**Supplementary Materials**

**Analysis of Training Behaviors**

The 10 trustworthy and 10 untrustworthy behaviors used in the training portion of our studies were taken from a previous study (Supplementary Table 1; Chua & Freeman, 2020). As reported in that study, to confirm that the behaviors conveyed the intended level of trustworthiness, an independent set of raters recruited from Mechanical Turk (*n* = 30) were asked to rate the trustworthiness of each of the 20 behaviors on a 7-point Likert scale. Inter-rater agreement was high (intraclass correlation coefficient [ICC] = 0.92). Indeed, the trustworthy behaviors (*M* = 5.03) were rated as significantly more trustworthy than the untrustworthy behaviors (*M* = 2.83), *t*(18) = 19.75, *p* < 0.0001, *d* = 9.31. Calculating the distance from the midpoint (4, on our 7-point Likert scale) showed that the trustworthy and untrustworthy behaviors were balanced in extremity and did not significantly differ in distance from the midpoint, *t*(18) = 1.30, *p* = 0.21, *d* = 0.61.

**Supplementary Table 1. Training behaviors and their ratings on trustworthiness.**

|  |  |  |
| --- | --- | --- |
| **Behavior** | **Trustworthiness** | **Behavior Type** |
| Surprised their significant other at work with flowers | 4.77 | Trustworthy |
| Volunteered at a homeless shelter | 5.03 | Trustworthy |
| Helped an elderly person cross a street | 4.93 | Trustworthy |
| Helped their friend plan a birthday party for their child | 4.77 | Trustworthy |
| Visited a sick friend at the hospital | 4.73 | Trustworthy |
| Let a friend stay on their couch who lost their apartment | 5.03 | Trustworthy |
| Returned $20 to someone who dropped it | 5.63 | Trustworthy |
| Performed a surgery free for someone who couldn't afford it | 5.13 | Trustworthy |
| Let a friend win at cards because they had no money. | 5.30 | Trustworthy |
| Protected their little brother from bullies | 4.98 | Trustworthy |
| Rigged a lottery to steal from old people | 2.33 | Untrustworthy |
| Spat in another person's face | 2.80 | Untrustworthy |
| Threw a rock at a neighbor's window | 2.90 | Untrustworthy |
| Screamed at a scared kindergartener | 2.87 | Untrustworthy |
| Sprayed curse words on someone's fence | 3.00 | Untrustworthy |
| Ate their friend's leftovers from the refrigerator | 3.10 | Untrustworthy |
| Took a bribe to give a student a better grade | 2.70 | Untrustworthy |
| Skipped a work shift they committed to covering | 3.03 | Untrustworthy |
| Cheated on their spouse while on a business trip | 2.67 | Untrustworthy |
| Got a promotion by lying about coworkers | 2.85 | Untrustworthy |

**Controlling for Facial Competence and Dominance**

The manipulation on sellion width could have impacted the perception of other traits such as competence and dominance. If there were differences in these traits due to the manipulation, it could be that the effects could have been driven by factors other than the learned trustworthiness associations with sellion width. To eliminate this possibility, we recruited two sets of independent raters from Mechanical Turk to rate the 40 face identities which each had narrow- vs. wide-sellion variants (see Methods of Study 1A in main text). The groups rated the 80 faces on their competence (n = 40, M = 35.6 years, SD = 10.8 years; 18 male; race: 22 White, 6 Black, 5 Asian, 7 Other; Hispanic/Latino ethnicity: 9), or dominance (n = 40, M = 33.9 years, SD = 11.2 years; 24 male; race: 25 White, 6 Black, 2 Asian, 7 Other; Hispanic/Latino ethnicity: 8) using a 7-point Likert scale. Inter-rater agreement was high for competence ratings (ICC = 0.96) and dominance ratings (ICC = 0.95).

