect. Similarly, we found a significant negative average causal mediation effect of low (vs. equal) power on cooperation via trust, $\beta = -.07$, CI₉₅ [-.11; -.03], which explained 45.36% (CI₉₅ [.26; 1.59]) of the total effect.

Thus, these analyses provide additional confidence in the mediation analyses presented in the manuscript.

Study 3a

We first estimated the causal mediation effects using a single contrast variable as the independent variable (1 = high power, -2 = equal power, 1 = low power) to compare both conditions of unequal power (high/low power) jointly with the equal power condition. As expected, the average causal mediation effect was negative and significant, β = -.51, CI₉₅ [-.81; -.26], and explained 39.37% (CI₉₅ [.25; .96]) of the total effect.

Next, we estimated separate mediation effects for high (vs. equal) power and low (vs. equal) power using the same indicator coding approach as for the primary analyses in the manuscript. There was a significant negative average causal mediation effect of high (vs. equal) power on trust via conflict of interest, β = -.86, CI₉₅ [-1.60; -.29], which explained 28.89% (CI₉₅ [.14; 1.51]) of the total effect. Similarly, we found a significant negative average causal mediation effect of low (vs. equal) power on trust via conflict of interest, β = -2.14, CI₉₅ [-3.31; -1.11], which explained 45.33% (CI₉₅ [.29; 1.03]) of the total effect.

Thus, these analyses reinforce the robustness of the mediating role of perceived conflict of interest.

2) Internal Meta-Analysis Overview

Table S1. Overview of main and supplemental studies included in the internal meta-analysis

	Power			Trust			High vs. Equal Power						Low vs. Equal Power						High vs. Low Power						
Study	Purpose	¹ Prereg.	Manipulation	Measure	Sample	N ²	d	p³.	0.50	0.00	0.50	1.00	d	p -0.50	0.0	0.5	0 1.	00 d	р	-0.50	0.00		0.50	1.00	
Study 1a	ME	Y	Bonus allocation	Attitude	Prolific	575	0.32	0.002	I	Π-		0	.87	0.000	I	I	-	0.53	0.00	00	I	_	₩	$\overline{}$	
Study 1b	ME	N	Org. roles	Behavioral	Lab	311	0.36	0.011	1	I —		0	.32	0.023		—•	_	-0.03	0.85	57	-	_			
Study 1c	ME	Υ	Relative budget	Attitude	Prolific	533	0.44	0.000	1	- I -	₽	0	.94	0.000			—	0.54	0.00	00		_	┿—	.	
Study 2	ME	N	Payoff structure	Attitude	Lab	391	0.30	0.017	1	1-	╋┿	0	.53	0.000		\rightarrow	—	0.25	0.04	17	-	-	4		
Study 3a	MED	Υ	Org. roles	Behavioral	Prolific	490	0.25	0.028	1	-	 ∣	0	.39	0.000			-	0.14	0.20	01	+	-			
Study 3b	MOD	Υ	Relative budget	Behavioral	Prolific	555	0.57	0.000	1	- 1	- ∎	- 0	.98	0.000			_	0.44	0.00	00		\dashv	┿		
Study 4	MOD	Υ	Org. roles, recall	Attitude	MTurk	684	0.28	0.004	1	1-	╉──│	0	.81	0.000			-	0.56	0.00	00		-	╬╾		
Study 5	MOD	Υ	Org. roles	Behavioral	MTurk	593	0.18	0.076	1	- ├	-	0	.20	0.048		━		0.02	0.81	18	-	_			
Study S1	ME	N	Relationship task	Attitude	MTurk	1015	0.15	0.078	1	┝╋	-	0	.27	0.000				0.14	0.06	55		₽-			
Study S2	ME	N	Relationship task	Attitude	MTurk	119	0.55	0.015	1	I —		o	.56	0.015		\rightarrow	-	-0.07	0.75	53	-+				
Study S3	ME	Υ	Relationship task	Attitude	Prolific	304	0.35	0.014	1	1-	╼┿	0	.57	0.000		\dashv	-	0.27	0.05	55	-	-	+		
Study S4	ME	N	Relationship task	Attitude	MTurk	314	0.35	0.026	1	I—	╼┿	0	.40	0.004			_	0.11	0.43	33	-	_			
Study S5	ME	Υ	Relationship task	Attitude	Prolific	537	0.15	0.158	1	┼╋	-	0	.22	0.035	ŀ	━		0.09	0.41	14	-	\vdash			
Study S6	ME	Υ	Relative budget	Attitude	Prolific	300	0.46	0.001	1	-	╼╄──	' 1	.77	0.000			:	1.20	0.00	00				⇒	
Study S7	ME	N	Org. roles	Attitude	MTurk	306	0.28	0.047	1	\vdash	╋┯┿	0	.35	0.012			_	0.07	0.61	11	_ - -				
Study S8	ME	N	Alternatives	Behavioral	MTurk	146	0.32	0.190	1 '	+	┱┼	- 0	.04	0.880	_	\vdash		0.29	0.24	14	_	-	┿	·	
Study S9	MED	N	Org. roles	Behavioral	MTurk	306	0.28	0.047	1	<u> </u>	╾┼	1	.02	0.012			_	0.07	0.56	50	─				
Study S10	MED	Υ	Org. roles	Behavioral	Prolific	592	0.18	0.076	1	┝╼	-	0	.33	0.001		╼	ı	0.15	0.13	33	+	-			
Study S11	MOD	N	Org. roles	Attitude	Lab	289	0.54	0.000	1	- 1	-	- 1	.02	0.000				0.47	0.00	01			┿		
Study S12	MOD	N	Org. roles	Attitude	MTurk	305	0.42	0.003	1	-	╼┼─	1	.01	0.000				0.56	0.00	00	_		╄━	-	
Study S13	MOD	N	Org. roles, recall	Behavioral	MTurk	338	0.32	0.016	1	-		0	.18	0.184	+	╼╌		-0.14	0.28	31 '	-• +	•			
Study S14	MOD	Υ	Org. roles, recall	Behavioral	MTurk	627	0.27	0.006	1	-	- -	0	.34	0.001			•	0.10	0.31	16	_+	_			
Study S15	MOD	N	Org. roles	Behavioral	MTurk	301	0.23	0.112	1	₩		0	.16	0.259	_	━	_	-0.06	0.68	37	- -	- _	.		
Study S16	MOD	Y	Relative budget	Attitude	Prolific	600	0.45	0.000		- 1		0	.81	0.000			, -	0.40	0.00	00_		_	十		
Average effect 10							0.31	0.000	1	<u> </u>	♥	0	.56	0.000			•	0.26	0.00	00		•	<u> </u>		

