**Appendix** (Supporting Information)

Speed and reaction behaviour in different highway landscapes: [A driving simulator study](http://www.sciencedirect.com/science/article/pii/S0001457516303487)

Fig.S1. Virtual scene in Experiment 1

Fig.S2. Virtual scene in Experiment 2

Table S1. The details of the participants

|  |  |  |
| --- | --- | --- |
|  The number of the participants | Age | Driving age |
| Experiment 1 | 20 | 20 ~ 47 years old | 3 ~ 20 years |
| 7 women | 13 men | M = 36.2 | S.D. = 9.7 | M = 7.2 | S.D. = 8.3 |
| Experiment 2 | 24 | 29 ~ 54 years old | 5 ~ 18 years |
| 10 women | 14 men | M = 32.3 | S.D. = 10.9 | M = 12.1 | S.D. = 11.7 |

Table S2. Basic descriptive statistics of reaction time for different highway landscape

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Landscape type | Statistic | Average value (s) | Standard deviation | Minimum value (s) | Median(s) | Maximum value (s) |
| *E1A8* | 22 | 1.425 | 0.294 | 0.801 | 1.436 | 1.932 |
| *E1A7* | 22 | 1.921 | 0.318 | 1.330 | 1.905 | 2.550 |
| *E2A8* | 22 | 1.075 | 0.248 | 0.589 | 1.036 | 1.694 |
| *E2A7* | 23 | 1.494 | 0.267 | 1.030 | 1.499 | 1.910 |
| *E3A8* | 23 | 0.862 | 0.193 | 0.455 | 0.870 | 1.299 |
| *E3A7* | 23 | 1.211 | 0.228 | 0.711 | 1.180 | 1.690 |
| *E4A8* | 22 | 0.593 | 0.155 | 0.360 | 0.557 | 0.941 |
| *E4A7* | 23 | 0.831 | 0.229 | 0.380 | 0.830 | 1.370 |

Table S3. Differences in the speed for different geometric alignments

| Geometric alignment | F | F0.01(3.57) | P |
| --- | --- | --- | --- |
| *A1* | 87.62 | 4.25 | <0.01 |
| *A2* | 0.38 | 4.25 | >0.01 |
| *A3* | 73.85 | 4.25 | <0.01 |
| *A4* | 2.60 | 4.25 | >0.01 |
| *A5* | 44.42 | 4.25 | <0.01 |
| *A6* | 0.34 | 4.25 | <0.01 |

Table S4. Results of *t*-test for the reaction time in curved and straight sections

|  |  |  |
| --- | --- | --- |
|  | Levene test of variance equation | *t*-test of Mean value Equation |
| F | Sig. | T | df | Sig. (bilateral) |
| Reaction time | Assuming that the variance is equal | 3.770 | 0.054 | −5.780 | 178 | 0.000 |
| Assuming that the variance is not equal |  |  | −5.794 | 171.707 | 0.000 |

1. *the speed is at 80 km/h*

Table S5. Correlation analysis between the reaction time and either the alignment or the enclosure degree of the road

|  |  |  | Reaction time | Road geometric alignment | Road enclosure degree |
| --- | --- | --- | --- | --- | --- |
| Spearman's Rho | Reaction time | Correlation coefficient | 1.000 | 0.443\*\* | 0.693\*\* |
| Sig.(bilateral) |  | 0.000 | 0.000 |
| N | 448 | 448 | 448 |

1. *the speed is at 80 km/h*