Items-based paired t-tests for competence ratings (comparing mean ratings for the 40 identities) between the narrow vs. wide sellions showed no difference for narrow vs. wide sellion variants, *t*(39) = 1.25, *p* = 0.21, *d* = 0.23; a raters-based paired t-test (comparing mean ratings of the 40 raters) also revealed no significant difference, *t*(39) = 1.02, *p* = 0.32, *d* = 0.16. A similar pattern was found for dominance ratings, with an items-based t-test showing no significant difference in dominance ratings for wide vs. narrow sellion variants, *t*(39) = 1.33, *p* = 0.19, *d* = 0.15, and a raters-based paired t-test also confirming no difference, *t*(39) = 0.92, *p* = 0.36, *d* = 0.15. These results show that the sellion width manipulation did not impact perceived competence or dominance.

It nevertheless remains a possibility that perceptions of traits such as competence and dominance could still be partially responsible for our results. To inspect the critical main effect of sellion width after including covariates of faces’ competence and dominance on a trial-by-trial basis, we conducted an analysis of each of our studies using a generalized estimating equations (GEE) multi-level regression framework (Zeger & Liang, 1986). This allowed us to examine whether the main effect of sellion held even when statistically controlling for a given face’s perceived competence and dominance on a trial-by-trial basis. For Study 3, which examined whether the facial trustworthiness and sellion cues acted in concert, we were interested in whether the interaction between sellion and trustworthiness held after including these covariates.

Trials were nested within subjects. The dependent measure in each study was regressed onto facial trustworthiness (-0.5 = untrustworthy, 0.5 = trustworthy), sellion width (-0.5 = untrustworthy, 0.5 = trustworthy), and the sellion width × facial trustworthiness interaction (thus mirroring our primary analyses), but additionally onto facial competence (mean-centered), facial dominance (mean-centered) and the sellion width × facial competence and sellion width × facial dominance interactions. The full results are provided in the tables below (Supplementary Tables 2-11), which report unstandardized regression coefficients (*B*) and Wald *Z* statistics. For each study, we first present the data without covariates, mirroring our original analyses (but in a multi-level GEE regression framework), followed by the data including the covariates. Across studies, there were no significant effects or interactions with competence or dominance, and critically, the main effect of sellion was still significant and strong when including these covariates in the model for Studies 1A, 1B, 4, and 5. The critical sellion × trustworthiness interaction for Study 3 (mouse-tracking) also held after including these covariates.

Thus, there is no evidence that facial dominance or competence confounded any of the reported results.

**Supplementary Table 2: Study 1A without covariates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Effect** | ***B*** | ***SE*** | **95% CI** | **Wald *Z*** | ***p*** |
| **Intercept** | 38.5396 | 1.6817 | 35.2435 | 41.8357 | 22.92 | <.0001 |
| **Sellion** | -18.8235 | 2.346 | -23.4215 | -14.2255 | -8.02 | <.0001 |
| **Trustworthiness** | -13.0882 | 2.0862 | -17.1771 | -8.9994 | -6.27 | <.0001 |
| **Sellion x Trustworthiness** | -5 | 2.6172 | -10.1295 | 0.1295 | -1.91 | 0.0561 |

**Supplementary Table 3: Study 1A with covariates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Effect** | ***B*** | ***SE*** | **95% CI** | **Wald *Z*** | ***p*** |
| **Intercept** | 38.7018 | 1.8347 | 35.106 | 42.2977 | 21.09 | <.0001 |
| **Sellion** | -18.7746 | 3.0069 | -24.668 | -12.8812 | -6.24 | <.0001 |
| **Trustworthiness** | -9.7499 | 3.8763 | -17.3473 | -2.1526 | -2.52 | 0.0119 |
| **Sellion x Trustworthiness** | -0.5497 | 7.4855 | -15.221 | 14.1216 | -0.07 | 0.9415 |
| **Competence** | -0.402 | 4.2755 | -8.7819 | 7.9779 | -0.09 | 0.9251 |
| **Sellion x Competence** | 0.9388 | 7.5043 | -13.7693 | 15.6469 | 0.13 | 0.9004 |
| **Dominance** | 11.0058 | 10.8003 | -10.1623 | 32.1739 | 1.02 | 0.3082 |
| **Sellion x Competence** | 10.5481 | 21.2585 | -31.1177 | 52.214 | 0.5 | 0.6198 |

