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The Impact of Color in Animation Scenes on Emotional Expression

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Abstract: This paper delves into the intricate relationship between color and emotion in animation scenes. Drawing on the interplay between "scene" and "emotion" as discussed by Fan Xiweng in his work "Night Conversations in Bed", it elucidates the inseparable and interwoven nature of animation scenes and emotions, highlighting the pivotal role of color. In the section on the current state of research, the paper reviews three categories of existing studies on the relationship between animation scene color and emotion. It points out the limitations of these studies, which include a lack of systematic exploration of the interactive mechanisms between color and emotion, as well as insufficient research on the emotional expression differences of color across different cultural backgrounds and its innovative applications. The paper then provides a detailed analysis of the application of color in different types of animation scenes. For instance, it examines the use of bright and cheerful colors in children's animations and animations with unique cultural backgrounds, as well as the use of dark and gloomy colors in thrilling and fantasy animations. It explains how these color choices help to evoke different emotions and themes. Finally, the paper thoroughly analyzes the role of color in emotional rendering in animation scenes from two aspects: the expression of the protagonist's inner emotions and the rendering of the overall theme. It illustrates these points with examples from several classic animated films. This paper aims to further deepen the understanding of the relationship between animation scene color and emotion, and to provide more targeted theoretical support for the use of color in animation creation in order to better achieve emotional expression and thematic communication.

Keywords: animation; scene color; emotional expression; cultural background; emotional rendering

1. Introduction

Fan Xiwen of the Song Dynasty wrote in Nighttime Conversations by the Bed (Vol. 2): "'Whitehaired, years of illness; last night, the autumn chill. High winds strip leaves from trees; through the long night, I clutch my fur coat.' One line conveys emotion, the next depicts scenery. Thus, we know that scenery does not emerge without emotion, and emotion does not arise without scenery." This passage means that without emotion, one would not perceive scenery, and without scenery, emotion would not be evoked — indicating that scenery and emotion interact dynamically. In animation, scenes and emotions are similarly intertwined and inseparable [1]. Excellent animation scene design can resonate with the audience and amplify emotional impact, achieving a state of "emotion embedded in scenery, blending feelings and scenery". In animation scenes, color is an indispensable component, serving as the most intuitive visual element. Therefore, the expression of emotion in animation and the use of color in scenes are mutually reinforcing.

Based on existing research, scholars' studies on the role of color in animation scenes in enhancing emotions can be divided into three categories: The first category examines the application of color in animation scenes. For example: Li Na, in Exploring the Aesthetics and Emotion of Color in Animated Films, discusses the characteristics of color in animated films. Li Jiadai, in The Application of Color in Animation Scene Design, points out that color plays a crucial role in emotional expression within scene design. Through combinations of hue, brightness, and saturation, it can create different visual atmospheres and emotional effects. She also analyzes differences in color usage across national animation styles — Japanese animation pursues harmonious beauty, Korean animation emphasizes national cultural elements, while Chinese animation tends to use expressive techniques to convey emotion. These studies highlight the subjectivity and creativity of color in animation scene design, arguing that color is not merely an objective visual element but also an essential medium for designers to express emotion and theme [2].

The second category explores the relationship between animation scenes and emotion. For example: Feng Yuanzhang, in Emotional Appeal and Integration in Animation Scene Design, states that the artistic characteristics of animation scenes determine their unique emotional expression, with color serving as a key tool. Factors such as warmth, brightness, and saturation of colors can shape specific emotional atmospheres. Li Ning, in On the Emotional Impact of Visual Effects in Animation Scenes, further notes that the arrangement of scene structures and the use of color jointly influence the audience's psychological response, shaping their overall perception of the work [3].

