

## Depressed people have trouble learning 'good things in life'

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(PhysOrg.com) -- While depression is often linked to negative thoughts and emotions, a new study suggests the real problem may be a failure to appreciate positive experiences.

Researchers at Ohio State University found that depressed and nondepressed people were about equal in their ability to learn negative information that was presented to them.

But <u>depressed people</u> weren't nearly as successful at learning <u>positive</u> <u>information</u> as were their non-depressed counterparts.

"Since depression is characterized by <u>negative thinking</u>, it is easy to assume that depressed people learn the negative lessons of life better than non-depressed people - but that's not true," said Laren Conklin, coauthor of the study and a graduate student in psychology at Ohio State.

The study appears in the March issue of the *Journal of Behavior Therapy and Experimental Psychiatry*.

Researchers tested 34 college students, 17 of whom met criteria for <u>clinical depression</u> and 17 of whom were not depressed.

This study is one of the first to be able to link clinical levels of depression to how people form attitudes when they encounter new events or information, said Daniel Strunk, co-author of the study and assistant professor of psychology at Ohio State.



Strunk said the key to conducting this study was the use of a computer game paradigm co-developed at Ohio State in 2004 by Russell Fazio, a professor of psychology and co-author of this new study. Fazio and his collaborators, Natalie Shook, a PhD graduate of Ohio State now at Virginia Commonwealth University and J. Richard Eiser of the University of Sheffield (England) have used the game in many studies examining differences in the development of positive and negative attitudes.

The developers affectionately call the game "BeanFest." It involves people encountering images of beans on the computer screen. The beans could be good or bad, depending on their shape and the number of speckles they had.

Good beans earned the players points, while bad beans took points away. The goal was to earn as many points as possible.

While the game may seem trivial to a naive audience, Strunk said it offers a unique and powerful way to measure how people learn new attitudes.

"Before, if researchers wanted to investigate how people formed new attitudes, it was very difficult to do," Strunk said. If researchers asked about real-life issues, the problem is that prior learning and attitudes may impact how people respond to new information. But in this game, participants don't have any prior knowledge or attitudes about the beans so researchers could learn how they formed their attitudes in a novel situation, without interference from past experiences.

In the game phase of this study, participants had to choose whether they would accept a bean when it appeared on the screen. If they accepted the bean, the points were added or deducted from their total. If they rejected the bean, they were still told how many points they would have earned or



lost if they had accepted it.

Each of the 34 beans was shown three times during the game phase, giving the participants a good opportunity to learn which beans were good and which were bad.

Then, in the test phase, participants had to indicate whether beans they learned about in the game phase were "good" (choosing it would increase points) or "bad" (choosing it would decrease points). The researchers tallied how well participants did in correctly identifying positive and negative beans.

The non-depressed students correctly identified 61 percent of the negative beans, which was about the same as the depressed students, who correctly identified 66 percent of the "bad" beans.

But while the non-depressed students correctly identified 60 percent of the positive beans, depressed students correctly classified only 49 percent of these good beans. Non-depressed students identified the good beans better than the depressed students, who failed to identify good beans better than chance.

"The depressed people showed a bias against learning positive information although they had no trouble learning the negative," Strunk said.

One of measures researchers used in the study classified whether the depressed participants were currently undergoing a mild, moderate or severe episode of depression. In the study, those undergoing a severe depressive episode did more poorly on correctly choosing positive beans than those with mild depression, further strengthening the results.

While more research is needed, Conklin and Strunk said this study



suggests possible ways to improve treatment of depressed people.

"Depressed people may have a tendency to remember the negative experiences in a situation, but not remember the good things that happened," Conklin said. "Therapists need to be aware of that."

For example, a depressed person who is trying out a new exercise program may mention how it makes him feel sore and tired - but not consider the weight he has lost as a result of the exercise.

"Therapists might focus more on helping their depressed clients recognize and remember the positive aspects of their new experiences," Strunk said.

Provided by The Ohio State University (<u>news</u>: <u>web</u>)

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