# **Does Rainbow Color Truly Represent Alternative Gender?**

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**Keywords:** Alternative Gender, LGBTQ+, Memory Color, Representative Color.

#### 1. Introduction

In the gender binary system, the gender identity of people was generally classified into two genders, i.e., "Male" and "Female". This system was widely used in many societies for a long time. However, some people believe that their gender identity was not limited to only "Male" and "Female". Nowadays, there is a group of people who identified themselves as "LGBTQ+". This "LGBTQ+" came from the word "Lesbian (L)", "Gay (G)", "Bisexual (B)", "Transgender (T)", "Queer (Q)" and "Other (+)". In Thailand, the "LGBTQ+" is normally called "Alternative Gender".

There were several cases that color was used to represent this gender variance. During the Nazi regime in 1933-1945, the pink triangle was used as a badge to indicate the gay prisoner in a concentration camp. But later the pink triangle became the symbol of the LGBT's right movement (Waxman, 2018). In 1978, a rainbow color flag was firstly used by a gay activist, Gilbert Baker, to represent the alternative gender (Swanson, 2015). Later, the rainbow color was perceived as the representative color of the alternative gender. It is still questionable whether the rainbow color truly represents the alternative gender since the rainbow color was originally used in a political movement. It may not be suitable to use in some designs which required a minimal number of colors. Therefore, the objective of this research is to investigate the representative color of the alternative gender.

# 2. Methodology

Stimulus

The stimulus composed of 44 color chips pasted on a gray background as shown in Figure 1.

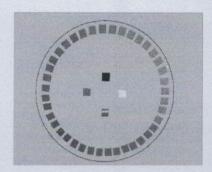


Figure 1. Stimulus configuration

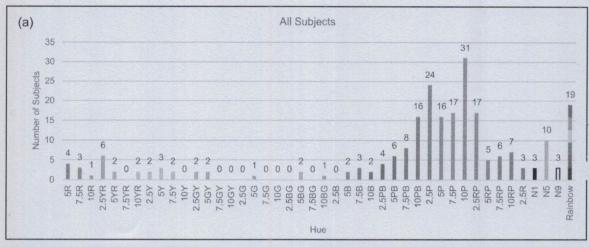
Forty Munsell color chips with value 5 and chroma 8 of all Munsell hue were arranged to form a Munsell ring. Inside this Munsell ring, N1, N5, N9, and a rainbow color chips were placed. The size of each color chip is two degrees of visual angle.

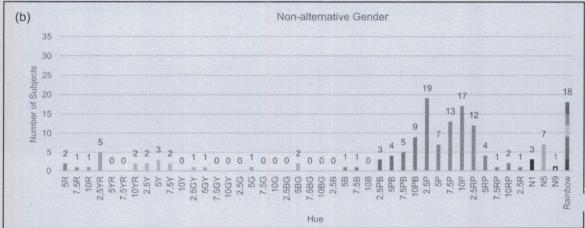
Subject

The subjects were 120 university students who volunteered to participate in this experiment. They were classified into two groups based on their gender identity. The first group, "Non-alternative Gender", was 30 male and 30 female subjects. The second group was 60 subjects who did not identify themselves as "Male" or "Female". They identified themselves as, "Alternative Gender". In case of the alternative gender subjects, if they agreed, ve collected their gender identities in detail. They could freely specify their gender identity such as "Gay", "Lesbian", "Transgender", "Tomboy" or "Katoey (Thai word means a man who wants to be a woman)". All subjects had a normal color vision.

# Experimental Procedure

The experimental room's wall was covered by a white wallpaper. The room illuminance measured at the subject position was 1200 lux. The stimulus was placed on the front wall. Before starting each selection, the experimenter randomly rotated the Munsell ring. The subject's task was to select the





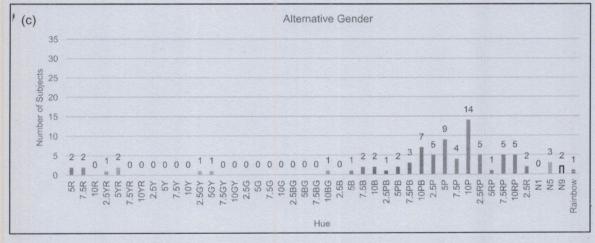


Figure 2. Representative color selected by (a) all subject, (b) Non-alternative Gender and (c) Alternative Gender

color chips which represent the alternative gender.

The subject could select the color chip as many as they want.

### 3. Result

Figure 2(a) shows the representative color selected by all subject. The ordinate represented the

frequency of selection. The range of high selected color was 10PB 5/8, 2.5P 5/8, 5P5/8, 7.5P 5/8, 10P 5/8, and 2.5RP 5/8. This range covered color in the range of bluish purple, purple and reddish purple. The top selected color chip was 10P 5/8 and 2.5 P5/8. When we focus on these two colors, there might be some tendency in a color selection based on gender.

Most male subjects selected 2.5P 5/8 while most female subjects chose 10P 5/8. Even though both colors were purple, the female subject might prefer pinkish purple, but male subject possibly preferred bluish purple. This tendency quite agrees well with previous research studied on the relation between color preference and gender (Ellis & Ficek, 2001; Hurlbert & Ling, 2007).

Apart from these colors, the third rank of representative color was the rainbow color which was selected by only 19 subjects. This number was not as high as our expectations. Although the rainbow color flag has been popularly used as the symbol of the alternative gender movement, it is still questionable that the rainbow color is accepted to be the representative color of the alternative gender. This question was realized when the result was analyzed based on gender identity. Figure 2(b) and 2(c) showed the representative color selected by the non-alternative gender subjects and the alternative gender subject, respectively. Both groups agree that the purple color was the representative color as the alternative gender. However, it was surprisingly found that only one of 60 alternative gender subjects selected the rainbow color. Almost the rainbow color selection was made by non-alternative gender subjects. This result indicated the disagreement between the non-alternative gender and the alternative gender over the rainbow color. Most of the alternative gender did not agree that the rainbow color was their representative color.

## 4. Conclusions

, Our result suggested that that the rainbow color was not the most appropriate color to represent the alternative gender. Even though the rainbow color was perceived as one of the representative colors of the alternative gender, but the alternative gender themselves did not agree with that perception. The possible candidate which both groups agree to be the representative color was purple.

### References

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