**Measures and materials**

***Ongoing task and prospective memory task***

The ongoing task together with the PM task were programmed in in MATLAB R2023a (The MathWorks Inc., 2023), using the Psychophysics Toolbox extensions (Kleiner et al., 2007).

As the ongoing task we implemented an N-back task with words. Participants were instructed to indicate as quickly and correctly as possible if a presented word matched the word that appeared two steps earlier by pressing either ‘D’ or ‘L’ on a QWERTZ keyboard. The assignment of response keys was counterbalanced across participants and PM conditions. For the Nback task we used German nouns extracted from the Berlin affective Word List Reloaded (BAWL-R) (Võ et al., 2009). Words were chosen based on medium levels of emotionality, arousal, and frequency, each within a range of ± 0.5 standard deviation from the respective mean. Each word had two syllables and was 4-6 characters long. We manually excluded words with special characters and those with religious or political content. For the focal PM task, we used the nouns "Lanze" (engl. lance) and "Orden" (engl. medal). For the non-focal PM task, we selected four words starting with the letter "M" (“Mauer”, “Motiv”, “Menge” , “Motor”) and four words starting with the letter “K” (“Kante”, “Kohle” , “Kaktus” , “Kette”) and removed all other words starting with either "M" or “K”. For the non-focal PM task, we selected eight words starting with the letter "M" or “K” and removed all other words starting with either “M” or “K”. Finally, from the remaining words in the list, we randomly selected 64 words to use in the N-back task.

Each trial began with a word displayed in capital letters and black lettering in the center of a white screen. The word remained on the screen for 500 ms, with subjects having up to 1500 ms to enter their response. After responding, there was a 500 ms interval stimulus interval showing a blank screen.

**PM Task**

Participants were pseudo-randomly assigned to either a focal or non-focal condition. In the focal condition, participants were instructed to press the ‘F1’ key if they encountered one of the two target words (“LANZE” or “ORDEN) in the ongoing task. In the non-focal condition, participants had to press ‘F1’ if they saw a word beginning with a specific target letter (‘M’). This setup allowed us to manipulate the focality of the target stimuli while ensuring an equal monitoring difficulty (Scullin et al., 2010). Target words were never a match in the N-back task. The sequence in which the two focal words or a word beginning with "M" or "K" appeared was randomized once and then maintained consistently for all participants. In each condition a maximum of eight successful PM hits was possible.

The participants were also informed that if they had already pressed ‘D’ or ‘L’ incorrectly during a PM cue and realized this, they could still complete the PM task immediately afterwards.

***Intelligence***

To measure fluid intelligence we administered the short form of the HeiQ (Pallentin et al., 2024), a figural matrix test developed to overcome the problem of inferring the correct answer by eliminating distractors that exists in most matrix tests. In a recent validation study the test showed desirable psychometric properties and good convergent validity with other established intelligence tests. The test consists of 20 items each showing a 3 × 3 matrix of geometrical figures and patterns with one cell missing. Participants were asked to identify the missing piece that would complete the matrix according to the underlying rules. Participants had a time limit of 25 minutes to complete the test.

***Attentional control***

To measure attentional control, we used the Three-Minute Squared Test of (Burgoyne et al., 2022). This test battery was developed as an economical measure of attentional control and consists of adapted versions of the Stroop, Flanker and Simon task, each performed in approximately one minute.

***Personality***

We administered the German version of the International Personality Item Pool IPIP40 (Hartig et al., 2003) which provides a measure of the Big-Five dimensions of personality: neuroticism, extraversion, agreeableness, conscientiousness, and openness to experience with 8 items for each domain-level scale. The IPIP40 is an open access measure that has high convergent validities with the German version of the NEO-FFI and was administered online using sosci survey (Leiner, year).

**Procedure**

The study was advertised as a memory study without giving details about the PM task beforehand to avoid a primary focus on the PM task. After giving their informed consent, participants completed the *HeiQ*. Then, participants received the instructions for the N-back and completed a baseline block without PM instruction. The response keys “D” and “L” were highlighted on the keyboard to ensure that participants remembered the correct keys and they were given a note in case they forgot which keys to press for a match or no-match trial. However, we chose not to highlight the ‘F1’ key to avoid increasing the salience of the PM task. A total of 40 trials were presented during the baseline block with 8 match trials, resulting in a match proportion of 25% among non-target words. Thus, we presented half of the 64 words from the word list during the baseline block. In this way, we ensured that participants could not complete the N-back task based solely on whether or not they had seen a word before, and at the same time ensured that new words still appeared during the exponential block, which is important as otherwise the new PM words would be emphasized more. During the first ten trials of the baseline block participants received a feedback with regard to their performance (“correct”, “incorrect”, “too slow”, “wrong key”). These trials were excluded from the analyses regarding the baseline.

Next, participants received the PM instructions based on their assigned condition. We instructed participants to treat the ongoing task and the PM task as equally important. To prevent participants from rehearsing the PM intention we included a delay by asking participants to complete the three *Three-Minute Squared Test* as distractor task before proceeding with the experimental block of the N-back task including the PM task. Therefore, upon completion participants resumed the Nback task without being reminded of the PM task.

In the experimental block, participants completed a total of 168 trials, including 8 trials with PM targets (4.7%). To minimize the predictability of the target appearance, the PM targets were distributed in windows of 6 trials, which were evenly distributed over the entire set. The position for the PM target was therefore always after an eighth of the 160 trials (21. trial, 42. trial, 63. trial and so on), from which they could deviate forward by 5 trials (trial 16-21, trial 37-42, trial 58-63 and so on). Of the remaining 160 trials, 128 were non-match trials and 32 were match trials (25%). Each of the 64 possible words was presented twice during the experimental block, thus, words could only appear once as 2-back target. During the experimental block, the participants received no feedback unless they pressed an unauthorized key, in which case “unauthorized key” appeared on the screen. As participants were instructed to perform the PM task even if they had already made a match/non-match judgement instead of the PM task on the PM cue, we recorded responses after stimulus onset but also during the interstimulus interval. Thus, the PM task performance was considered correct, if the ‘F1’ key was hit up to X trails after the PM cue.

Upon completing the ongoing task, participants were asked to answer four questions: 1) Which key did they press when a word matched the word from two trials earlier? 2) Which key did they press when a word did not match the word from two trials earlier? 3) Which words required a different key response? and 4) Which key should they use for those specific words? Participants were excluded if they did not remember the PM task correctly.

Lastly, participants completed the IPIP40 questionnaire.