

Supplemental Information for Trait Negative Reputational Concerns Among In-group Members and In-group Favoritism in Minimal Groups

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Auxiliary variables

Praise seeking and rejection avoidance scale (Kojima et al., 2003)

We found a praise seeking tendency immediately after the FNE scale was implemented in the first survey. The scale consisted of nine items and showed satisfactory reliability ($\alpha = .81$ praise seeking and $.81$ for rejection avoidance). We measured it for exploratory purposes.

Expectations for cooperation

After each prisoner's dilemma game, we asked the participants how much money they thought their partners had transferred. In the CK condition, previous studies (e.g., Yamagishi et al., 2008) have repeatedly shown that in-group members have higher expectations for other in-group members than for out-group members, but that there are no such differences between in-group and out-group members in the PK condition. We assessed this issue to compare our results with previous findings.

Supplementary Results

Re-analyses without data exclusion

The mean in-group identification score was 2.47 ($SD = 0.72$), while the out-group identification score was 2.34 ($SD = 0.64$). The difference was significant ($t(179) = 3.41, p < .001, d = 0.19$). Minimal group manipulation was successful.

We conducted a 2 (group: in-group vs. out-group) \times 2 (knowledge: CK vs. PK) within-subject ANOVA on cooperation levels other than the UK condition, thus yielding significant main effects for group ($F(1, 179) = 86.86, p < .001, \text{partial } \eta^2 = .33$), knowledge ($F(1, 179) = 17.96, p < .001, \text{partial } \eta^2 = .09$), and the interaction effect ($F(1, 179) = 24.79, p < .001, \text{partial } \eta^2 = .12$). To follow up on the significant interaction, we examined the simple effect of group in each knowledge condition. Participants cooperated more with in-group members than with out-group members in both the CK ($t(179) = 9.54, p < .001, d = 0.65$) and PK ($t(175) = 7.54, p < .001, d = 0.39$) conditions, although the degree of in-group favoritism was different.

Expectations for cooperation

We analyzed the level of expectation participants had about their partner's cooperation by conducting a 2 (partner's group: in-group or out-group) \times 2 (knowledge: CK or PK) analysis of variance, which showed significant main effects for the partner's group ($F(1, 175) = 122.33, p < .001$, partial $\eta^2 = .41$) and knowledge ($F(1, 175) = 61.72, p < .001$, partial $\eta^2 = .26$) as well as an interaction effect between group and knowledge ($F(1, 175) = 149.86, p < .001$, partial $\eta^2 = .46$). In the CK condition, participants expected higher monetary offerings from in-group partners than from out-group partners ($t(175) = 13.01, p < .001, d = 1.05$). However, there were no significant differences in the PK condition ($t(175) = 1.22, p = .22, d = 0.06$).

Cooperation in comparison to the UK condition

We analyzed cooperation levels in comparison to those in the UK condition. All four differences were significant, including those for the in-group in CK ($t(175) = 8.85, p < .001, d = 0.54$), out-group in CK ($t(175) = 3.28, p = .001, d = 0.15$), in-group in PK ($t(175) = 5.87, p < .001, d = 0.26$), and out-group in PK ($t(175) = 3.62, p < .001, d = 0.15$).

Correlations

Table S1 shows correlations between the six investigated personality traits. As shown, the original scales (e.g., FNE) and in-group version scales (e.g., in-group FNE) were highly positively correlated. FNE was also positively correlated with rejection avoidance. We found a significant but relatively weak positive correlation between FNE and praise seeking. These correlation patterns were generally similar for in-group FNE, in-group praise seeking, and in-group rejection avoidance.

Table S1*Correlations between personality traits related to reputational concern*

Variable		M	SD	α	1	2	3	4	5	6
1	FNE	3.25	0.95	0.89	–					
2	In-group FNE	3.31	0.97	0.92	.86 **	–				
3	Rejection avoidance	3.66	0.76	0.81	.65 **	.58 **	–			
4	In-group rejection avoidance	3.53	0.8	0.87	.64 **	.64 **	.84 **	–		
5	Praise seeking	3.07	0.74	0.81	.18 *	0.15	0.06	-0.01	–	
6	In-group praise seeking	3.18	0.8	0.87	.32 **	.29 **	0.1	0.09	.85 **	–

Note: FNE: fear of negative evaluation* $p < .05$; ** $p < .01$

Table S2 shows correlations between each of the investigated personality traits and in-group favoritism in both the CK and PK conditions. As shown, there was a significant positive correlation between in-group favoritism and the original and in-group FNEs in the CK condition, but not in the PK condition. We also found significant positive correlations between both original and in-group rejection avoidance and in-group favoritism. By contrast, we found no such correlations between original and in-group praise seeking. No investigated traits were significantly correlated with in-group favoritism in the PK condition.

Table S2*Correlations between in-group favoritism and personality traits*

In-group favoritism	FNE	In-group FNE	Rejection Avoidance	In-group Rejection Avoidance	Praise Seeking	In-group Praise Seeking
CK	.17*	.15*	.19*	.19**	0.1	0.11
PK	0.14	0.13	0.1	0.1	0.09	0.09

Note: CK: common knowledge; PK: private knowledge* $p < .05$; ** $p < .01$

Supplementary References

- Kojima, Y., Ohta, K., & Sugawara, K. (2003). Praise seeking and rejection avoidance need scales: Development and examination of validity. *Japanese Journal of Personality*, 11(2), 86–98. https://doi.org/10.2132/jjpjspp.11.2_86
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