



















Blue colored P-14 was thought of as cold, and purple colored p1-5 were mainly associated with coldness and calm.

4) pattern2(repeated circular rectangle pattern)

Compared to other patterns, because there were many wide sides, the impression each color gave varied widely. P2-1 evoked negative impressions, dislike, unnatural, and dynamic. Conversely P2-2 was associated with the positive impressions, warmth, restlessness, lightness, and liveliness. Although green colored, P2-3 evoked hard and heaviness due to its wide sides, and p2-4 brought up a cold impression. Purple and wide sided P2-5 evoked hard, heavy, and strong impressions.

5) pattern3 (pattern with character figures and varied size changes)

These samples had both characteristics of the two patterns preceding and possessed the symbolic meaning of a character figure and were composed not of lines but sides, from which there was a bigger difference between colors than the two preceding patterns.

P3-1 had an overall positive impression and was described as dynamic, warm, cheerful, and light, as well as having a more level and soft impression than other patterns. P3-2 had many similarities with p3-1 but was described more as light, natural, and soft. P3-3 had no strong impression overall. P3-4 appeared cool, strong, dynamic, and heavy but when compared to different patterns with the same color it was weaker. P3-5 had an impression of dark, strong, and heavy, but purple patterns did not have a big difference between patterns.

Green, blue, and purple did not have big difference in impression between patterns, whereas red and yellow had a big difference between patterns. Also single color patterns which could give a deep impression or patterns with large sides had a strong influence in product self-expression.

## 5. Conclusion

Different patterns with same colors or patterns with large sides displayed a big difference from things like character association effects. Even products with the same shape can achieve different impressions through slight changes and this can prolong the life of the product or offer various experiences and emotions to the user.

Although this research only evaluated impressions of color applied samples to patterns manufactured by other people, if expressing your own characteristics by personally making or mixing samples becomes more common we expect a new cultural trend where many users of a same product use it diversely and widely. As products shapes became simpler stickers, cases, and character accessories were used only to simply distinguish from one another until now, but in the future we believe that user participation will become more active and diverse. Also currently the front sides of mobile digital devices are changeable anytime by changing the wallpaper but the backside still has difficulty. If devices in the future become transparent screened with more developed technology or if the backside is also able to express digital images like the front side, then we expect that self-expression through the product perceiving the user's circumstance will be possible.

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