

Online Appendix

“Facial Finetuning: Using Pretrained Image Classification Models to Predict Politicians’ Success”

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A Evaluation Metrics

	Train set	Test set	Model predictions	Random guessing	Mean guessing
Number of Images	513	172	172		
Mean	5.198	5.249	5.52		
Standard deviation	1.298	1.364	1.237		
Mean Absolute Error			0.732	1.516 ± 0.077	1.146
Pearson's correlation coefficient			0.787	0.003 ± 0.074	0.000

Note: Random guessing is based on predictions drawn from a normal distribution with the mean and standard deviation of the attractiveness score in the training dataset, 1000 runs. Mean guessing is based on always guessing the mean attractiveness score of the train dataset.

Table A1: Evaluation metrics: attractiveness.

	Train set	Test set	Model predictions	Random guessing	Mean guessing
Number of Images	513	172	172		
Mean	5.653	5.654	5.57		
Standard deviation	1.087	1.079	0.867		
Mean Absolute Error			0.576	1.232 ± 0.064	0.889
Pearson's correlation coefficient			0.754	-0.002 ± 0.077	0.000

Note: Random guessing is based on predictions drawn from a normal distribution with the mean and standard deviation of the trustworthiness score in the training dataset, 1000 runs. Mean guessing is based on always guessing the mean trustworthiness score of the train dataset.

Table A2: Evaluation metrics: trustworthiness.

	Train set	Test set	Model predictions	Random guessing	Mean guessing
Number of Images	513	172	172		
Mean	5.071	4.972	5.119		
Standard deviation	1.121	1.154	0.933		
Mean Absolute Error			0.602	1.297 ± 0.064	0.943
Pearson's correlation coefficient			0.756	-0.001 ± 0.078	0.000

Note: Random guessing is based on predictions drawn from a normal distribution with the mean and standard deviation of the dominance score in the training dataset, 1000 runs. Mean guessing is based on always guessing the mean dominance score of the train dataset.

Table A3: Evaluation metrics: dominance.

B Evaluation Plots

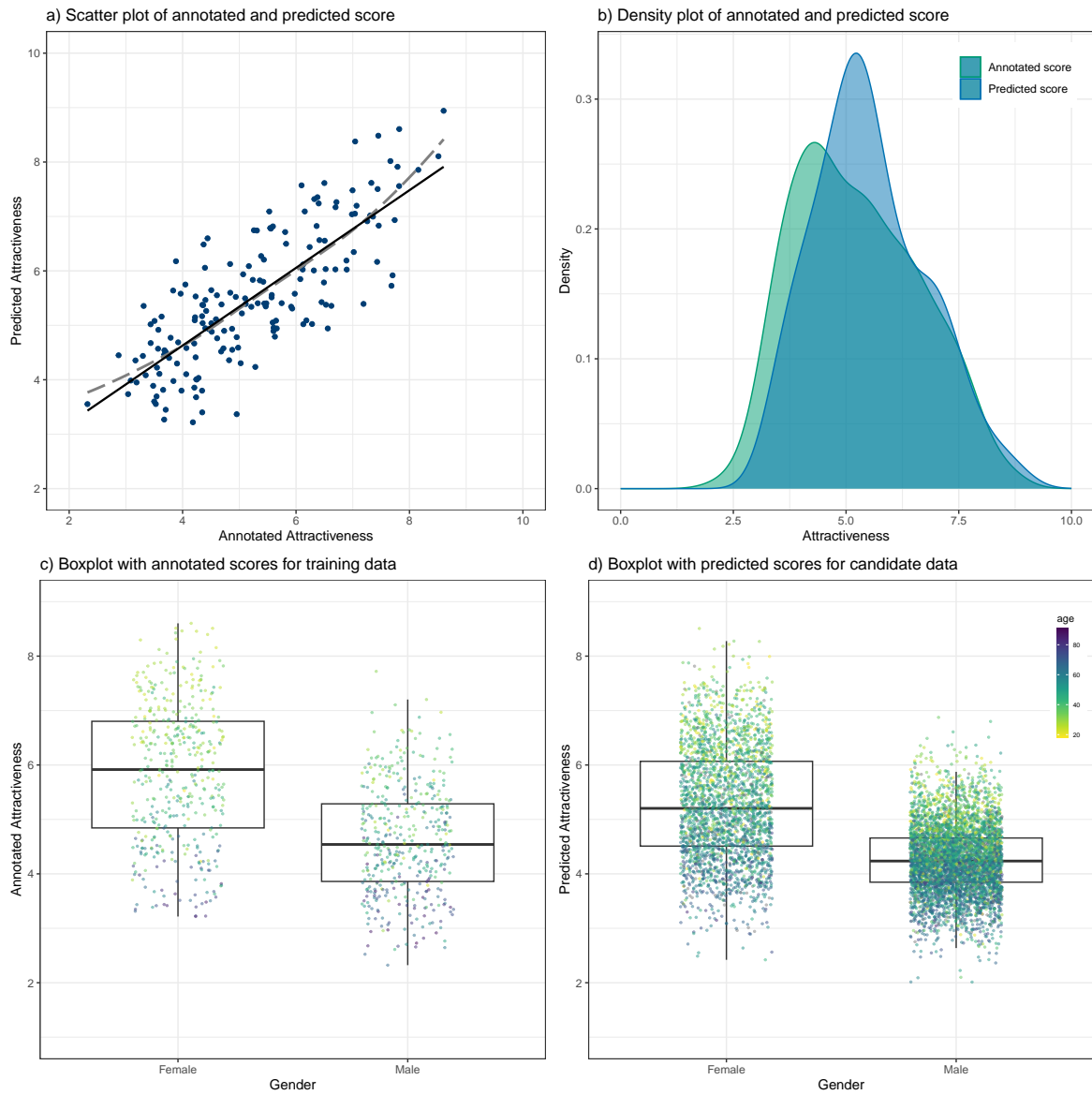


Figure A1: Evaluation of our fine-tuned models: attractiveness. Top: Human-annotated and predicted scores. Bottom: Distribution of annotated and predicted scores across gender and age.

