

SUPPLEMENTARY DATA FOR “EVIDENCE FOR HUMAN-CENTRIC IN-VEHICLE LIGHTING: PART 1”

S1: Color-mood relations

Color-mood relation: Joy, Part 1

Table S1. Statistical evaluation of the color-joy rating, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the heading.

| Color | 1. China: Men | | | | | | | | | | | | | | |
|-----------------|----------------------------------|--------|-----------------------|--------------|-----------|-----------------------------------|--------|-----------------------|--------------|-----------|-----------------------------------|--------|-----------------------|--------------|-----------|
| | 2. China: Women, n (1+2) = 161 | | | | | 3. Europe: Men, n (1+3) = 136 | | | | | 4. Europe: Women, n (1+4) = 137 | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| Red | 0.711 | 3.088 | 2.01×10^{-3} | 0.243 | weak | 0.468 | 1.631 | 0.103 | not sign. | not sign. | 0.828 | 3.284 | 1.02×10^{-3} | 0.281 | weak |
| Orange | 0.329 | 1.539 | 0.124 | not sign. | not sign. | -0.047 | -0.186 | 0.852 | not sign. | not sign. | 0.492 | 2.055 | 3.99×10^{-2} | 0.176 | weak |
| Yellow | 0.083 | 0.357 | 0.721 | not sign. | not sign. | -0.340 | -1.315 | 0.188 | not sign. | not sign. | -0.235 | -0.918 | 0.359 | not sign. | not sign. |
| Green | 0.297 | 1.298 | 0.194 | not sign. | not sign. | -0.020 | -0.050 | 0.960 | not sign. | not sign. | 0.236 | 0.831 | 0.406 | not sign. | not sign. |
| Cyan | 0.092 | 0.352 | 0.725 | not sign. | not sign. | -0.457 | -1.649 | 0.099 | not sign. | not sign. | -0.604 | -2.264 | 2.36×10^{-2} | 0.193 | weak |
| Blue | 0.323 | 1.397 | 0.162 | not sign. | not sign. | -0.224 | -0.592 | 0.554 | not sign. | not sign. | 0.429 | 1.266 | 0.205 | not sign. | not sign. |
| Purple | 0.662 | 2.749 | 5.97×10^{-3} | 0.217 | weak | 0.465 | 1.675 | 0.094 | not sign. | not sign. | 0.225 | 0.850 | 0.395 | not sign. | not sign. |
| Cold White | -0.002 | -0.155 | 0.877 | not sign. | not sign. | 0.490 | 1.954 | 5.00×10^{-2} | 0.168 | weak | 0.464 | 1.977 | 4.81×10^{-2} | 0.169 | weak |
| Warm White | -0.379 | -1.655 | 0.098 | not sign. | not sign. | 0.649 | 2.439 | 1.47×10^{-2} | 0.209 | weak | 0.041 | 0.234 | 0.815 | not sign. | not sign. |
| Neutral White | 0.245 | 1.062 | 0.288 | not sign. | not sign. | 0.786 | 2.860 | 4.23×10^{-3} | 0.245 | weak | 0.769 | 2.938 | 3.30×10^{-3} | 0.251 | weak |
| 2. China: Women | | | | | | | | | | | | | 3. Europe: Men | | |
| Color | 3. Europe: Men, n (2+3) = 101 | | | | | 4. Europe: Women, n (2+4) = 102 | | | | | 4. Europe: Women, n (3+4) = 77 | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| | -0.243 | -0.985 | 0.325 | not sign. | not sign. | 0.117 | 0.910 | 0.363 | not sign. | not sign. | 0.360 | 1.657 | 0.097 | not sign. | not sign. |
| Red | -0.376 | -1.315 | 0.188 | not sign. | not sign. | 0.164 | 0.743 | 0.457 | not sign. | not sign. | 0.539 | 1.640 | 0.101 | not sign. | not sign. |
| Orange | -0.423 | -1.584 | 0.113 | not sign. | not sign. | -0.317 | -1.094 | 0.274 | not sign. | not sign. | 0.105 | 0.206 | 0.837 | not sign. | not sign. |
| Yellow | -0.317 | -1.111 | 0.266 | not sign. | not sign. | -0.061 | -0.170 | 0.865 | not sign. | not sign. | 0.256 | 0.722 | 0.470 | not sign. | not sign. |
| Green | -0.549 | -1.886 | 0.059 | not sign. | not sign. | -0.696 | -2.504 | 1.23×10^{-2} | 0.248 | weak | -0.147 | -0.376 | 0.707 | not sign. | not sign. |
| Cyan | -0.548 | -1.854 | 0.064 | not sign. | not sign. | 0.106 | 0.321 | 0.748 | not sign. | not sign. | 0.654 | 1.587 | 0.112 | not sign. | not sign. |
| Blue | -0.198 | -0.564 | 0.572 | not sign. | not sign. | -0.437 | -1.430 | 0.153 | not sign. | not sign. | -0.240 | -0.728 | 0.467 | not sign. | not sign. |
| Purple | 0.492 | 2.076 | 3.79×10^{-2} | 0.207 | weak | 0.466 | 2.072 | 3.83×10^{-2} | 0.205 | weak | -0.026 | 0.171 | 0.865 | not sign. | not sign. |
| Cold White | 1.028 | 3.456 | 5.48×10^{-4} | 0.344 | medium | 0.420 | 1.416 | 0.157 | not sign. | not sign. | -0.608 | -1.699 | 0.089 | not sign. | not sign. |
| Warm White | 0.541 | 1.994 | 4.62×10^{-2} | 0.198 | weak | 0.524 | 1.982 | 4.75×10^{-2} | 0.196 | weak | -0.018 | 0.240 | 0.810 | not sign. | not sign. |

Color-mood relation: Joy, Part 2

Table S2. Statistical evaluation of the four identified groups, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the first column.

