

## PRESERVED FAMILIARITY-BASED RECOGNITION MEMORY IN A CASE OF GLOBAL AMNESIA

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Whether recognition memory can be preserved relative to recall in global amnesia is a matter of debate. Some studies suggest that amnesic patients with selective lesion to the hippocampal circuit show a relatively normal recognition memory in the presence of impaired recall. However, other findings did not support this assumption. We investigated the recognition memory performance of a patient (ER) who became amnesic following a carbon monoxide poisoning. The MR scan revealed bilateral lesions to the pallidum. Based on the aetiology, a hippocampal lesion is suspected, but needs to be confirmed by a volumetric analysis. The recall and recognition performance of the patient was tested by means of the nonverbal subtests of the Doors and People Test Battery, which were matched on difficulty. On these subtests, ER's recall performance was much more impaired than his recognition memory. ER's recognition memory performance was further examined on a yes-no and a forced-choice recognition memory task, using faces as material. On the yes-no task, ER's hit rate was normal, but he made a lot of false alarms compared to control subjects. By contrast, his forced-choice recognition memory was completely normal. This suggests that ER is able to use the familiarity process to make recognition decisions. Familiarity and recollection were finally investigated with a recognition task using the Process Dissociation Procedure (Jacoby, 1991). On this task, ER's familiarity score was normal, whereas his recollection score was lower. These results support the assumption that familiarity-based recognition memory can be preserved in amnesia.

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