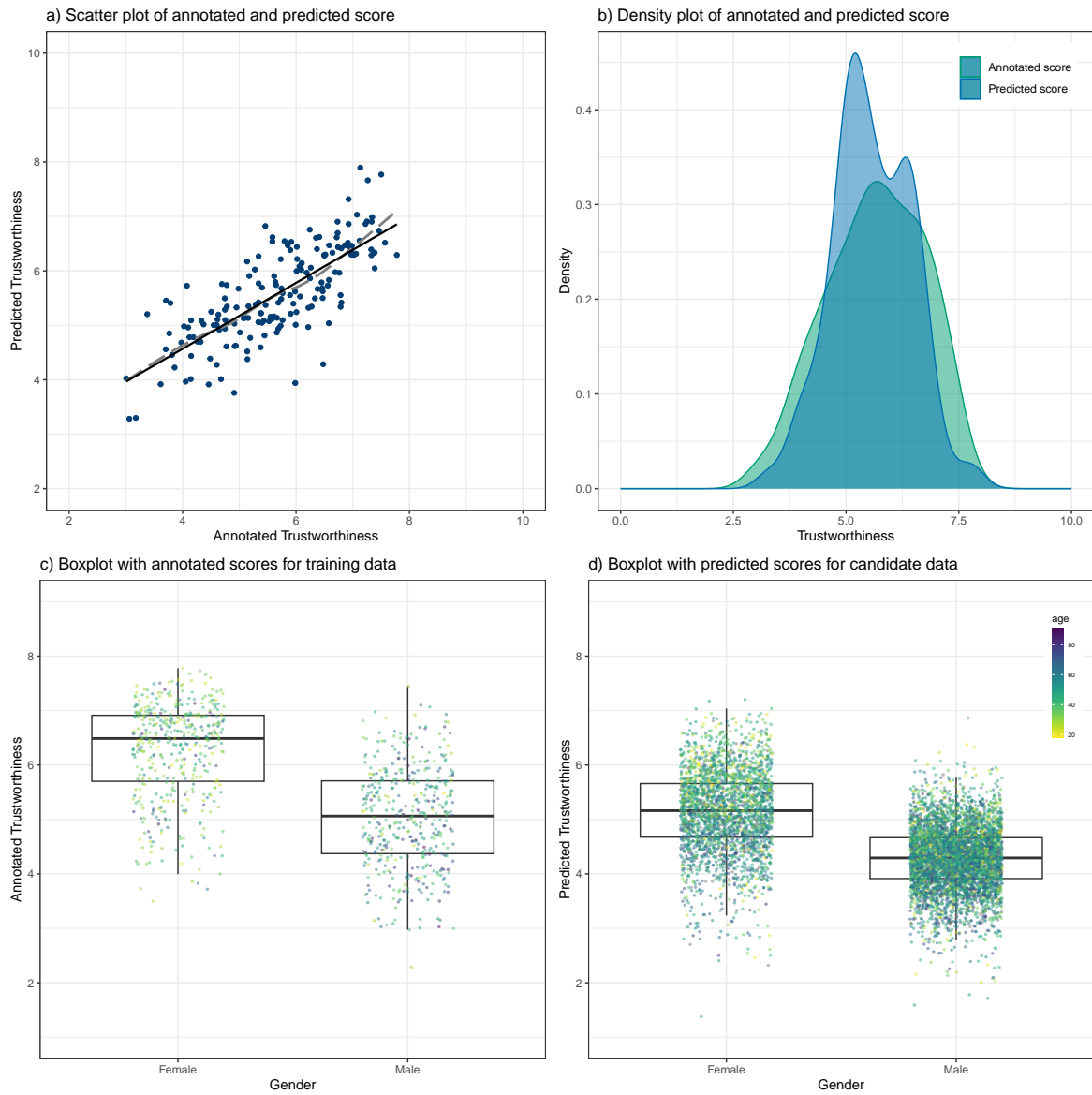


Figure A2: Evaluation of our fine-tuned models: trustworthiness. Top: Human-annotated and predicted scores. Bottom: Distribution of annotated and predicted scores across gender and age.

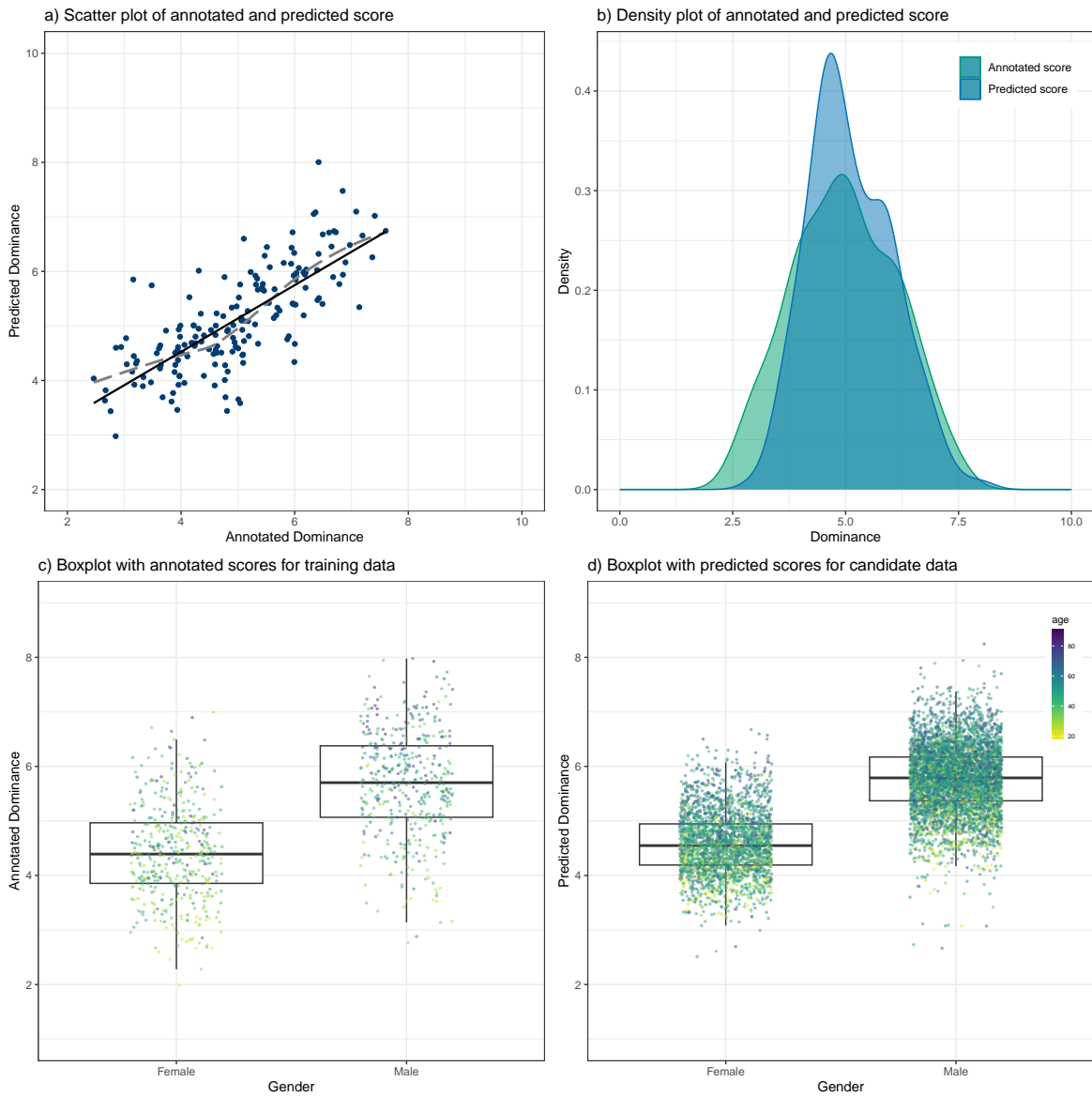


Figure A3: Evaluation of our fine-tuned models: dominance. Top: Human-annotated and predicted scores. Bottom: Distribution of annotated and predicted scores across gender and age.

