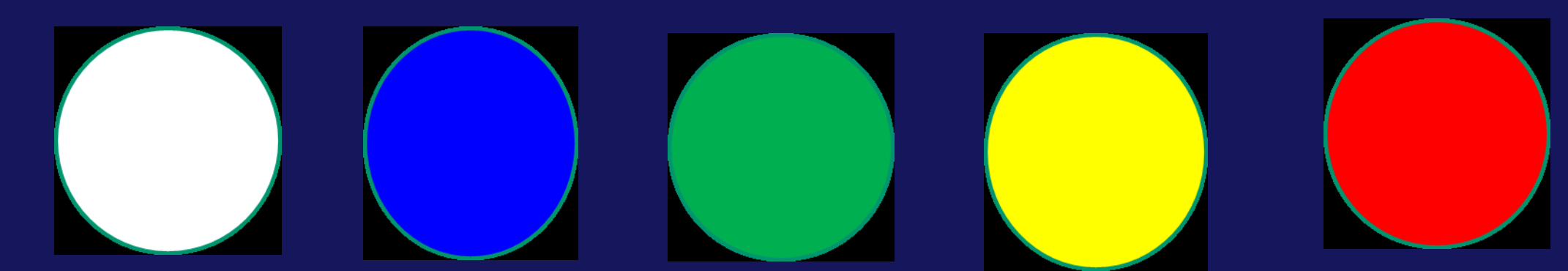


EFFECTS COLOR HAS ON MOOD AND STEREOTYPES

Alicia Frazier



Abstract

This paper is a further exploration of some findings by Buckalew and Bell (1985). Their experiment classified the drawings of faces drawn by 18 children between the ages of four and six as happy, sad, or indifferent. The author found that color had an effect on mood. In our study, 30 college students between the ages of 19 and 26 were given five different colored piece of paper (red, yellow, green, blue, and white). Each colored pieces of paper had the outline of a stick figure with a blank face and no gender identified. From the five colors listed, subjects were asked their favorite color, least favorite color, and then to rank the colors on a scale of one to five, from their favorite to least favorite color. Subjects' drawings were then analyzed to see if mood was reflected in the drawings. We also wanted to explore the potential stereotypes surrounding colors (e.g., would red be associated with aggression or would blue be considered male). The drawings were examined to see if test subjects added more detail to the drawing on their favorite colored piece of paper; if more aggression was expressed in the drawings on the red piece of paper as opposed to the favorite color; also what gender was associated with each color. We conclude that color does have an effect on mood, and evidence supports the notion that association about color can be stereotypical.

Introduction

Does color have an influence on mood? The goal of this experiment is to explore whether the color of the piece of paper would influence the mood of the participant taking the experiment. It also examines the stereotypes associated with different colors and any gender biases related with each color. It is believed that the subject's mood influences the emotion of the face they draw on the colored paper.

Studies have shown that there is a direct correlation between color and mood. One study, Buckalew and Bell (1985) examined similarities and differences between color and mood in children. The subjects consisted of 18 preschool boys and girls. These participants drew faces on fourteen colored human figures, each being a different sex and color combination. When the administrators collected their data, they used a Chi Squared analysis, which showed no support for an effect of color or sex. Instead, they found a strong bias towards a happy mood, regardless of color.

This experiment tests 30 students: 14 males and 16 females. The experiment consists of one independent variable, with five levels of color: white, red, yellow, green and blue paper. The dependent variables of the experiment were mood and stereotyped color values. We considered the white paper to be the control condition, with the other four colors the experimental conditions. The study used a within-subjects design. We hypothesized aggression would be associated with red; that subjects would include more detail on their favorite color paper; that the color of the paper would reflect gender-stereotyped associations.

