

Appendix C – Results of Prior Study

This appendix reports the results we obtained analysing data collected prior to those reported in the main body of the paper and which were collected using a different survey methodology. In particular, the previous data were collected using a survey scheme in which each MTurk respondent were asked to rate 50 faces on four different traits (out of 10). This approach, of asking the same respondent to evaluate the same face on several traits can inflate or deflate the correlations between traits.¹ These correlations are particularly important in our case given that our aim is to recover the underlying population factor structure from the 10 traits we measure. Biased correlations will potentially lead us to mis-identify the true factor structure of the data, and thus affect all of our results and conclusions. Therefore, in the dataset analysed in the main body of the paper, wherein respondents evaluated each face on only one trait, we can be more confident that the correlations we identify are consistent estimates of the population correlations. Consequently, the results reported in the main body of the paper should be preferred.

In this appendix, we report the results of the same analyses reported in the main paper using the prior data. We begin by reporting details of the materials, participants, and procedure. We do not reproduce details that are the same as in the main paper.

Method

Participants

3,583 people (46% female, 44% 18-29 years [range: 18-91 years], 83% from the United States, 15% from South Asia and 2% from other countries) were recruited using Amazon Mechanical Turk. They were paid \$0.50 for their participation.

Materials

These were the same as those reported in the main paper.

Procedure

Each participant evaluated 50 randomly selected MPs that were presented in a random order on 4 randomly selected traits out of a possible 10. The traits they could be assigned to evaluate included: physically attractive, charismatic, criminal, competent, financially greedy, honest, likeable, organized, physically dominant, and sincere. The traits were measured using a 7-point Likert-type scale, anchored at 0, ‘not at all’, and 6, ‘very much’. Each face remained onscreen until the participant completed their evaluation.

¹ We are grateful to an anonymous referee for pointing this out.

Participants were asked at the end of the study whether they recognized any of the faces, and if so, to state from where. Across the sample, only 1% reported they recognized a face, and just 0.2% accurately reported that one or more of the faces they saw was a face of a politician or a British politician, suggesting that the vast majority of our participants were not familiar with the faces.

Measures

Each politician was rated on every trait, with each trait rated by at least 30 participants. Computing Cronbach's alpha using random effects regression suggested the ratings were reliable (all α 's > .76).

Results

Figure C1 is a dendrogram, analogous to Figure 1 in the main paper. *Charismatic* and *likeable* have the highest pairwise correlation, followed by that of *financiallygreedy* and *dishonest*, and then their principal component with *criminal*.

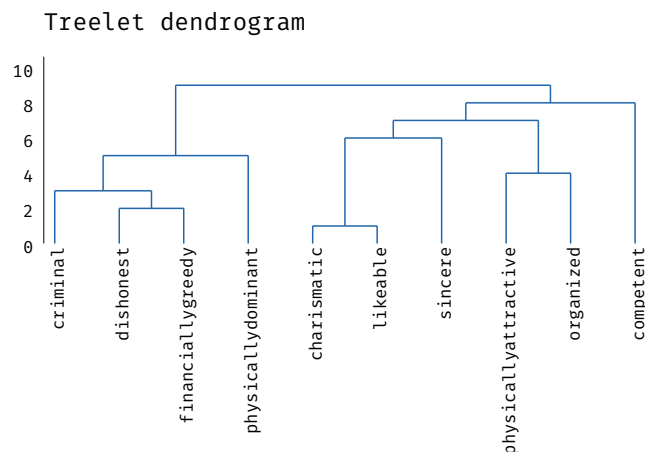


Figure C1. Dendrogram showing the factor structure of the trait ratings in the prior data.

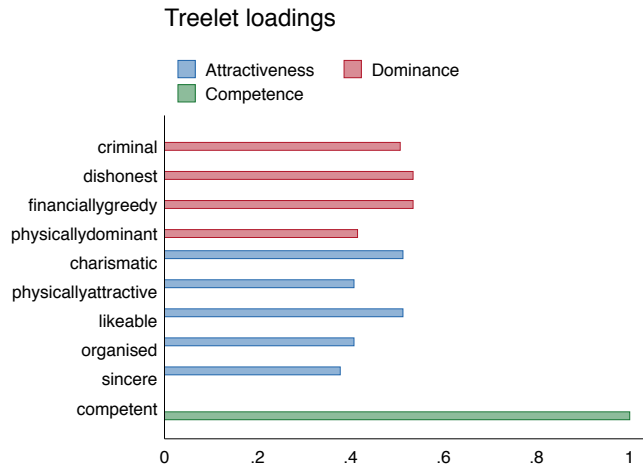


Figure C2. Bar Chart showing the loadings of each variable on the three latent factors *Attractiveness*, *Dominance-Criminality*, and *Competence*.