C Sample Images with Annotated and Predicted Scores

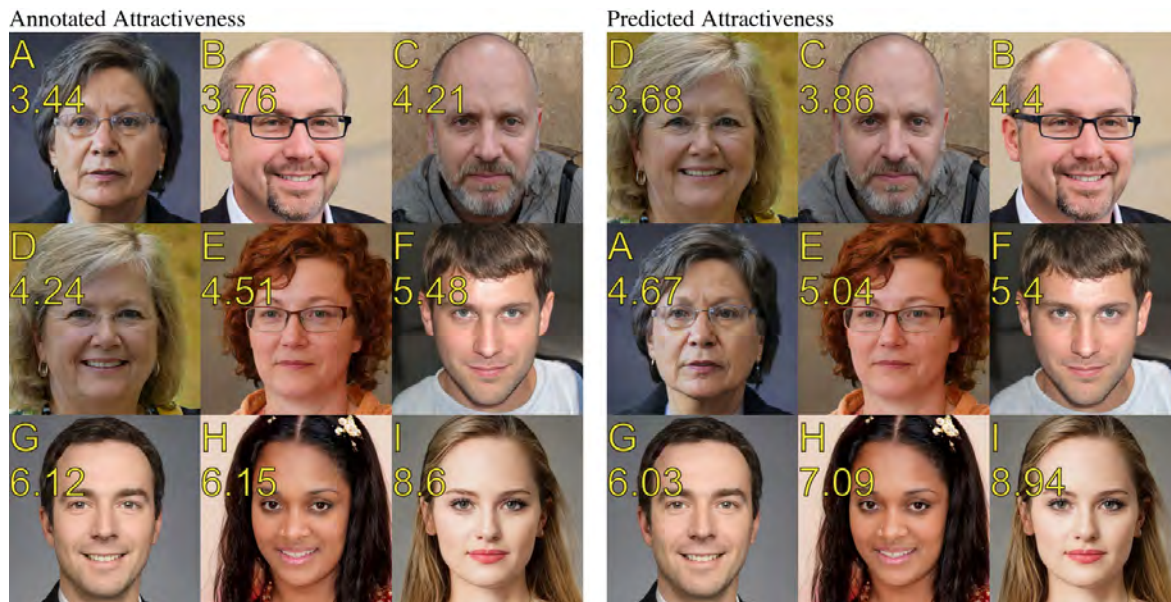


Figure A4: Sample images from the “One Million Impression” dataset: Attractiveness.



Figure A5: Sample images from the “One Million Impression” dataset: Trustworthiness.

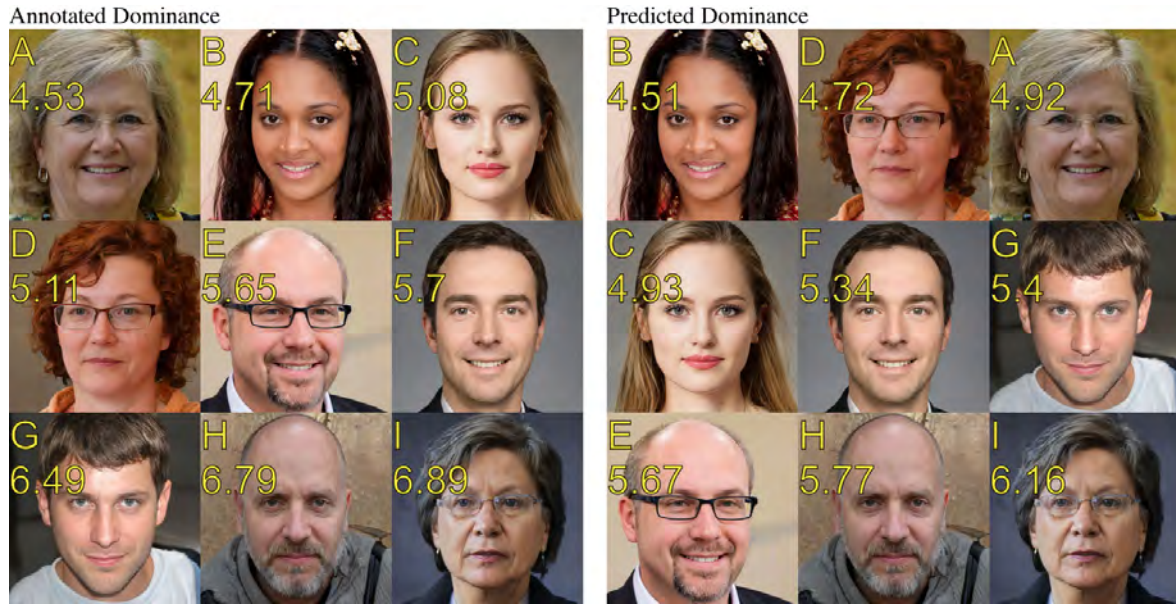


Figure A6: Sample images from the “One Million Impression” dataset: Dominance.



Figure A7: Sample images from the Chicago Face Database.

D Summary Statistics and Correlations Between Facial Traits

Election	Major party candidates	Images collected	Images missing	Images discarded	Age	Gender	Education	Complete data
General	909	815	94	23	909	909	635	613
Local	8111	6929	1182	659	6900	8111	5771	4886
Pooled	9020	7744	1276	678	7809	9020	6406	5499
Pooled (%)	100	85.85	14.15	7.52	86.57	100	71.02	60.96
Personal votes accounted for by observations (%)	100	97.98	2.02	3.45	97.57	100	79.13	75.04

Note: The first three rows (i.e., General, Local, and Pooled) indicate the number of observations in absolute numbers. Fourth row indicates the number of observations in percent in relation to the pooled number of major party candidates. The fifth row indicates the percentage of personal votes accounted for by the observations in each column in relation to the personal votes accounted for by the major party candidates.

Table A4: Overview of collected and missing data.

Party	N missing	Ballot Placement		SD		Mean		SD	
		Ballot Placement	Ballot Placement	Ballot Placement	Ballot Placement	Personal Votes	Personal Votes	Personal Votes	Personal Votes
Liberal Alliance	52	5.04	2.84	26.52	30.69				
The Alternative	31	5.97	3.28	104.32	92.75				
The Conservative Party	114	11.47	6.22	75.69	241.16				
The Danish People's Party	192	5.86	3.61	43.81	106.19				
The Green Left	149	7.85	4.87	35.81	56.35				
The Liberal Party	171	12.5	6.74	87.41	327.07				
The Moderates	3	4.67	3.06	186.67	212.03				
The New Right	122	4.96	2.71	41.47	48.41				
The Red-Green Alliance	206	8.69	6.06	42.07	67.53				
The Social Democratic Party	120	13.62	6.38	147.38	392.38				
The Social Liberal Party	116	6.94	3.95	25.16	28.46				

Table A5: Descriptive statistics on outcome variables for missing candidates across parties.

	N	Mean	St. Dev.	Min	Q1	Median	Q3	Max
Age	6747	49.5	18	13.6	41	50	59	91
Gender								
Male	4623 (65.3%)							
Female	2457 (34.7%)							
Ethnicity								
African	29 (0.4%)							
Asian	17 (0.2%)							
Middle-Eastern	197 (2.8%)							
White	6837 (96.6%)							

Table A6: Summary statistics for covariates for candidates with a photo.

	N	Mean	St. Dev.	Min	Q1	Median	Q3	Max
Attractiveness	7,080	4.6	0.9	2.4	4.0	4.5	5.1	8.5
Trustworthiness	7,080	4.6	0.8	1.8	4.1	4.5	5.1	7.2
Dominance	7,080	5.4	0.8	3.1	4.7	5.4	6.0	7.9

Table A7: Summary statistics for predicted facial traits

	Attractiveness	Trustworthiness	Dominance
Attractiveness	1	0.636	-0.325
Trustworthiness	0.636	1	-0.481
Dominance	-0.325	-0.481	1

Table A8: Correlations between predicted facial traits

Party	Mean Attractiveness	Mean Trustworthiness	Mean Dominance
Liberal Alliance	4.77	4.34	5.38
The Alternative	4.68	4.65	5.07
The Conservative Party	4.61	4.63	5.37
The Danish People's Party	4.56	4.50	5.41
The Denmark Democrats	4.89	4.47	5.15
The Green Left	4.61	4.63	5.17
The Liberal Party	4.61	4.53	5.50
The Moderates	4.96	4.57	5.54
The New Right	4.40	4.37	5.49
The Red-Green Alliance	4.44	4.63	5.11
The Social Democratic Party	4.61	4.62	5.37
The Social Liberal Party	4.82	4.59	5.39

Table A9: Facial traits across parties.