Figure 1

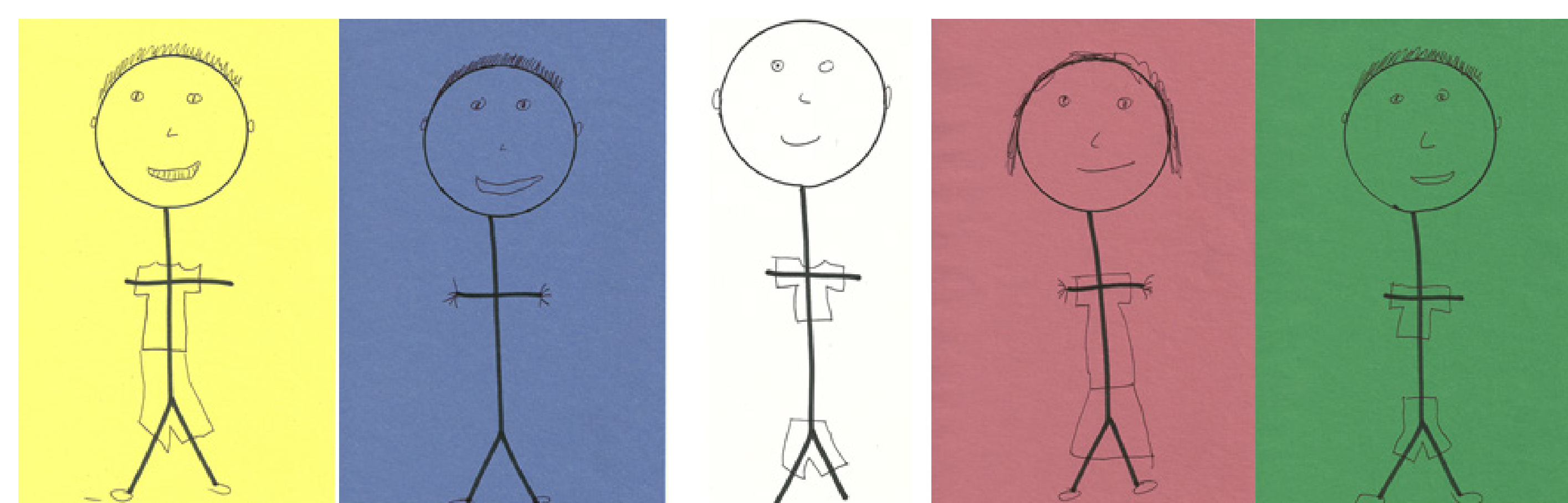


Figure 2



Method

Participants

The subjects for the present study were 30 college students- 16 female and 14 male. From the subjects, only their name, age, and gender were considered. All additional background information was excluded.

Materials

Subjects had five different colored pieces of paper on which to draw: red, yellow, green, blue, and white. Each piece of paper was 8 1/2 by 5 1/2 inches. On each piece of paper there was a thick black outline of a stick figure. The figure had a blank face and was not identified as a specific gender. A stencil was used to trace the figures to make sure each was identical to one another. To draw on the pieces of paper, subjects used their own writing instruments. These consisted of pencils and black or blue pens. A stop watch was used to time the test subjects when they were drawing. Lastly, subjects were asked, from the five colors listed, which is their favorite color, least favorite color, and to then rank the colors from one to five from their favorite to least favorite.

Procedures

All thirty subjects were instructed to write their name, age, and gender on the outside top right hand side of their folder. Subjects then completed the questionnaire sheet inside the folder and when done, set it aside until the end of the experiment. Each subject then took out the testing material and stood the folder up in front of them so they could not see another test subject's materials. This prevented their drawings from being influenced by what their peers were drawing. Subjects took their first sheet of paper and were instructed to illustrate upon the figure for 45 seconds. This process was repeated for the next piece of paper from the pile until each five were drawn on. Finally subjects placed the materials back in the folder and the folders were collected.

Create a column to state if the subject had more detail in the drawing done on their favorite colored piece of paper and another to state if more aggression was seen in the drawing done on the red paper vs. the drawing on their least favorite color paper. Then list each color and mark whether the test subjects identify the colored drawing as male, female, or unidentifiable. Overall this displays how mood is affected by color and how stereotypes surrounding color are portrayed.

Results

Table 1

	<i>Favorite Color</i>	<i>Least Favorite Color</i>	<i>Middle Favorite Color</i>
<i>Red</i>	3%	10%	33%
<i>Yellow</i>	10%	40%	10%
<i>Green</i>	23%	17%	20%
<i>Blue</i>	64%	0%	17%
<i>White</i>	0%	33%	20%

Table 2

<i>Showed more aggression in red paper</i>	47%
<i>Showed more aggression in least favorite color</i>	10%
<i>No aggression was shown in either red or least favorite color</i>	33%
<i>Not considered as red was their least favorite color</i>	10%

Table 3

	<i>Identified as Male</i>	<i>Identified as Female</i>	<i>Identified as Neutral</i>	<i>Not considered</i>
<i>Red</i>	67%	23%	7%	3%
<i>Yellow</i>	47%	37%	0%	3%
<i>Green</i>	44%	33%	20%	3%
<i>Blue</i>	57%	33%	10%	0%
<i>White</i>	40%	47%	13%	0%

