Supplementary Material 1

We conducted a bootstrapping analysis to make an informed estimate for the number of participants to include per experimental condition. We used the data of a previous study of ours (Sahakian et al., 2023), to see how many participants were needed to find a reliable effect on behavior of a manipulation. This study employed an almost identical task (i.e., an online copying task), in which the cost of inspecting the model was manipulated.

We focused on the manipulation of inspection cost (low cost versus high cost) for the outcome measures of 1) the number of inspections, 2) the inspection time and 3) the number of errors. For each of these measures we compared the participant means of X randomly selected (with replacement) participant means in the high and low sampling cost condition and did a Bayesian independent samples t-test. We repeated this procedure 1000 times (randomly selecting X participant means per condition and computing a BF of the independent samples t-test) and checked in what percentage of repetitions yielded a BF of 6 or lager. We incrementally increased X and computed 1000 BFs, until the "percentage of BFs of 6 or larger" exceeded 90% for the first time.

We found that:

- 1. For the number of inspections we needed 16 participants (i.e. pairs of means) such that in more than 90% of the 1000 repetitions the BF was at least 6.
- 2. For the inspection times we needed 25 participants (i.e. pairs of means) such that in more than 90% of the 1000 repetitions the BF was at least 6.
- 3. For the number of errors we needed 24 participants (i.e. pairs of means) such that in more than 90% of the 1000 repetitions the BF was at least 6.

We opted for the most conservative number of 25 participants per condition to have substantial chance to find a reliable effect of inspection time in the current study. As for the other measures, obviously the chance to find a reliable effect was higher.

References

Sahakian, A., Gayet, S., Paffen, C. L., & Van der Stigchel, S. (2023). Mountains of memory in a sea of uncertainty: Sampling the external world despite useful information in visual working memory. Cognition, 234, 105381. https://doi.org/https://doi.org/10.1016/j.cognition.2023.105381