¹ME = Main effect, MED = Mediation, MOD = Moderation

² For studies that manipulated additional factors (e.g., moderators), only the baseline condition in which the main effect was predicted to emerge was included in the meta-analysis.

³ The p-values in this table were recalculated by the meta-analysis software (CMA) and may deviate slightly from the ones reported in the main text and the Supplementary Online Materials.

3) Supplemental Studies

Study S1

Study S1 was a broad-based exploratory study examining the influence of relative power on a range of different outcomes (e.g., perspective taking, objectification, interaction efficiency, trust). The purpose of the study was to get a better understanding of how equal-and unequal-relationships affect the perceptions and behaviors in those relationships. Power was manipulated using a relational recall task (Gruenfeld, Inesi, Magee, & Galinsky, 2008; Inesi, Gruenfeld, & Galinsky, 2012). Specifically, participants were asked to think of a person at work that had more (high-relative-power condition), the same (equal-relative-power condition), or less (low-relative-power condition) power than them. Trust in the person participants wrote about was measured using three items (i.e., "I can trust [recalled name]", "[recalled name] has my best interests at heart", and "[recalled name] is good to me"). Both low- (p < .001) and high-power participants (p < .125) reported lower trust than equal-power participants, though the latter difference was not statistically significant. We did not include this study in the main text because it was exploratory in nature and included several unrelated measures. However, based on the results of this exploratory study, we decided to further examine the relationship between relative power and interpersonal trust.

Study S2

Study S2 is a constructive replication of a published study (Inesi et al., 2012; Study 3). Because the original study only compared high and equal power, we added a low-power condition to test whether low power – like high power – would result in lower trust relative to equal power. Participants were asked to think of a person at work that had more (high-relative-power condition), the same (equal-relative-power condition), or less (low-relative-power condition) power than them. Then, participants imagined that this person had provided them with a favor. Participants indicated how much they trust this person. In line with our predictions, both high- (p = .010) and low-power participants (p = .028) reported lower trust

than equal-power participants. We did not use this study as we decided to run a better powered and pre-registered version (i.e., Study S3).

