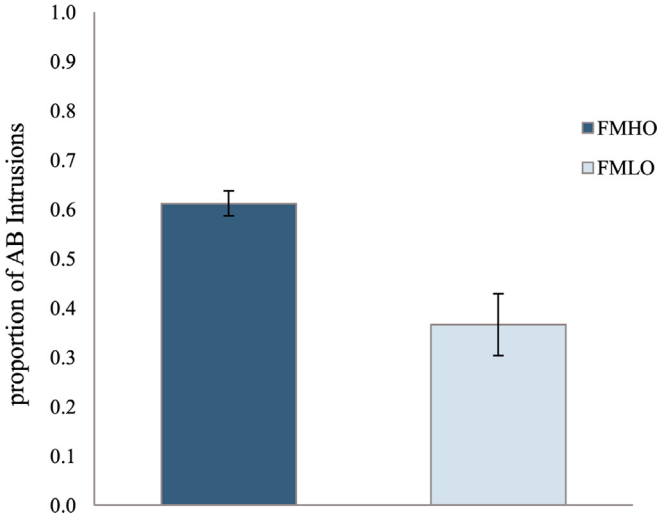

Fig. 1. *Mean Proportions of AB Intrusions during the AC Test. Note.* FMHO = fast mapping high overlap; FMLO = fast mapping low overlap; error bars represent the standard error of the mean.

rejected, resulting in higher false alarm rates (AB intrusions) in the FMHO compared to the FMLO group. Using a sequential Bayesian testing strategy, a sample of N = 159 participants revealed no conclusive results. However, a post-hoc analysis with participants who fulfilled critical prerequisites, i.e. above-chance performance in the AB test and not expecting a memory test (n = 16), supports our hypothesis that a high feature overlap leads to more AB false alarms in the AC test (BF10 = 27.06). This suggests that representations acquired through FMHO are less flexible than those acquired through FMLO when initial encoding is successful and truly incidental (Fig. 1.).

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Temporal signature of a 'beyond-viewpoint' exemplar-level processing in visual object recognition

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Detecting that we already have seen an object, or a face, is a viewpoint-independent ability. Yet, it has essentially been studied on identically-presented stimuli (Besson et al., 2020). Familiarity would be mainly signaled by fluency, the ease of processing, which is enhanced with repetition. Interestingly, manipulating stimulus presentation at retrieval (e.g., different viewpoint, exemplar, category) should enhance fluency differently across the different possible levels of visual object representation (e.g. low level, category level, exemplar level; see Fig. 1B). To investigate the temporal signature of a 'beyond-viewpoint' exemplar-level processing, we ran an exemplar-level one-back task (Fig. 1A) in N = 31 participants while recording EEG. Using multivariate (in addition to univariate) analyses, we studied patterns of repetition effects (as a proxy for fluency patterns) that we