Inspection of the scree plot of variances of each factor [see figure C4] shows, following Gorst-Rasmussen and colleagues (2011), that there are two significant latent factors with a variance greater than one. Looking at the final join, we can see which variables are loaded on to the three latent factors. The first comprises *criminal*, *dishonest*, *financially greedy*, and *physical dominance*, and which we interpret as the *Dominance* dimension. The second comprises *charismatic*, *physically attractive*, *likeable*, *organized*, and *sincere*, which we term *Attractiveness*. *Competence* appears separately as a fourth factor. We include competence but disregard the hard to interpret third factor which has limited explanatory power. Figure 2 describes the loadings of these three factors. The two multi-trait factors are reliable (*Attractiveness*, $\alpha=0.78$; *Dominance* $\alpha=0.81$).

Looking at Figure C3 which presents equivalent plots to Figure 4, we see some evidence in the non-linear fit of an unconditional effect of attractiveness in panel (a) but little evidence in panels (b) and (c). Tables C1-C5 present results for the same series of specifications as Tables 1-5 in the main text. The key difference is that across all specifications in Tables C3-C5, and as anticipated in Figure C3, *Attractiveness* is now significant both when entered as the only factor or when entered jointly with *Dominance* and *Competence*. Focusing our attention on our preferred specification in Table C3 column (6) we can see that the coefficient on *Attractiveness* is similar to that in column (6) of Table 3. However, the coefficient on *Dominance* is not significant, and nor is that on *Competence*.

In column (4) of Table C4, which includes the three pairwise interactions between the factors as well as the triple-interaction we find some evidence of an interaction between *Attractiveness* and *Dominance* with a positive coefficient suggesting that for a given level of *Attractiveness* those who are more *Dominant* overclaim more. This finding has some similarity to our finding in the main text that for a given level of *Trustworthiness* that those who appear more *Dominant* overclaim more.

As in the main text, we find that the result is not sensitive to the choice of estimator. Across panels A-C of Table C5 we see that *Attractiveness* is consistently positive and significant. Similarly, neither *Dominance* or *Competence* are significant.

Overall, we conclude that this prior study again finds evidence that facial appearance is associated with overclaiming. Whilst, these results do not suggest a role for *Dominance* we argue that this likely reflects the biases in our data collection due to each respondent evaluating MPs on multiple traits.

Table C1: Summary Statistics

Variable	N	Mean	Std. Dev.
Traits			
Criminal	636	1.455	0.462
Dishonest	636	−3.372	0.621
Financially Greedy	636	3.488	0.568
Physically Dominant	636	2.67	0.539
Charisma	636	3.162	0.538
Attractive	636	2.184	0.605
Likeability	636	3.421	0.551
Organised	636	3.621	0.452
Sincere	636	3.733	0.52
Competent	636	3.61	0.566
Dependent and Independent Variables			
log (1+ Total Repayment Recommended)	636	2.618	3.567
Repayment Recommended As Percentage of Salary	636	0.017	0.051
Attractiveness	636	0.008	0.994
Dominance	636	−0.003	1
Competence	636	0.006	1.002
Age	636	56.153	9.256
Male	636	0.805	0.396
White	636	0.992	0.088
Affiliative Smile	636	0.514	0.5
Reward Smile	636	0.264	0.441
Tenure	636	0.019	0.991
Seniority	636	0.005	1.008
Size of Majority	636	−0.001	1
Party	636	5.388	3.095
Tenure	636	14.127	8.604

