# Can drugs that disrupt memory also help people remember?

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An influential theory about the malleability of memory comes under scrutiny in a new paper in the Journal of Neuroscience.

The 'reconsolidation' hypothesis holds that when a memory is recalled, its molecular trace in the brain becomes plastic. On this view, a reactivated memory has to be 'saved' or consolidated all over again in order for it to be stored.

A drug that blocks memory formation ('amnestic') will, therefore, not just block new memories but will also cause reactivated memories to be forgotten, by preventing reconsolidation.

This theory has generated a great deal of research interest and has led to speculation that blocking reconsolidation could be used as a tool to 'wipe' human memories.

However, Gisquet-Verrier et al. propose a fundamental re-evaluation of the whole phenomenon. They propose that amnestic drugs don't in fact block reconsolidation, but insteadadd an additional element to a reactivated memory trace. This additional element is a memory of the amnestic itself – essentially, 'how it feels' to be intoxicated with that drug.

In other words, the proposal is that amnestics tag memories with 'amnestic-intoxication' which makes these memories less accessible due to the phenomenon of state dependent recall. This predicts that the memories could be retrieved by giving another dose of the amnestic.

**Read full, original post:** Time to Rethink the Reconsolidation Theory of Memory?