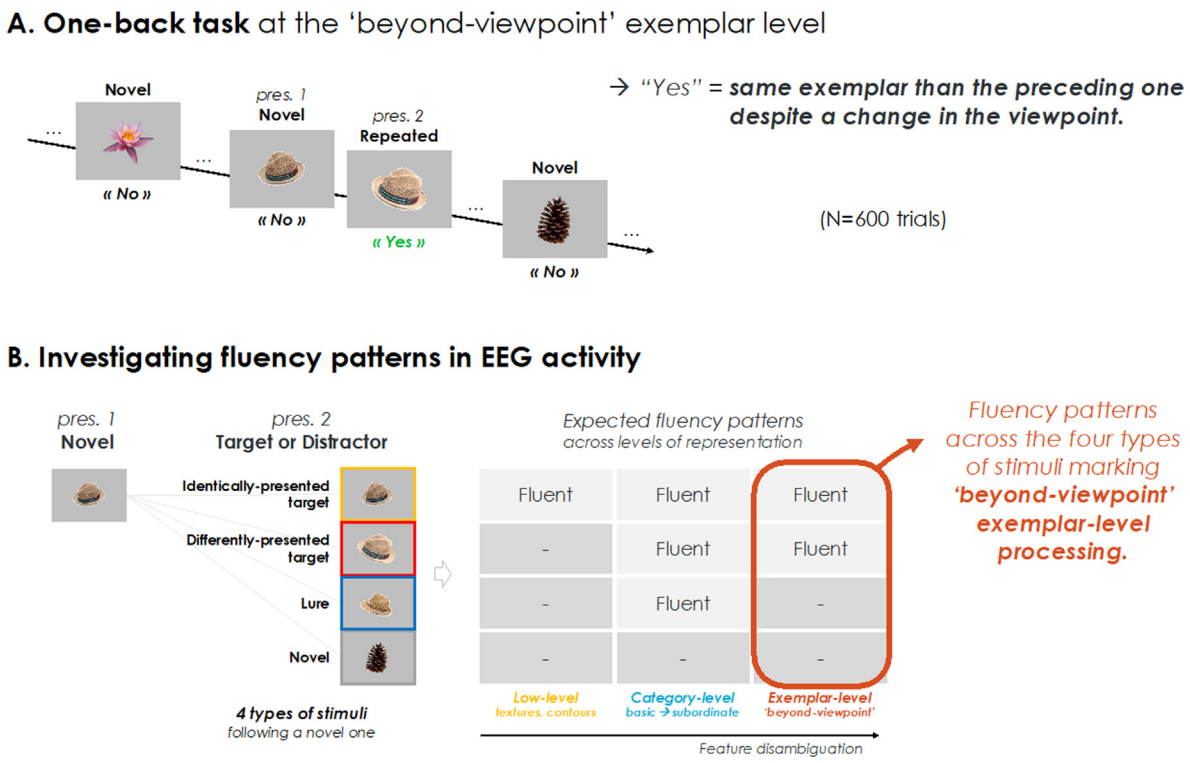

Fig. 1. **A.** The experimental task was a one-back task at the 'beyond-viewpoint' exemplar level, such that participants were asked to answer "Yes" if an exemplar was repeated despite being presented in a different viewpoint. **B.** Across different levels of representational processing, we hypothesized different fluency patterns of the four types of stimulus repetition we manipulated. "pres." = presentation.

hypothesized specific to different levels of processing, including our main level of interest. We showed distinct time courses across the different perceptual levels investigated, and found that the beyond-viewpoint exemplar-level effects were the latest, starting at ~230 ms. We argue that these findings demonstrate the existence of a viewpoint-invariant (but still perceptual/pre-conceptual) exemplar level of representation. We further discuss the identical ~230-ms timing found for this exemplar level here and for neural signatures of familiarity in previous studies, as potentially supporting our recent proposal by which the major mechanism subtending familiarity would be the detection of enhanced fluency occurring at an 'entity' level (Bastin et al., 2019).

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The experience sampling method as a new way to explore autobiographical memories

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Note: The data we wish to present at the conference are still being collected at the present time. We therefore only present the introduction and method parts below but plan to present the results at the conference.

Memory complaints are not always associated with objectively demonstrable memory impairment on traditional memory evaluations. The need for new assessment tools, especially more naturalistic ones, has been highlighted for a long time in order to better reflect everyday memory functioning and its associated memory complaints (Chaytor & Schmitter-Edgecombe, 2003). In recent years, the Experience Sampling Method (ESM) has gained popularity in psychology to capture cognitive, emotional, and behavioral experiences in everyday life (Moore et al., 2017). These information collections about daily activities could thus be used to create a memory task about personally experienced events in all their multimodal richness, including the emotional, identity, and phenomenological aspects of memories which are generally absent in clinical evaluations and yet essential to memory functioning. In this study, a 26-year-old patient with memory complaints but normal performances on classical neuropsychological assessments received 5 notifications per day for one week on the mobile app m-Path (https://m-path.io/landing/). These notifications invited him to report information about his daily life activities (e.g., what he was doing at the present time, the people he was with, the emotions he felt, the place where he was, etc.). At the end of the week, he was asked to verbally report 5 of these personally experienced events (selected based on their memorability and frequency) in as much detail as possible. In this pilot study, the richness, specificity, phenomenology, and accuracy of these memories will be explored and compared with those of 6 matched control subjects, allowing us to determine whether this new memory task can highlight undetected memory difficulties with classical memory tasks.

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A new stimulus database to examine the underpinnings of rich and vivid memory recollection

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Our memories seldom consist of singular sensory information (Sathian & Ramachandran, 2019). However, with the exception of autobiographical memory experiments, previous studies have focused more heavily on unimodal stimulus sets (Bonnici et al. 2018). Here, we assessed the involvement of multisensory information in memory recollection and predictors of rich and vivid remembering. A novel stimulus set consisting of real-life environment videos was created, including both 1st person perspective (1PP) and 3rd person perspective (3PP). Two separate experiments were conducted to assess the quality of both 1PP and 3PP stimulus sets, respectively, using free and cued recall. In Study 1, the relationship between presence (the extent to which participants felt immersed in the experience they were being shown – "Felt like I was there" – "Completely remote") and familiarity, as well as between presence and vividness was investigated. Familiar videos yielded significantly higher ratings of sense of presence than non-familiar videos. A significant positive correlation was also found between presence and vividness at recall. When assessing free recall accuracy, participants demonstrated significantly higher accuracy for

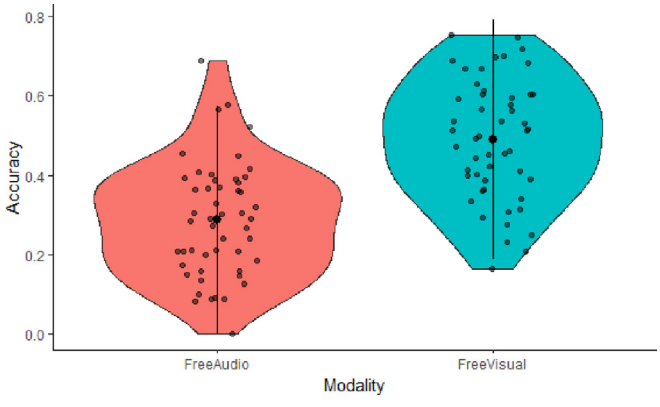

Fig. 1. Violin plot of free recall accuracy scores for visual and auditory details.