Table C2a: Cross-Correlation Matrix: Traits

Variables	Criminal	Dishonest	Financially Greedy	Physically Dominant	Charismatic Physically Attractive	Likeable	Organised	Sincere	Competent
Criminal	1.000								
Dishonest	0.648	1.000							
Financially Greedy	0.538	0.689	1.000						
Physically Dominant	0.408	0.335	0.499	1.000					
Charisma	-0.326	-0.355	-0.269	-0.015	1.000				
Attractive	-0.247	-0.312	-0.208	0.131	0.419	1.000			
Likeability	-0.481	-0.483	-0.375	-0.136	0.841	0.383	1.000		
Organised	-0.419	-0.383	-0.146	0.001	0.270	0.580	1.000		
Sincere	-0.587	-0.635	-0.562	-0.395	0.353	0.224	0.312	1.000	
Competent	-0.371	-0.405	-0.285	-0.050	0.276	0.366	0.390	0.410	1.000

Table C2b: Cross-Correlation Matrix: Dependent and Independent Variables

Variables	log (1+ Total Repayment Recommended)	Repayment Recommended As Percentage of Salary	Attractiveness	Dominance	Competence	Age	Male	White	Affiliative Smile	Reward Smile	Tenure	Seniority	Size of Majority	Party	Tenure
log (1+ Total Repayment Recommended)	1.000														
Repayment Recommended as a Percentage of Salary	0.564	1.000													
Attractiveness	0.081	0.067	1.000												
Dominance	0.022	0.009	-0.532	1.000											
Competence	0.006	0.042	0.458	-0.360	1.000										
Age	0.053	0.103	-0.093	-0.078	0.177	1.000									
Male	0.034	0.023	-0.206	0.414	-0.127	0.061	1.000								
White	-0.036	-0.012	-0.057	0.020	0.035	0.053	0.001	1.000							
Affiliative Smile	-0.216	-0.131	0.005	-0.096	0.139	0.129	-0.121	0.056	1.000						
Reward Smile	0.134	0.088	0.244	-0.176	0.031	-0.119	-0.038	-0.068	-0.616	1.000					
Tenure	0.097	0.129	-0.086	0.031	0.109	0.686	0.181	0.049	0.028	-0.107	1.000				
Seniority	0.094	0.074	0.084	-0.002	-0.012	-0.120	-0.006	0.023	-0.066	0.061	-0.010	1.000			
Size of Majority	0.033	-0.009	-0.016	-0.003	-0.017	0.181	0.085	-0.030	-0.101	0.098	0.285	0.141	1.000		
Party	-0.086	-0.081	0.025	-0.155	0.134	0.018	-0.135	0.023	0.080	-0.011	-0.140	0.137	0.042	1.000	
Tenure	0.097	0.129	-0.086	0.031	0.109	0.686	0.181	0.049	0.028	-0.107	1.000	-0.010	0.285	-0.140	1.000

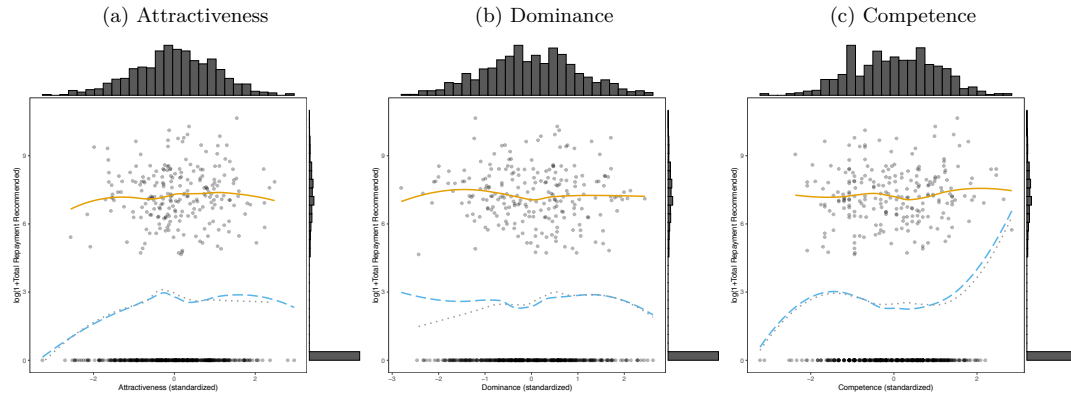


Figure C3. Scatter plots showing the unconditional relationship between standardized values of each of the three latent factors and (log) overclaiming. The blue dashed line is a non-linear fit for all MPs. The solid orange line shows the relationship amongst only those MPs who overclaimed. The dotted line is the fit estimated on only white male MPs. The histogram on the top of the plot region describes the distribution of each factor, and the histogram on the righthand side shows the distribution of (log) overclaiming.