| Participants | 1. Contra (red) | | | | | | | | | | | | level | | |
|------------------------------|---------------------------|--------|-----------------------|--------------|-----------|-----------------|-----------------------------|-----------------------|--------------|-----------|-----------------------------|--------|-----------------------|--------------|-----------|
| | 2. Medium (orange-purple) | | | | | | 3. Contra (cold w.) | | | | 4. Medium (warm-neutral w.) | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | |
| China: Men $n = 98$ | -0.468 | -2.916 | 3.54×10^{-3} | 0.295 | medium | 0.031 | 0.129 | 0.898 | not sign. | not sign. | -0.500 | -2.551 | 1.08×10^{-2} | 0.258 | medium |
| China: Women $n = 63$ | -0.881 | -4.723 | 2.32×10^{-6} | 0.595 | strong | -0.683 | -2.656 | 7.91×10^{-3} | 0.335 | medium | -1.278 | -4.497 | 6.89×10^{-6} | 0.567 | strong |
| Europe: Men $n = 38$ | -1.039 | -3.737 | 1.86×10^{-4} | 0.606 | strong | 0.053 | 0.090 | 0.928 | not sign. | not sign. | -0.250 | -1.006 | 0.314 | not sign. | not sign. |
| Europe: Women $n = 39$ | -1.205 | -4.455 | 8.40×10^{-6} | 0.713 | strong | -0.333 | -1.214 | 0.225 | not sign. | not sign. | -0.923 | -2.684 | 7.28×10^{-3} | 0.430 | strong |
| Participants | 2. Medium (orange-purple) | | | | | | 3. Contra (cold w.) | | | | 4. Medium (warm-neutral w.) | | | | |
| | 3. Contra (cold w.) | | | | | | 4. Medium (warm-neutral w.) | | | | 4. Medium (warm-neutral w.) | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| China: Men $n = 98$ | 0.498 | 3.277 | 1.05×10^{-3} | 0.331 | medium | -0.032 | -0.299 | 0.765 | not sign. | not sign. | -0.531 | -4.038 | 5.39×10^{-5} | 0.408 | strong |
| China: Women $n = 63$ | 0.198 | 1.064 | 0.287 | not sign. | not sign. | -0.397 | -2.044 | 4.09×10^{-2} | 0.258 | medium | -0.595 | -3.738 | 1.86×10^{-4} | 0.471 | strong |
| Europe: Men $n = 38$ | 1.092 | 3.970 | 7.18×10^{-5} | 0.644 | strong | 0.789 | 3.404 | 6.64×10^{-4} | 0.552 | strong | -0.303 | -1.714 | 0.087 | not sign. | not sign. |
| Europe: Women $n = 39$ | 0.872 | 3.044 | 2.34×10^{-3} | 0.487 | strong | 0.282 | 1.110 | 0.267 | not sign. | not sign. | -0.590 | -3.839 | 1.23×10^{-4} | 0.615 | strong |

Color-mood relation: Fatigue, Part 1

Table S3. Statistical evaluation of the color-fatigue rating, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the heading.

| Color | 1. China: Men | | | | | | | | | | | | | | |
|-----------------|----------------------------------|--------|---|---|--------------|-----------------------------------|--------|---|---|--------------|-----------------------------------|--------|---|---|--------------|
| | 2. China: Women, n (1+2) = 161 | | | | | 3. Europe: Men, n (1+3) = 136 | | | | | 4. Europe: Women, n (1+4) = 137 | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| Red | -0.372 | -1.477 | 0.140 | not sign. | not sign. | 0.409 | 1.370 | 0.171 | not sign. | not sign. | 1.195 | 4.000 | 6.33×10^{-5} | 0.342 | medium |
| Orange | 0.227 | 1.036 | 0.300 | not sign. | not sign. | 0.430 | 1.697 | 0.090 | not sign. | not sign. | 0.980 | 3.948 | 7.87×10^{-5} | 0.337 | medium |
| Yellow | 0.240 | 1.138 | 0.255 | not sign. | not sign. | 0.439 | 1.546 | 0.122 | not sign. | not sign. | 0.836 | 3.368 | 7.56×10^{-4} | 0.288 | weak |
| Green | 0.079 | 0.482 | 0.629 | not sign. | not sign. | 0.338 | 1.791 | 0.073 | not sign. | not sign. | 0.516 | 2.262 | 2.37×10^{-2} | 0.193 | weak |
| Cyan | 0.035 | 0.095 | 0.924 | not sign. | not sign. | 0.532 | 2.575 | 1.00×10^{-2} | 0.221 | weak | 0.685 | 3.091 | 2.00×10^{-3} | 0.264 | weak |
| Blue | 0.203 | 1.169 | 0.242 | not sign. | not sign. | 0.118 | 1.053 | 0.292 | not sign. | not sign. | -0.062 | -0.328 | 0.743 | not sign. | not sign. |
| Purple | 0.016 | -0.030 | 0.976 | not sign. | not sign. | 0.071 | 0.125 | 0.901 | not sign. | not sign. | 0.418 | 1.418 | 0.156 | not sign. | not sign. |
| Cold White | 0.231 | 1.024 | 0.306 | not sign. | not sign. | 0.718 | 3.257 | 1.13×10^{-3} | 0.279 | weak | 0.740 | 3.258 | 1.12×10^{-3} | 0.278 | weak |
| Warm White | 0.421 | 1.850 | 0.064 | not sign. | not sign. | -0.226 | -0.921 | 0.357 | not sign. | not sign. | 0.258 | 1.046 | 0.295 | not sign. | not sign. |
| Neutral White | 0.195 | 0.935 | 0.350 | not sign. | not sign. | 0.186 | 0.991 | 0.322 | not sign. | not sign. | 0.475 | 1.984 | 4.73×10^{-2} | 0.169 | weak |
| 2. China: Women | | | | | | | | | | | | | 3. Europe: Men | | |
| Color | 3. Europe: Men, n (2+3) = 101 | | | | | 4. Europe: Women, n (2+4) = 102 | | | | | 4. Europe: Women, n (3+4) = 77 | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| | Red | 0.781 | 2.438 | 1.48×10^{-2} | 0.243 | weak | 1.567 | 4.784 | 1.72×10^{-6} | 0.474 | medium | 0.785 | 2.330 | 1.98×10^{-2} | 0.266 |
| Orange | 0.203 | 0.826 | 0.409 | not sign. | not sign. | 0.753 | 3.050 | 2.29×10^{-3} | 0.302 | medium | 0.550 | 2.105 | 3.53×10^{-2} | 0.240 | medium |
| Yellow | 0.198 | 0.570 | 0.569 | not sign. | not sign. | 0.596 | 2.321 | 2.03×10^{-2} | 0.230 | weak | 0.397 | 1.521 | 0.128 | not sign. | not sign. |
| Green | 0.259 | 1.414 | 0.157 | not sign. | not sign. | 0.437 | 1.718 | 0.086 | not sign. | not sign. | 0.178 | 0.143 | 0.886 | not sign. | not sign. |
| Cyan | 0.497 | 2.354 | 1.86×10^{-2} | 0.234 | weak | 0.650 | 2.836 | 4.57×10^{-3} | 0.281 | weak | 0.153 | 0.392 | 0.695 | not sign. | not sign. |
| Blue | -0.085 | 0.105 | 0.916 | not sign. | not sign. | -0.265 | -1.231 | 0.218 | not sign. | not sign. | -0.180 | -1.060 | 0.289 | not sign. | not sign. |
| Purple | 0.056 | 0.101 | 0.919 | not sign. | not sign. | 0.402 | 1.386 | 0.166 | not sign. | not sign. | 0.346 | 1.156 | 0.248 | not sign. | not sign. |
| Cold White | 0.486 | 2.341 | 1.92×10^{-2} | 0.233 | weak | 0.509 | 2.290 | 2.20×10^{-2} | 0.227 | weak | 0.023 | -0.270 | 0.787 | not sign. | not sign. |
| Warm White | -0.646 | -2.385 | 1.71×10^{-2} | 0.237 | weak | -0.162 | -0.439 | 0.661 | not sign. | not sign. | 0.484 | 1.654 | 0.098 | not sign. | not sign. |
| Neutral White | -0.009 | 0.195 | 0.846 | not sign. | not sign. | 0.280 | 1.082 | 0.279 | not sign. | not sign. | 0.289 | 0.711 | 0.477 | not sign. | not sign. |

