## In-Class Assignment 5 – May 2<sup>nd</sup>, 2019

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Chosen Cognitive Bias: Placebo Effect

**Definition**: Placebo Effect is when the expectations and beliefs of the subject alone cause experimental results. The placebo is a bogus treatment that has the appearance of being helpful and the individual believes that it will help him/her. It is basically that something which doesn't have an impact, due to experiences, visuals and data, we have a bias.

## Cases of Manifestation of Placebo Effect

**Example 1:** People expect a medicine to work so they interpret their symptoms differently and hence feel differently.

**Example 2:** Classical music helps students' study and learn better.

**Example 3:** Effects of medication seem to persist in individuals, even after the active ingredient has worn off due to positive experiences with the medication.

## Cases of Affected [Visual/Data] Interpretations due to Placebo Effect

**Example 1:** Placebo effects are often made use of in research for psychologists. An example would be when a group of people were blindfolded by researchers and then told that their right arms are being rubbed with poison ivy. This consequently had all the people react with itching, boils and their arms were red as well, which are common symptoms upon interaction with poison ivy. This all seemed normal but until the researchers informed the individuals that it was just a normal shrub. The individuals were made to believe that they were interacting with poison ivy which internally tricked their minds and hence made their arms red and also had them scratching. The shrub is common and doesn't have the same impact as that of poison ivy but all individuals were made to think so because of the data they were provided with.

**Example 2:** Researchers have found that the size of a pill affects how an individual may feel or take in the cure offered by said pill. Studies show that a patient is more likely to take a pill which is bigger because he/she may interpret the bigger pill as more effective and quickly curing as compared to a smaller pill, even though both pills might be equally effective. The bigger pill doesn't have an impact greater than that of the smaller pill but is still considered better due to a visual factor.

**Example 3:** A common placebo effect seen in daily life is that of mothers simply kissing the affected area of pain for young children. When a child is hurt, usually the mother kisses the affected area and the child seems to get a sense of relief. The kiss has no medicinal impact on the pain which the child has incurred, but the child seems to feel better and interpret that the pain has gone because of the visual action so performed by the mother and hence the placebo effect comes into play.

## **Cases of Corrected Placebo Effect**

**Example 1**: In the case when the responder is aware that a placebo is in play, he/she may have an expectation bias and when the expected effect isn't seen, the placebo effect hence fails and is corrected.

**Example 2:** If the individual doesn't have a previous experience or any prior knowledge associated with the given placebo, the placebo will not have an effect on the individual at all and hence the placebo doesn't work.

**Example 3:** Placebo effects may be correlated with Response Bias when responders are aware that the placebo effect is in action and hence the effect may not be seen appropriately.