

Supplemental Materials

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Pilot Study

To test the possibility that dominance is more accepted among MBA students than among undergraduate students, we asked both MBA and undergraduate students to indicate how normative they perceived dominance to be, as well as the extent to which they accept the use of dominance. Both the undergraduate and MBA students in this sample were recruited from the same university as the participants in our main study (to minimize other differences, such as geographic location, across the two samples). MBA students were invited to participate after the completion of their introductory leadership class or were recruited via convenience/snowball sampling. The undergraduates were recruited as part of an introductory psychology class that had a research participation requirement. The sample was comprised of 74 MBA students (27 women and 47 men), and 223 undergraduate psychology students (117 women, 105 men, and 1 other gender identity). Data and full materials for this study are available at https://osf.io/2nb6x/?view_only=ec3b9d594ce54c2094c1ece6556d641a.

Participants provided their perceptions of how normative and how acceptable the use of dominance in groups dominance is (1=Not at all to 7=Very much so). Normative items included “I am used to being around people with a forceful or dominant personality,” and “I am used to seeing people use aggressive tactics to get their way” (three items; $\alpha = .66$). Acceptance items included “It is acceptable for people to act in a highly assertive manner” and “It is okay for people to take control to get things done” (four items; $\alpha = .77$).¹ Factor analyses indicated that a two-factor model provided good model fit: TLI = .967, RMSA = .03, RMSEA = .052.

¹ One item (“It is sometimes necessary for group members to use aggressive tactics to get their way”) was removed from the acceptance scale due to low factor loading and high cross-loading onto the normative scale.

As expected, MBA students saw dominance as significantly more normative than did undergraduate psychology students (MBA: $M = 4.28$, $SD = 1.17$; undergraduate: $M = 3.79$, $SD = 1.19$; $t(127.00) = 3.11$, $p = .002$). MBA students also saw dominance as significantly more acceptable than did undergraduate students (MBA $M = 4.99$, $SD = 0.79$; undergraduate $M = 4.48$, $SD = 1.10$; $t(173.23) = 4.35$, $p < .001$).²

This pilot study provides direct evidence that, compared to undergraduates, MBA students are more accustomed to dominance and are more accepting of the use of dominance in groups. This provides an important empirical test of the context-dependent nature of dominance (McClanahan, 2020) and confirms the relevance and novelty of our empirical setting relative to prior longitudinal work: given that MBA students are more accepting of dominance, it stands to reason that dominance may be more effective over time in this context than has been indicated by prior work.

Attrition Analyses

Students who participated in our study did not differ from those who failed to participate in the study in terms of their T2 peer-rated dominance ($t(395.25) = -0.91$, $p = .36$, 95% CI [-0.28, 0.10]). Participants were significantly higher than non-respondents in terms of T2 peer-rated social rank ($t(389.03) = -1.99$, $p = .047$, 95% CI [-0.37, -0.0026]) and marginally higher in terms of T2 peer-rated prestige ($t(329.55) = -1.77$, $p = .078$, 95% CI [-0.34, 0.018]).

Participants who only completed the T1 survey (but not the T2 survey) did not differ from those who completed both surveys in terms of peer-rated dominance ($t(99.48) = 1.43$, $p =$

² Results held when controlling for participant gender: over and above the effect of gender, MBAs saw dominance as more normative ($F(1, 293) = 7.63$, $p = .006$) and acceptable ($F(1, 293) = 9.77$, $p = .002$) than undergraduate students did.

.16, 95% CI [-0.096, 0.59]), prestige ($t(119.19) = 0.091, p = .93$, 95% CI [-0.21, 0.23]), or social rank ($t(104.61) = -0.87, p = .39$, 95% CI [-0.45, 0.18]) at T2. These results indicate that attrition is unlikely to have produced a biased sample.

Factor Analyses

To ensure that our key measures reflected distinct constructs, we conducted two sets of factor analyses. The first tested whether prestige and social rank are distinct constructs. The second modelled all peer-rated variables (dominance, prestige, competence, social affinity, and social rank). These items are listed in Supplementary Table 1.

Social Rank and Prestige

We first investigated whether the social rank and prestige items loaded onto separate factors. A two-factor exploratory analysis with Oblimin rotation indicated no evidence for cross-loading at Time 1 and Time 2. These loadings are printed in Supplementary Tables 2 and 3. The two-factor models also fit the data substantially better than models in which prestige and social rank items load onto a single factor (as indicated by the non-overlapping confidence intervals in Supplemental Table 4), indicating that these items capture two separate dimensions rather than one single dimension.³

In sum, factor analyses confirm that our trimmed social rank and prestige scales are empirically distinct. This is also consistent with other work that similarly operationalizes social rank and prestige as distinct constructs using these same measures (e.g., Brand & Mesoudi, 2019;

³ Model fit statistics for our exploratory factor analysis models are from the “psych” package in R (see Revelle, 2021). These model fit statistics can be used to determine the optimal number of factors in a series of EFA models, particularly in situations where variables are continuous and the sample size is moderate to large (Finch, 2020). The model fit statistics from an exploratory factor analysis are comparable to the model fit statistics obtained by running a confirmatory factor analysis based on the results of the exploratory factor analysis.

Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013; Redhead, Cheng, Driver, Foulsham, and O’Gorman, 2019).

All Peer-Rated Variables

Beyond the factor analyses examining prestige and social rank mentioned above, we also conducted exploratory factor analyses to examine whether dominance, prestige, competence, social affinity, and social rank were distinct constructs. Using exploratory factor analyses with Oblimin rotation, specifying five factors, we found support for the distinction among our proposed scales at Time 1 (see Supplementary Table 5).

At Time 2, the exploratory factor analysis produced factors that were largely consistent with Time 1. We did see some evidence that competence at T2 cross-loaded onto our social rank measure, although the rest of our items loaded onto the scales we anticipated (see Supplementary Table 6). The cross-loading of competence onto the social rank factor suggests that competence was highly related to social rank in these project groups at T2.

The strong relationship between competence and social rank at T2 makes the ability of dominance and prestige to predict T2 social rank beyond the effect of perceived competence particularly noteworthy. Additionally, these exploratory factor analysis models had acceptable model fit at T1 and at T2 (see Supplementary Table 7). In short, these factor analyses provide consistent evidence for dominance and prestige as empirically distinct from social affinity, competence, and social rank.

Six-Item Results

The results presented in the main text used a two-item measure of social rank. We also tested our models with the full six-item social rank measure as a robustness check. The additional four items not included in the two-item scale were: “This person’s wishes or opinions

impact the group's process", "This person has relatively high status within the group", "Others in the group look up to this person", and "The group acts in accordance with this person's wishes or opinions". This six-item measure yielded very similar results to the two-item measure shown in the main text. Dominance and prestige significantly positively predicted social rank at T1 and T2. Dominance and prestige also both significantly predicted gains in social rank over time. Full results are in Supplementary Table 8.

Self-Report Models

The models in the main text examined how peer-rated dominance and prestige predict peer-rated social rank. Participants also completed a self-report measure of their use of dominance and prestige strategies, as well as their dominance and prestige motivation, at Time 1. Below we report self-reported dominance and prestige as they predict peer-rated social rank. We aggregated peer-reported social rank scores for each target by averaging the social rank scores for that target from each rater. The final sample was $n = 362$ (one observation per target). Like models in the main test, we controlled for peer-reported competence and social affinity (which were also averaged scores from each rater). We also controlled for target gender and the proportion of each target's raters who were female (to account for rater gender).

Self-Reported Dominance and Prestige Strategies

Participants reported on their own use of dominance and prestige strategies by completing the self-report versions of the peer-rated dominance and prestige scales used in the main text (Cheng, Tracy, & Henrich, 2010; Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013; dominance $\alpha = .77$; prestige $\alpha = .77$). Self-reported use of dominance and prestige strategies did not significantly predict social rank at T1 or T2, nor changes in social rank over time. Full results are in Supplementary Table 9.

Dominance and Prestige Motivation

Participants also reported the degree to which they were motivated by dominance and prestige by completing an abbreviated version of the Achievement Motivation Scale (AMS; Cassidy & Lynn, 1989). Items for the dominance subscale included “I enjoy planning things and deciding what other people should do,” “I think I would enjoy having authority over other people” (1 = strongly disagree, 5 = strongly agree; $\alpha = .68$). Items for the prestige subscale included “I would really like an important job where people look up to me” and “I like to have people come to me for advice” (1 = strongly disagree, 5 = strongly agree; $\alpha = .67$).

Self-reported dominance and prestige motivation did not significantly predict peer-reported social rank at T1. Self-reported dominance motivation positively predicted social rank at T1 and T2, and self-reported prestige motivation negatively predicted social rank at T2. Self-reported prestige motivation also negatively predicted changes in social rank over the course of the project. See full results in Supplementary Table 10.

Big Five Personality Analyses

We replicated the analyses from the main text while controlling for self-reported Big Five personality traits (measured at Time 2). The inclusion of these control variables reduces our sample size to 276. Despite the smaller sample size, including the Big Five as control variables does not substantively alter the impact of dominance or prestige on social rank. Self-reported Big Five personality traits did not significantly predict social rank (with the exception of self-reported extraversion, which significantly positively predicted social rank at Time 1; see Supplementary Table 11 for full results).

Additional Gender Analyses

Variables of Interest by Gender

We tested whether there were gender differences in the mean score of each of our variables of interest. Results of these tests are presented in Supplementary Table 12. For peer-reported scales, means reflect group mean-centered scores (i.e., scores greater than zero indicate scores higher than the group mean, while negative scores indicate scores lower than the group mean). Self-reported scales are raw (i.e., not group mean-centered).