Color-mood relation: Fatigue, Part 2

Table S4. Statistical evaluation of the three identified groups, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the first column.

| Participants | 1. Medium (red-yellow) | | | | | | 2. Contra (green-blue) | | | | | | 3. Medium (purple-neutral w.) | | |
|------------------------------|------------------------|-------|------------------------|-------------------------------|-----------|-----------------|-------------------------------|-----------------------|-----------|-----------|-----------------|--------|-------------------------------|-----------|-----------|
| | 2. Contra (green-blue) | | | 3. Medium (purple-neutral w.) | | | 3. Medium (purple-neutral W.) | | | | | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| China: Men $n = 98$ | 0.667 | 4.847 | 1.252×10^{-6} | 0.490 | strong | 0.384 | 2.574 | 1.01×10^{-2} | 0.260 | medium | -0.283 | -1.989 | 4.67×10^{-2} | 0.201 | weak |
| China: Women $n = 63$ | 0.741 | 4.599 | 4.240×10^{-6} | 0.579 | strong | 0.567 | 3.348 | 8.14×10^{-4} | 0.422 | strong | -0.173 | -1.270 | 0.204 | not sign. | not sign. |
| Europe: Men $n = 38$ | 0.570 | 2.612 | 9.000×10^{-3} | 0.424 | strong | 0.145 | 0.896 | 0.370 | not sign. | not sign. | -0.425 | -2.788 | 5.31×10^{-3} | 0.452 | strong |
| Europe: Women $n = 39$ | 0.043 | 0.243 | 0.808 | not sign. | not sign. | -0.147 | -0.107 | 0.915 | not sign. | not sign. | -0.190 | -1.078 | 0.281 | not sign. | not sign. |

Color-mood relation: Attention, Part 1

Table S5. Statistical evaluation of the color-attention rating, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the heading.

| Color | 1. China: Men | | | | | | | | | | | | | | |
|-----------------|----------------------------------|--------|-----------------------|--------------|-----------|-----------------------------------|--------|-----------------------|--------------|-----------|-----------------------------------|--------|-----------------------|--------------|-----------|
| | 2. China: Women, n (1+2) = 161 | | | | | 3. Europe: Men, n (1+3) = 136 | | | | | 4. Europe: Women, n (1+4) = 137 | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| Red | 0.592 | 2.171 | 3.00×10^{-2} | 0.171 | weak | -1.062 | -3.855 | 1.16×10^{-4} | 0.331 | medium | -0.848 | -2.918 | 3.53×10^{-3} | 0.249 | weak |
| Orange | 0.440 | 2.014 | 4.40×10^{-2} | 0.159 | weak | -0.430 | -1.695 | 0.090 | not sign. | not sign. | -0.672 | -2.679 | 7.38×10^{-3} | 0.229 | weak |
| Yellow | 0.480 | 2.267 | 2.34×10^{-2} | 0.179 | weak | -0.039 | -0.170 | 0.865 | not sign. | not sign. | -0.015 | -0.027 | 0.979 | not sign. | not sign. |
| Green | -0.042 | -0.105 | 0.917 | not sign. | not sign. | 0.294 | 1.219 | 0.223 | not sign. | not sign. | -0.025 | 0.054 | 0.957 | not sign. | not sign. |
| Cyan | -0.104 | -0.434 | 0.664 | not sign. | not sign. | 0.079 | 0.341 | 0.733 | not sign. | not sign. | 0.406 | 1.569 | 0.117 | not sign. | not sign. |
| Blue | -0.200 | -0.914 | 0.361 | not sign. | not sign. | 0.046 | 0.157 | 0.875 | not sign. | not sign. | 0.978 | 3.507 | 4.53×10^{-4} | 0.300 | medium |
| Purple | 0.424 | 1.837 | 0.066 | not sign. | not sign. | 0.438 | 1.653 | 0.098 | not sign. | not sign. | 0.687 | 2.553 | 1.07×10^{-2} | 0.218 | weak |
| Cold White | -0.002 | 0.269 | 0.788 | not sign. | not sign. | 0.490 | 2.287 | 2.22×10^{-2} | 0.196 | weak | 0.464 | 4.229 | 2.35×10^{-5} | 0.361 | medium |
| Warm White | -0.379 | -1.082 | 0.279 | not sign. | not sign. | 0.649 | 4.753 | 2.00×10^{-6} | 0.408 | medium | 0.041 | 5.030 | 4.89×10^{-7} | 0.430 | medium |
| Neutral White | 0.245 | -0.237 | 0.813 | not sign. | not sign. | 0.786 | 3.203 | 1.36×10^{-3} | 0.275 | weak | 0.769 | 4.791 | 1.66×10^{-6} | 0.409 | medium |
| 2. China: Women | | | | | | | | | | | | | 3. Europe: Men | | |
| Color | 3. Europe: Men, n (2+3) = 101 | | | | | 4. Europe: Women, n (2+4) = 102 | | | | | 4. Europe: Women, n (3+4) = 77 | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| | -1.654 | -4.869 | 1.12×10^{-6} | 0.484 | medium | -1.440 | -4.232 | 2.32×10^{-5} | 0.419 | medium | 0.215 | 1.184 | 0.237 | not sign. | not sign. |
| Red | -0.870 | -3.052 | 2.27×10^{-3} | 0.304 | medium | -1.112 | -3.799 | 1.45×10^{-4} | 0.376 | medium | -0.242 | -1.039 | 0.299 | not sign. | not sign. |
| Orange | -0.519 | -2.038 | 4.15×10^{-2} | 0.203 | weak | -0.495 | -1.598 | 0.110 | not sign. | not sign. | 0.024 | 0.052 | 0.958 | not sign. | not sign. |
| Yellow | 0.336 | 1.089 | 0.276 | not sign. | not sign. | 0.017 | 0.081 | 0.935 | not sign. | not sign. | -0.319 | -0.773 | 0.439 | not sign. | not sign. |
| Green | 0.184 | 0.626 | 0.531 | not sign. | not sign. | 0.510 | 1.780 | 0.075 | not sign. | not sign. | 0.327 | 1.055 | 0.292 | not sign. | not sign. |
| Cyan | 0.245 | 0.762 | 0.446 | not sign. | not sign. | 1.177 | 3.583 | 3.40×10^{-4} | 0.355 | medium | 0.932 | 2.633 | 8.45×10^{-3} | 0.300 | medium |
| Blue | 0.014 | 0.022 | 0.983 | not sign. | not sign. | 0.263 | 0.881 | 0.378 | not sign. | not sign. | 0.248 | 0.762 | 0.446 | not sign. | not sign. |
| Purple | 0.492 | 1.973 | 4.85×10^{-2} | 0.196 | weak | 0.466 | 3.841 | 1.23×10^{-4} | 0.380 | medium | -0.026 | 1.751 | 0.080 | not sign. | not sign. |
| Cold White | 1.028 | 4.763 | 1.91×10^{-6} | 0.474 | medium | 0.420 | 5.063 | 4.13×10^{-7} | 0.501 | strong | -0.608 | 0.265 | 0.791 | not sign. | not sign. |
| Warm White | 0.541 | 2.956 | 3.11×10^{-3} | 0.294 | weak | 0.524 | 4.284 | 1.83×10^{-5} | 0.424 | medium | -0.018 | 1.681 | 0.093 | not sign. | not sign. |

