

Study Offers Clues into Rumination, Symptoms of Severe Depression

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One of the most difficult and paradoxical symptoms of depression is obsessive thinking about the disease itself. Many people suffering from depression describe not only an inability to banish sad memories, but also a preoccupation with the origins and nature of disabling melancholy.

Psychologists call this rumination. People with such obsessive thinking have more frequent bouts of depression, and the episodes tend to be more severe and more long-lasting. As a result, psychologists are very interested in knowing just what is happening in the brain during depressive rumination. Why can't severely depressed people move on to healthier, happier thoughts?

One theory is that ruminators have a particular cognitive style, a neuronal inflexibility that distorts the normal executive functioning of the brain. Two psychologists at the University of Colorado, Boulder, decided to explore this idea in the laboratory, to see if they could identify the specific deficit underlying such perseveration. Anson Whitmer and Marie Banich gave several hundred young adults a widely used test to measure their ruminative tendencies. The ones who scored high were not clinically depressed, but they did display this signature cognitive style.

Then the psychologists gave both the ruminators and those who scored very low on this trait a complicated mental test in which they were required to pay attention to certain stimuli, switch their attention elsewhere, suppress thoughts and replace them with new ones, and so forth. The idea was to sort out two ways that normal attention can malfunction. Sometimes we simply can't shake an unwanted thought, hard as we try. At other times, we cannot switch from one way of thinking to a newer, fresher way. These sound similar, but to the brain's executive neurons, they are distinct. The subjects were required to respond as rapidly as they could, in order to tap into these fundamental, unconscious processes.

The results, as reported in the June issue of *Psychological Science*, were plain. The ruminators, when compared to normal thinkers, had much more difficulty suppressing unwanted thoughts.

But Whitmer and Banich went one step further. They studied the same two cognitive processes in two other kinds of rumination, namely angry rumination and intellectual reflection. Angry rumination is, well, think of the rude guy who just cut you off in traffic—and the visceral feelings you still have, hours later. Reflection, as the word conveys, is good rumination; it's peaceful and creative focus on an idea.

It turns out that, as different as they are emotionally, angry rumination and intellectual reflection are cognitively similar—and cognitively distinct from the distorted thinking of depression. Both involve difficulty switching to a new topic, rather than difficulty inhibiting a negative thought. In a sense, depressive rumination is an avoidance problem, while angry rumination and reflection are characterized by uncommon persistence in a way of thinking.

It's well known that debilitating depression is caused in part by distorted thinking about the self and the world. So sorting out the precise cognitive deficits underlying different forms of rumination, the authors believe, could lead to more effective therapies for targeting this symptom.