Gender Interactions

To see if the efficacy of peer-reported dominance and prestige varied by gender, we looked at interactions of each strategy with gender (i.e., gender x prestige and gender x dominance) in predicting peer-rated social rank. These models used the same modeling specifications/control variables as the main text. The fixed effects of dominance, prestige, gender, and the gender x prestige and gender x dominance interactions are in Supplementary Table 13.

As can be seen in Supplementary Table 13, there was a marginally significant interaction between gender and T2 dominance in predicting T2 social rank. Dominance was positively associated with social rank for both men ($b = 0.34$, 95% CI: [0.29, 0.38], $p < .001$) and women ($b = 0.28$, 95% CI: [0.23, 0.34], $p < .001$). At one standard deviation above the mean of dominance, there was no significant effect of gender on social rank ($b = -0.02$, 95% CI: [-0.15, 0.11], $p = .400$). At one standard deviation below the mean of dominance, however, women had significantly higher social rank than men ($b = -0.16$, 95% CI: [-0.30, -0.03], $p = .008$). This suggests that after extended interaction, women seen as less dominant had higher social rank than less dominant men. In other words, non-dominant men appear to suffer a larger rank

‘penalty’ relative to non-dominant women. This interaction is pictured in the Supplementary Figure 1.

There was also significant gender by T1 prestige interaction in predicting changes in social rank over time. Prestige was positively associated with social rank for men ($b = 0.20$, 95% CI: [0.11, 0.28], $p < .001$). Prestige was marginally associated with social rank for women ($b = 0.07$, 95% CI: [-0.03, 0.17], $p = .087$). At one standard deviation above the mean of prestige, there were no significant gender differences in changes in social rank ($b = -0.10$, 95% CI: [-0.27, 0.08], $p = .143$). At one standard deviation below the mean of prestige, however, women were significantly more likely to gain social rank over the course of the project than were men ($b = 0.20$, 95% CI: [0.11, 0.28], $p < .001$). This suggests that men and women who were high on prestige similarly gained social rank over the course of the group project, but that women who were low on prestige gained social rank to a greater degree than did men who were low on prestige (on average). In other words, prestige appears to be more crucial to rank attainment in men than in women. See Supplementary Figure 2.

Social Relations Model

As addressed in the main text, the social relations model can be employed on our round robin data, though the stringent data requirements mean that the majority of our observations (834 observations from 112 raters) could not be included in the analysis because they came from groups with data from fewer than four raters at T2. Nonetheless, we reproduced the models from the main text using the social relations model for exploratory purposes. We used social relations variance partitioning to obtain a target effect of dominance, prestige, competence, social affinity, and social rank for each target in this reduced sample. The target effects represent the variance in these measures that all raters in the group tend to agree upon with respect to each target; this

means that all raters' data are aggregated to a single observation for each target. Thus, this process produced a total of 164 observations at Time 2 (one per target). We used these target effects in a linear regression model; all results from these models are in Supplementary Table 14. Even at this reduced sample size, the results are still largely consistent with our main analyses, with the exception of dominance as a predictor of changes in social rank over time; these results show a positive but non-significant relationship, in contrast to the positive and significant relationship in the main text. This may be due to the substantially reduced statistical power.

Curvilinear Models

Given theorizing about curvilinear effects of assertiveness on social rank and leadership emergence (see Ames, 2009), we tested whether there was a curvilinear effect of dominance on social rank. The curvilinear effects of dominance on social rank were non-significant (full results in Supplementary Table 15).

References

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Supplementary Table 1

Peer-Rated Items

Prestige	
pres1	His unique talents/abilities are recognized by other members of the group.
pres2	He/she is considered an expert on some matters by others.
pres3	Others seek his/her advice on a variety of matters.
Dominance	
dom1	He/she enjoys having control over other members of the group.
dom2	He/she often tries to get his/her own way regardless of what others in the group may want.
dom3	He/she is willing to use aggressive tactics to get his/her way.
dom4	He/she tries to control others rather than permit them to control him/her.
Competence	
comp1	This person makes valuable task-related contributions to the group.
Social Affinity	
affinity1	I think I would enjoy spending time with this person socially.
Social Rank	
rank1	This person has relatively strong influence within the group.
rank2	This person leads the group.

Supplementary Table 2

Time 1 two-factor EFA factor loadings

	Factor 1	Factor 2
pres1	.723	
pres2	.984	
pres3	.727	
rank1		.928
rank2		.826

Note. Loadings < .30 are not displayed.

Supplementary Table 3

Time 2 two-factor EFA factor loadings

	Factor 1	Factor 2
pres1	.742	
pres2	.986	
pres3	.752	
rank1		.957
rank2		.843

Note. Loadings < .30 are not displayed.