Figure 3

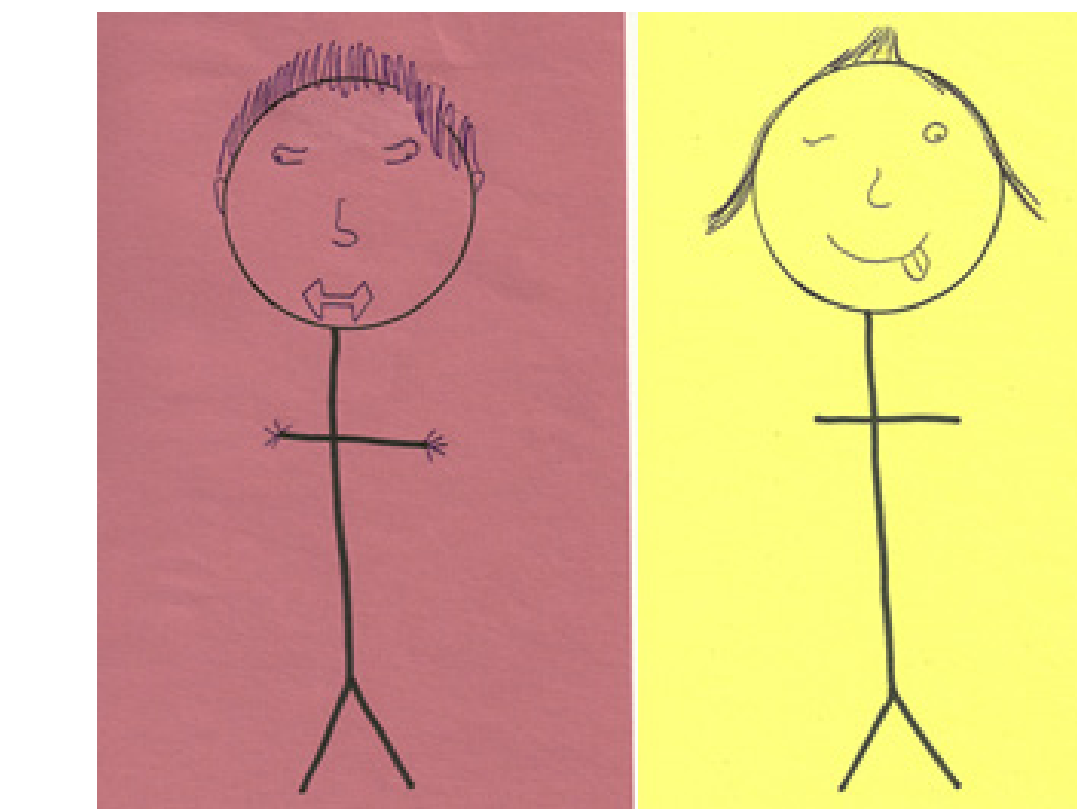
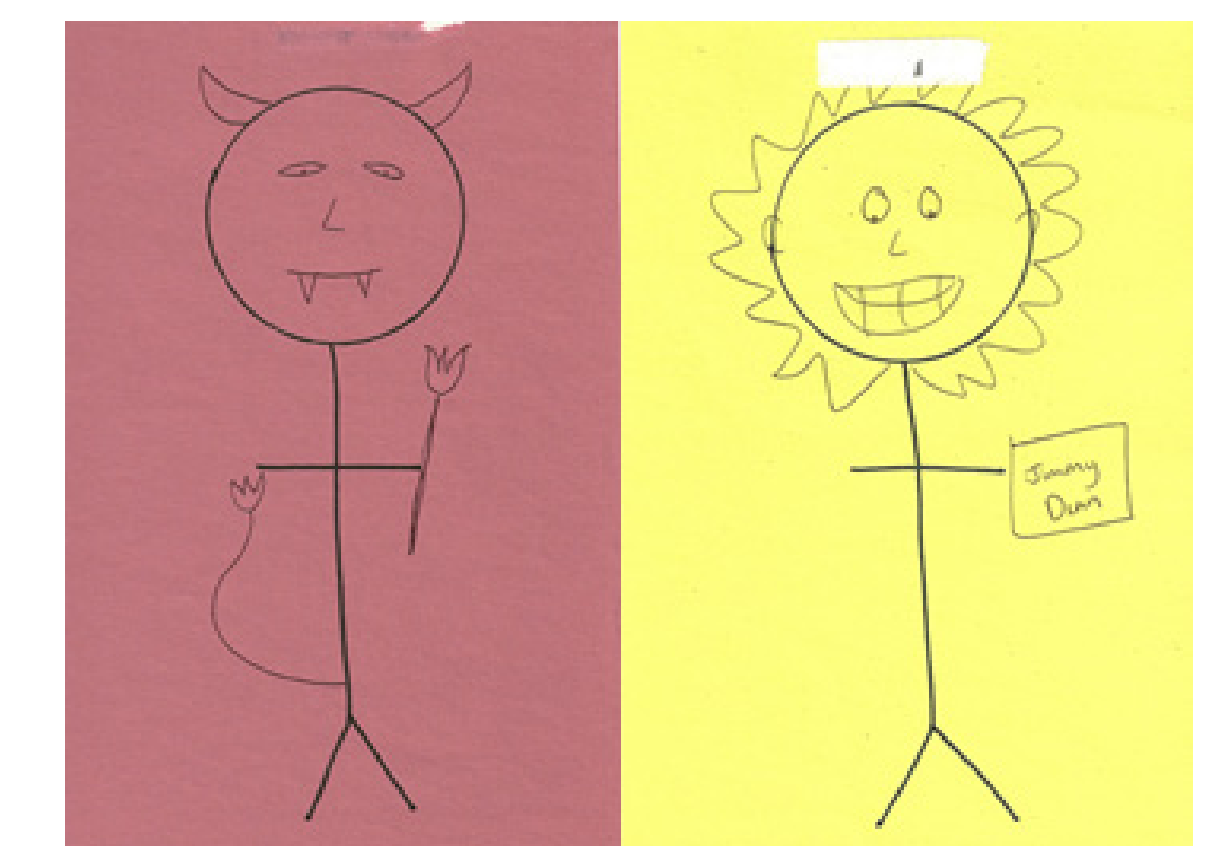


