

# The influence of positive and negative valence of events on the intention superiority effect

In daily-life, people often make plans for their future. The ability to think and to plan future intentions depends on memories of past events. Interestingly, the **intention superiority effect (ISE)** states, that participants remember more future than past episodes. This effect is independent of the time-scale (e.g., next or previous day, week or year). Additionally, several studies have shown a facilitation of retrieving positive past events compared to negative as a coping-strategy.

The goal of the present study was to investigate an ISE for both positive and negative events in dependence of explicitly instructed positive or negative valence (Experiment 1). And to investigate an ISE for both positive and negative events in dependence of no previous instruction of a valence (Experiment 2). In addition, we examined the scale-invariance in both experiments.

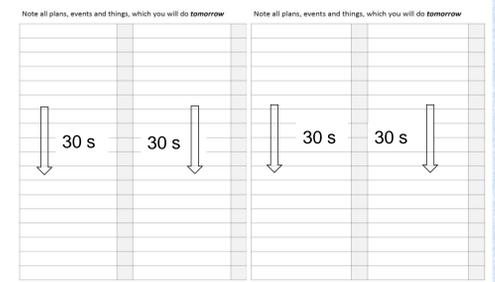
In **Experiment 1**, we expected to find a possible inverse ISE, because the explicit instruction of valence would facilitate the retrieval of specific past episodes compared with future episodes. However, in **Experiment 2** - without an explicit previous instruction of valence - we expected to find the standard ISE. In addition, we expected to find a higher number for recalled positive than negative episodes and a scale-invariance in both experiments.

## Experiment 1

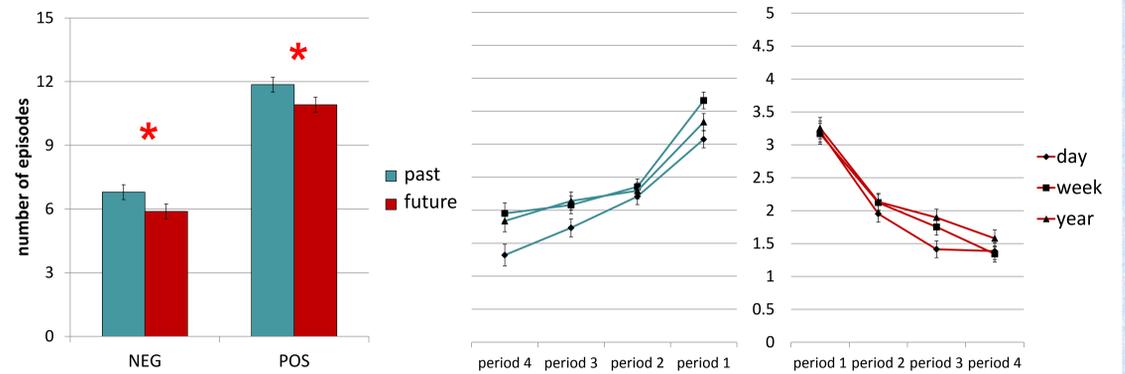
**Task:** To report all remembered past and future episodes (a) during 4 periods of 30s from the future and the past, respectively (b) in a specific time-window (c) which were either explicitly positively or explicitly negatively valued.

**Time-windows:** day, week or year

**Participants:** 464 participants ( $M = 37.31, SD = 13.91$ ; 72 men)



### memory performance



Mean number of recalled past and future episodes (a) with positive and negative rating and (b) for the three time-windows over four retrieval-periods. Error bars represent standard errors.

**Results revealed:** (1) The number of recalled episodes was higher for positive than negative future and past episodes. (2) The number of recalled episodes was similar in each of the three time-windows that indicated a scale-invariance. (3) The number of recalled episodes was higher for past than future episodes that indicated an inversed intention superiority effect.

## Experiment 2

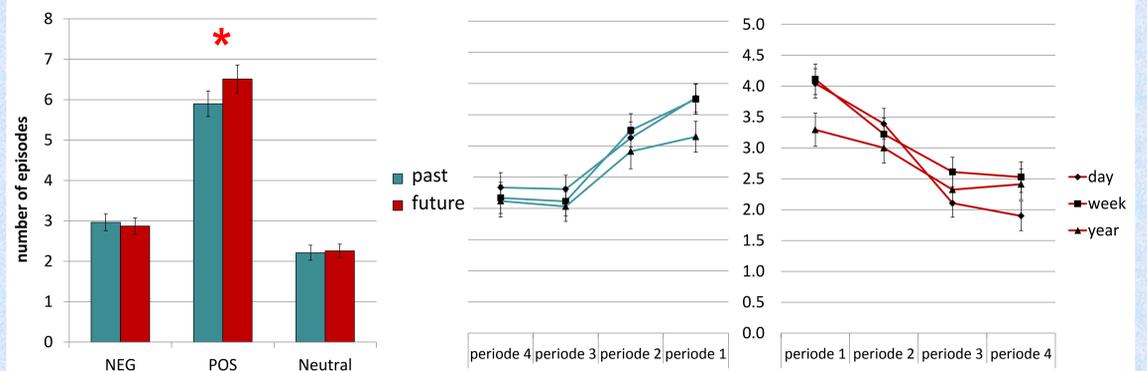
**Task part 1:** To report all remembered past and future episodes (a) during 4 periods of 30s from the future and the past, respectively (b) in a specific time-window.

**Task part 2:** To rate each remembered episode on a 7-point-scale as positive, neutral or negative.

**Time-windows:** day, week or year

**Participants:** 114 students ( $M = 22.77, SD = 4.78$ ; 26 men)

### memory performance



Mean number of recalled past and future episodes (a) with positive and negative rating and (b) for the three time-windows over four retrieval-periods. Error bars represent standard errors.

**Results revealed:** (1) The number of recalled episodes was higher for positive than negative future and past episodes. (2) The number of recalled episodes was similar in each of the three time-windows that indicated a scale-invariance. (3) The number of recalled episodes was higher for future than past episodes that indicated a standard intention superiority effect.

## Conclusion

- (1) Participants tend to recall more positive than negative episodes from both the future and the past as a coping-strategy.
- (2) The intention superiority effect inverses itself when the valence is explicitly instructed, because it seems to be easier to value past events than future intentions.