Supplementary Table 4

Model Fit for One- and Two-Factor Exploratory Factor Analyses

		TLI	RMSA	RMSEA	RMSEA Lower 90% CI	RMSEA Upper 90% CI
Time 1	One factor	.583	.11	.353	.338	.368
	Two factor	.997	.01	.031	.00	.072
Time 2	One factor	.651	.13	.353	.337	.368
	Two factor	.998	.01	.027	.00	.069

Supplementary Table 5

Time 1 Exploratory Factor Analysis Loadings

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
pres1		.632			
pres2		.979			
pres3		.697			
dom1	.765				
dom2	.947				
dom3	.873				
dom4	.877				
rank1			.735		
rank2			.900		
comp1					.813
affinity1				.999	

Note. Loadings < .30 are not displayed.

Supplementary Table 6

Time 2 Exploratory Factor Analysis Loadings

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
pres1		.715			
pres2		.986			
pres3		.706			
dom1	.735				
dom2	.897				
dom3	.925				
dom4	.890				
rank1			.765		
rank2			.909		
comp1			.440		.359
affinity1				.773	

Note. Loadings < .30 are not displayed.

Supplementary Table 7

Model Fit for Exploratory Factor Analyses at Time 1 and Time 2

	TLI	RMSA	RMSEA	RMSEA Lower 90% CI	RMSEA Upper 90% CI
Time 1	.964	.02	.070	.059	.082
Time 2	.987	.01	.046	.035	.058

Supplementary Table 8

Results from Models Predicting Six-Item Social Rank

Model 1: Predicting T1 Social Rank Cross-Sectionally				
Term	Estimate	95% CI	Std. β	p
T1 Prestige	0.34	[0.29, 0.38]	.31	< .001
T1 Dominance	0.29	[0.26, 0.32]	.35	< .001
T1 Social Affinity	0.16	[0.14, 0.19]	.21	< .001
T1 Competence	0.35	[0.32, 0.39]	.37	< .001
Target Gender (1 = Men)	-0.06	[-0.13, 0.02]	-.03	.129
Rater Gender (1 = Men)	-0.07	[-0.15, 0.01]	-.03	.083
Model 2: Predicting T2 Social Rank Cross-Sectionally				
T2 Prestige	0.39	[0.35, 0.44]	.35	< .001
T2 Dominance	0.24	[0.21, 0.27]	.26	< .001
T2 Social Affinity	0.11	[0.08, 0.14]	.14	< .001
T2 Competence	0.42	[0.38, 0.46]	.55	< .001
Target Gender (1 = Men)	-0.04	[-0.12, 0.03]	-.02	.284
Rater Gender (1 = Men)	0.01	[-0.08, 0.09]	.00	.867
Model 3: Predicting Changes in Social Rank				
T1 Social Rank	0.35	[0.29, 0.41]	.37	< .001
T1 Prestige	0.17	[0.10, 0.23]	.14	< .001
T1 Dominance	0.06	[.01, 0.10]	.06	.016
T1 Social Affinity	0.06	[0.01, 0.23]	.06	.009
T1 Competence	0.17	[0.11, 0.23]	.16	< .001
Target Gender (1 = Men)	-0.17	[-0.29, -0.04]	-.07	.008
Rater Gender (1 = Men)	-0.01	[-0.14, 0.11]	-.01	.821

Note. Estimates are the variance (for random effects) and unstandardized regression coefficients (for fixed effects).

Supplementary Table 9

Results from Self-Reported Dominance and Prestige Strategies Models

Model 1: Predicting T1 Social Rank				
Term	Estimate	95% CI	Std. β	p
T1 Prestige Strategy (Self-Report)	0.07	[-0.07, 0.2]	.04	.339
T1 Dominance Strategy (Self-Report)	-0.05	[-0.14, 0.05]	-.04	.346
T1 Social Affinity (Peer-Report)	0.07	[-0.02, 0.17]	.06	.126
T1 Competence (Peer-Report)	0.84	[0.73, 0.95]	.62	< .001
Target Gender	-0.12	[-0.28, 0.04]	-.06	.145
Proportion Female Rater	-0.19	[-0.41, 0.03]	-.07	.090
Model 2: Predicting T2 Social Rank				
T1 Prestige Strategy (Self-Report)	0.00	[-0.17, 0.17]	-.00	.975
T1 Dominance Strategy (Self-Report)	-0.03	[-0.15, 0.08]	-.03	.586
T2 Social Affinity (Peer-Report)	0.13	[0.02, 0.25]	.11	.027
T2 Competence (Peer-Report)	0.75	[0.60, 0.89]	.50	< .001
Target Gender	-0.16	[-0.36, 0.04]	-.07	.121
Proportion Female Rater	-0.04	[-0.32, 0.24]	-.01	.791
Model 3: Predicting T1 Changes in Social Rank				
T1 Social Rank (Peer-Report)	0.72	[0.61, 0.83]	.66	< .001
T1 Prestige Strategy (Self-Report)	-0.05	[-0.19, 0.09]	-.03	.457
T1 Dominance Strategy (Self-Report)	-0.02	[-0.12, 0.08]	-.02	.679
T1 Social Affinity (Peer-Report)	0.05	[-0.05, 0.14]	.04	.336
T1 Competence (Peer-Report)	0.13	[-0.03, 0.28]	.08	.103
Target Gender	-0.06	[-0.23, 0.10]	-.03	.440
Proportion Female Rater	0.07	[-0.16, 0.30]	.02	.560

Note. Estimates are unstandardized regression coefficients.