Figure 4



Discussion

All subjects were included in the data analysis. Frequencies for favorite color, least favorite color, and middle favorite color are displayed in table 1. Subjects were asked to order the five colors on a scale from one to five to determine their middle favorite color.

After a sense of how the subjects felt towards the colors, scrutinizing them on a deeper level proved to be much easier. First analyzed was the subject's drawing on their favorite color paper and compared it to the other four drawings. We hypothesized that the subject's drawing on their favorite color would be more detailed than on others. Surprisingly, the results indicated the opposite. The percentages were close, but 53% of the drawings did not demonstrate distinctly more detail on their favorite colored piece of paper. This was a surprise because typically, one could expect to dedicate more time to something they enjoy or prefer. See figure 1 where a drawing does show more detail in their favorite color.

Next, we examined the drawings to determine if subjects showed more aggression in the drawing on the red piece of paper or showed more aggression in the drawing on the piece of paper of their least favorite color. The purpose of this comparison was to address the stereotype surrounding the color red and the assumption that it is a more aggressive color. Some indicators of this were teeth, pointed eyebrows, and devil horns. The frequencies of these results are displayed in table 2 and figures 3 and 4.

Last analyzed was the relationship between color and gender. Were some color inadvertently identified as male or female? To make the distinction, if the figure had long hair, was wearing a dress, wearing jewelry, or a bow in their hair, this was classified as female. If the figure had short hair, wearing a hat, or had short hair while wearing a shirt and pants, this was classified as a male. Some figures were unidentifiable and were classified as neutral. Others were not made into human faces at all and therefore, were not considered. These frequencies are displayed in table 3 and see figure 2.

This correlates with what we hypothesized which was that stereotypically, red would be depicted as male for the majority as men are seen as more aggressive in nature and aggression is typically associated with the color red. The next color examined was blue, which was the majority's favorite color. We wondered if the subjects identified with their favorite color. This would make the male and female percentages relatively equal since an almost even amount of males and females were tested and blue was the majority's favorite color. Lastly, white was predicted and used as the neutral color. However, white was the only color where a majority of the drawings were identified as females. These results may be associated with the fact that white is seen as a color of purity and females are stereotypically seen as more fragile and pure.

References

Buckalew, L.W., & Bell, A. (1985). Effects of colors on mood in the drawings of young children. *Perceptual and Motor Skills*, 61 (3, Pt 1), 689-690. Retrieved from <http://web.ebscohost.com>

Contact Information

Alicia Frazier, B.A.
alicia.frazier@snhu.edu