Color-mood relation: Attention, Part 2

Table S6. Statistical evaluation of the three identified groups, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the first column.

| Participants | 1. Medium-High (red-orange) | | | | | | 2. Medium (yellow-purple) | | | | | | | | |
|------------------------------|-----------------------------|--------|---|--|---------------|-----------------|--|---|--------------|---------------|-----------------|--------|---|--------------|---------------|
| | 2. Medium (yellow-purple) | | | 3. Medium-Contra (cold w. -neutral w.) | | | 3. Medium-Contra (cold w. -neutral w.) | | | | | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| China: Men $n = 98$ | 0.198 | 1.760 | 0.078 | not sign. | not sign. | 0.340 | 1.890 | 0.059 | not sign. | not sign. | 0.142 | 1.037 | 0.299 | not sign. | not sign. |
| China: Women $n = 63$ | -0.206 | -1.151 | 0.250 | not sign. | not sign. | -0.270 | -0.896 | 0.370 | not sign. | not sign. | -0.063 | -0.449 | 0.653 | not sign. | not sign. |
| Europe: Men $n = 38$ | 1.108 | 3.672 | 2.41×10^{-4} | 0.596 | strong | 1.969 | 4.556 | 5.22×10^{-6} | 0.739 | strong | 0.861 | 4.128 | 3.66×10^{-5} | 0.670 | strong |
| Europe: Women $n = 39$ | 1.364 | 4.286 | 1.82×10^{-5} | 0.686 | strong | 2.308 | 4.900 | 9.57×10^{-7} | 0.785 | strong | 0.944 | 4.377 | 1.20×10^{-5} | 0.701 | strong |

Color-mood relation: Relax, Part 1

Table S7. Statistical evaluation of the color-relax rating, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the heading.

| Color | 1. China: Men | | | | | | | | | | | | | | |
|-----------------|----------------------------------|--------|---|--------------|-------------|-----------------------------------|--------|---|--------------|---------------|-----------------------------------|--------|---|--------------|---------------|
| | 2. China: Women, n (1+2) = 161 | | | | | 3. Europe: Men, n (1+3) = 136 | | | | | 4. Europe: Women, n (1+4) = 137 | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| Red | 0.298 | 1.614 | 0.106 | not sign. | not sign. | -0.024 | -0.384 | 0.701 | not sign. | not sign. | 0.304 | 1.715 | 0.086 | not sign. | not sign. |
| Orange | 0.266 | 1.827 | 0.068 | not sign. | not sign. | -0.416 | -1.482 | 0.138 | not sign. | not sign. | 0.321 | 1.860 | 0.063 | not sign. | not sign. |
| Yellow | 0.029 | 0.372 | 0.710 | not sign. | not sign. | -0.350 | -1.346 | 0.178 | not sign. | not sign. | 0.140 | 0.712 | 0.476 | not sign. | not sign. |
| Green | 0.313 | 1.276 | 0.202 | not sign. | not sign. | 0.019 | 0.050 | 0.960 | not sign. | not sign. | 0.866 | 3.302 | 9.60×10^{-4} | 0.282 | weak |
| Cyan | 0.034 | 0.121 | 0.904 | not sign. | not sign. | -0.162 | -0.580 | 0.562 | not sign. | not sign. | -0.159 | -0.595 | 0.552 | not sign. | not sign. |
| Blue | 0.259 | 1.050 | 0.294 | not sign. | not sign. | 0.302 | 1.032 | 0.302 | not sign. | not sign. | 0.455 | 1.365 | 0.172 | not sign. | not sign. |
| Purple | 0.408 | 1.612 | 0.107 | not sign. | not sign. | 0.389 | 1.426 | 0.154 | not sign. | not sign. | 0.149 | 0.617 | 0.537 | not sign. | not sign. |
| Cold White | -0.002 | -0.866 | 0.386 | not sign. | not sign. | 0.490 | 2.218 | 2.66×10^{-2} | 0.190 | weak | 0.464 | 3.196 | 1.39×10^{-3} | 0.273 | weak |
| Warm White | -0.379 | -1.326 | 0.185 | not sign. | not sign. | 0.649 | 1.873 | 0.061 | not sign. | not sign. | 0.041 | 0.795 | 0.427 | not sign. | not sign. |
| Neutral White | 0.245 | -0.466 | 0.641 | not sign. | not sign. | 0.786 | 2.631 | 8.50×10^{-3} | 0.226 | weak | 0.769 | 4.434 | 9.27×10^{-6} | 0.379 | medium |
| 2. China: Women | | | | | | | | | | | | | 3. Europe: Men | | |
| Color | 3. Europe: Men, n (2+3) = 101 | | | | | 4. Europe: Women, n (2+4) = 102 | | | | | 4. Europe: Women, n (3+4) = 77 | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| | -0.322 | -1.721 | 0.085 | not sign. | not sign. | 0.006 | 0.422 | 0.673 | not sign. | not sign. | 0.328 | 1.836 | 0.066 | not sign. | not sign. |
| Red | -0.683 | -2.551 | 1.07×10^{-2} | 0.254 | weak | 0.055 | 0.352 | 0.725 | not sign. | not sign. | 0.738 | 2.468 | 1.36×10^{-2} | 0.281 | weak |
| Orange | -0.379 | -1.445 | 0.148 | not sign. | not sign. | 0.110 | 0.381 | 0.703 | not sign. | not sign. | 0.490 | 1.618 | 0.106 | not sign. | not sign. |
| Yellow | -0.295 | -0.882 | 0.378 | not sign. | not sign. | 0.553 | 2.074 | 3.81×10^{-2} | 0.205 | weak | 0.848 | 2.564 | 1.04×10^{-2} | 0.292 | weak |
| Green | -0.196 | -0.596 | 0.551 | not sign. | not sign. | -0.193 | -0.621 | 0.535 | not sign. | not sign. | 0.003 | 0.000 | 1.000 | not sign. | not sign. |
| Cyan | 0.042 | 0.279 | 0.780 | not sign. | not sign. | 0.196 | 0.933 | 0.351 | not sign. | not sign. | 0.153 | 0.499 | 0.618 | not sign. | not sign. |
| Blue | -0.019 | 0.083 | 0.934 | not sign. | not sign. | -0.259 | -0.680 | 0.496 | not sign. | not sign. | -0.240 | -0.556 | 0.578 | not sign. | not sign. |
| Purple | 0.492 | 2.548 | 1.08×10^{-2} | 0.254 | weak | 0.466 | 3.459 | 5.42×10^{-4} | 0.343 | medium | -0.026 | 0.886 | 0.376 | not sign. | not sign. |
| Cold White | 1.028 | 2.838 | 4.55×10^{-3} | 0.282 | weak | 0.420 | 2.135 | 3.27×10^{-2} | 0.211 | weak | -0.608 | -1.273 | 0.203 | not sign. | not sign. |
| Warm White | 0.541 | 2.935 | 3.33×10^{-3} | 0.292 | weak | 0.524 | 4.661 | 3.14×10^{-6} | 0.462 | medium | -0.018 | 1.700 | 0.089 | not sign. | not sign. |