Supplementary Table 10

Results from Self-Reported Dominance and Prestige Motivation Models

Model 1: Predicting T1 Social Rank				
Term	Estimate	95% CI	Std. β	p
T1 Prestige Motivation (Self-Report)	-0.09	[-0.28, 0.11]	-.04	.389
T1 Dominance Motivation (Self-Report)	0.23	[0.03, 0.42]	.10	.027
T1 Social Affinity (Peer-Report)	0.08	[-0.02, 0.17]	.07	.105
T1 Competence (Peer-Report)	0.84	[0.73, 0.95]	.62	< .001
Target Gender	-0.11	[-0.27, 0.05]	-.05	.196
Proportion Female Rater	-0.20	[-0.42, 0.02]	-.07	.069
Model 2: Predicting T2 Social Rank				
T1 Prestige Motivation (Self-Report)	-0.32	[-0.56, -0.07]	-.13	.012
T1 Dominance Motivation (Self-Report)	0.28	[0.03, 0.52]	.12	.027
T2 Social Affinity (Peer-Report)	0.13	[0.02, 0.25]	.10	.025
T2 Competence (Peer-Report)	0.72	[0.58, 0.86]	.48	< .001
Target Gender	-0.14	[-0.34, 0.06]	-.06	.169
Proportion Female Rater	-0.06	[-0.33, 0.22]	-.02	.694
Model 3: Predicting T1 Changes in Social Rank				
T1 Social Rank (Peer-Report)	0.71	[0.60, 0.82]	.65	< .001
T1 Prestige Motivation (Self-Report)	-0.27	[-0.47, 0.07]	-.11	.009
T1 Dominance Motivation (Self-Report)	0.14	[-0.07, 0.34]	.06	.193
T1 Social Affinity (Peer-Report)	0.05	[-0.05, 0.14]	.04	.327
T1 Competence (Peer-Report)	0.11	[-0.04, 0.26]	.07	.150
Target Gender	-0.06	[-0.22, 0.11]	-.03	.505

Proportion Female Rater	0.06	[-0.17, 0.28]	.02	.625
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Note. Estimates are unstandardized regression coefficients.

Supplementary Table 11

Results from Models Controlling for Big Five Personality Traits

Model 1: Predicting T1 Social Rank				
Term	Estimate	95% CI	Std. β	<i>p</i>
<i>Random Effects</i>				
Target Intercept	0.13			
Rater Intercept	0.11			
<i>Fixed Effects</i>				
T1 Prestige	0.33	[0.26, 0.41]	.26	< .001
T1 Dominance	0.35	[0.30, 0.40]	.36	< .001
T1 Social Affinity	0.16	[0.11, 0.20]	.17	< .001
T1 Competence	0.42	[0.35, 0.49]	.35	< .001
Extraversion	0.05	[0.01, 0.09]	.08	.010
Neuroticism	-0.02	[-0.07, 0.02]	-.03	.330
Conscientiousness	-0.01	[-0.07, 0.05]	-.01	.781
Openness	0.00	[-0.06, 0.07]	.00	.900
Agreeableness	-0.01	[-0.06, 0.04]	-.01	.709
Target Gender (1 = Men)	-0.19	[-0.34, -0.04]	-.07	.016
Rater Gender (1 = Men)	-0.06	[-0.20, 0.08]	-.02	.394
Model 2: Predicting T2 Social Rank				
<i>Random Effects</i>				
Target Intercept	0.10			
Rater Intercept	0.12			
<i>Fixed Effects</i>				
T2 Prestige	0.39	[0.31, 0.46]	.30	< .001
T2 Dominance	0.31	[0.26, 0.36]	.30	< .001
T2 Social Affinity	0.08	[0.03, 0.13]	.08	.003
T2 Competence	0.51	[0.44, 0.58]	.43	< .001
Extraversion	0.02	[-0.02, 0.06]	.03	.237
Neuroticism	-0.03	[-0.08, 0.01]	-.04	.151
Conscientiousness	0.03	[-0.03, 0.09]	-.03	.354
Openness	0.03	[-0.04, 0.10]	.02	.395
Agreeableness	-0.02	[-0.07, 0.03]	-.02	.367
Target Gender (1 = Men)	-0.21	[-0.36, -0.06]	-.08	.007
Rater Gender (1 = Men)	0.04	[-0.10, 0.18]	.01	.575

