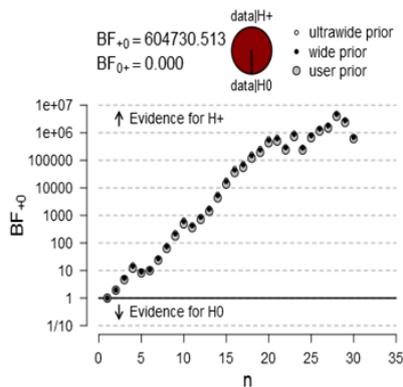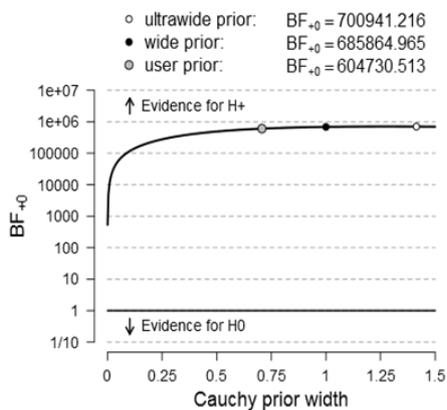# Supplementary material 1

The sequential analysis of the Bayesian paired sample one-sided t-test with default prior testing for the CL effect showed that increasing the number of participants (from 19 to 30) did not at all change the interpretation of the results and only gave rise to even stronger evidence in favor of a CL effect.


Sequential analysis

The robustness check of the Bayesian paired sample one-sided t-test with default prior testing for the CL effect showed that our results are robust; picking another prior would not have had any meaningful impact on the BF supporting a negative CL effect on recall performance.

Robustness check

Supplementary material 2

One might wonder to what extent the CL effect observed in the current study using between-category memory sequences is similar to the CL effect observed in previous studies using within-category memory sequences. To allow for such comparison, we have selected the data of a previous study[20] in which participants performed a complex span task in which either sequences of only letters or sequences of only locations were to be remembered. Like in the current study, a tone discrimination task was to be performed in between the memory items. In these within-category memory sequences, the processing phases were longer (8000 ms, compared to 4000 ms in the current study) but the same CL conditions were used: In the low CL condition, participants had to judge one tone every 2000 ms and in the high CL condition, participants had to judge one tone every 1000 ms. Whereas the current study used memory sequences of fixed length (always four to-be-remembered items), the previous study used a span procedure in which the number of to-be-remembered items was gradually increased over trials. To allow comparison of the scores, we transformed the percentage correct recall scores of the present study into span scores (i.e., reflecting the number of items correctly recalled), by multiplying the percentage by four (for the four items presented). As can be seen in the figure below, the CL effect appears to be quite similar for between-category and within-category sequences. Future studies should aim at comparing between-category and within-category memory sequences more directly.
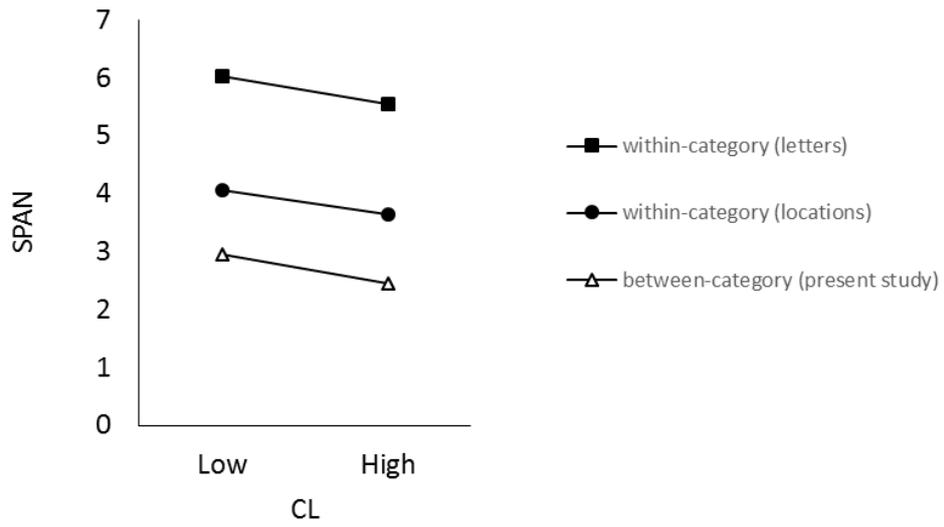
Comparison of the CL effect in within-category and between-category memory sequences