Name(s)

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Project Number

J0405

Project Title

The Color of Aggression: Does Yellow-Green Lighting Cause More Aggressive Responses in Humans than Blue Lighting?

Abstract

Objectives

The purpose of this experiment was to find if color affects aggression in people.

Methods

I decided to test this question by giving 30 adults (13 men, 17 women) a survey while under a blue light or under a yellow-green light. Survey subjects had to choose from a set of responses that varied in aggression level for each scenario. The subjects took the survey in a dark room lit by one of the two colors of light. From my google scholar research, I found that yellow-green light makes people more aggressive than blue light, which can be calming. My hypothesis was that the yellow-green light would cause people to choose more aggressive answers to the scenarios than the people taking the survey in the blue light. For each scenario, subjects had to choose a response from 4 different categories of aggression (listed from most to least aggressive): a physically aggressive response, a verbally aggressive response, a coping response (going to an authority figure for help), or withdrawal from the situation. I totaled the number of times each person chose answers from each category to get a score for each category for each person. I calculated the means for the scores for each response category under each light color. I used 95% confidence intervals and t-test to find out if there was a real difference between blue light and yellow-green light responses.

Results

I found that there was no significant difference between the people in the yellow-green light and the people in the blue light for any of levels of aggression or categories.

Conclusions

In conclusion, my results did not support my hypothesis. I did not find a difference in aggression between people taking the survey in the blue light than the people taking the survey in the yellow-green light.

Summary Statement

Based on surveys taken in each type of lighting, I found no significant difference in aggressiveness between subjects in yellow-green light environments and subjects in blue light environments.

Help Received

My parents helped me get test subjects for my study. My father taught me how confidence intervals and t-tests work and helped me use statistics software to calculate them.