**Supplementary Table 4: Study 1B without covariates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Effect** | ***B*** | ***SE*** | **95% CI** | **Wald *Z*** | ***p*** |
| **Intercept** | 41.9428 | 2.1041 | 37.8187 | 46.0668 | 19.93 | <.0001 |
| **Sellion** | -8.1325 | 1.96 | -11.974 | -4.2911 | -4.15 | <.0001 |
| **Trustworthiness** | -5.9488 | 2.0412 | -9.9495 | -1.9481 | -2.91 | 0.0036 |
| **Sellion x Trustworthiness** | -3.1627 | 3.353 | -9.7344 | 3.4091 | -0.94 | 0.3456 |

**Supplementary Table 5: Study 1B with covariates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Effect** | ***B*** | ***SE*** | **95% CI** | **Wald *Z*** | ***p*** |
| **Intercept** | 43.8229 | 2.9064 | 38.1265 | 49.5192 | 15.08 | <.0001 |
| **Sellion** | -9.0588 | 3.6469 | -16.2067 | -1.911 | -2.48 | 0.013 |
| **Trustworthiness** | -6.995 | 3.0778 | -13.0273 | -0.9626 | -2.27 | 0.023 |
| **Sellion x Trustworthiness** | -3.241 | 7.2418 | -17.4346 | 10.9527 | -0.45 | 0.6545 |
| **Competence** | 9.4967 | 13.8162 | -17.5825 | 36.5759 | 0.69 | 0.4919 |
| **Sellion x Competence** | -1.6465 | 14.7354 | -30.5275 | 27.2344 | -0.11 | 0.911 |
| **Dominance** | -3.0168 | 6.2578 | -15.2818 | 9.2482 | -0.48 | 0.6297 |
| **Sellion x Competence** | -0.6073 | 19.9223 | -39.6543 | 38.4396 | -0.03 | 0.9757 |

**Supplementary Table 6: Study 3 without covariates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Effect** | ***B*** | ***SE*** | **95% CI** | **Wald *Z*** | ***p*** |
| **Intercept** | 0.8621 | 0.0432 | 0.7774 | 0.9468 | 19.95 | <.0001 |
| **Sellion** | 0.0343 | 0.0452 | -0.0543 | 0.1228 | 0.76 | 0.4481 |
| **Trustworthiness** | -0.0742 | 0.0505 | -0.1732 | 0.0247 | -1.47 | 0.1413 |
| **Sellion x Trustworthiness** | -0.3617 | 0.0784 | -0.5153 | -0.208 | -4.61 | <.0001 |

**Supplementary Table 7: Study 3 with covariates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Effect** | ***B*** | ***SE*** | **95% CI** | **Wald *Z*** | ***p*** |
| **Intercept** | 0.8608 | 0.0433 | 0.776 | 0.9457 | 19.88 | <.0001 |
| **Sellion** | 0.0331 | 0.0459 | -0.0568 | 0.123 | 0.72 | 0.4703 |
| **Trustworthiness** | -0.0862 | 0.0594 | -0.2026 | 0.0301 | -1.45 | 0.1464 |
| **Sellion x Trustworthiness** | -0.4194 | 0.1073 | -0.6296 | -0.2091 | -3.91 | <.0001 |
| **Competence** | -0.1024 | 0.071 | -0.2417 | 0.0368 | -1.44 | 0.1495 |
| **Sellion x Competence** | 0.0071 | 0.14 | -0.2672 | 0.2814 | 0.05 | 0.9595 |
| **Dominance** | 0.0573 | 0.1747 | -0.285 | 0.3996 | 0.33 | 0.7428 |
| **Sellion x Competence** | -0.2355 | 0.2737 | -0.7719 | 0.301 | -0.86 | 0.3896 |