The third category focuses on the interaction between color and emotion. Hou Junyi, in Analysis of Emotional Characteristics of Color in Animated Film Scenes, uses Spirit: Stallion of the Cimarron as a case study to analyze how color influences narrative. He argues that color is not merely visual decoration but a tool for emotional expression, conveying specific emotional messages through its symbolic meanings. Shi Juan, in Research on the Emotional Expression of Traditional Chinese Colors in Animation Creation, approaches the topic from a traditional Chinese perspective, analyzing how colors express emotion in animation [4]. However, her study focuses more on the application of traditional artistic colors rather than their emotional impact. Sun Huangyao, in The Influence of Animation Scene Colors on Audience Mood, examines how scene colors affect viewers' emotions. She notes that traditional Chinese colors not only carry rich cultural connotations but can also, through their combinations and applications, evoke specific emotional atmospheres — such as joy, sorrow, or tranquility. She argues that the use of color in animation is not just about visual presentation but also about conveying cultural emotions.

From the above research, although numerous studies have explored the application of color in animation scenes and its emotional functions, current research still has certain limitations. On one hand, most studies focus on theoretical analysis or case studies, lacking a systematic investigation into the interaction mechanisms between color and emotion. On the other hand, further research is needed on the differences in emotional expression across cultural contexts and the innovative applications of color in animation creation.

2. The Application of Color in Different Types of Animation Scenes

Color refers to the specific feelings, meanings, and psychological reactions that people have attributed to different hues through long-term human practice and perception. Animated films often utilize the emotional power of color to influence the audience's psychological state, evoke resonance, and immerse viewers more deeply into the story. As the most intuitive visual experience, variations in color across different animation scenes create distinct visual effects, enhance emotions, and influence the audience's mood. An outstanding animated work should employ unique color schemes to complement its theme, amplify scene impact, and shape viewer emotions, thereby reinforcing the film's central emotional message [5].

Color films emerged after the 1920s, marking the "second revolution in film history". As a form of cinema, animation's color development has been profoundly influenced by the evolution of color in film. The Russian painter Ilya Repin once said, "Color is emotion. Different colors or different applications of the same color can evoke varied emotional responses while producing similar emotional effects." The resonance that color creates stems from people's accumulated life experiences in a world filled with hues. Visual stimulation from color can trigger corresponding emotional experiences, and based on these, color acquires symbolic and metaphorical functions. Human emotions and temperaments — such as liveliness, passion, evil, horror, nobility, and vulgarity — can all be expressed and conveyed through color [6].

In animated films, scenes primarily refer to the spaces and timeframes in which characters operate. In scene design, color not only enhances atmosphere and highlights subjects but also conveys the animation's style. Different types of animations employ different color schemes [7]. Color and emotion are inseparable in animated works; appropriate scene color settings can fully express the animation's style, complement the plot, convey emotions, and elevate the theme, delivering a profound psychological impact and resonance to the audience [8].

2.1. The Application of Bright and Cheerful Colors in Animation

Children's animated series often feature vibrant color designs, primarily because the exaggerated, lively character designs and bright hues strongly appeal to young viewers. Most children are naturally drawn to vivid colors — they enjoy using colorful crayons and are fascinated by multicolored flowers. Accordingly, children's animations incorporate rich, varied color palettes to match their preferences. Examples include Pleasant Goat and Big Big Wolf and Peppa Pig (Figure 1).

Figure 1. Pleasant Goat and Big Big Wolf and Peppa Pig.

In December 2017, Pixar Animation Studios released the enchanting adventure film Coco (also known as COCO). Inspired by Mexico's Day of the Dead, the movie tells the story of Miguel, a music-loving boy, and Héctor, a down-on-his-luck musician, as they embark on a magical journey through the vibrant Land of the Dead. The film's visuals are rich with saturated colors, particularly in the artists' rendering of the Land of the Dead — a place devoid of gloom, instead portrayed as a bustling, lively world brimming with energy and unique visual flair (Figure 2-A). In contrast, the Land of the Living is depicted with sun-bleached, warm hues to emphasize its vitality and create a striking juxtaposition with the colorful Land of the Dead. The result is a cozy, sun-drenched village that feels inviting and full of life (Figure 2-B).
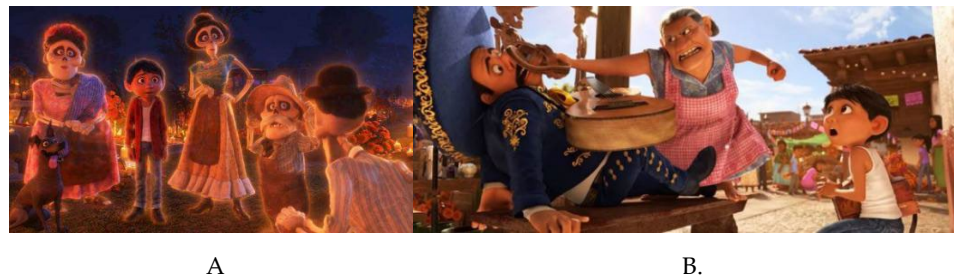
A   B.

