Digging Deeper: Depression and the Past

1. What is the main question the paper answers? Identify the question and any hypotheses the authors mention. Is this related to a set of observations, a long-standing question, or a theoretical prediction?
Scientists were interested in whether a person's response to previous experience may help explain depression. They hypothesized that people would use previous experience to determine how to act in the present.

The question and hypotheses in this paper were linked to the behavioral shutdown hypothesis. It is the idea that an organism may choose not to do something if it requires too much risk or energy. From an evolutionary perspective, this strategy helps animals to survive, and scientists thought that this might also explain depression.

2. Was the study well designed to address the hypothesis (or hypotheses)?
I believe that the study was well designed to begin to address this question. But the results of the data they show require a second experiment to help support their conclusions.

3. What are the data presented in the paper? If they presented actual data, what was their sample size (e.g., people, animals, or habitats, etc.)?
Scientists used a statistical model to help them try to answer this question. The data presented were the decisions made by a computer when placed in a particular situation with different options. The computer model made up to 1000 decisions during the experiment.

4. What did the researchers conclude and do they provide enough evidence to support their conclusion?
Overall, scientists found that the computer tended to use previous experience to determine how to act in the present. More importantly, they showed that the computer may be more affected by previous experience when they feel they cannot be in control of the situation.

5. What possible explanations for the results are considered in the article? Do they cover all the possibilities? Is each explanation given fair consideration?
Scientists concluded that the decision not to act could be due to the behavioral shutdown hypothesis. When put in a situation where bad events occur, the choice of not acting, a symptom of depression, could be an evolutionary instinct. It's a way for a person to protect herself or himself from their environment.

6. Did the researchers identify any issues with their data or methods? Were there any issues they didn't mention?
The findings in this paper tell us that from a computational/statistical perspective people may use previous experience to make future decisions. But it could be an issue that these findings are model based; perhaps the way the model from this experiment works may not explain the behavior of people. Or more specifically, it may not explain the behavior of people with depression.

7. What could the researchers have investigated more thoroughly or explained better?

To address this issue, the scientists would need to take the study one step further and examine the decisions of human subjects who are diagnosed either as depressed or non-depressed. Here humans would make the decisions instead of a computer model, and scientists would be able to see how depression affects these decisions.

And if it's true that people with depression are affected differently by their previous experience, this would give scientists better evidence that their proposed theory is correct.

8. Why is this study important? Was it interesting to you? (And if so, why?)

Depression is a condition that affects many people. But scientists and doctors are still trying to understand what causes it and how to best treat it. This study is important because it introduces a whole new way to think about and understand depression. Hopefully this new perspective may help lead to new treatments to better help people who are affected by it.