Table C3: The relationship between facial appearance and the amount overclaimed.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Attractiveness			0.33** (0.14) <0.020> 0.096 [0.015 ,0.18]			0.42** (0.18) <0.021> 0.095 [0.014 ,0.18]	0.46** (0.20) <0.025> 0.10 [0.014 ,0.20]
Dominance				-0.10 (0.16) <0.50> -0.028 [0.053 ,-0.11]		0.078 (0.18) <0.67> 0.018 [-0.064 ,0.099]	0.23 (0.21) <0.28> 0.050 [-0.041 ,0.14]
Competence					0.065 (0.15) <0.67> 0.018 [-0.064 ,0.099]	-0.11 (0.18) <0.54> -0.025 [0.056 ,-0.11]	-0.14 (0.20) <0.48> -0.033 [0.059 ,-0.13]
Age	0.031** (0.015) <0.037> 0.083 [0.0053 ,0.16]	0.020 (0.023) <0.40> 0.035 [-0.046 ,0.12]	0.022 (0.023) <0.35> 0.039 [-0.042 ,0.12]	0.018 (0.023) <0.43> 0.032 [-0.049 ,0.11]	0.019 (0.023) <0.42> 0.034 [-0.048 ,0.11]	0.025 (0.023) <0.30> 0.043 [-0.038 ,0.12]	0.025 (0.027) <0.35> 0.044 [-0.048 ,0.14]
Male	0.015 (0.35) <0.97> 0.0017 [-0.076 ,0.080]	-0.13 (0.38) <0.72> -0.015 [-0.067 ,-0.096]	0.0081 (0.38) <0.98> 0.00088 [-0.080 ,0.082]	-0.038 (0.39) <0.92> -0.0041 [0.077 ,-0.085]	-0.12 (0.38) <0.76> -0.013 [0.068 ,-0.094]	-0.051 (0.39) <0.89> -0.0055 [0.076 ,-0.087]	
White	-1.12 (1.44) <0.44> -0.031 [0.047 ,-0.11]	-1.17 (1.50) <0.44> -0.032 [0.049 ,-0.11]	-0.94 (1.54) <0.54> -0.025 [0.056 ,-0.11]	-1.14 (1.51) <0.45> -0.031 [0.050 ,-0.11]	-1.17 (1.51) <0.44> -0.032 [0.049 ,-0.11]	-0.89 (1.54) <0.57> -0.024 [0.058 ,-0.11]	
Affiliative Smile	-1.59*** (0.37) <0.000017> -0.17 [-0.093 ,-0.25]	-1.53*** (0.38) <0.000077> -0.16 [-0.083 ,-0.24]	-1.67*** (0.38) <0.000016> -0.18 [-0.098 ,-0.26]	-1.58*** (0.39) <0.000051> -0.17 [-0.087 ,-0.25]	-1.55*** (0.39) <0.000071> -0.16 [-0.084 ,-0.24]	-1.63*** (0.39) <0.000028> -0.17 [-0.093 ,-0.25]	-1.49*** (0.42) <0.00040> -0.16 [-0.074 ,-0.26]
Reward Smile	0.045 (0.43) <0.92> 0.0042 [-0.074 ,0.082]	0.19 (0.44) <0.66> 0.018 [-0.063 ,0.099]	-0.089 (0.46) <0.85> -0.0080 [0.073 ,-0.089]	0.12 (0.45) <0.79> 0.011 [-0.070 ,0.092]	0.16 (0.44) <0.71> 0.015 [-0.066 ,0.097]	-0.059 (0.46) <0.90> -0.0054 [0.076 ,-0.087]	0.067 (0.50) <0.89> 0.0063 [-0.086 ,0.098]
Seniority		0.33** (0.13) <0.015> 0.10 [0.020 ,0.18]	0.30** (0.13) <0.021> 0.095 [0.015 ,0.18]	0.33** (0.13) <0.015> 0.10 [0.020 ,0.18]	0.33** (0.13) <0.015> 0.10 [0.020 ,0.18]	0.29** (0.13) <0.026> 0.092 [0.011 ,0.17]	0.41*** (0.13) <0.0017> 0.15 [0.055 ,0.24]
Size of Majority		-0.15 (0.16) <0.35> -0.039 [0.043 ,-0.12]	-0.14 (0.16) <0.38> -0.037 [0.045 ,-0.12]	-0.15 (0.16) <0.36> -0.038 [0.043 ,-0.12]	-0.15 (0.16) <0.37> -0.037 [0.044 ,-0.12]	-0.15 (0.16) <0.35> -0.039 [0.043 ,-0.12]	-0.22 (0.19) <0.24> -0.055 [0.037 ,-0.15]
Observations	637	636	636	636	636	636	508
R ²	0.05	0.16	0.16	0.16	0.16	0.16	0.18
Fixed Effects	No	Party/Tenure	Party/Tenure	Party/Tenure	Party/Tenure	Party/Tenure	Party/Tenure
Sample	All	All	All	All	All	All	White Men