Model 3: Predicting Changes in Social Rank				
<i>Random Effects</i>				
Target Intercept	0.23			
Rater Intercept	0.19			
<i>Fixed Effects</i>				
T1 Social Rank	0.46	[0.37, 0.56]	.43	< .001
T1 Prestige	0.17	[0.07, 0.26]	.12	.001
T1 Dominance	0.07	[0.00, 0.14]	.07	.051
T1 Social Affinity	-0.03	[-0.10, 0.03]	-.03	.296
T1 Competence	0.21	[0.11, 0.30]	.16	< .001
Extraversion	-0.01	[-0.06, 0.04]	.01	.763
Neuroticism	-0.04	[-0.10, 0.02]	-.04	.226
Conscientiousness	0.06	[-0.02, 0.14]	.06	.122
Openness	-0.05	[-0.14, 0.04]	-.04	.319
Agreeableness	-0.02	[-0.08, 0.05]	-.02	.648
Target Gender (1 = Men)	-0.21	[-0.41, -0.01]	-.08	.043
Rater Gender (1 = Men)	-0.00	[-0.18, 0.17]	-.00	.964

Note. Estimates are the variance (for random effects) and unstandardized regression coefficients (for fixed effects)

Supplementary Table 12

Gender Differences in Variables of Interest

	Women (<i>M</i>)	Men (<i>M</i>)	<i>t</i>	<i>p</i>
T1 Deference	0.07	-0.04	1.85	.065
T1 Social Rank	0.16	-0.09	3.71	< .001
T1 Dominance	0.09	-0.06	2.58	.010
T1 Prestige	0.03	-0.02	1.10	.273
T1 Social Affinity	0.03	-0.02	0.93	.355
T1 Competence	0.17	-0.11	5.88	< .001
T2 Deference	0.12	-0.08	3.22	.001
T2 Social Rank	0.26	-0.15	5.25	< .001
T2 Dominance	0.15	-0.10	4.05	< .001
T2 Prestige	0.07	-0.04	2.31	.021
T2 Social Affinity	0.04	-0.02	1.02	.310
T2 Competence	0.18	-0.11	5.20	< .001
Self-Reported Dominance	3.47	3.63	-2.26	.024
Self-Reported Prestige	5.45	5.40	1.14	.256
Self-Reported Dominance Motivation	3.69	3.65	0.96	.339
Self-Reported Prestige Motivation	3.95	3.96	-0.47	.636

Supplementary Table 13

Results from Models Testing Moderation by Gender

Model 1: Predicting T1 Social Rank				
Term	Estimate	95% CI	p	
Random Effects				
Target Intercept	0.10			
Rater Intercept	0.08			
Fixed Effects				
T1 Prestige	0.33	[0.26, 0.41]	< .001	
T1 Dominance	0.35	[0.30, 0.40]	< .001	
T1 Social Affinity	0.16	[0.13, 0.20]	< .001	
T1 Competence	0.41	[0.36, 0.45]	< .001	
Target Gender (1 = Men)	-0.08	[-0.18, 0.02]	.108	
Rater Gender (1 = Men)	-0.09	[-0.19, 0.01]	.087	
T1 Prestige x Gender	-0.02	[-0.11, 0.06]	.568	
T1 Dominance x Gender	0.02	[-0.05, 0.09]	.561	
Model 2: Predicting T2 Social Rank				
Random Effects				
Target Intercept	0.07			
Rater Intercept	0.08			
Fixed Effects				
T2 Prestige	0.40	[0.33, 0.48]	< .001	
T2 Dominance	0.28	[0.23, 0.34]	.001	
T2 Social Affinity	0.12	[0.08, 0.15]	< .001	
T2 Competence	0.47	[0.42, 0.52]	< .001	
Target Gender (1 = Men)	-0.09	[-0.19, 0.01]	.074	
Rater Gender (1 = Men)	-0.01	[-0.11, 0.10]	.883	
T2 Prestige x Gender	-0.04	[-0.12, 0.05]	.397	
T2 Dominance x Gender	0.06	[-0.01, 0.13]	.098	
Model 3: Predicting Changes in Social Rank				
Random Effects				
Target Intercept	0.28			
Rater Intercept	0.12			
Fixed Effects				
T1 Social Rank	0.44	[0.37, 0.51]	< .001	

T1 Prestige	0.07	[-0.03, 0.17]	.174
T1 Dominance	0.07	[-0.01, 0.14]	.074
T1 Social Affinity	0.04	[0.01, 0.08]	.131
T1 Competence	0.18	[0.11, 0.24]	< .001
Target Gender (1 = Men)	-0.22	[-0.36, -0.08]	.002
Rater Gender (1 = Men)	-0.01	[-0.15, 0.12]	.835
T1 Prestige x Gender	0.13	[0.01, 0.24]	.027
T1 Dominance x Gender	0.01	[-0.07, 0.10]	.789

Note. Estimates are the variance (for random effects) and unstandardized regression coefficients (for fixed effects)