E Main Regressions Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Attractiveness	.082*** (.013)	.065*** (.019)	.082*** (.024)	.066* (.029)	.040 (.034)	.031 (.040)	.198*** (.013)	.172*** (.018)	.196*** (.023)	.174*** (.028)	.209*** (.034)	.191*** (.038)
Attractiveness x Female			-.016 (.031)	-.003 (.035)					-.005 (.030)	-.004 (.033)		
Attractiveness x Local Election					.049 (.037)	.041 (.041)					-.012 (.036)	-.022 (.039)
Local Election					-.217 (.182)	-.069 (.208)					.097 (.179)	.262 (.197)
Female		-.0001 (.035)	.111 (.149)	.013 (.170)				.012 (.033)	.042 (.146)	.031 (.161)		
Age		.002 (.001)		-.002 (.001)		.002 (.001)		-.001 (.001)		-.001 (.001)		-.002 (.001)
Constant	-.380*** (.061)	-.396** (.142)	-.389*** (.102)	-.403* (.172)	-.195 (.170)	-.330 (.225)	-.921*** (.060)	-.941*** (.135)	-.917*** (.101)	-.952*** (.162)	-1.011*** (.167)	-1.152*** (.213)
Education Control		Yes 5,479	No 7,055	Yes 5,479	No 7,055	Yes 5,479	No 7,080	Yes 5,499	No 7,080	Yes 5,499	No 7,080	Yes 5,499
N	7,055	5,479	7,055	5,479	7,055	5,479	7,080	5,499	7,080	5,499	7,080	5,499
R ²	.006	.011	.006	.011	.006	.013	.034	.043	.034	.043	.034	.045
Adjusted R ²	.006	.009	.006	.009	.006	.011	.034	.041	.033	.041	.034	.043
F Statistic	40.814***	6.771***	14.143***	6.093***	14.247***	6.430***	247.581***	27.297***	82.646***	24.564***	82.956***	23.627***

Note: Entries are unstandardized coefficients from linear models with clustered standard errors. *p < .05; **p < .01; ***p < .001.

Table A10: Regression results: attractiveness

	Ballot Paper Placement				Personal Votes							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Trustworthiness	.069*** (.016)	.014 (.022)	.050 (.026)	.010 (.030)	.005 (.041)	-.031 (.047)	.182*** (.016)	.104*** (.021)	.137*** (.026)	.081** (.028)	.141*** (.041)	.087 (.045)
Trustworthiness x Female			-.013 (.038)	.008 (.043)					-.031 (.038)	-.048 (.041)		
Trustworthiness x Local Election					.075 (.045)	.049 (.050)					.048 (.044)	.015 (.048)
Local Election					-.346 (.206)	-.097 (.236)					-.234 (.204)	.068 (.225)
Female		.052 (.034)	.131 (.184)	.012 (.210)		.055 (.035)		.094** (.033)	-.062 (.182)	-.134 (.200)		.098** (.033)
Age		.002 (.001)	.002 (.001)	.002 (.001)		-.0001 (.001)		-.005*** (.001)		-.005*** (.001)		-.005*** (.001)
Constant	-.319*** (.073)	-.107 (.139)	-.254* (.113)	-.091 (.162)	-.024 (.190)	-.004 (.240)	-.838*** (.073)	-.475*** (.132)	-.664*** (.112)	-.384* (.153)	-.639*** (.188)	-.500* (.228)
Education Control		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
N	7,055	5,479	7,055	5,479	7,055	5,479	7,080	5,499	7,080	5,499	7,080	5,499
R ²	.003	.009	.004	.009	.003	.011	.019	.032	.020	.032	.019	.034
Adjusted R ²	.003	.007	.003	.007	.003	.009	.019	.030	.020	.030	.019	.032
F Statistic	19.378***	5.567***	8.339***	5.013***	7.410***	5.397***	136.105***	20.047***	48.443***	18.177***	45.814***	17.360***

Note: Entries are unstandardized coefficients from linear models with clustered standard errors. *p < .05; **p < .01; ***p < .001.

Table A11: Regression results: trustworthiness.

	Ballot Paper Placement				Personal Votes							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dominance	-.054*** (.015)	.009 (.024)	-.085*** (.021)	-.023 (.029)	.026 (.042)	.054 (.051)	-.092*** (.014)	.066** (.023)	-.129*** (.021)	.032 (.028)	-.032 (.041)	.114* (.048)
Dominance x Right Wing Party			.059* (.029)	.061 (.033)					.071* (.029)	.064* (.032)		
Dominance x Local Election					-.091* (.044)	-.056 (.051)					-.068 (.044)	-.060 (.048)
Local Election					.488* (.234)	.418 (.265)					.375 (.232)	.451 (.252)
Right Wing Party			-.310* (.158)	-.315 (.180)					-.368* (.158)	-.307 (.171)		
Female		.075 (.040)	.075 (.040)	.075 (.040)		.072 (.040)		.260*** (.038)		.261*** (.038)		.257*** (.038)
Age		-.00001 (.001)	-.00001 (.001)	-.00004 (.001)		-.00003 (.001)		-.007*** (.001)		-.006*** (.001)		-.007*** (.001)
Constant	.291*** (.079)	-.089 (.156)	.450*** (.112)	.072 (.180)	-.133 (.218)	-.417 (.277)	.491*** (.078)	-.342* (.148)	.682*** (.112)	-.183 (.171)	.167 (.216)	-.695*** (.263)
Education Control		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
N	7,055	5,479	7,055	5,479	7,055	5,479	7,080	5,499	7,080	5,499	7,080	5,499
R ²	.002	.009	.003	.010	.003	.011	.006	.029	.007	.030	.006	.031
Adjusted R ²	.002	.007	.002	.008	.002	.009	.005	.027	.006	.028	.006	.029
F Statistic	13.952***	5.535***	6.014***	4.855***	6.103***	5.407***	40.090***	18.189***	15.498***	15.441***	14.252***	16.079***

Note: Entries are unstandardized coefficients from linear models with clustered standard errors. * p < .05; ** p < .01; *** p < .001.

Table A12: Regression results: dominance.

F Additional Regression Results

	Ballot Paper Placement		Personal Votes	
	(1)	(2)	(3)	(4)
Attractiveness	.076*** (.017)	.080*** (.023)	.174*** (.016)	.158*** (.022)
Trustworthiness	-.005 (.022)	-.030 (.026)	.041 (.022)	.022 (.024)
Dominance	-.028 (.017)	-.017 (.025)	-.009 (.016)	.025 (.024)
Age		.002 (.001)		-.002 (.001)
Female		-.009 (.048)		.034 (.045)
Constant	-.178 (.149)	-.254 (.195)	-.949*** (.147)	-1.095*** (.185)
Education Control	No	Yes	No	Yes
N	7,055	5,479	7,080	5,499
R ²	.006	.011	.035	.043
Adjusted R ²	.006	.009	.034	.041
F Statistic	14.657***	5.679***	84.385***	22.471***

*p < .05; **p < .01; ***p < .001

Table A13: Regression results: using all facial traits simultaneously.

	(1)	Attractiveness		Trustworthiness			Dominance	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age	-.030*** (.001)			-.010*** (.001)			-.014*** (.001)	
Female		1.051*** (.019)			.889*** (.016)			-1.197*** (.015)
Education: High School			.417*** (.082)			.243*** (.067)		-.222** (.072)
Education: Vocational			-.092 (.076)			.097 (.062)		-.012 (.067)
Education: Seminary			.251 (.188)			-.027 (.153)		-.500** (.164)
Education: Undergraduate			.492*** (.076)			.314*** (.061)		-.320*** (.066)
Education: Graduate			.492*** (.076)			.285*** (.061)		-.258*** (.066)
Education: Ph.d			.463*** (.114)			.386*** (.093)		-.354*** (.100)
Constant	6.113*** (.038)	4.284*** (.011)	4.300*** (.072)	5.098*** (.034)	4.292*** (.009)	4.392*** (.059)	4.659*** (.036)	5.778*** (.009)
N	6,747	7,080	5,754	6,747	7,080	5,754	6,747	7,080
R ²	.188	.291	.036	.033	.314	.017	.057	.483
Adjusted R ²	.188	.291	.035	.033	.314	.016	.057	.483
F Statistic	1,557.838***	2,905.232***	36.125***	229.978***	3,246.609***	16.472***	408.038***	6,624.064***
								23.635***

Note: Entries are unstandardized coefficients from linear models with clustered standard errors. *p < .05; **p < .01; ***p < .001.