Note: The dependent variable is the logarithm of £1 + the total recommended repayment in the Legg report. Thus, MPs for whom no repayment was recommended are treated as having a repayment of £1. The main effects Attractiveness, Criminality, and Trustworthiness as well as Seniority, and Majority are standardised to have mean 0 and SD 1. Male, Age, White, Affiliative Smile, Reward Smile, are coded naturally. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust Standard Errors in parentheses, p -values in angular brackets. Below which are the Effect Size (Partial Correlation Coefficient) and the 95% Confidence Interval of the Partial Correlation Coefficient in Brackets.

Table C4: The relationship between facial appearance and over-claiming: Interaction Effects.

	(1)	(2)	(3)	(4)	(5)	(6)
Attractiveness	0.40** (0.18) <0.026> 0.092 [0.011 ,0.17]	0.41** (0.18) <0.025> 0.093 [0.012 ,0.17]	0.42** (0.18) <0.021> 0.096 [0.015 ,0.18]	0.37* (0.20) <0.063> 0.077 [-0.0042 ,0.16]	0.41** (0.18) <0.024> 0.094 [0.013 ,0.17]	0.42** (0.18) <0.021> 0.095 [0.014 ,0.18]
Dominance	0.084 (0.18) <0.65> 0.019 [-0.063 ,0.10]	0.076 (0.18) <0.68> 0.017 [-0.064 ,0.099]	0.082 (0.18) <0.66> 0.018 [-0.063 ,0.100]	0.099 (0.19) <0.61> 0.021 [-0.060 ,0.10]	0.076 (0.18) <0.68> 0.017 [-0.064 ,0.099]	0.077 (0.18) <0.68> 0.017 [-0.064 ,0.099]
Competence	-0.084 (0.18) <0.64> -0.020 [0.062 ,-0.10]	-0.11 (0.18) <0.55> -0.025 [0.057 ,-0.11]	-0.11 (0.18) <0.53> -0.026 [0.055 ,-0.11]	-0.074 (0.19) <0.70> -0.016 [0.066 ,-0.098]	-0.11 (0.18) <0.55> -0.025 [0.057 ,-0.11]	-0.11 (0.18) <0.54> -0.025 [0.056 ,-0.11]
Seniority	0.30** (0.13) <0.023> 0.094 [0.013 ,0.18]	0.29** (0.13) <0.026> 0.092 [0.011 ,0.17]	0.30** (0.13) <0.026> 0.093 [0.011 ,0.17]	0.31** (0.13) <0.019> 0.098 [0.016 ,0.18]	0.30** (0.14) <0.032> 0.089 [0.0079 ,0.17]	0.29** (0.13) <0.026> 0.092 [0.011 ,0.17]
Size of Majority	-0.15 (0.16) <0.35> -0.039 [0.043 ,-0.12]	-0.15 (0.16) <0.36> -0.038 [0.043 ,-0.12]	-0.15 (0.16) <0.35> -0.039 [0.043 ,-0.12]	-0.15 (0.16) <0.37> -0.037 [0.045 ,-0.12]	-0.15 (0.16) <0.35> -0.039 [0.043 ,-0.12]	-0.15 (0.16) <0.36> -0.038 [0.043 ,-0.12]
Dominance × Attractiveness	0.14 (0.11) <0.21> 0.052 [-0.030 ,0.13]			0.25* (0.15) <0.089> 0.071 [-0.011 ,0.15]		
Dominance × Competence		-0.027 (0.14) <0.85> -0.0078 [0.074 ,-0.089]		-0.097 (0.20) <0.63> -0.020 [0.062 ,-0.10]		
Attractiveness × Competence			0.044 (0.13) <0.72> 0.015 [-0.067 ,0.096]	0.13 (0.17) <0.46> 0.031 [-0.051 ,0.11]		
Attractiveness × Dominance				-0.018 (0.10) <0.86> -0.0073 [0.074 ,-0.089]		
Competence × Dominance					-0.075 (0.14) <0.60> -0.022 [0.060 ,-0.10]	
Seniority × Dominance						-0.0086 (0.16) <0.96> -0.0023 [0.079 ,-0.084]
Size of Majority × Dominance						
Observations	636	636	636	636	636	636
R ²	0.17	0.16	0.16	0.17	0.16	0.16
Fixed Effects	Party/Tenure	Party/Tenure	Party/Tenure	Party/Tenure	Party/Tenure	Party/Tenure
Sample	All	All	All	All	All	All