Supplementary Table 14

Results from Social Relations Model

Model 1: Predicting T1 Social Rank				
Term	Estimate	95% CI	Std. β	p
T1 Prestige	0.50	[0.34, 0.65]	.32	< .001
T1 Dominance	0.55	[0.45, 0.65]	.44	< .001
T1 Social Affinity	0.21	[0.12, 0.30]	.19	< .001
T1 Competence	0.46	[0.33, 0.59]	.33	< .001
Target Gender	-0.17	[-0.30, -0.04]	-.09	.011
Proportion Female Rater	-0.16	[-0.38, 0.06]	-.05	.146
Model 2: Predicting T2 Social Rank				
T1 Prestige	0.55	[0.38, 0.72]	.34	< .001
T1 Dominance	0.51	[0.39, 0.64]	.34	< .001
T2 Social Affinity	0.22	[0.11, 0.33]	.18	< .001
T2 Competence	0.50	[0.37, 0.63]	.39	< .001
Target Gender	-0.18	[-0.35, 0.07]	-.10	.020
Proportion Female Rater	-0.21	[0.31, 0.71]	-.06	.138
Model 3: Predicting T1 Changes in Social Rank				
T1 Social Rank	0.40	[0.08, 0.71]	.35	.015
T1 Prestige	0.46	[0.15, 0.78]	.27	.004
T1 Dominance	0.09	[-0.18, 0.35]	.06	.529
T1 Social Affinity	-0.07	[-0.25, 0.10]	-.06	.394
T1 Competence	0.39	[0.13, 0.65]	.25	.004
Target Gender	-0.30	[-0.54, -0.05]	-.14	.018
Proportion Female Rater	-0.31	[-0.72, 0.11]	-.09	.142

Note. Estimates are the unstandardized regression coefficients.

Supplementary Table 15

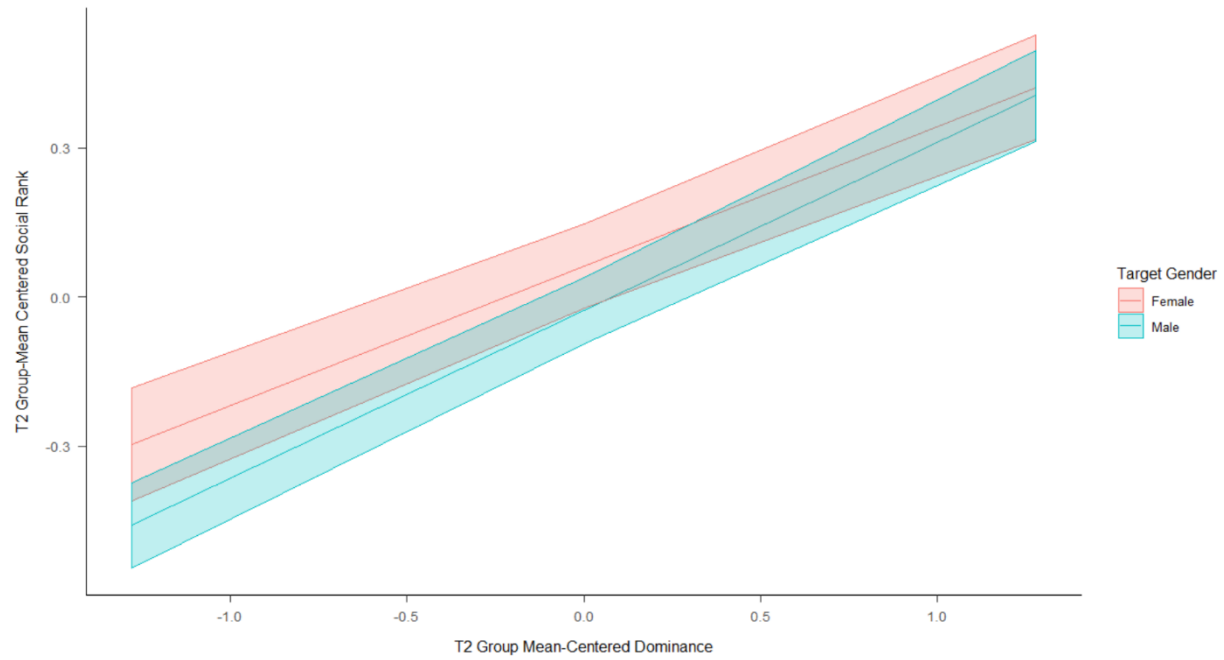
Results from Models Testing a Curvilinear Effect of Dominance

