



LEARNING MATERIALS

STROOP EFFECT EXPERIMENT

When you play the “Stroop Effect” game, you might have noticed that it was more difficult during “mismatched” trials, where the color of the text was different than the word itself. (When people time themselves while playing this game, like in actual science experiments, psychologists find that people’s reaction times are much faster for the “matched” trials than the “mismatched trials.” This is to say that they come up with their answers faster when the color and word match!) This tells us something interesting about how the mind takes in information: It shows that we consider *both* the color and text when reading, even when we know that we only want to focus on one.

This is an example of “interference” in the mind. Even though we want to remember the color of the text, and not what it says, the writing “interferes” with our ability to do the game correctly. But we can improve our selective attention abilities with practice! This might have [“implications for our learning skills, ability to multitask, and how we form habits.”](#) Some scientists also think this effect might happen because words are processed by the brain faster than the colors. Since the word information is already in your mind by the time you see the color, it means your brain has to put energy toward ignoring the word. This is what makes you slower!

The “Stroop Effect” is just one example of how psychologists study how the mind works. For example, some researchers use this kind of game as a way of testing “executive functioning,” which has to do with your ability to control yourself and remember things in the here-and-now.

Other researchers use it to tell when the brain has been damaged. It's just one way that psychologists use science to figure out mysteries about the brain!

Questions for testing comprehension:

- (1) Which words were harder to say: the ones that had the color of the text matched, or the ones that had the color of the text mismatched?
- (2) What is "psychology"?

Questions for deeper understanding:

- (1) Why do you think you might be slower for the "mismatched" words?
- (2) How do you think you could get better at the "mismatched" words, and what do you think that tells us about the mind?

Further reading & materials:

- (1) A link to play Stroop online
 - (a) <https://faculty.washington.edu/chudler/java/ready.html>
- (2) Additional reading
 - (a) <https://faculty.washington.edu/chudler/words.html>
 - (b) <https://lesley.edu/article/what-the-stroop-effect-reveals-about-our-minds>
 - (c) https://en.wikipedia.org/wiki/Stroop_effect