

# New Research From Psychological Science

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## [What the Future Holds and When: A Description–Experience Gap in Intertemporal Choice](#)

*Junyi Dai, Thorsten Pachur, Timothy J. Pleskac, and Ralph Hertwig*



Do people prefer to choose a reward with a known delay or a reward with different possible delays? Across two studies, participants imagined that they had won some prize money and chose between different payout schedules. They could choose between a sure-timing option (e.g., a 100% probability of getting paid in 2 months) and a timing lottery, in which the payment was certain but the schedule was uncertain (e.g., a 90% probability of getting paid in 1 month or a 10% probability of getting paid in 11 months). The payment schedules included different percentages of short and long delays and were either explicitly described or learned by sampling different payout schedules from a set of choices (i.e., experiential sampling). When the schedules were described, participants chose the sure-timing option more frequently when the longer delay was rare than when the shorter delay was rare. In contrast, when the schedules were learned through experience, the sure-timing option was chosen more frequently when the shorter delay was rare. Participants also chose the sure-timing option more frequently when the prize was larger than when it was smaller, but only when the schedules were described. Data indicated that participants overweighted rare events more often when the schedules were described than when they were learned. These results were not solely due to sampling errors and misestimates of schedules when those were learned. These findings suggest that how people weigh information when choosing a payment schedule might depend on the degree to which certainty in the timing is presented in the schedule for receiving a reward.

## [Selection of Visual Objects in Perception and Working Memory One at a Time](#)

*Nina Thigpen, Nathan M. Petro, Jessica Oschwald, Klaus Oberauer, and Andreas Keil*



How does the information held in working memory influence how we process the visual environment? Thigpen and colleagues examined the steady-state visual evoked potential (SSVEP), an electroencephalographic (EEG) measure of visuocortical activation, in response to visual stimuli matching or mismatching information in working memory. Participants memorized the orientation of two grids and, immediately after, saw two new grids (probes). Their task was to indicate whether one of the new grids matched one of the initial grids. Several trials of this task were completed while EEG data were continuously recorded. Matching probes increased the visuocortical response, whereas mismatching probes suppressed it. These results suggest that the visual cortex prioritizes attentional selection of stimuli with features relevant to the information in working memory at the expense of stimuli that do not match the information in working memory. Further, when two probes matched participants' working memory contents simultaneously, visuocortical activation alternated between the two probes, indicating that the attentional sampling of the features in working memory is done serially, one item at a time. This pattern of results also occurred when the probes were not relevant to the memorization task because participants had to rotate them to match the initial grids. This suggests that the content of working memory can guide perceptual attention, even toward irrelevant stimuli.