Study S3

Study S3 is a preregistered ($\underline{\text{link}}$), constructive replication of a published study (Inesi et al., 2012; Study 3). It used identical materials as Study S2 but was based on a larger sample. In line with our predictions, both high- (p = .029) and low-power participants (p < .001) reported lower trust than equal-power participants. We removed this study during the revision to address reviewer comments.

Study S4

Study S4 is a conceptual replication of Study S3. Similar to Study S3, participants thought of a person at work that had more (high-relative-power condition), the same (equal-relative-power condition), or less (low-relative-power condition) power than them. In contrast to Study S3, Study S4 did not include any mention of a favor. Instead, participant simply indicated whether they trusted the other person or not. Trust was measured using a scale by Levine, Bitterly, Cohen, and Schweitzer (2018). We observe the predicted pattern such that low power led to significantly less trust than equal power (p = .040) and high power led to significantly less trust than equal power (p = .040). We did not include this study during the initial submission as it did not provide any incremental benefits to the study package over Study S3, which was a more direct replication of the original study.

Study S5

Study S5 is a preregistered (link), direct replication of Study S4. The materials and methods were identical to Study S4, except that we used a different participant pool. Although we observe the predicted pattern directionally, only low power led to significantly less trust than equal power (p = .031), while the effect for high vs. equal power did not reach significance (p = .19). We did not include this study during the initial submission as it did not

provide any incremental benefits to the study package over Study S3, which was a more direct replication of the original study.

Study S6

Study S6 is a preregistered (link) study testing the effects of relative power on trust. The study uses the same vignette as Studies 1c and 3b in the main paper. Identically to Study 3b, participants were randomly assigned to a high-, equal-, or low-relative-power condition. The same 3-item trust measure as in Studies 1c and 3b was used. In line with our predictions, both high- (p < .001) and low-power participants (p < .001) reported lower trust than equal-power participants. We did not include this study in the paper as it uses the same design as in the conflict-of-interest control condition of Study 3b and thus provides no additional theoretical value.

Study S7

Study S7 tested the effects of relative power on trust using the same power manipulation and trust measure as Study 5 in the main paper. Participants were randomly assigned to either take the role of a supervisor (high-relative-power condition), a peer (equal-relative-power condition), or a subordinate (low-relative-power condition) and then completed a trust game with another participant with whom they had ostensibly been matched with. Supporting our predictions, trust was lower when relative power was high (p = .049) or when relative power was low (p < .012), compared to when relative power was equal. We did not include this study in the paper as it uses the same design as in the superordinate-goal control condition of Study 5 and thus provides no additional theoretical value.

Study S8

Study S8 was a close replication of a published study (Schilke, Reimann, & Cook, 2015; Study 2) examining the effects of relative power on trust. The original study manipulated the focal individual's relative power (high vs. low). In our replication attempt,

we also included an equal-relative power condition and a neutral control condition in which no power-related information was mentioned. Power was manipulated by providing information about participant's own and the other person's ability to switch to different partners within the game (i.e., the availability of alternatives). Trust was measured using a variation of the trust game in which participants could send (or keep) a small amount of money to their counterpart. There were no significant differences among the high-, low-, and equal-power conditions (ps > .21). Because we were also unable to replicate the high-lowpower difference found in the original study (p = .27) and the difference was even trending in the opposite direction, we did not pursue this paradigm further. We offer three potential explanations for the absence of any effect. First, it is possible that our sample size (approximately 50 observations per condition) was simply too small to detect an effect. Second, it is possible that we did not fully capture the realism of the original study through our close replication that was designed based on the methods description in the original paper. Third, it is possible that in this context, trust takes on a different meaning. In fact, in a commentary on the original study, Wu and Wilkes (2016) argued that "participants who are assigned to a high-power position have more attractive alternatives and, as a result, do not need to trust their exchange partners" (p. 1). Thus, the lack of a significant result of both the original and our predicted effect may be a consequence of the fact that in this particular context people *depend* on trust more or less but not whether they *trust* more or less.

Study S9

Study S9 tested the effect of relative power on interpersonal trust and the mediating effect of goal similarity. Study S9 used the same design as Study 3a in the main text, except that Study 3a includes a leadership questionnaire to make the power manipulation more legitimate and realistic and a different mediator scale (conflict of interest instead of goal similarity). Participants in the high-power condition trusted less than those in the equal-power condition (p = .049). Participants in the low-power condition trusted less compared to those

in the equal-power condition (p = .012). The difference between the high- and low-power conditions was not significant (p = .61). Finally, the effect of high power (vs. equal power) on trust was mediated by perceived goal similarity, CI_{95} [-7.48; -2.14]. and the effect of low power (vs. equal power) on trust was mediated by perceived goal similarity, CI_{95} [-9.91; -4.51]. This study was a non-preregistered and lower-powered version of Study S10.