Table A14: Regression results: facial traits as outcomes.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Attractiveness	.087*** (.012)	.032 (.018)	.084*** (.018)	.025 (.027)	.014 (.032)	-.022 (.037)	.204*** (.011)	.129*** (.016)	.198*** (.020)	.120*** (.024)	.174*** (.029)	.122*** (.032)
Attractiveness x Female			-.014 (.029)	.011 (.033)					-.002 (.026)	-.015 (.028)		
Attractiveness x Local Election					.083* (.034)	.064 (.038)					.034 (.031)	.009 (.033)
Local Election					-.444** (.168)	-.223 (.193)					-.206 (.154)	-.059 (.168)
Incumbent	.884*** (.026)	.878*** (.029)	.884*** (.026)	.878*** (.029)	.888*** (.026)	.877*** (.029)	1.193*** (.024)	1.155*** (.025)	1.193*** (.024)	1.156*** (.025)	1.195*** (.024)	1.153*** (.025)
Female		.033 (.032)	.111 (.138)	-.019 (.157)		.033 (.032)		.055* (.028)	-.036 (.126)	-.015 (.137)		.055* (.028)
Age		-.003* (.001)		-.003* (.001)		-.003* (.001)		-.007*** (.001)		-.007*** (.001)		-.007*** (.001)
Constant	-.612*** (.057)	-.225 (.132)	-.608*** (.095)	-.194 (.159)	-.223 (.157)	-.033 (.209)	-1.230*** (.052)	-.718*** (.115)	-1.209*** (.087)	-.678*** (.139)	-1.047*** (.143)	-.762*** (.182)
Education Control		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
N	7,021	5,479	7,021	5,479	7,021	5,479	7,045	5,499	7,045	5,499	7,045	5,499
R ²	.146	.151	.146	.151	.147	.152	.289	.304	.289	.305	.289	.305
Adjusted R ²	.146	.150	.146	.150	.147	.151	.289	.303	.288	.303	.289	.304
F Statistic	600.564***	97.476***	300.973***	88.611***	302.393***	81.950***	1,429.388***	240.243***	714.907***	218.398***	715.530***	201.081***

Note: Entries are unstandardized coefficients from linear models with clustered standard errors. * p < .05; ** p < .01; *** p < .001.

Table A15: Regression results: attractiveness - additional control for incumbency.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Trustworthiness	.061*** (.015)	-.012 (.020)	.026 (.024)	-.018 (.028)	-.009 (.038)	-.052 (.044)	.171*** (.014)	.068*** (.018)	.106*** (.022)	.043 (.024)	.121*** (.035)	.059 (.038)
Trustworthiness x Female			.002 (.035)	.012 (.040)					.047 (.033)	.053 (.035)		
Trustworthiness x Local Election					.084* (.041)	.044 (.046)					.060 (.038)	.008 (.041)
Local Election					-.448* (.191)	-.109 (.219)					-.368* (.176)	-.051 (.191)
Incumbent	.880*** (.026)	.882*** (.029)	.882*** (.026)	.882*** (.029)	.883*** (.026)	.880*** (.029)	1.182*** (.024)	1.164*** (.026)	1.185*** (.024)	1.164*** (.026)	1.186*** (.024)	1.162*** (.026)
Female		.076* (.032)	.090 (.171)	.019 (.195)		.078* (.032)		.125*** (.028)	-.103 (.158)	-.130 (.170)		.128*** (.028)
Age		-.004*** (.001)		-.004*** (.001)		-.004*** (.001)		-.010*** (.001)		-.010*** (.001)		-.010*** (.001)
Constant	-.489*** (.069)	.006 (.128)	-.361*** (.105)	-.029 (.150)	-.111 (.176)	.120 (.222)	-1.062*** (.063)	-.326*** (.112)	-.815*** (.096)	-.224 (.131)	-.753*** (.163)	-.348 (.194)
Education Control		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
N	7,021	5,479	7,021	5,479	7,021	5,479	7,045	5,499	7,045	5,499	7,045	5,499
R ²	.142	.151	.143	.151	.143	.151	.269	.298	.272	.298	.271	.298
Adjusted R ²	.142	.149	.143	.149	.142	.150	.269	.296	.271	.297	.270	.297
F Statistic	579.702***	97.147***	293.315***	88.308***	292.034***	81.497***	1,298.328***	232.678***	657.127***	211.784***	652.947***	194.528***

Note: Entries are unstandardized coefficients from linear models with clustered standard errors. * p < .05; ** p < .01; *** p < .001.

Table A16: Regression results: trustworthiness - additional control for incumbency.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dominance	-.075*** (.014)	-.004 (.022)	-.109*** (.020)	-.038 (.027)	.008 (.038)	.042 (.047)	-.117*** (.013)	.048* (.019)	-.158*** (.018)	.011 (.024)	-.056 (.035)	.096* (.041)
Dominance x Right Wing Party			.063* (.027)	.064* (.031)					.074** (.025)	.068* (.027)		
Dominance x Local Election					-.092* (.041)	-.055 (.047)					-.068 (.038)	-.058 (.041)
Local Election					.433* (.217)	.375 (.245)					.294 (.200)	.390 (.215)
Right Wing Party			-.310* (.147)	-.307 (.166)					-.347* (.136)	-.299* (.145)		
Incumbent	.888*** (.026)	.881*** (.029)	.889*** (.026)	.882*** (.029)	.889*** (.026)	.879*** (.029)	1.197*** (.024)	1.167*** (.026)	1.199*** (.024)	1.169*** (.026)	1.199*** (.024)	1.165*** (.026)
Female		.060 (.037)		.061 (.037)		.058 (.037)		.240*** (.032)		.242*** (.032)		.238*** (.032)
Age		-.004*** (.001)		-.003*** (.001)		-.004*** (.001)		-.011*** (.001)		-.011*** (.001)		-.011*** (.001)
Constant	.191** (.073)	-.029 (.144)	.358*** (.104)	.130 (.167)	-.193 (.202)	-.330 (.256)	.347*** (.068)	-.261* (.126)	-.538*** (.097)	-.103 (.146)	.082 (.186)	-.576* (.224)
Education Control		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
N	7,021	5,479	7,021	5,479	7,021	5,479	7,045	5,499	7,045	5,499	7,045	5,499
R ²	.143	.151	.144	.152	.144	.152	.262	.297	.264	.297	.263	.298
Adjusted R ²	.143	.149	.144	.150	.144	.150	.262	.295	.263	.297	.262	.296
F Statistic	587.212***	97.108***	295.603***	81.487***	295.528***	81.500***	1,250.096***	231.459***	629.681***	194.608***	627.143***	193.813***

Note: Entries are unstandardized coefficients from linear models with clustered standard errors. *p < .05; **p < .01; ***p < .001.

Table A17: Regression results: dominance - additional control for incumbency.

