

Trauma and Memory Processing

What causes dissociative amnesia
during a traumatic event?



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Dr. Dan Siegel explains that during traumatic events, the brain's ability to form coherent, explicit memories is often disrupted. This disruption is primarily due to the impairment of the hippocampus, the brain region responsible for organising and contextualising experiences into explicit memories. When the hippocampus is compromised, individuals may experience dissociative amnesia, where the traumatic event isn't forgotten but rather isn't encoded properly to begin with.

*Adrenaline enhances
implicit memory
encoding, while cortisol
can inhibit explicit
memory formation.*

*Dissociative amnesia
results from the failure to
properly encode traumatic
events, not from forgetting
or repressing them.*

A traumatic memory is processed differently from an everyday memory. Under extreme stress, our brain releases cortisol, which inhibits the formation of explicit memory (storytelling, knowledge of chronological story), while adrenaline is released, enhancing implicit memories (emotions, knowing how, beliefs about ourselves, non-verbal).

Dissociative amnesia is not about forgetting what happened; it's more about the type of memory that formed during the trauma that we have access to. We may still have a strong sense that something happened, but we can't access the chronological story of the event.