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Schacter: Memory and Awareness

Cleeremans, Destrebecqz, Boyer: Implicit learning: news from the front

Schacter's paper discussed several studies regarding implicit and explicit memory, focusing on Amnesic patients. The interesting pieces of this analysis were the cases where priming did not occur without awareness. These were "trace conditioning" (where two events, here a tone and a puff of air, are produced with some delay between the two events) and "associative completion priming" (where word pairs were studied (like "shirt-garden") and then patients were asked to provide a word given "shirt")). Both of these behaviors depend on the medial temporal lobe.

Cleeremans et al. presented a summary of implicit learning findings from numerous sources. An interesting piece from this paper was the presentation of sequence learning from a finite state machine. FSMs seem too complicated to me to do pattern recognition on as we do for words, but it seems I am simply underestimating the brain. This learning has been computationally simulated in a number of ways to try to emulate patients' behavior.

Something tells me that, despite the fact that our brain is a neural network, the "fragment-based and chunking approaches" most accurately simulate what our brian is doing, since that draws on our linguistic tendency. We can extract "words" from the input, justasyoucanreadthissfragment. After all, according to Chomsky, our language is just a finite-state push automaton anyway, so learning the rules of a much simpler automaton "language" doesn't seem far-fetched.