Note: The dependent variable is the logarithm of £1 + the total recommended repayment in the Legg report. Thus, MPs for whom no repayment was recommended are treated as having a repayment of £1. The main effects Attractiveness, Criminality, and Trustworthiness as well as Seniority, and Majority are standardised to have mean 0 and SD 1. Male, Age, White, Affiliative Smile, Reward Smile, are coded naturally.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust Standard Errors in parentheses, p -values in angular brackets. Below which are the Effect Size (Partial Correlation Coefficient) and the 95% Confidence Interval of the Partial Correlation Coefficient in Brackets.

Table C5: The relationship between facial appearance and over-claiming: Sensitivity Analyses.

Panel A: Tobit Estimates					
	(1)	(2)	(3)	(4)	(5)
Attractiveness	0.40** (0.16)			0.50*** (0.19)	0.54** (0.21)
Dominance		-0.12 (0.17)		0.081 (0.19)	0.26 (0.21)
Competence			0.057 (0.15)	-0.14 (0.17)	-0.16 (0.19)
Observations	636	636	636	636	508
Estimator	Tobit	Tobit	Tobit	Tobit	Tobit
Dep. Var.	log (1+OClaim)	log (1+OClaim)	log (1+OClaim)	log (1+OClaim)	log (1+OClaim)
Sample	All	All	All	All	White Men
Panel B: Logit Estimates					
	(1)	(2)	(3)	(4)	(5)
Attractiveness	0.22** (0.10)			0.29** (0.12)	0.32** (0.14)
Dominance		-0.057 (0.11)		0.064 (0.12)	0.16 (0.14)
Competence			0.026 (0.095)	-0.086 (0.11)	-0.11 (0.12)
Observations	594	594	594	594	471
Estimator	Logit	Logit	Logit	Logit	Logit
Dep. Var.	OC	OC	OC	OC	OC
Sample	All	All	All	All	White Men
Panel C: Percentage Overclaimed					
	(1)	(2)	(3)	(4)	(5)
Attractiveness	0.0039** (0.0019)			0.0046* (0.0024)	0.0050* (0.0027)
Dominance		-0.00062 (0.0019)		0.0019 (0.0026)	0.0029 (0.0030)
Competence			0.0021 (0.0020)	0.00047 (0.0022)	-0.00019 (0.0024)
Observations	636	636	636	636	508
Estimator	OLS	OLS	OLS	OLS	OLS
Dep. Var.	%Salary	%Salary	%Salary	%Salary	%Salary
Sample	All	All	All	All	White Males

Note: **Panel A:** The dependent variable is the logarithm of £1 + the total recommended repayment in the Legg report. Thus, MPs for whom no repayment was recommended are treated as having a repayment of £1. **Panel B:** The dependent variable is a binary variable taking value one for those MPs who had positive repayments recommended in the Legg report, and 0 otherwise. **Panel C:** The dependent variable is the total recommended repayment in the Legg report divided by MPs annual salary (£64,766). All specifications in each panel also include Male, Age, White, Affiliative Smile, Reward Smile, and Party and Tenure Fixed Effects. Attractiveness, Dominance, and Trustworthiness are standardised to have mean 0 and SD 1.* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Robust Standard Errors in parentheses,