Color-mood relation: Relax, Part 2

Table S8. Statistical evaluation of the four identified groups, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the first column.

| Participants | 1. Contra (red-orange) | | | | | | | | | | | | 4. Medium-High (warm w.-neutral w.) | | | | | | | | | | | | |
|------------------------------|-------------------------|--------|------------------------|-----------|-----------|-----------------|-------------------------------------|-----------------------|-----------|-----------|-----------------|--------|-------------------------------------|-----------|-----------|-----------------|-----|-------------|-----|-------|-----------------|-----|-------------|-----|--|
| | 2. Medium (yellow-blue) | | | | | | 3. Low (purple-cold w.) | | | | | | | | | | | | | | | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | |
| China: Men $n = 98$ | -0.962 | -6.696 | 2.15×10^{-11} | 0.676 | strong | -0.816 | -5.22598 | 1.73×10^{-7} | 0.528 | strong | -1.332 | -6.470 | 9.83×10^{-11} | 0.654 | strong | | | | | | | | | | |
| China: Women $n = 63$ | -1.107 | -5.404 | 6.53×10^{-8} | 0.681 | strong | -1.024 | -4.96276 | 6.95×10^{-7} | 0.625 | strong | -1.865 | -5.964 | 2.46×10^{-9} | 0.751 | strong | | | | | | | | | | |
| Europe: Men $n = 38$ | -0.789 | -2.840 | 4.50×10^{-3} | 0.461 | strong | -0.132 | -0.524 | 0.600 | not sign. | not sign. | -0.487 | -1.653 | 0.098 | not sign. | not sign. | | | | | | | | | | |
| Europe: Women $n = 39$ | -0.949 | -3.595 | 3.24×10^{-4} | 0.576 | strong | -0.667 | -2.879 | 3.99×10^{-3} | 0.461 | strong | -0.936 | -3.051 | 2.28×10^{-3} | 0.488 | strong | | | | | | | | | | |
| Participants | 2. Medium (yellow-blue) | | | | | | | | | | | | 3. Low (purple-cold w.) | | | | | | | | | | | | |
| | 3. Low (purple-cold w.) | | | | | | 4. Medium-High (warm w.-neutral w.) | | | | | | 4. Medium-High (warm w.-neutral w.) | | | | | | | | | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | |
| China: Men $n = 98$ | 0.145 | 1.738 | 0.082 | not sign. | not sign. | -0.370 | -2.440 | 1.47×10^{-2} | 0.246 | weak | -0.515 | -3.597 | 3.22×10^{-4} | 0.363 | medium | | | | | | | | | | |
| China: Women $n = 63$ | 0.083 | 0.133 | 0.894 | not sign. | not sign. | -0.758 | -3.570 | 3.57×10^{-4} | 0.450 | strong | -0.841 | -4.402 | 1.07×10^{-5} | 0.555 | strong | | | | | | | | | | |
| Europe: Men $n = 38$ | 0.658 | 2.849 | 4.39×10^{-3} | 0.462 | strong | 0.303 | 1.034 | 0.301 | not sign. | not sign. | -0.355 | -1.816 | 0.069 | not sign. | not sign. | | | | | | | | | | |
| Europe: Women $n = 39$ | 0.282 | 1.384 | 0.166 | not sign. | not sign. | 0.013 | 0.063 | 0.950 | not sign. | not sign. | -0.269 | -1.221 | 0.222 | not sign. | not sign. | | | | | | | | | | |

S2: Position-preferences

Position-preference relation: Second row, Part 1

Table S1. Statistical evaluation of the position rating, second row, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the heading.

