

# On the Emotional Expression of Color Psychology on Children's Cognition and Development

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## Abstract

Color can directly impact people's visual senses, bring people different feelings, can produce different psychological effects. This paper summarizes the basic knowledge of children's color psychology from the perspective of color psychology, and studies and analyzes the causes of color physics, the physiological mechanism of color, color perception, association, symbol, children's color cognition process, color emotion and development preference. Based on the theory of color psychology, children's cognitive color context more and more attention, is an important part of children's education and emotional expression, gradually study of children's emotional needs and functional characteristics, through the analysis of children's behavior and cognitive ability, from the choice of color and expression of children's psychological characteristics, and to their growth and development of some positive and important guiding role.

## Keywords

Colour Psychology; Children Cognition and Development; Emotional Expression.

## 1. Introduction

Kandinsky, the pioneer of abstract painting, wrote poetry, painted, and played the piano from childhood, whose studies and experiences made him an artist with extremely sensitive sensibility, such as "a whole fugue of pink spots of different shades," a "very deep brown form... introduces a blunt, extremely abstract tone reminiscent of an element of despair", And "green and yellow enliven a state of mind.... give it the missing energy." In Kandinsky, the concept of "[1]synesthesia" advocated in his theoretical book *On the Spirit of Art*, he describes synesthesia as an empirical phenomenon transferred from one sensory form to another. It occurs automatically, with various sensory movement in the process from perception and representation to image formation, The psychological process of transformation, penetration and exchange. Color occupies a very important position among this. "Driven by the driving force of the light, almost everything you see is colorful. Color is absolute, and the colorless color of black, white, gray is only of relative significance, they are just an accidental state in the process of ever-changing color. Objectively, it can be regarded as a special color colorless to treat. Even if it has no color, it is still color after all, and Chinese painting also has the "five color of ink", it can be seen that color is the main form element of human access to information." [2]

There are many similar theories in history. As early as the ancient Greek period, Aristotle believed that the secret of color harmony may be related to psychological harmony. Color can convey the spirit and emotion, "color is the power that has a direct impact on the soul", with color to express the inner spirit of the subject, so that the color meets the needs of the "inner spirit". [3] As he concludes, color has two effects: it brings a pure and pleasant physical experience, the "inner resonance" that touches the soul, and the power of color to have a visual spiritual resonance with the audience."

## 2. Color and Color Psychology

### 2.1. The Meaning and Analysis of Color

The term color is a general term for red, orange, yellow, green, blue, purple, black and white, and the mixture between all these colors. The principle of color generation, the relationship between color and light, the color classification, the three attributes of color, the three primary color, the object inherent color principle and the mixture of color to understand the physical attributes of color. In our daily life, clothing, food, housing, transportation and so on are inseparable from the influence of color, people's feelings of color can be divided into direct psychological induction and indirect psychological sensing. Responses to color vary due to differences in personal experiences, personality, cultivation, preferences, habits and even gender. The influence of color art on people's mental health cannot be ignored. The combination of various characteristics of color affects our perception system, and affects the physical and mental state and development. Color psychology is the subjective reflection of the objective world, and affects people's material and spiritual life. Human through visual, listening, smell, touch, taste and other sensory feeling color, engaged in artistic creation and art appreciation, including visual information accounts for about 70% of all information, and color occupies a very important position in the visual art, color and shape, shade, texture, compared with visual art elements, more intuitive, vivid, expressive and visual impact. In fact, color physiology and color psychological processes cross at the same time, which are both related and restrict each other. Examples of color and emotion are red, orange, yellow and brown are "warm" and blue, green and gray are "cold". Warm colors are exciting, joyful, exciting and radical; blue and green symbolize security, peace and peace; brown, gray and black are sad, depressed and melancholy. Soo Kobayashi, a Japanese literary critic, wrote in his chapter on Modern Painting, "Color is broken light, and the light of the sun collides with the earth, broken and scattered, thus making the whole earth form beautiful colors." [4] With the development of science, according to modern physics, color is a feeling that light stimulates the eye and travels to the visual center of the brain. Therefore, color integrated optics, physiology, psychology and other research fields have become a comprehensive cross-border topic in multi-disciplinary fields.

### 2.2. Meaning and Analysis of Color Psychology

The content of color psychology includes color perception, color association, color symbol, color emotion, color preference and other aspects, mainly on the color perception, emotion, preference and other aspects of the exploration. [5] Color itself is just a physical phenomenon, but people seem to feel the feelings of color, this is because people live in the world of color for a long time, accumulated a lot of visual experience, when perceptual experience and external stimuli occur a certain echo, will lead to a certain emotion in human psychology. Therefore, the correct use of color in our life, to create a better living space, the pursuit of high taste of the quality of life, is very important.

