

Decision-making is informed by both goal-directed and habit-based mindsets, which is more specifically reflected in model-based and model-free learning models. Those with model-based learning behaviors tend to utilize a cognitive model centered on possible actions and their consequences to better inform their decisions. On the other hand, model-free learning models are based on habitual behavior developed through one's lifetime. The dynamic between model-based and model-free learning models is an essential component of everyday decision-making and is one that contributes to imbalances in those struggling with SUDs and other psychiatric disorders. Model-free and model-based learning behaviors can be studied through the Spaceship Task and the HABIT Task. The HABIT Task is a novel model that focuses specifically on observing model-free behaviors. In this cross-validation study, the HABIT Task was compared to the Spaceship Task to determine the extent to which the HABIT task and spaceship task were similar to each other. The results suggest no clear relationship between the tasks, meaning that the type of learning strategy used in the HABIT Task was not the same strategy used in the Spaceship Task.