**Supplementary Materials**

for

**Visual attention and time preference reversals**

**Section 1: Stimuli**
**Section 2: Separate mediation analysis in Study 1**
**Section 3: Separate mediation analysis in Study 2**

## Section 1: Stimuli

**Table S1**. List of option pairs used in Study 1 and Study 2.

| Pair | Smaller–sooner option | | Larger–later option | |
|------|------|------|------|------|
| | Delay | Outcome | Delay | Outcome |
| 1 | 43 days | 480 yuan | 81 days | 680 yuan |
| 2 | 11 days | 590 yuan | 90 days | 940 yuan |
| 3 | 15 days | 650 yuan | 73 days | 950 yuan |
| 4 | 40 days | 860 yuan | 88 days | 960 yuan |
| 5 | 31 days | 380 yuan | 47 days | 410 yuan |
| 6 | 12 days | 630 yuan | 82 days | 860 yuan |
| 7 | 25 days | 310 yuan | 91 days | 750 yuan |
| 8 | 57 days | 830 yuan | 72 days | 850 yuan |
| 9 | 19 days | 650 yuan | 47 days | 670 yuan |
| 10 | 19 days | 280 yuan | 79 days | 640 yuan |
| 11 | 18 days | 670 yuan | 69 days | 940 yuan |
| 12 | 21 days | 210 yuan | 39 days | 280 yuan |
| 13 | 14 days | 320 yuan | 64 days | 980 yuan |
| 14 | 89 days | 510 yuan | 93 days | 550 yuan |
| 15 | 61 days | 790 yuan | 82 days | 890 yuan |
| 16 | 22 days | 330 yuan | 64 days | 970 yuan |
| 17 | 12 days | 280 yuan | 44 days | 450 yuan |
| 18 | 18 days | 430 yuan | 39 days | 830 yuan |
| 19 | 34 days | 320 yuan | 98 days | 390 yuan |
| 20 | 29 days | 590 yuan | 68 days | 740 yuan |
| 21 | 33 days | 380 yuan | 48 days | 450 yuan |
| 22 | 23 days | 590 yuan | 96 days | 860 yuan |
| 23 | 17 days | 380 yuan | 68 days | 460 yuan |
| 24 | 22 days | 320 yuan | 94 days | 840 yuan |
| 25 | 64 days | 520 yuan | 82 days | 760 yuan |
| 26 | 46 days | 790 yuan | 89 days | 820 yuan |
| 27 | 34 days | 660 yuan | 86 days | 970 yuan |
| 28 | 18 days | 630 yuan | 69 days | 990 yuan |
| 29 | 18 days | 450 yuan | 88 days | 690 yuan |
| 30 | 84 days | 330 yuan | 90 days | 350 yuan |
| 31 | 16 days | 610 yuan | 65 days | 970 yuan |
| 32 | 62 days | 760 yuan | 79 days | 850 yuan |

| | | | | |
|---|---|---|---|---|
| 33 | 54 days | 710 yuan | 93 days | 820 yuan |
| 34 | 22 days | 410 yuan | 35 days | 490 yuan |
| 35 | 53 days | 570 yuan | 99 days | 670 yuan |
| 36 | 18 days | 490 yuan | 49 days | 950 yuan |
| 37 | 49 days | 390 yuan | 97 days | 770 yuan |
| 38 | 17 days | 170 yuan | 49 days | 260 yuan |
| 39 | 44 days | 580 yuan | 64 days | 710 yuan |
| 40 | 22 days | 740 yuan | 74 days | 770 yuan |
| 41 | 30 days | 520 yuan | 59 days | 950 yuan |
| 42 | 24 days | 210 yuan | 47 days | 230 yuan |
| 43 | 70 days | 590 yuan | 87 days | 790 yuan |
| 44 | 17 days | 190 yuan | 49 days | 330 yuan |
| 45 | 21 days | 280 yuan | 45 days | 670 yuan |
| 46 | 13 days | 880 yuan | 44 days | 990 yuan |
| 47 | 28 days | 210 yuan | 82 days | 740 yuan |
| 48 | 26 days | 580 yuan | 58 days | 950 yuan |
| 49 | 45 days | 250 yuan | 83 days | 270 yuan |
| 50 | 72 days | 480 yuan | 85 days | 560 yuan |

## Section 2: Separate mediation analysis in Study 1

As a robustness check, we separately conducted two mediation models in Study 1. The task (independent variable) was entered as a dummy-coded variable (1 = bid task; 0 = choice task). Bids/choices (dependent variable) were entered as a nominal variable (–1 = bid higher for the SS options in the bid task or chose the SS options both times in the choice task; 0 = bid the same amount for both the SS and LL options in the bid task or chose the SS and LL options once each in the choice task; 1 = bid higher for the LL options in the bid task or chose the LL options both times in the choice task). The mediators were the values of OGP and MFD. Confidence intervals of 95% were generated based on 5,000 bootstrap samples.

