



Diagram of the limbic system and related structures. Areas indicated with an asterisk are known to be associated with memory function. From Rapp (2001).

they “confirmed that the lesions responsible for the amnesic syndrome in H.M. are confined to the medial temporal lobe” (Corkin et al., 1997, p. 3978).

Theoretical considerations

Squire, Knowlton, and Musen (1993) argued that the major brain structures underlying declarative or explicit memory are located in the hippocampus and anatomically related structures in the medial temporal lobes and the diencephalon, with the neocortex being the final repository of declarative memory. McKee and Squire (1992) found that amnesics with medial temporal lobe lesions

showed similar forgetting rates to amnesics with diencephalic lesions at retention intervals of between 10 minutes and 1 day. These findings led Squire et al. (1993) to argue that the diencephalon and medial lobe structures are of comparable importance to declarative or explicit memory.

Some researchers have used PET scans to study the brain structures involved in explicit memory. Squire et al. (1992) found that blood flow in the right hippocampus was much higher when participants were performing an episodic memory task (cued recall) than a priming task (word-stem completion). This supports the view that the hippocampus plays an important role in declarative memory.