| Position | 1. China: Men | | | | | | | | | | | | | | |
|-----------------|----------------------------------|--------|-----------------------|-----------|-----------|-----------------------------------|--------|-----------------------|-----------|-----------|-----------------------------------|--------|-----------------------|-----------|-----------|
| | 2. China: Women, n (1+2) = 161 | | | | | 3. Europe: Men, n (1+3) = 136 | | | | | 4. Europe: Women, n (1+4) = 137 | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| Door | 0.053 | 0.520 | 0.603 | not sign. | not sign. | -0.592 | -3.588 | 3.33×10^{-4} | 0.308 | medium | -0.476 | -3.035 | 2.41×10^{-3} | 0.259 | weak |
| Foot | 0.174 | 0.782 | 0.434 | not sign. | not sign. | -0.659 | -3.937 | 8.24×10^{-5} | 0.338 | medium | -0.517 | -3.589 | 3.33×10^{-4} | 0.307 | medium |
| Seat | -0.139 | -0.650 | 0.516 | not sign. | not sign. | -0.158 | -0.908 | 0.364 | not sign. | not sign. | -0.252 | -1.363 | 0.173 | not sign. | not sign. |
| Top | -0.065 | -0.383 | 0.702 | not sign. | not sign. | 0.481 | 1.910 | 0.056 | not sign. | not sign. | 0.830 | 3.178 | 1.48×10^{-3} | 0.272 | weak |
| A-Pillar | -0.211 | -1.046 | 0.296 | not sign. | not sign. | 0.031 | 0.399 | 0.690 | not sign. | not sign. | 0.095 | 0.608 | 0.543 | not sign. | not sign. |
| Center | 0.054 | 0.222 | 0.824 | not sign. | not sign. | -0.283 | -1.187 | 0.235 | not sign. | not sign. | 0.116 | 0.329 | 0.742 | not sign. | not sign. |
| Screen | 0.122 | 0.396 | 0.692 | not sign. | not sign. | -0.071 | -0.311 | 0.756 | not sign. | not sign. | 0.211 | 0.853 | 0.393 | not sign. | not sign. |
| S. Wheel | 0.015 | -0.117 | 0.907 | not sign. | not sign. | 0.296 | 1.932 | 0.053 | not sign. | not sign. | 0.574 | 2.804 | 5.04×10^{-3} | 0.240 | weak |
| All | 0.104 | 0.308 | 0.758 | not sign. | not sign. | 0.492 | 2.489 | 1.28×10^{-2} | 0.213 | weak | 0.892 | 4.181 | 2.91×10^{-5} | 0.357 | medium |
| 2. China: Women | | | | | | | | | | | | | 3. Europe: Men | | |
| Position | 3. Europe: Men, n (2+3) = 101 | | | | | 4. Europe: Women, n (2+4) = 102 | | | | | 4. Europe: Women, n (3+4) = 77 | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| | -0.645 | -3.806 | 1.41×10^{-4} | 0.379 | medium | -0.530 | -3.226 | 1.25×10^{-3} | 0.319 | medium | 0.115 | 0.331 | 0.741 | not sign. | not sign. |
| Foot | -0.833 | -4.022 | 5.78×10^{-5} | 0.400 | medium | -0.691 | -3.662 | 2.50×10^{-4} | 0.363 | medium | 0.142 | 0.102 | 0.919 | not sign. | not sign. |
| Seat | -0.020 | -0.385 | 0.700 | not sign. | not sign. | -0.113 | -0.835 | 0.404 | not sign. | not sign. | -0.094 | -0.368 | 0.713 | not sign. | not sign. |
| Top | 0.546 | 2.156 | 3.11×10^{-2} | 0.215 | weak | 0.895 | 3.393 | 6.90×10^{-4} | 0.336 | medium | 0.350 | 1.226 | 0.220 | not sign. | not sign. |
| A-Pillar | 0.242 | 1.049 | 0.294 | not sign. | not sign. | 0.306 | 1.270 | 0.204 | not sign. | not sign. | 0.064 | 0.168 | 0.866 | not sign. | not sign. |
| Center | -0.337 | -1.306 | 0.192 | not sign. | not sign. | 0.062 | 0.175 | 0.861 | not sign. | not sign. | 0.399 | 1.216 | 0.224 | not sign. | not sign. |
| Screen | -0.194 | -0.593 | 0.553 | not sign. | not sign. | 0.089 | 0.480 | 0.631 | not sign. | not sign. | 0.282 | 0.954 | 0.340 | not sign. | not sign. |
| S. Wheel | 0.281 | 1.988 | 4.68×10^{-2} | 0.198 | weak | 0.558 | 2.824 | 4.74×10^{-3} | 0.280 | weak | 0.277 | 0.565 | 0.572 | not sign. | not sign. |
| All | 0.389 | 2.290 | 2.20×10^{-2} | 0.228 | weak | 0.788 | 3.992 | 6.55×10^{-5} | 0.395 | medium | 0.399 | 1.359 | 0.174 | not sign. | not sign. |

Position-preference relation: Second row, Part 2

Table S2. Statistical evaluation of the four identified groups, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the first column.

| Participants | 1. High (door-foot) | | | | | | | | | | | | 4. Contra (s.wheel-all) | | | |
|------------------------------|--------------------------------|--------|------------------------|-----------|-----------|-----------------|--------------------------------|------------------------|-------|--------|-----------------|-------|-------------------------|-------|--------|--|
| | 2. Medium (seat-a-pillar) | | | | | | 3. Medium-High (center-screen) | | | | | | 4. Contra (s.wheel-all) | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | |
| China: Men $n = 98$ | 0.946 | 6.841 | 7.85×10^{-12} | 0.691 | strong | 0.776 | 5.529 | 3.21×10^{-8} | 0.559 | strong | 1.796 | 7.978 | 1.55×10^{-15} | 0.806 | strong | |
| China: Women $n = 63$ | 0.696 | 4.854 | 1.21×10^{-6} | 0.612 | strong | 0.714 | 4.063 | 4.84×10^{-5} | 0.512 | strong | 1.746 | 6.436 | 1.22×10^{-10} | 0.811 | strong | |
| Europe: Men $n = 38$ | 1.689 | 5.170 | 2.34×10^{-7} | 0.839 | medium | 1.224 | 4.527 | 5.99×10^{-6} | 0.734 | strong | 2.816 | 5.238 | 1.63×10^{-7} | 0.850 | strong | |
| Europe: Women $n = 39$ | 1.667 | 5.222 | 1.77×10^{-7} | 0.836 | medium | 1.436 | 4.350 | 1.36×10^{-5} | 0.697 | strong | 3.026 | 5.330 | 9.84×10^{-8} | 0.853 | strong | |
| Participants | 2. Medium (seat-a-pillar) | | | | | | 3. Medium-High (center-screen) | | | | | | 4. Contra (s.wheel-all) | | | |
| | 3. Medium-High (center-screen) | | | | | | 4. Contra (s.wheel-all) | | | | | | 4. Contra (s.wheel-all) | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | |
| China: Men $n = 98$ | -0.170 | -1.591 | 0.112 | not sign. | not sign. | 0.850 | 6.551 | 5.70×10^{-11} | 0.662 | strong | 1.020 | 7.226 | 4.98×10^{-13} | 0.730 | strong | |
| China: Women $n = 63$ | 0.019 | 0.330 | 0.741 | not sign. | not sign. | 1.050 | 6.063 | 1.33×10^{-9} | 0.764 | strong | 1.032 | 5.938 | 2.89×10^{-9} | 0.748 | strong | |
| Europe: Men $n = 38$ | -0.465 | -2.114 | 3.45×10^{-2} | 0.343 | medium | 1.127 | 4.675 | 2.94×10^{-6} | 0.758 | strong | 1.592 | 5.197 | 2.03×10^{-7} | 0.843 | strong | |
| Europe: Women $n = 39$ | -0.231 | -0.508 | 0.612 | 0.111 | not sign. | 1.359 | 4.913 | 8.97×10^{-7} | 0.787 | strong | 1.590 | 5.054 | 4.33×10^{-7} | 0.809 | strong | |

Position-preference relation: First row, Part 1

Table S3. Statistical evaluation of the position rating, first row, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the heading.