	Ballot Paper Placement				Personal Votes			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Attractivness	0.0849*** (0.0110)			0.0777** (0.0231)	0.2059*** (0.0261)			0.1958*** (0.0355)
Trustworthiness		0.0745** (0.0190)		0.0023 (0.0277)		0.1727*** (0.0159)		-0.0035 (0.0336)
Dominance			-0.0511* (0.0194)	-0.0206 (0.0188)			-0.1138*** (0.0206)	-0.0411 (0.0230)
R ²	0.01270	0.00969	0.00827	0.01297	0.10475	0.08546	0.07716	0.10569
Observations	7,055	7,055	7,055	7,055	7,080	7,080	7,080	7,080
Party fixed effects	✓	✓	✓	✓	✓	✓	✓	✓

Table A18: Regression results: Party fixed effects.

	Ballot Paper Placement				Personal Votes							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Attractiveness	-.103* (.047)	-.115* (.053)					-.022 (.046)	-.009 (.050)				
Trustworthiness			-.052 (.058)	-.075 (.065)					.101 (.056)	.084 (.062)		
Dominance					.167** (.056)	.154* (.065)					.095 (.065)	.186** (.062)
Age	-.018*** (.005)	-.017** (.005)	-.013* (.005)	-.009 (.006)	.022*** (.006)	.016* (.007)	-.023*** (.005)	-.020*** (.005)	-.012* (.005)	-.007 (.006)	.011 (.006)	.007 (.006)
Female		-.0004 (.035)		.053 (.034)		-.078* (.040)		.011 (.033)		-.094** (.033)		-.263*** (.038)
Attractiveness X Age	.004*** (.001)	.004*** (.001)					.005*** (.001)	.004*** (.001)				
Trustworthiness X Age			.003* (.001)	.002 (.001)					.001 (.001)	.0004 (.001)		
Dominance X Age					-.004*** (.001)	-.003* (.001)						-.002* (.001)
Constant	.474* (.233)	.451 (.272)	.312 (.271)	.310 (.317)	-.798** (.296)	-.845* (.350)	.246 (.226)	-.087 (.257)	-.137 (.265)	-.385 (.301)	-.129 (.291)	-.964** (.333)
Education Control		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
N	6,723	5,479	6,723	5,479	6,723	5,479	6,747	5,499	6,747	5,499	6,747	5,499
R ²	.008	.013	.004	.009	.004	.010	.039	.045	.026	.045	.032	.030
Adjusted R ²	.008	.012	.003	.008	.004	.008	.038	.044	.026	.030	.015	.028
F Statistic	17.995***	7.441***	8.464***	5.226***	10.067***	5.568***	90.191***	26.147***	60.764***	18.051***	34.660***	16.814***

* p < .05; ** p < .01; *** p < .001

Table A19: Regression results: Age as a moderator.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Attractiveness	.143 (.229)	.182 (.254)					.100 (.225)	.271 (.240)	-.072 (.376)	.279 (.491)	.334 (.220)	.368 (.230)
Trustworthiness			.034 (.380)	.365 (.516)	-.242 (.221)	-.349 (.241)						
Dominance												
Ethnicity: Asian	-1.774 (1.839)	-1.174 (1.955)	-.152 (2.235)	1.809 (2.841)	1.179 (2.259)	.032 (2.504)	-2.972 (1.812)	-1.911 (1.853)	-4.160 (2.215)	-2.082 (2.703)	2.969 (2.252)	3.800 (2.387)
Ethnicity: Middle-Eastern	711 (1.242)	1.447 (1.422)	.579 (1.856)	2.567 (2.568)	-.932 (1.264)	-1.494 (1.373)	-.227 (1.224)	791 (1.348)	-1.028 (1.839)	2.052 (2.445)	2.052 (1.260)	1.698 (1.309)
Ethnicity: White	.360 (1.158)	.853 (1.325)	-.147 (1.800)	1.938 (2.515)	-.935 (1.159)	-1.578 (1.242)	-.920 (1.141)	.342 (1.255)	-1.680 (1.784)	.671 (2.393)	1.725 (1.155)	1.340 (1.184)
Age		.002 (.001)	(1.800)	.0001 (.001)	(1.159)	-.0001 (.001)	(1.141)	(1.255)	(1.784)	-.005*** (.001)	(1.155)	-.006*** (.001)
Female		-.003 (.035)		.049 (.035)		.076 (.040)		.016 (.033)		.097** (.033)		.261*** (.038)
Attractiveness X Asian	.349 (.356)	.270 (.372)					.512 (.350)	.324 (.353)				
Attractiveness X Middle-Eastern	-.144 (.244)	-.246 (.272)					-.016 (.241)	-.170 (.258)				
Attractiveness X White	-.059 (.229)	-.114 (.254)					.098 (.226)	-.101 (.241)				
Trustworthiness X Asian			.040 (.462)	-.325 (.579)					.783 (.458)	.370 (.551)	-.660 (.460)	-.834 (.497)
Trustworthiness X Middle-Eastern			-.125 (.392)	-.493 (.528)					.157 (.388)	-.234 (.502)	-.443 (.238)	-.341 (.250)
Trustworthiness X White			.040 (.380)	-.346 (.516)					.254 (.376)	-.178 (.491)	-.428 (.221)	-.304 (.230)
Dominance X Asian					-.258 (.462)	.013 (.521)						
Dominance X Middle-Eastern					.184 (.238)	.335 (.262)						
Dominance X White					190 (.221)	.362 (.241)						
Constant	-.749 (1.157)	-1.251 (1.328)	-.193 (1.799)	-2.055 (2.517)	1.217 (1.156)	1.474 (1.243)	-.002 (1.140)	-1.276 (1.259)	.837 (1.782)	-1.141 (2.395)	-1.227 (1.153)	-1.683 (1.185)
Education Control		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
N	7,055	5,479	7,055	5,479	7,055	5,479	7,080	5,499	7,080	5,499	7,080	5,499
R ²	.006	.012	.003	.010	.002	.010	.035	.044	.022	.034	.009	.030
Adjusted R ²	.005	.009	.002	.007	.001	.007	.034	.041	.021	.031	.008	.028
F Statistic	6.550***	4.497***	3.262**	3.610***	2.302*	3.638***	37.123***	16.742***	22.327***	12.670***	8.930***	11.427***

*p < .05; **p < .01; ***p < .001

Table A20: Regression results: Ethnicity as moderator.

G Summary Statistics for Training Data sets

	N	Mean	St. Dev.	Min	Q1	Median	Q3	Max
Age	881	37.26	11.9	2.02	29	35.22	44.64	69.4
Attractive	881	5.26	1.29	2.32	4.26	5.16	6.24	8.6
Trustworthy	881	5.68	1.1	2.29	4.84	5.73	6.6	8.21
Dominant	881	4.98	1.18	1.48	4.11	4.98	5.86	7.98
Gender								
Male	432							
Female	449							
Ethnicity								
White	553							
Middle-eastern	65							
Hispanic	94							
Asian	118							
Black	34							
Native	7							
Islander	10							

Table A21: Summary statistics: One Million Impression data.

	N	Mean	St. Dev.	Min	Q1	Median	Q3	Max
Age	597	28.86	6.3	16.94	24.65	27.28	32	56.38
Attractive	597	3.23	0.77	1.52	2.69	3.14	3.73	5.48
Trustworthy	597	3.43	0.41	2.3	3.14	3.43	3.74	4.63
Dominant	597	2.83	0.67	1.33	2.32	2.73	3.23	5.42
Gender								
Male	290							
Female	307							
Ethnicity								
Asian	109							
Black	197							
Latino	108							
White	183							

Table A22: Summary statistics: Chicago Face Database data.

