relations uniquely contribute to recall performance of objects and actions.
Conclusions: Overall, the present study's findings suggest that prior event knowledge structures possessing causal and non-causal associative relations support new learning, especially compared to image pairs with no relations. Of interest, causality provides an additional boost to new learning above and beyond general associative relations. By focusing on the role of causality in event structures, our findings informed our understanding of how prior knowledge supports new learning. Considering that the effect of prior knowledge on new episodic learning is especially evident in older adults, since they more readily rely on their schematic knowledge, a future direction would entail investigating how causal links influence new memory formation in older adults.

Categories: Memory Functions/Amnesia
Keyword 1: memory: normal
Keyword 2: learning
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3 The Effect of Face and Body Expressions on the Process of Learning and Memory of Images Among Healthy Participants and Individuals with Traumatic Brain Injury (TBI): Examination Using Eye Movements

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Objective: Context-Dependent Effect (CDE) is a process by which restoring the original learning context enhances recall ability of the material being studied. One type of context is body expressions. Memory is one of the most common areas affected by Traumatic Brain Injury (TBI). However, although the performance of people with TBI is lower than that of healthy people in most memory-related parameters, both groups show evidence for CDE. We examined the CDE via behavioral and eye movement measures.
Participants and Methods: Twenty-four healthy individuals and 27 patients with moderate-to-severe TBI participated in a memory task. Participants were exposed to pictures of people with neutral facial expression and neutral body expression and were asked to remember them for a subsequent memory test. In the testing session, they were asked to determine whether or not the person presented to them had appeared before, under two conditions: (1) where the context remains constant (facial expression and body expression remained neutral– the Repeat condition) (2) where the context changes (facial expression remained neutral and the body changed to angry or happy expression – the Re-pair condition).
Results: While memory of the individuals with TBI was poorer than that of the control group, both groups exhibited CDE, as this effect was stronger in the Repeat condition compared to the Re-pair angry condition. We found that participants spent most of their time looking at the head. In addition, in both groups, we found a CDE and a group effect with regard to the difference in Dwell Time, so DT toward faces in the Repeat condition was higher than toward faces in the Re-pair condition. Also, DT toward correctly recognized people was higher among the control group than the TBI group. This effect appeared in the study and test phases.
Conclusions: This study supports previous research showing evidence for CDE using body expression in the TBI group, like the control group, and extends our comprehension of the relationship between eye movements, memory, and context of facial and body expression.

Categories: Memory Functions/Amnesia
Keyword 1: brain injury
Keyword 2: memory: implicit
Keyword 3: traumatic brain injury
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4 Associations between prospective memory performance and cognitive domains

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Objective: Executive functions have been shown to predict prospective memory (PM) performance (Martin, Kliegel, & McDaniel,

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