

Method

Participants

The participants in this experiment consisted of students of the PSYCH 100B Research Methods in Psychology course (M_{age} 21; 60% men). Students were randomly assigned to participate in two separate – but slightly similar – experiments in which each participant served as both an experimenter and a subject. Participants were not financially compensated but rather awarded with class participation points for partaking in the experiment.

Design

In this one-way, within-subjects experiment, participants were *randomly* assigned to perform tests within two different conditions. As a result of the within-subjects design of this experiment, the participants performed as their own controls, creating for reliable results. Moreover, the *independent variable* was the type of word written; which was categorized as either *incongruent* or *neutral*. Incongruent words were words that had a meaning or representation within the same category of sufficient answers for the experiment. On the other hand, neutral words were words in which the meaning had *no* relationship to answers which would qualify as *sufficient* for the experiment. Additionally, the dependent variable was the subject's reaction time which was measured in seconds.

Materials and Apparatus

The two different tests were conducted concurrently in different rooms. That being said, one of the rooms contained an incongruent list of color words with a label on the door defining the test condition as “I”. The other room contained a list of neutral words in which the entry door was labeled with the letter “N”. Of the identically sized provided lists, the words were broken up

into four blocks which contained five different words in which the colored font for each word per block was not repetitive. In other words, by using block random assignment, the possibility of the interference of an extraneous variable, such as block pattern memorization, was eliminated. Furthermore, each word that was coordinately correspondent on the opposite list, started with the same letter and contained the same amount of characters. Additionally, both rooms seemed identical in that there was a piece of white masking tape on the floor which defined where the subject would stand when participating in the experiment. Subjects were timed using standard stopwatches and additionally given a half sheet of paper to record their timed results thereafter the experiment. The previously examined student was also given a set of instructions in which he or she was to follow when testing the subject (preceding student).

Procedure

Participating students in the lab classroom were handed a half sheet of paper in which they were randomly assigned one of the two conditions (Room “I” with an incongruent list of words; Room “N” with a neutral list of words). Thereafter, the students stood in single file orientation in front of the corresponding room in which they were randomly assigned to. The *first* subject to be tested in either of the scenarios entered the respective testing room with the experimenter.

As the subjects were guided into the testing room, they were asked to look down and not at anything else. Per instruction, the subjects stood behind a defined point marked with white masking tape. The experimenter then instructed the subject on what they were to do during the experiment.

Subjects were told that when they looked up, they would see a list of words written on a poster. The experimenter then asked the subject to identify and state their visual perception of the *color* of the font of the word – reading from the left column down, then continuing to read from the top of the right column downwards again. Additionally, the experimenter explained to the subjects that once they looked up and began stating the colors of the words, the stopwatch would begin counting the elapsed time until they completed reading the list of words. If the subjects answered incorrectly when stating and identifying the observed font color, they were allowed to correct their error; however, the stopwatch would still continue to count without the possibility of recovering time for the mistakes of the subject.

Once the subject finished the presented task, the experimenter stopped the stopwatch and reported the elapsed time to the subject. The subject was then instructed to record their elapsed time in the respective empty space on the initially provided half sheet. The experimenter then handed over the set of written instructions to the subject and instructed them to conduct the same test to the preceding student. Finally, the experimenter exited the testing area and stood in the back of the line of the alternate testing condition (in the specific scenario of the first testing cycle, the Teacher’s Assistant went to the room conducting the experiment with the opposite condition and repeated the procedure with the first subject in an identical fashion).

After the subjects recorded their time, they became the *experimenters*; instructing the preceding student in line in the exact same fashion in which they were instructed by the previous instructor.

Once every subject in the experiment had been tested and instructed twice, all participants were asked to return to the classroom where the two scores of each participant in

both conditions were averaged. This then returned a mean timed-score for both condition “I” and condition “N”.