H KRLS Robustness Tests

	Estimate	Std. error	t-value	P(> t)
Attractiveness	0.050	0.014	3.488	0.000
Female	-0.003	0.036	-0.090	0.928
Age	0.001	0.001	1.297	0.195
Education: Primary School	-0.038	0.047	-0.810	0.418
Education: High School	-0.030	0.036	-0.844	0.399
Education: Vocational	-0.088	0.023	-3.739	0.000
Education: Seminary	-0.007	0.046	-0.148	0.882
Education: Undergraduate	0.019	0.021	0.924	0.356
Education: Graduate	0.067	0.021	3.231	0.001
Education: Phd	-0.031	0.051	-0.621	0.534

Table A23: Regression results, kernel-regularized least squares: attractiveness. Outcome: ballot paper placement.

	Estimate	Std. error	t-value	P(> t)
Attractiveness	0.147	0.018	8.140	0.000
Female	0.010	0.042	0.246	0.805
Age	-0.003	0.001	-3.448	0.001
Education: Primary School	-0.212	0.060	-3.524	0.000
Education: High School	0.008	0.038	0.219	0.827
Education: Vocational	-0.058	0.024	-2.410	0.016
Education: Seminary	-0.067	0.096	-0.698	0.485
Education: Undergraduate	0.000	0.021	-0.012	0.991
Education: Graduate	0.058	0.021	2.799	0.005
Education: Phd	-0.022	0.068	-0.319	0.750

Table A24: Regression results, kernel-regularized least squares: attractiveness. Outcome: personal votes.

	Estimate	Std. error	t-value	P(> t)
Trustworthiness	0.011	0.015	0.717	0.473
Female	0.033	0.033	0.995	0.320
Age	0.000	0.001	-0.010	0.992
Education: Primary School	-0.030	0.041	-0.731	0.465
Education: High School	-0.032	0.033	-0.959	0.337
Education: Vocational	-0.088	0.022	-3.916	0.000
Education: Seminary	-0.008	0.034	-0.247	0.805
Education: Undergraduate	0.018	0.020	0.871	0.384
Education: Graduate	0.068	0.020	3.388	0.001
Education: Phd	-0.030	0.042	-0.715	0.475

Table A25: Regression results, kernel-regularized least squares: trustworthiness. Outcome: ballot paper placement.

	Estimate	Std. error	t-value	P(> t)
Trustworthiness	0.078	0.020	4.009	0.000
Female	0.082	0.042	1.934	0.053
Age	-0.007	0.001	-7.415	0.000
Education: Primary School	-0.218	0.061	-3.570	0.000
Education: High School	0.005	0.038	0.136	0.892
Education: Vocational	-0.066	0.024	-2.758	0.006
Education: Seminary	-0.074	0.098	-0.753	0.451
Education: Undergraduate	0.000	0.021	-0.014	0.989
Education: Graduate	0.067	0.021	3.183	0.001
Education: Phd	-0.026	0.068	-0.381	0.703

Table A26: Regression results, kernel-regularized least squares: trustworthiness. Outcome: personal votes.

	Estimate	Std. error	t-value	P(> t)
Dominance	-0.003	0.007	-0.445	0.656
Female	0.031	0.019	1.641	0.101
Age	0.000	0.000	-0.050	0.960
Education: Primary School	-0.021	0.023	-0.910	0.363
Education: High School	-0.027	0.022	-1.220	0.222
Education: Vocational	-0.066	0.017	-3.914	0.000
Education: Seminary	-0.011	0.018	-0.616	0.538
Education: Undergraduate	0.010	0.015	0.675	0.500
Education: Graduate	0.051	0.015	3.308	0.001
Education: Phd	-0.020	0.022	-0.905	0.366

Table A27: Regression results, kernel-regularized least squares: dominance. Outcome: ballot paper placement.

	Estimate	Std. error	t-value	P(> t)
Dominance	0.040	0.020	2.033	0.042
Female	0.192	0.048	3.986	0.000
Age	-0.008	0.001	-8.530	0.000
Education: Primary School	-0.219	0.061	-3.593	0.000
Education: High School	0.001	0.038	0.019	0.985
Education: Vocational	-0.065	0.024	-2.697	0.007
Education: Seminary	-0.074	0.097	-0.772	0.440
Education: Undergraduate	0.001	0.021	0.025	0.980
Education: Graduate	0.066	0.021	3.151	0.002
Education: Phd	-0.025	0.068	-0.372	0.710

Table A28: Regression results, kernel-regularized least squares: dominance. Outcome: personal votes.

I Sensitivity Analysis

We have argued that the correlations between predicted facial traits and outcomes may not reflect causal effects of the facial traits, but instead unobserved confounding by politicians' competence or resources, among other things. We use the approach developed by Cinelli and Hazlett (2020) to assess quantitatively whether it is plausible that such unobserved confounders could explain away our findings, that is, push the point estimate to zero or the t-value to insignificance. For this approach, one needs to posit plausible values for the partial R^2 of the unobserved confounder(s) with the independent variable (facial trait) and the outcome, after factoring the observed control variables. One can also benchmark these values with the corresponding values of the observed controls.

In the following, we present plots for all of our significant main effects to assess their sensitivity. Throughout, it is clear that unobserved confounders once or twice as strong (in terms of partial R^2) as the observed gender of a politician would change our substantive conclusions. Therefore, in that sense, we can not be confident that our results (only) reflect causal effects.

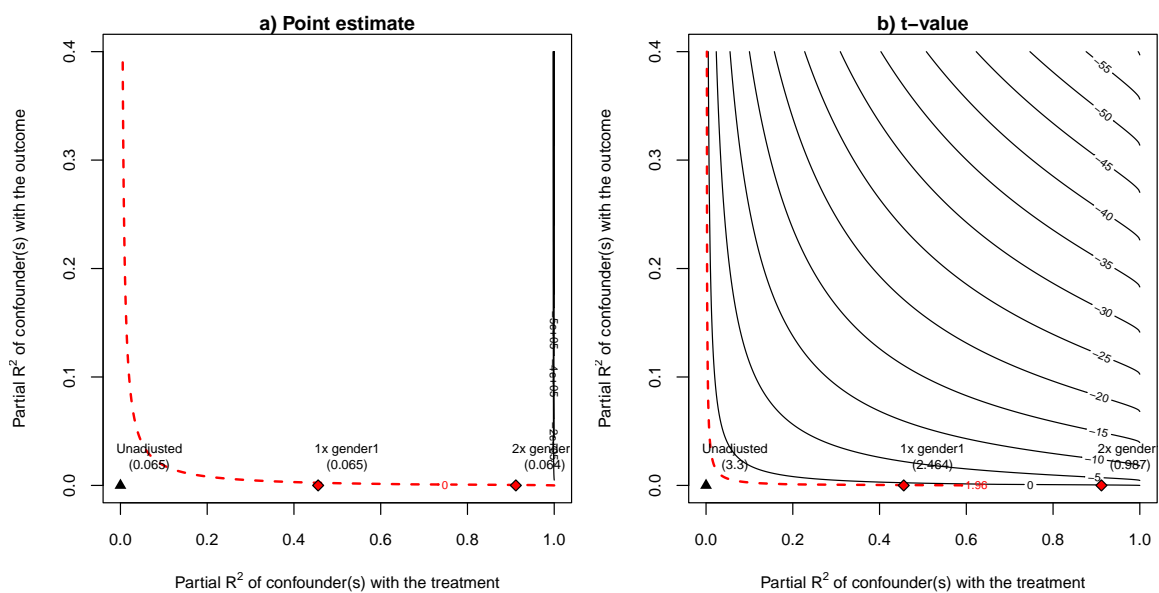


Figure A8: Sensitivity analysis (Cinelli and Hazlett 2020): attractiveness, outcome: ballot paper placement. Left: Sensitivity of the point estimate to potential unobserved confounders, benchmarked by the observed confounder gender. Right: Sensitivity of the t-value.