Study S10

Study S10 tested the effect of relative power on interpersonal trust and the mediating effect of perceived goal similarity. Study S10 used the same design as Study S9 but used a larger sample and was preregistered (link). Participants in the high-power condition trusted directionally less than those in the equal-power condition although the difference was not statistically significant at the 0.05 level (p = .080). Participants in the low-power condition trusted less compared to those in the equal-power condition (p = .001). The difference between the high- and low-power conditions was not significant (p = .13). Finally, the effect of high power (vs. equal power) on trust was mediated by perceived goal similarity, CI₉₅ [-4.15; -1.73]. and the effect of low power (vs. equal power) on trust was mediated by perceived goal similarity, CI₉₅ [-6.80; -3.49]. We replaced this study during the revision to address reviewer comments.

Study S11

Study S11 tested the differential effects of relative power on affective and cognitive trust (McAllister, 1995). We reasoned that affective trust would be lower in unequal- than equal-power relationships since affect-based trust is based on the perceived benevolence of an individual and our theorizing suggests that individuals in power-unequal relationships, compared to those in power-equal relationships, care more about their own goals and less about the welfare of others. In contrast, a different pattern of results was expected for cognitive trust. Because cognition-based trust depends on the extent to which another individual's behavior can be predicted (Schaubroeck, Lam, & Peng, 2011), and having more

power is associated with a greater control over others' behavior (Fiske, 2010; Magee & Galinsky, 2008), we expected cognition-based trust to increase as social power increases. The study used the same role power manipulation as Study 1b in the main text. To measure affective and cognitive trust, we used the scale developed by McAllister (1995).

We found a significant relative power \times trust type interaction (p < .001), suggesting that power led to different effects for the two types of trust. For affect-based trust. participants in the high-power condition reported significantly lower levels of affective trust than those in the equal-power condition (p = .001) and participants in the low-power condition indicated less affective trust than those in the equal-power condition (p < .001). Those in the high-power condition also reported higher levels of affective trust than those in the low-power condition (p = .001). Conversely, for cognitive trust, participants in the low-power condition reported significantly lower levels of cognition-based trust compared to those in the equal-power condition (p = .003) and significantly lower compared to those in the high-power condition (p = .003). Cognition-based trust did not differ between the high-and equal-power conditions (p = .93).

We removed this study from the manuscript during the revision because it was no longer testing central aspects of our revised theory and to address reviewer comments.

Study S12

Study S12 used the same design as Study S11 but a different sample (MTurk instead of laboratory participants). Replicating the effects of Study S11, we found a significant relative power \times trust type interaction (p < .001). For affect-based trust, participants in the high-power condition reported significantly lower levels of affective trust than those in the equal-power condition (p = .031). Participants in the low-power condition also indicated less affective trust compared to those in the equal-power condition (p = .001). There was no significant difference between the high- and low-power conditions (p = .25). For cognitive trust, participants in the high-power condition reported significantly higher levels of trust

than those in the low-power condition (p = .002). The equal-power condition was directionally lower on cognitive trust compared to the high-power condition (p = .17) and directionally higher compared the low-power condition (p = .09). We originally reported this study in the Supplementary Online Materials as a replication of Study S11.

Study S13

Study S13 tested the effect of power type (intrapersonal vs. interpersonal) on interpersonal trust. Study S13 used the same design as Study 4 in the main text, with a few exceptions. First, in the intrapersonal power condition, control participants did not recall a time in which they had equal power as another individual (as in Study 4), but instead recalled the last meal they had (Galinsky, Gruenfeld, & Magee, 2003). Second, Study S13 used separate manipulation check scales for interpersonal and intrapersonal power, while Study 4 uses a consistent scale across all power type conditions. Third, Study S13 had a lower sample size. In the interpersonal power condition, participants in the high-power condition reported significantly lower levels of trust than those in the equal-power condition (p = .031). Participants in the low-power condition also indicated less trust compared to those in the equal-power condition, but the difference was not statistically significant (p = .165). When intrapersonal trust was manipulated, no differences between the three levels of power emerged (ps > .63). We did not use this study because we replaced it with Study S14, which was preregistered and better powered.