Figure S1 shows the results of the mediation analysis through the OGP on the bids/choices. The indirect effect of task on bids/choices through the OGP was significant ($ab$ = 0.013, 95% CI = [0.007, 0.019]). The total effect of task on the bids/choices was significant ($c$ = 1.01, 95% CI = [0.97, 1.04], $p < 0.001$), and the direct effect of task on bids/choices remained significant ($c'$ = 0.99, 95% CI = [0.96, 1.03], $p < 0.001$) (see Figure S1).
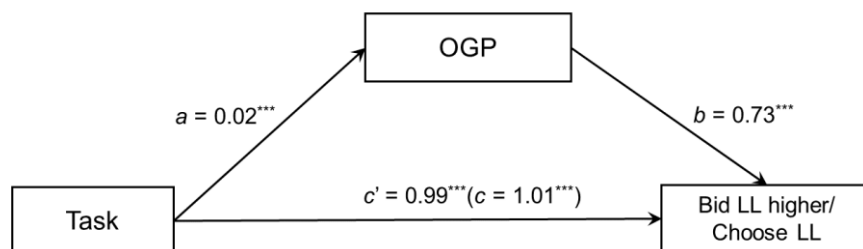


*Figure S1.* Results of the mediation analysis of OGP on bids/choices in Study 1. $^{***}p < 0.001$.

Figure S2 shows the results of the mediation analysis through the MFD on the bids/choices. The indirect effect of task on bids/choices through the MFD was revealed as nonsignificant ($ab$ = 0.026, 95% CI = [–0.011, 0.061]). The total effect of task on the bids/choices was significant ($c$ = 1.01, 95% CI = [0.97, 1.04], $p < 0.001$), and the direct effect of task on bids/choices is significant ($c'$ = 0.98, 95% CI = [0.93, 1.03], $p < 0.001$) (see Figure S2).
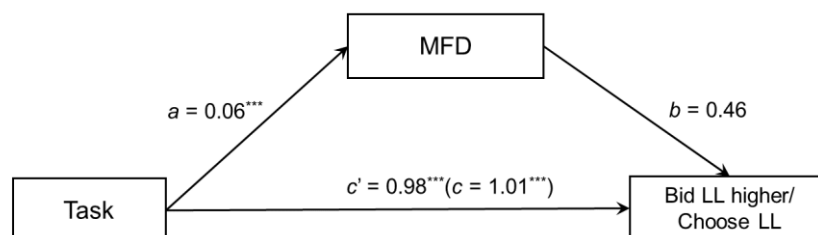


*Figure S2.* Results of the mediation analysis of MFD on bids/choices in Study 1. $^{***}p < 0.001$.

## Section 3: Separate mediation analysis in Study 2

As a robustness check, we separately conducted two mediation models. The task (independent variable) was entered as a dummy-coded variable (1 = bid task; 0 = choice task). Bids/choices (dependent variable) were entered as dummy-coded variables (0 = bid higher for the SS options in the bid task or chose the SS options in the choice task; 1 = bid higher for the LL options in the bid task or chose the LL options in the choice task). The mediators were the values of OGP and MFD. Confidence intervals of 95% were generated based on 5,000 bootstrap samples.

Figure S3 shows the results of the mediation analysis through the OGP on the bids/choices. The indirect effect of task on bids/choices through the OGP was significant ($ab = 0.032$, 95% CI = [0.023, 0.042]). The total effect of task on the bids/choices was significant ($c = 0.34$, 95% CI = [0.33, 0.36], $p < 0.001$), and the direct effect of task on bids/choices remained significant ($c' = 0.31$, 95% CI = [0.29, 0.33], $p < 0.001$) (see Figure S3).



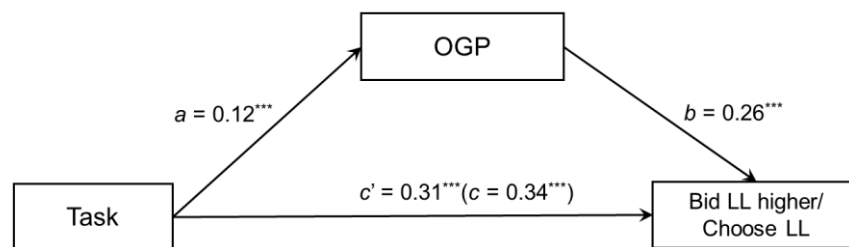*Figure S3.* Results of the mediation analysis of OGP on bids/choices in Study 2. $^{***}p < 0.001$.

Figure S4 shows the results of the mediation analysis through the MFD on the bids/choices. The indirect effect of task on bids/choices through the MFD was revealed as nonsignificant ($ab = -0.007$, 95% CI = [−0.021, 0.006]). The total effect of task on the bids/choices was significant ($c = 0.34$, 95% CI = [0.33, 0.36], $p < 0.001$), and the direct effect of task on bids/choices is significant ($c' = 0.35$, 95% CI = [0.33, 0.37], $p < 0.001$) (see Figure S4).



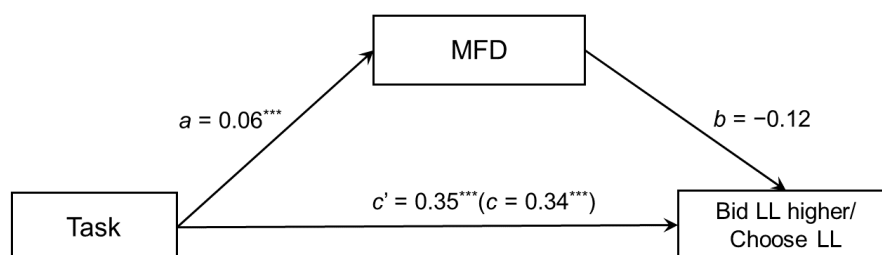*Figure S4.* Results of the mediation analysis of MFD on bids/choices in Study 2. $^{***}p < 0.001$.