# Do Negative Cognitive Styles Increase Vulnerability to Depression?

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Depression is one of the most common psychological disorders. It has been estimated that 10 percent of the population, roughly 19 million Americans, suffers from a depressive disorder in any given year. However, many people never become depressed. Why do some individuals never become depressed whereas others suffer a lifelong battle with this condition?

Lauren Alloy, Temple University, suggests that cognitive styles may affect an individual's vulnerability to depression. Her research is guided by two major cognitive theories of depression: the Hopelessness Theory of Depression and Beck's Cognitive Theory of Depression.

According to the Hopelessness Theory, people who attribute negative life events to stable, global, and internal causes are more likely to develop depression than individuals who don't exhibit such negative inferential styles. Similarly, Beck's Cognitive Theory argues that dysfunctional attitudes about the self, world, and future provide cognitive vulnerability to depression. Both theories suggest that individuals with negative cognitive styles are more likely to develop depression than individuals with positive cognitive styles.

The Temple-Wisconsin Cognitive Vulnerability to Depression Project, or CVD, led by APS Fellow Alloy and colleague Lyn Abramson, University of Wisconsin, empirically tests these cognitive theories of depression. Their sample consisted of nondepressed undergraduate freshmen characterized as high or low risk for depression based on their cognitive styles (assessed using the Dysfunctional Attitudes Scale and Cognitive Style Questionnaire). These freshmen were followed prospectively every six weeks for two and a half years and then every 16 weeks for an additional three years with self-report and structured interview assessments of stressful life events, cognitions, and symptoms and diagnosable episodes of psychopathology.

The CVD Project focused on three issues in testing their cognitive vulnerability to depression hypothesis: 1) Do negative cognitive styles confer risk for clinical depression, not just depressed mood or symptoms? 2) Do negative cognitive styles increase vulnerability to both first onsets and recurrences of depression? 3) Do negative cognitive styles confer specific risk for depression?

The CVD data suggest that the answer to the first question is "Yes." During the first two and a half years of follow-up, high cognitive risk participants were significantly more likely than low cognitive risk participants to receive a first onset diagnosis of DSM and/or RDC major depression, RDC minor depression, episodic depression, and hopelessness depression. Thus, the first part of the second question was also supported. Negative cognitive styles increased vulnerability for first onsets of depression in undergraduates with no prior history of clinical depression. Did the cognitive vulnerability hypothesis also hold for recurrences of depression? It did. The high cognitive risk group was more likely to exhibit a recurrence of DSM and/or RDC major depression, RDC minor depression, episodic depression, and

hopelessness depression than the low cognitive risk group.

Was the risk conferred by negative cognitive styles specific to depressive disorders? Since no risk group differences were found in onsets of anxiety and other disorders, the answer to the third question also appears to be “Yes.”

Evidence from the CVD project suggests that negative cognitive styles provide vulnerability for depressive disorders. Alloy points out that individuals with negative cognitive styles may be vulnerable to depression because they “engage in negatively-toned information processing about themselves in response to stressful events.” To explore this hypothesis, Alloy and colleagues administered the Self-Referent Information Processing. During this task, participants were presented with negative and positive adjectives and asked to judge their self-descriptiveness. Later, they were asked to recall these adjectives. Results indicate that cognitively high-risk individuals showed greater endorsement, faster processing, greater accessibility, and better recall of the negative adjectives than the individuals with low cognitive risk. Furthermore, negative self-referent information processing interacted with cognitive risk to predict onsets of depression. Those individuals with both negative cognitive styles and who process information about themselves negatively were most likely to develop depression.

Alloy and colleagues also assessed stress-reactive rumination, another cognitive risk factor hypothesized to exacerbate the vulnerability to depression associated with negative cognitive styles. As hypothesized, the interaction effect between cognitive risk and stress-reactive rumination was significant. In summary, evidence from the CVD Project suggests that individuals who tend to make negative inferences for negative life events and activate these negative interpretations through rumination are at a particularly high risk for depression.

How do these negative cognitive styles develop? Alloy and colleagues suggest that a history of childhood maltreatment and negative inferential feedback from parents about the causes and results of negative events in the child’s life may play a role in the development of depressogenic cognitive styles.

The CVD Project thus assessed the impact of these two variables on depression. They found that emotional maltreatment in childhood does predict the occurrence of depression and that cognitive risk mediates this relationship. They also found that more stable, global attributional feedback and more negative consequence feedback from parents following negative life events was given to students in the high cognitive risk group compared to the low cognitive risk group. In turn, this feedback increased vulnerability to depression.

The findings from the CVD project have important real-world applications. Since negative cognitive styles appear to confer risk for depression, then “interventions designed to prevent their formation or remediate them, once formed, should decrease future depression,” Alloy said. “Such prevention efforts may help short circuit the surge in depression that typically occurs mid to late adolescence.”

Alloy closed with an anecdote about the renowned inventor of the polio vaccine, Jonas Salk. When APS Fellow and Charter Member Martin Seligman asked Salk what he would be doing if he were starting out again as a young scientist, Salk replied, “I’d still do immunization, but I’d do it psychologically rather than biologically.” Data from the CVD project suggests that one way to immunize against depression will be “to intervene early to prevent the formation and consolidation of cognitive vulnerability to this

disorder.”