| Position | 1. China: Men | | | | | | | | | | | | | | |
|-----------------|----------------------------------|--------|-----------------------|-----------|-----------|-----------------------------------|--------|-----------------------|-----------|-----------|-----------------------------------|--------|-----------------------|-----------|-----------|
| | 2. China: Women, n (1+2) = 161 | | | | | 3. Europe: Men, n (1+3) = 136 | | | | | 4. Europe: Women, n (1+4) = 137 | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| Door | -0.207 | -1.114 | 0.265 | not sign. | not sign. | -0.597 | -3.508 | 4.51×10^{-4} | 0.301 | medium | -0.460 | -2.840 | 4.52×10^{-3} | 0.243 | weak |
| Foot | 0.067 | 0.569 | 0.570 | not sign. | not sign. | -0.538 | -2.912 | 3.60×10^{-3} | 0.250 | weak | -0.425 | -2.831 | 4.63×10^{-3} | 0.242 | weak |
| Seat | -0.059 | -0.212 | 0.832 | not sign. | not sign. | -0.003 | -0.097 | 0.923 | not sign. | not sign. | -0.001 | -0.125 | 0.901 | not sign. | not sign. |
| Top | -0.016 | -0.272 | 0.785 | not sign. | not sign. | 0.569 | 2.378 | 1.74×10^{-2} | 0.204 | weak | 0.704 | 2.991 | 2.78×10^{-3} | 0.256 | weak |
| A-Pillar | -0.161 | -0.940 | 0.347 | not sign. | not sign. | 0.493 | 2.528 | 1.15×10^{-2} | 0.217 | weak | -0.023 | 0.314 | 0.753 | not sign. | not sign. |
| Center | 0.162 | 0.592 | 0.554 | not sign. | not sign. | 0.187 | 0.659 | 0.510 | not sign. | not sign. | 0.005 | -0.137 | 0.891 | not sign. | not sign. |
| Screen | 0.318 | 1.265 | 0.206 | not sign. | not sign. | -0.004 | -0.055 | 0.956 | not sign. | not sign. | 0.401 | 1.604 | 0.109 | not sign. | not sign. |
| S. Wheel | 0.060 | 0.305 | 0.760 | not sign. | not sign. | 0.216 | 1.859 | 0.063 | not sign. | not sign. | 0.595 | 3.475 | 5.11×10^{-4} | 0.297 | weak |
| All | 0.307 | 1.061 | 0.289 | not sign. | not sign. | 0.766 | 3.377 | 7.33×10^{-4} | 0.290 | weak | 0.979 | 4.557 | 5.19×10^{-6} | 0.389 | medium |
| 2. China: Women | | | | | | | | | | | | | 3. Europe: Men | | |
| Position | 3. Europe: Men, n (2+3) = 101 | | | | | 4. Europe: Women, n (2+4) = 102 | | | | | 4. Europe: Women, n (3+4) = 77 | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| Door | -0.390 | -2.753 | 5.91×10^{-3} | 0.274 | weak | -0.254 | -2.068 | 3.87×10^{-2} | 0.205 | weak | 0.137 | 0.359 | 0.720 | not sign. | not sign. |
| Foot | -0.604 | -3.042 | 2.35×10^{-3} | 0.303 | medium | -0.492 | -2.918 | 3.53×10^{-3} | 0.289 | weak | 0.113 | -0.092 | 0.927 | not sign. | not sign. |
| Seat | 0.056 | 0.000 | 1.000 | not sign. | not sign. | 0.059 | -0.179 | 0.858 | not sign. | not sign. | 0.003 | -0.089 | 0.929 | not sign. | not sign. |
| Top | 0.586 | 2.486 | 1.29×10^{-2} | 0.247 | weak | 0.720 | 3.031 | 2.44×10^{-3} | 0.300 | medium | 0.134 | 0.664 | 0.506 | not sign. | not sign. |
| A-Pillar | 0.654 | 3.107 | 1.89×10^{-3} | 0.309 | medium | 0.138 | 1.014 | 0.311 | not sign. | not sign. | -0.516 | -1.535 | 0.125 | not sign. | not sign. |
| Center | 0.025 | 0.126 | 0.900 | not sign. | not sign. | -0.158 | -0.641 | 0.522 | not sign. | not sign. | -0.182 | -0.521 | 0.602 | not sign. | not sign. |
| Screen | -0.322 | -1.090 | 0.276 | not sign. | not sign. | 0.083 | 0.764 | 0.445 | not sign. | not sign. | 0.405 | 1.447 | 0.148 | not sign. | not sign. |
| S. Wheel | 0.156 | 1.524 | 0.127 | not sign. | not sign. | 0.535 | 3.072 | 2.12×10^{-3} | 0.304 | medium | 0.379 | 1.244 | 0.214 | not sign. | not sign. |
| All | 0.458 | 2.799 | 5.12×10^{-3} | 0.279 | weak | 0.672 | 4.118 | 3.83×10^{-5} | 0.408 | medium | 0.213 | 1.351 | 0.177 | not sign. | not sign. |

Position-preference relation: First row, Part 2

Table S4. Statistical evaluation of the four identified groups, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the first column.

| Participants | 1. High (door-foot) | | | | | | | | | | 4. Contra (s.wheel-all) | | | | |
|------------------------------|--------------------------------|--------|------------------------|-----------|-----------|--------------------------------|-------|------------------------|-------|--------|--------------------------------|-------|------------------------|-------|--------|
| | 2. Medium (seat-a-pillar) | | | | | 3. Medium-High (center-screen) | | | | | 4. Contra (s.wheel-all) | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| China: Men $n = 98$ | 1.036 | 7.236 | 4.63×10^{-13} | 0.731 | strong | 0.867 | 5.628 | 1.82×10^{-8} | 0.569 | strong | 1.770 | 7.971 | 1.55×10^{-15} | 0.805 | strong |
| China: Women $n = 63$ | 1.011 | 6.151 | 7.68×10^{-10} | 0.775 | strong | 1.135 | 5.540 | 3.02×10^{-8} | 0.698 | strong | 2.024 | 6.609 | 3.87×10^{-11} | 0.833 | strong |
| Europe: Men $n = 38$ | 1.956 | 5.051 | 4.39×10^{-7} | 0.819 | strong | 1.526 | 4.703 | 2.56×10^{-6} | 0.763 | strong | 2.829 | 5.321 | 1.03×10^{-7} | 0.863 | strong |
| Europe: Women $n = 39$ | 1.705 | 5.137 | 2.80×10^{-7} | 0.823 | strong | 1.513 | 4.363 | 1.28×10^{-5} | 0.699 | strong | 3.000 | 5.322 | 1.03×10^{-7} | 0.852 | strong |
| Participants | 2. Medium (seat-a-pillar) | | | | | | | | | | 3. Medium-High (center-screen) | | | | |
| | 3. Medium-High (center-screen) | | | | | 4. Contra (s.wheel-all) | | | | | 4. Contra (s.wheel-all) | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| China: Men $n = 98$ | -0.168 | -1.203 | 0.229 | not sign. | not sign. | 0.735 | 6.052 | 1.43×10^{-9} | 0.611 | strong | 0.903 | 6.826 | 8.72×10^{-12} | 0.690 | strong |
| China: Women $n = 63$ | 0.124 | 1.120 | 0.263 | not sign. | not sign. | 1.013 | 6.193 | 5.90×10^{-10} | 0.780 | strong | 0.889 | 5.490 | 4.01×10^{-8} | 0.692 | strong |
| Europe: Men $n = 38$ | -0.430 | -1.778 | 0.075 | not sign. | not sign. | 0.873 | 3.921 | 8.80×10^{-5} | 0.636 | strong | 1.303 | 4.659 | 3.18×10^{-6} | 0.756 | strong |
| Europe: Women $n = 39$ | -0.192 | -0.747 | 0.455 | not sign. | not sign. | 1.295 | 4.912 | 9.03×10^{-7} | 0.787 | strong | 1.487 | 4.791 | 1.66×10^{-6} | 0.767 | strong |