Model 1: Predicting T1 Social Rank				
Term	Estimate	95% CI	Std. β	p
<i>Random Effects</i>				
Target Intercept	0.09			
Rater Intercept	0.08			
<i>Fixed Effects</i>				
T1 Prestige	0.32	[0.26, 0.37]	.25	< .001
T1 Dominance	0.36	[0.32, 0.40]	.37	< .001
T1 Dominance Squared	0.00	[-0.02, 0.02]	-.01	.747
T1 Social Affinity	0.16	[0.13, 0.20]	.18	< .001
T1 Competence	0.41	[0.36, 0.45]	.36	< .001
Target Gender (1 = Men)	-0.08	[-0.18, 0.02]	-.03	.105
Rater Gender (1 = Men)	-0.09	[-0.19, 0.01]	-.03	.089
Model 2: Predicting T2 Social Rank				
<i>Random Effects</i>				
Target Intercept	0.07			
Rater Intercept	0.08			
<i>Fixed Effects</i>				
T2 Prestige	0.38	[0.33, 0.43]	.30	< .001
T2 Dominance	0.32	[0.28, 0.36]	.31	< .001
T2 Dominance Squared	-0.01	[-0.03, 0.01]	-.01	.490
T2 Social Affinity	0.12	[0.08, 0.15]	.12	< .001
T2 Competence	0.47	[0.42, 0.52]	.43	< .001
Target Gender (1 = Men)	-0.09	[-0.19, 0.01]	-.03	.069
Rater Gender (1 = Men)	-0.01	[-0.12, 0.10]	-.00	.859
Model 3: Predicting Changes in Social Rank				
<i>Random Effects</i>				
Target Intercept	0.28			
Rater Intercept	0.12			
<i>Fixed Effects</i>				
T1 Social Rank	0.44	[0.37, 0.51]	.41	< .001
T1 Prestige	0.15	[0.07, 0.22]	.11	< .001
T1 Dominance	0.08	[0.02, 0.14]	.08	.006

T1 Dominance Squared	-0.01	[-0.04, 0.02]	-.02	.528
T1 Social Affinity	0.04	[0.01, 0.08]	.04	.134
T1 Competence	0.18	[0.11, 0.24]	.15	< .001
Target Gender (1 = Men)	-0.22	[-0.36, -0.08]	-.08	.002
Rater Gender (1 = Men)	-0.02	[-0.15, 0.12]	-.01	.812

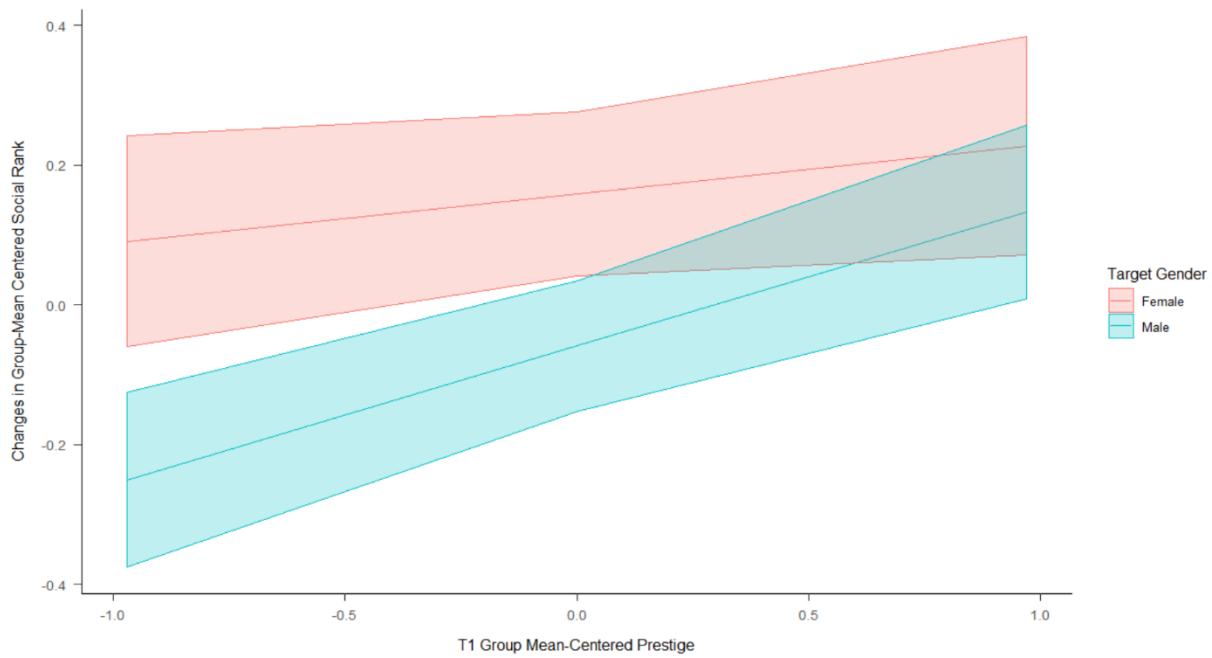
Note. Estimates are the variance (for random effects) and unstandardized regression coefficients (for fixed effects)

Supplementary Figure 1

Depiction of T2 Dominance x Target Gender Interaction

Note. Error bars represent 95% confidence intervals.

Supplementary Figure 2

Depiction of Prestige x Target Gender Interaction in Predicting Changes in Social Rank

Note. Error bars represent 95% confidence intervals.