## The Disordered Mind: How our brains control our emotions

The following is an excerpt of The Disordered Mind: What Unusual Brains Tell Us About Ourselves by Eric Kandel.

We are all familiar with emotions such as fear, joy, envy, anger, and excitement. To some extent these emotions are automatic: The brain systems that carry them out operate without our being aware of them. At the same time, we experience feelings of which we are fully aware, so that we are capable of describing ourselves as scared or angry or grumpy, surprised or happy. The study of emotions and moods helps reveal the porous boundaries between unconscious and conscious mental processes, documenting the ways in which these seemingly distinct kinds of cognition are constantly interacting.

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Many structures in the brain are involved in emotion, but four of them are particularly important: the hypothalamus, which is the executor of emotion; the amygdala, which orchestrates emotion; the striatum, which comes into play when we form habits, including addictions; and the prefrontal cortex, which evaluates whether a particular emotional response is appropriate to the situation at hand. The prefrontal cortex interacts with, and in part controls, the amygdala and striatum.

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When we laugh or cry—when we experience any emotion—it is because these brain structures are responding to the amygdala and acting on its instructions.

Read full, original post: The Biology Behind Our Emotions