S3: Combined Results

Chinese only, age-color preference relation:

Table S1. Statistical evaluation of the age-color preference rating, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the heading.

| Color | 1. Women: ≤ 34 Years, $n = 32$ | | | | | 1. Men: ≤ 34 Years, $n = 52$ | | | | |
|---------------|-------------------------------------|---------------|---|--------------|---------------|-----------------------------------|--------|---|--------------|-------------|
| | 2. Women: ≥ 35 Years, $n = 31$ | | | | | 2. Men: ≥ 35 Years, $n = 46$ | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| Red | -0.003 | -0.655 | 0.512 | not sign. | not sign. | -0.155 | 0.079 | 0.937 | not sign. | not sign. |
| Orange | 0.270 | 0.086 | 0.931 | not sign. | not sign. | -0.047 | 1.235 | 0.217 | not sign. | not sign. |
| Yellow | 0.511 | 0.200 | 0.841 | not sign. | not sign. | 0.076 | 2.241 | 2.50×10^{-2} | 0.226 | weak |
| Green | 0.431 | -1.628 | 0.104 | not sign. | not sign. | -0.441 | 1.887 | 0.059 | not sign. | not sign. |
| Cyan | 0.408 | -0.214 | 0.831 | not sign. | not sign. | -0.102 | 1.879 | 0.060 | not sign. | not sign. |
| Blue | -0.171 | -1.594 | 0.111 | not sign. | not sign. | -0.401 | -0.713 | 0.476 | not sign. | not sign. |
| Purple | -0.035 | -0.477 | 0.634 | not sign. | not sign. | -0.182 | -0.06 | 0.953 | not sign. | not sign. |
| Cold White | 0.165 | 2.973 | 2.95×10^{-3} | 0.375 | medium | 0.712 | 0.787 | 0.431 | not sign. | not sign. |
| Warm White | -0.309 | 2.110 | 3.49×10^{-2} | 0.266 | weak | 0.541 | -1.695 | 0.090 | not sign. | not sign. |
| Neutral White | 0.084 | 2.204 | 2.76×10^{-2} | 0.278 | weak | 0.586 | 0.311 | 0.756 | not sign. | not sign. |

Chinese only, time-color selection relation; autonomous driving:

Table S2. Statistical evaluation of the time-color preference rating, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the heading.

| Color | 1. Morning, 0–12 AM, $n = 37$ | | | | | | 2. Day, 12–6 PM, $n = 60$ | | | | | | 3. Evening, 6–12 PM, $n = 64$ | | |
|---------------|-------------------------------|--------|-----------------------|-------------------------------|-------------|-----------------|-------------------------------|-----------------------|--------------|-------------|-----------------|--------------|-------------------------------|--------------|-------------|
| | 2. Day, 12–6 PM, $n = 60$ | | | 3. Evening, 6–12 PM, $n = 64$ | | | 3. Evening, 6–12 PM, $n = 64$ | | | | | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| Red | 0.035 | -0.521 | 0.603 | not sign. | not sign. | -0.021 | -0.280 | 0.779 | not sign. | not sign. | -0.056 | -0.926 | 0.355 | not sign. | not sign. |
| Orange | 0.073 | -0.976 | 0.329 | not sign. | not sign. | 0.064 | 0.864 | 0.388 | not sign. | not sign. | -0.008 | -0.13721 | 0.891 | not sign. | not sign. |
| Yellow | -0.044 | 0.505 | 0.614 | not sign. | not sign. | -0.108 | -1.182 | 0.237 | not sign. | not sign. | -0.064 | -0.794 | 0.427 | not sign. | not sign. |
| Green | 0.141 | -1.573 | 0.116 | not sign. | not sign. | 0.027 | 0.282 | 0.778 | not sign. | not sign. | -0.114 | -1.4661 | 0.143 | not sign. | not sign. |
| Cyan | -0.015 | 0.147 | 0.883 | not sign. | not sign. | -0.117 | -1.140 | 0.254 | not sign. | not sign. | -0.102 | -1.144 | 0.253 | not sign. | not sign. |
| Blue | 0.172 | -1.784 | 0.074 | not sign. | not sign. | 0.062 | 0.612 | 0.540 | not sign. | not sign. | -0.110 | -1.345 | 0.179 | not sign. | not sign. |
| Purple | 0.010 | -0.106 | 0.916 | not sign. | not sign. | -0.085 | -0.891 | 0.373 | not sign. | not sign. | -0.095 | -1.164 | 0.244 | not sign. | not sign. |
| Cold White | 0.022 | -0.211 | 0.833 | not sign. | not sign. | 0.202 | 2.173 | 2.98×10^{-2} | 0.216 | weak | 0.180 | 2.197 | 2.80×10^{-2} | 0.197 | weak |
| Warm White | -0.076 | 0.741 | 0.459 | not sign. | not sign. | 0.027 | 0.282 | 0.778 | not sign. | not sign. | 0.103 | 1.198 | 0.231 | not sign. | not sign. |
| Neutral White | -0.188 | 1.990 | 4.66×10^{-2} | 0.202 | weak | -0.088 | -1.020 | 0.308 | not sign. | not sign. | 0.100 | 1.208 | 0.227 | not sign. | not sign. |

Within all participants, weather-color preference relation:

Table S3. Statistical evaluation of the weather (sunshine, no sunshine) preference rating, differences of the mean values $\Delta\bar{x}$, z-score, probability value p , effect power r and quantification of it. If $p < 0.05$, it is bold marked. Participants for each group are summed up in the heading.

| Color | 1. Sunshine, $n = 144$ | | | | |
|---------------|--------------------------|--------|-----------------------|--------------|-------------|
| | 2. No Sunshine, $n = 94$ | | | | |
| | $\Delta\bar{x}$ | z | p (asym.) | r | level |
| Red | -0.192 | 0.600 | 0.549 | not sign. | not sign. |
| Orange | -0.099 | 0.443 | 0.658 | not sign. | not sign. |
| Yellow | -0.241 | 1.466 | 0.143 | not sign. | not sign. |
| Green | -0.229 | 1.434 | 0.152 | not sign. | not sign. |
| Cyan | -0.294 | 2.145 | 3.20×10^{-2} | 0.139 | weak |
| Blue | -0.413 | 3.537 | 4.05×10^{-4} | 0.229 | weak |
| Purple | 0.059 | -0.385 | 0.701 | not sign. | not sign. |
| Cold White | -0.002 | 0.242 | 0.809 | not sign. | not sign. |
| Warm White | -0.379 | 0.833 | 0.405 | not sign. | not sign. |
| Neutral White | 0.245 | 0.233 | 0.816 | not sign. | not sign. |