

# **The Comparative Study of the Harmony of Coloration according to Transformation of Color Area-Ratio in Traditional Korean Dress - On the Similarity and Contrast Coloration -**

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## **Introduction**

In case of Korean clothes that have a big different area ratio of a coat and trousers, even though they are the same coloration, it seems that their visible effect or the standard of the harmony could be different, according to what kind of a color tone should be set in somewhere of the area of the coat and the trousers, and it is meaningful that a harmonic sense was evaluated by the area ratio change of the coat and the trousers.

In this research, in order to find out the effect of the area ratio in the harmonic sense assessment of the coloration of Korean clothes, the coloration of a Korean jacket and a skirt was compounded with a similar coloration and a contrast coloration. In other words, the similar coloration was mixed to be yellow and red, and the contrast coloration to be green and red. Then, conversely these color tones were arranged to be on the skirt and the Korean jacket, and the area of the color tone of the coat and the trousers was made to be changed. Thus, the purpose of this study, centering around these colorations, is to clear up how the harmonic degree that Korean and American girl students feel is evaluated.

## **Methods**

The stimulus used in this research was a woman figure who wore Korean traditional clothes with the skirt and jacket, and her face and hairstyle were under control. In the structure of the Korean clothes, by using a Korean traditional composition method, a collar and a coat string color of the Korean jacket was matched with a skirt color, the color of the Korean jacket wasn't identical with the skirt color, and a pattern, dyeing, and a cuff were controlled without any color.

The color tone of the skirt and Korean jacket selected in this study was red, yellow, and green, and each color tone colored to be vivid, light, dull, and dark.

The picture of he who wore the Korean clothes was scanned by CAD system (4D-BOX 6800 Zun system) and the image was inputted, and then the selected color tone, which was colored to each skirt and Korean jacket, was printed out after its color and tone were handled out. For the Korean jacket and skirt to become the similar coloration and contrast coloration, each coloration mixed with the traditional coloration of Korean clothes, yellow and red, green and

red, then to assess the harmonic sense according to the change of the color area ratio, these colorations, contrariwise, were worked to become the coloration of the skirt and Korean jacket.

Subsequently, chroma was controlled in the middle, and value was given a change and the coloration of the Korean jacket/ skirt, the skirt/ Korean jacket was separately compounded to be 4 tones such as vivid, light, dull, dark. Tone in tone coloration and the similar and contrast coloration, 16 stimuli, were used in this research evaluation. At this time, a background color was controlled with white. The assessment of the stimuli of Korean clothes coloration was conducted by a testee and the testee evaluated all the stimuli by the testee's plan. To get rid of an order effect, the stimuli order given to a perceiver was differed. The stimuli harmonic evaluation showed a semantic differential scale(measure) of 7 steps, using an adjective pair.

To make the confidence of harmonic sense measure of the stimuli clear, the same figures, 44 girl students, at the time of a preliminary examination, appraised the same 5 stimuli at the time of the preliminary investigation. a confidence coefficient by the test-retest method was .745.

The figure of material gathering was Korean and American girl students. In case of American girl students, the objects were girl students who was majoring in Consumer Science ,and Environment Textile and Design at Madison, Human Ecology, University of Wisconsin. The material collection was conducted between Nov, 1988 and Jan, 1999. The Korean material collection was carried out between the beginning of Oct, 1999 and Dec, 1999. The objects were 83 girl students who were specializing in Clothing and Textiles. Material analysis was performed by using the SAS program.

The statistical analysis used descriptive statistics and t-test. Variance analysis and posterior analysis showed L.S.D. The significance level is .05.

## **Result and Conclusion**

It surveyed how both countries' students recognized the harmony by changing tones of the similar and contrast coloration. The result is as follows.

If it is the korean yellow jacket and red skirt coloration which is similar coloration, Korean students feel harmonious coloration in case that the tones of the korean jacket and skirt are vivid and dull. In the same coloration, American students feel harmonious coloration in vivid, light, and dark. Both countries' students agreed that the vivid tone of similar coloration is harmonious. The number of Korean students who felt harmonious coloration was fewer ,compared with American students ,but Korean student gave a high point about the harmony. Color area ratio was matched inversely. In case of the red korean jacket and yellow skirt, both countries' students recognize that the vivid tone is harmonious. Korean students gave higher points to korean traditional dress in similar coloration such as yellow korean jacket which is small area and red skirt which is large area coloration than inversed color area ratio which red korean jacket and yellow skirt. That is showed color area ratio is the crucial criteria to judge harmonious coloration. However in case of American students, they highly judge the harmony

when wide color area ratio of skirt is high value yellow, korean jacket coloration is low value red in vivid tone. They have not consistent harmony about color area ratio.

Both countries of student showed the culture gap. Compared with American students, Korean students are familiar with korean dress's traditional coloration, as a result familiar coloration is recognized harmonious coloration. It is demonstrated the theory of D. B..Judd(1991).

As to contrast coloration, the korean green jacket and red skirt, Korean students feel vivid tone is harmonious, and American students feel vivid, dark tone were harmonious coloration. In inversed case, red korean jacket and green skirt are recognized that any tone is not harmonious for both countries' students.

All students showed that a range of harmony is smaller than the similar coloration therefore, in the same value like green and red, similar coloration is not harmonious coloration for both countries' students.

As stated above, the harmony according to the change of color area ratio is showed the results as follows.

First Korean students have the consistent evaluations about the change of color area ratio and the harmony in each tone for the harmony testing. American students have different recognition in the way of coloration and color area ratio. Two countries's students have different coloration harmony recognitions about the korean dress.

Second as the precedent study(Kang, Kyung Ja, 2001, 2002, 2004), American students showed wider distribution range about korean dress coloration. Korean students give higher points about the harmony in the similar coloration, in the other hand, American students gave higher points in the contrast coloration. It showed that the culture gap had an effect to judge the coloration of korean dress. Besides, the testee is more familiar with the culture, and more negative recognition if the coloration is against the traditional coloration so it supports that the D. B. Judd(近江源太郎, 1991) which stressed the theory of intimacy of coloration.

As mentioned above, to get more harmonious coloration, first of all, it is considered the difference of colors such as color, value, and chroma in the coloration, then it is considered the character of colors and area ratio. More important is that the familiar coloration is more effective in the typical culture. Coloration gives more powerful effect by the match of more than two colors which are not showed only just one color. The concept of relationship between more than two colors is the harmony(近江源太郎, 1991). Coloration harmony is got when the match of part and part is harmonious with all also, all(coloration) is bigger than the total of part(color). It supports the concept of Gestalt(Kaiser, S.B.(1985).

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