Study S14

Study S14 was an exact replication of Study S13 but was preregistered (link) and had a larger sample size. In the interpersonal power condition, participants in the high-power condition reported significantly lower levels of trust than those in the equal-power condition (p = .008). Participants in the low-power condition also indicated less trust compared to those in the equal-power condition (p < .001). When intrapersonal trust was manipulated, no differences between the three levels of power emerged (ps > .76). We replaced this study

with Study 4 in the main text to address reviewer comments.

Study S15

Study S15 used the same design as Study 5 in the manuscript but with a smaller sample size. In line with Study 4 in the main text, the moderated mediation models of the indirect effect of low (vs. equal) power, $CI_{95} = [3.10, 9.04]$, and high (vs. equal) power, $CI_{95} = [2.32, 8.00]$, on interpersonal trust via perceived conflict of interest were significant. We replicated this study with a preregistered and better-powered version and reported it as Study 5 in the main text.

Study S16

The purpose of Study S16 was to test whether the effect of relative power on trust was influenced by whether people would interact with their partner in the future or not (San Martin, Swaab, Sinaceur, & Vasiljevic, 2015). The study was preregistered ($\frac{1}{1}$). The relative power manipulation was the same as in Study S6. Future expectations were manipulated using a manipulation adopted from San Martin et al. (2015), which informed participants that they would either expect future interactions with their counterpart or not. Trust was measured using a scale by Levine et al. (2018). There was no significant interaction of power and future interactions (p = .17), suggesting that the effects of relative power on trust are invariant to the expected longevity of a relationship. Nevertheless, we found support for the main effect of power on trust. Participants in the high-power condition reported significantly lower levels of trust than those in the equal-power condition (p < .001), and participants in the low-power condition indicated less trust compared to those in the equal-power condition (p < .001).

References

- Fiske, S. (2010). Interpersonal stratification: Status, power, and subordination. In S. T. Fiske, G. Lindzey, & D. T. Gilbert (Eds.), *Handbook of Social Psychology* (5th ed., pp. 941–982). Hoboken, NJ: Wiley.
- Galinsky, A. D., Gruenfeld, D. H., & Magee, J. (2003). From Power to Action. *Journal of Personality and Social Psychology*, 85(3), 453-466. doi:10.1037/0022-3514.85.3.453
- Gruenfeld, D. H., Inesi, M. E., Magee, J. C., & Galinsky, A. D. (2008). Power and the objectification of social targets. *Journal of Personality and Social Psychology*, 95(1), 111-127.
- Hayes, A. F., & Preacher, K. J. (2014). Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical and Statistical Psychology*, 67(3), 451-470.
- Hicks, R., & Tingley, D. (2011). Causal mediation analysis. *The Stata Journal*, 11(4), 605-619.
- Imai, K., Keele, L., & Tingley, D. (2010). A General Approach to Causal Mediation Analysis. *Psychological Methods*, *15*(4), 309-334.
- Inesi, M. E., Gruenfeld, D. H., & Galinsky, A. D. (2012). How power corrupts relationships:

 Cynical attributions for others' generous acts. *Journal of Experimental Social*Psychology, 48(4), 795-803.
- Levine, E. E., Bitterly, T. B., Cohen, T. R., & Schweitzer, M. E. (2018). Who is trustworthy? Predicting trustworthy intentions and behavior. *Journal of Personality and Social Psychology*, 115(3), 468-494.
- Magee, J., & Galinsky, A. D. (2008). Social hierarchy: The self-reinforcing nature of power and status. *Academy of Management Annals*, 2(1), 351-398.

- McAllister, D. J. (1995). Affect-and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal*, *38*(1), 24-59.
- San Martin, A., Swaab, R. I., Sinaceur, M., & Vasiljevic, D. (2015). The double-edged impact of future expectations in groups: Minority influence depends on minorities' and majorities' expectations to interact again. *Organizational Behavior and Human Decision Processes*, 128, 49-60.
- Schaubroeck, J., Lam, S. S., & Peng, A. C. (2011). Cognition-based and affect-based trust as mediators of leader behavior influences on team performance. *Journal of Applied Psychology*, *96*(4), 863-871.
- Schilke, O., Reimann, M., & Cook, K. S. (2015). Power decreases trust in social exchange.

 Proceedings of the National Academy of Sciences, 112(42), 12950-12955.
- Wu, C., & Wilkes, R. (2016). Durable power and generalized trust in everyday social exchange. *Proceedings of the National Academy of Sciences*, 113(11), E1417-E1417.