

Memory of complex scenes according to the expertise and eye movements

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Our purpose was to analyse the memory of complex scenes (paintings) according to the eye movements and expertise. 6 paintings were separately and randomly presented for 10 seconds. 15 novice subjects and 15 art historians (experts) were asked to look at each painting as freely as possible. After each painting presentation, questions about painting knowledge (author's name, painting's name) and pictorial details were asked. If the expert and novice groups significantly differed concerning the knowledge they had about all paintings, the accuracy of answers about the painting details did not differ between both groups. Moreover, we showed novice's answers were more accurate when they looked longer at the asked detail and when this detail was watched early on in the presentation while in the expert group, the accuracy of the answer was not influenced by the duration and moment they watched the asked detail. These findings suggest experts have some wrong representations which are not influenced by eye movements contrary to novices whom memory accuracy is influenced by their eye movements.