Positive color and negative color, in some oil painting is very, outstanding as in pop painting, with bold color, contrast color, solid color, widespread use let a person feel excited, has positive significance, in some paintings such as Picasso play the guitar man in this painting, mainly with black, black gray, plus some dark blue, the whole tone is heavier, give priority to with cold tone, to express the pain of melancholy emotion. The whole picture looks more negative. "The process of color feeling formation is eye intake light source color or object color, as nerve cell excited information, nervous system input brain optic nerve center, after its processing, and the brain stores a large number of color signal, determine the new absorption of color nature, at the same time produce color imagination, thinking and emotional psychological process." [6] Browse through a set of colors and get two experiences, respectively. The first experience, is the pure physical impression, the beauty of color and other characteristics, fascinating, the pleasure

experience, like a feast. [7] These are pure physical feelings, the duration is relatively short, with time migration, these physical impressions staying on the surface will disappear with the line of sight. The other is the psychological effect, but also the experience of young children in the process of understanding the world, when the color acts on people to produce a simple psychological sensing, This intuitive stimulation affects our thoughts, feelings, and emotions. In order to put the color of expression, visual effect and psychological effect of the most fully play, in order to give the eyes and mind fully happy, stimulation and enjoy the purpose of beauty, need to further study the spirit of color and emotion, is from the surface of intuitive physical induction developed for some psychological experience.

### **3. The Exploration of Children's Cognition and Development in Color Psychology**

#### **3.1. Characteristics of Children's Color Psychology**

Children's world is always colorful, colorful, in their eyes almost everything is beautiful and moving pictures, they look at everything in the world with a curious heart. With children as the main body of the color, from the children's accepted education to explore, the positive color is helpful to children's growth and mental health, can improve children's imagination and creative level, let children's thinking divergent. Studies have shown that: children in the fresh color of the color activity, will become relatively active and quick reaction, in the poor color of the room will be in a gray, depressed state, the reaction will be slow. [8] Children who prefer blue have selfish tendency, children who like red have strong personality, green children are docile and clever, and children who prefer yellow are too dependent... through children's color preference, can certain understand their personality. Children's psychological demand for color space is the intuitive first feeling, this feeling is what can cause people's emotional expression, to imagine a certain psychological function with color to convey the atmosphere of the whole space.

#### **3.2. Age Characteristics of Child Color Psychology**

Children color psychology thinks, the more bright colour, the more can cause the attention of children's attention, but according to the development characteristics of children different age, the attraction of color is not children born ability. Child color psychologists believe that about 80% of the information people get in the environment is transmitted to the brain through the visual system, and the perception of color is the key to visual activities, and those children who have a keen sense of color usually have a strong intuition about color recognition. Children in different age groups of color preferences and feelings are also different, children within the age of 3 like a little more pure color, bright colors can arouse their inner desire to learn. Children aged 3 to 12 prefer novel things and want to find something unknown by themselves. Full of vitality and curiosity, they like high brightness colors, such as yellow represents hope and light, which can make their inner world full of hope and vitality for the future life. 12-18 years old is adolescence, children's personality is relatively strong, many children will have rebellious emotions, the color cognitive ability is relatively mature they like some calm, contrasting colors, such as green, blue can let them have their own independent space.

#### **3.3. The Development of Child Color Psychology**

Children's visual organs in the external color stimulation at the same time, will automatically arouse the brain color memory, and the immediate color and visual experience in the past, through analysis, comparison, imagination, induction and judgment, form a new physical and mental experience or new ideas, the creative thinking process, namely "color association". If stand in the perspective of children's education, American child educator Victor Ron field and Swiss child psychologist Piaget agreed that children and adults have different ways of thinking, only follow the development characteristics of different stages of children, the targeted

education, to get better effect. [9] From the perspective of color, color is a key medium for children to understand and understand the world, Stanford university of human biology professor Robert oonstein believes that the key stage of human eye development visual ability, is the first six years from birth, using visual image can greatly improve children's attention and memory, and the cultivation of conscious color awareness, not only can help children establish the correct aesthetic, improve its appreciation level, but also can promote the comprehensive ability of other aspects. [10] Color is an important language and factor in children's psychological and physiological development, as well as also a prominent aspect of psychological functional performance. From the perspective of children's color psychology, through the comparison and coordination of color to better convey information, to attract children's attention, and strive to make children increase knowledge, develop intelligence, better understand the external world and their own purpose.

#### 4. Conclusion

In general, color acts directly on the mind. Color can convey emotion, and the life of the mind must be conveyed through the materialized medium. The way of color communication comes directly from the vision, and will also have a certain effect on children's physiology, psychology and understanding, thus affecting their overall cognition and development. Color has a great influence on human mental activities, children's color psychology is deeply rooted in the consciousness of things have unpredictable, it brings human common physiological mechanism and similar external stimuli makes the color is similar, also understand a person's heart provides a breakthrough, it needs more than its own external environment, get rid of control, color often appear wide without boundaries and not touch short and superficial impression. In today's society, children's education and cognitive problems, for different ages of children growth and development has a very important role from the perspective of color psychology design to children's growth environment, cultivate children's emotional cognitive ability, improve children's learning ability, to create a life learning is more comfortable environment.

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