**Supplementary Table 8: Study 4 without covariates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Effect** | ***B*** | ***SE*** | **95% CI** | **Wald *Z*** | ***p*** |
| **Intercept** | 4.5701 | 4.1401 | -3.5444 | 12.6845 | 1.1 | 0.2697 |
| **Sellion** | -17.2135 | 4.0678 | -25.1863 | -9.2408 | -4.23 | <.0001 |
| **Trustworthiness** | -19.334 | 4.7621 | -28.6676 | -10.0005 | -4.06 | <.0001 |
| **Sellion x Trustworthiness** | 0.837 | 9.4677 | -17.7193 | 19.3934 | 0.09 | 0.9296 |

**Supplementary Table 9: Study 4 with covariates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Effect** | ***B*** | ***SE*** | **95% CI** | **Wald *Z*** | ***p*** |
| **Intercept** | -1.6327 | 4.7393 | -10.9217 | 7.6562 | -0.34 | 0.7305 |
| **Sellion** | -17.5764 | 4.2261 | -25.8594 | -9.2934 | -4.16 | <.0001 |
| **Trustworthiness** | -20.7127 | 7.7539 | -35.9102 | -5.5153 | -2.67 | 0.0076 |
| **Sellion x Trustworthiness** | -8.1974 | 13.9291 | -35.498 | 19.1032 | -0.59 | 0.5562 |
| **Competence** | -19.326 | 17.9133 | -54.4355 | 15.7835 | -1.08 | 0.2806 |
| **Sellion x Competence** | -18.7778 | 19.6242 | -57.2406 | 19.685 | -0.96 | 0.3386 |
| **Dominance** | 17.9505 | 35.7025 | -52.025 | 87.9261 | 0.5 | 0.6151 |
| **Sellion x Competence** | -38.4728 | 40.9156 | -118.666 | 41.7203 | -0.94 | 0.3471 |

**Supplementary Table 10: Study 5 without covariates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Effect** | ***B*** | ***SE*** | **95% CI** | **Wald *Z*** | ***p*** |
| **Intercept** | 48.7737 | 1.7548 | 45.3344 | 52.2129 | 27.8 | <.0001 |
| **Sellion** | 9.9053 | 2.3713 | 5.2576 | 14.553 | 4.18 | <.0001 |
| **Trustworthiness** | 9.4081 | 1.6698 | 6.1355 | 12.6808 | 5.63 | <.0001 |
| **Sellion x Trustworthiness** | -1.6383 | 2.9339 | -7.3886 | 4.1121 | -0.56 | 0.5766 |

**Supplementary Table 11: Study 5 with covariates**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Effect** | ***B*** | ***SE*** | **95% CI** | **Wald *Z*** | ***p*** |
| **Intercept** | 48.7472 | 1.7465 | 45.3241 | 52.1703 | 27.91 | <.0001 |
| **Sellion** | 9.8326 | 2.3943 | 5.1399 | 14.5253 | 4.11 | <.0001 |
| **Trustworthiness** | 7.2111 | 1.8169 | 3.65 | 10.7721 | 3.97 | <.0001 |
| **Sellion x Trustworthiness** | -2.2847 | 3.8474 | -9.8254 | 5.256 | -0.59 | 0.5526 |
| **Competence** | -2.7187 | 4.134 | -10.8213 | 5.3838 | -0.66 | 0.5108 |
| **Sellion x Competence** | -6.0725 | 7.1255 | -20.0382 | 7.8931 | -0.85 | 0.3941 |
| **Dominance** | 1.4009 | 4.2734 | -6.9747 | 9.7766 | 0.33 | 0.743 |
| **Sellion x Competence** | 1.6159 | 7.9966 | -14.0572 | 17.2891 | 0.2 | 0.8399 |