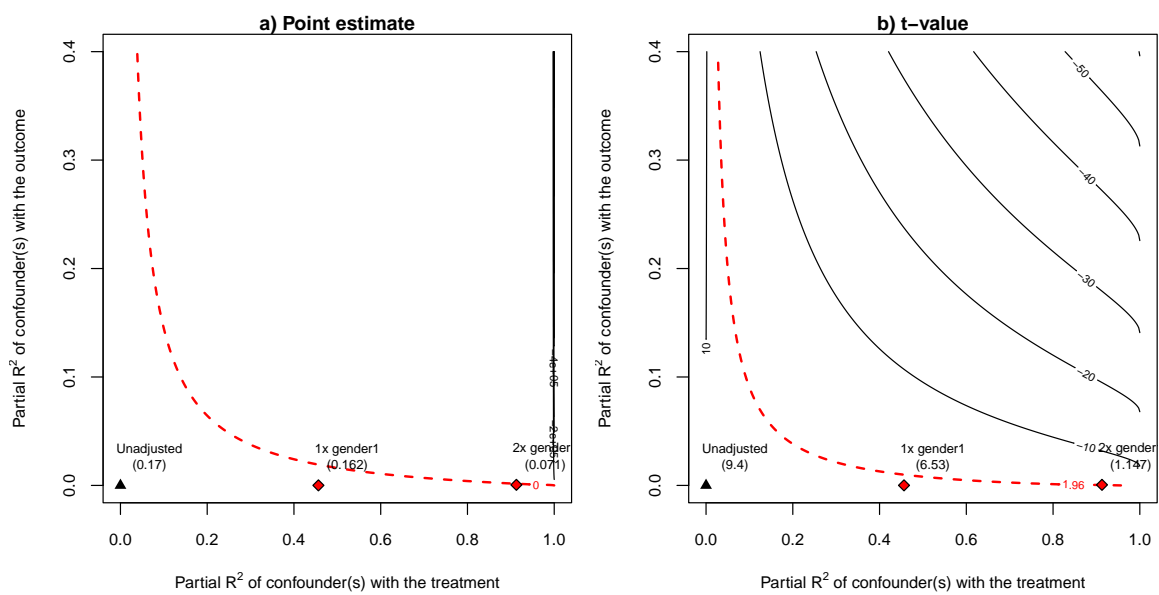


Figure A9: Sensitivity analysis (Cinelli and Hazlett 2020): attractiveness, outcome: personal votes. Left: Sensitivity of the point estimate to potential unobserved confounders, benchmarked by the observed confounder gender. Right: Sensitivity of the t-value.

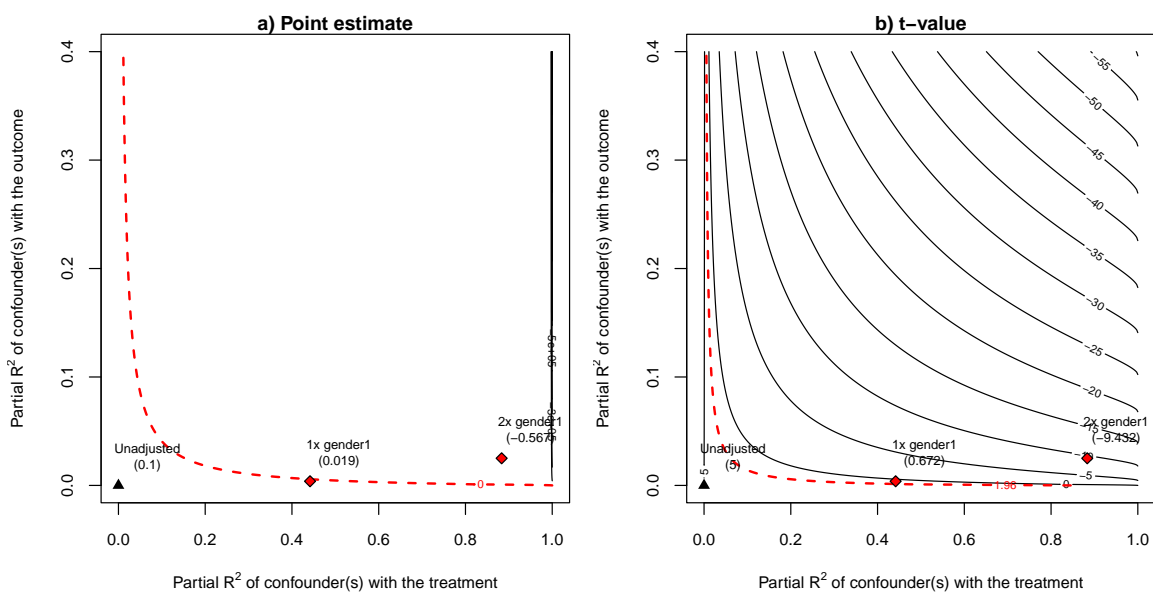


Figure A10: Sensitivity analysis (Cinelli and Hazlett 2020): trustworthiness, outcome: personal votes. Left: Sensitivity of the point estimate to potential unobserved confounders, benchmarked by the observed confounder gender. Right: Sensitivity of the t-value.

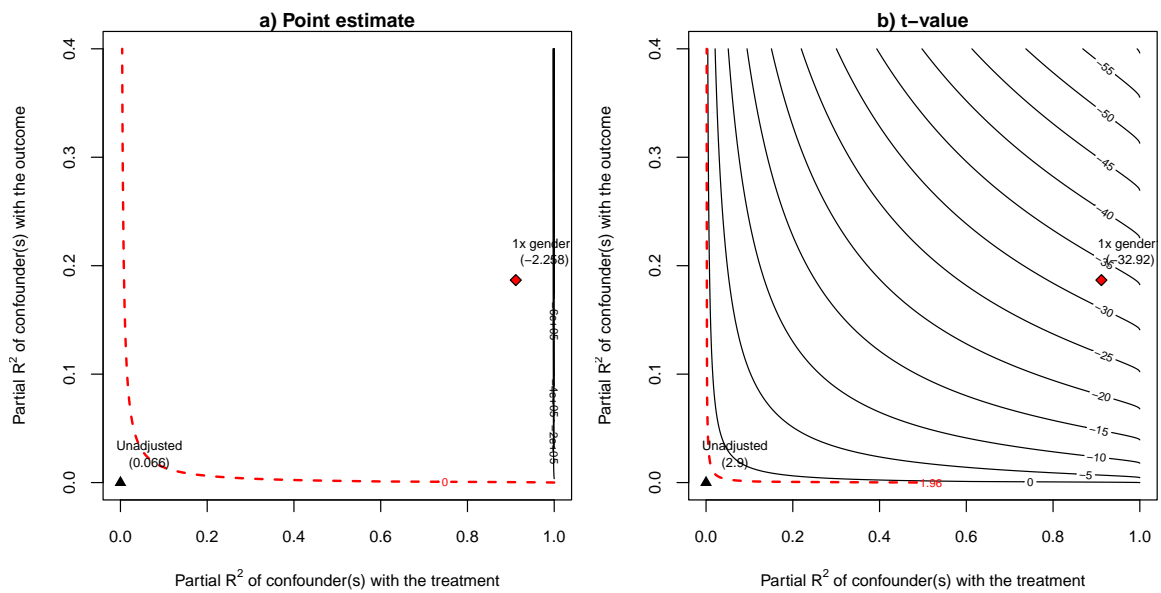


Figure A11: Sensitivity analysis (Cinelli and Hazlett 2020): dominance, outcome: personal votes. Left: Sensitivity of the point estimate to potential unobserved confounders, benchmarked by the observed confounder gender. Right: Sensitivity of the t-value.