Figure 2. Enchanting Adventure Film Coco.

In traditional Chinese animation, the use of color in scenes not only incorporates elements of Chinese cultural heritage but also skillfully conveys the intended emotional and artistic atmosphere to the audience. The carefully chosen color schemes enhance the film's artistic qualities and emotional depth through visually striking animated effects. Works such as "Pigsy Eats Watermelon", "The Ginseng Baby", and "The Story of Chinese New Year's Eve" exemplify this traditional aesthetic. Their color palettes are not merely decorative but also embody simplicity and strong stylistic symbolism, highlighting the poetic beauty of Chinese painting [9]. This approach effectively amplifies the emotional themes of the animations while showcasing the essence of traditional Chinese artistry (Figure 3).

Figure 3. Traditional Chinese Animation.

2.2. *The Application of Dark and Gloomy Colors in Animation*

The stop-motion film Coraline is a dark fantasy thriller that follows the story of a curious young girl named Coraline who discovers a mysterious door in her new home, leading her to an alternate, seemingly perfect parallel world. While this fantastical realm initially appears similar to her own reality, the "Other Mother" in this world treats Coraline with far more warmth and affection than her real mother. However, this seemingly kind figure harbors a sinister ulterior motive. The film employs a muted, grayish color palette to depict the bleakness of the real world (Figure 4-A), while the fabricated world is rendered in vivid, warm hues (Figure 4-B). This stark contrast visually emphasizes the deceptive allure of the alternate reality, drawing both Coraline and the audience into its false sense of comfort and security.

A   B.

Figure 4. The Stop-Motion Film Coraline.

"Corpse Bride" this film tells the story of a young man named Victor, whose parents arranged a marriage for their son, with the fiancée being Miss Victoria from a declining

noble family. Victor is introverted and sensitive, not good at expressing himself, so on the eve of the wedding he went to a small forest to secretly practice the oath ceremony. However, an accident happened. When he put the ring on what seemed to be a tree branch on the ground, he was shocked to discover that the branch had actually turned into a rotting finger! Before Victor could recover from the shock, the earth shook and a corpse bride suddenly appeared before his eyes. And this rotting finger was actually growing on her body. The corpse bride sincerely said that she was Victor's lawful wife. Because the film involves zombies, the overall tone of the film is mainly gray or black, creating a depressing atmosphere of death (Figure 5-A). The image of the human bride in the film also appears terrifying under specific color contrasts. The bride's wedding dress is originally white, which shouldn't be scary or not scary, but in the film this terror is precisely set off by some colors around the protagonist. In the film, the protagonist and the corpse bride receive blessings from a group of skeletons in hell, and the overall color also uses a strange green to set off the feeling of hell. Although it should be a celebratory moment, because of the different location and the illumination of the green hell light, the whole environment doesn't give people a warm and happy feeling, and the eerie scene is very successfully created (Figure 5-B).

A   B

Figure 5. Corpse Bride.

3. The Enhancement of Emotions through Color in Animation Scenes

3.1. The Enhancing Effect of Color in Scenes on the Emotional Expression of Protagonists

In animated films, the psychological changes of characters evolve along with the development of the plot. As the most direct and impactful visual element in animation, color plays an extremely important role in portraying the emotional fluctuations of the protagonist. The personality traits of the protagonist can be expressed through color, allowing for a deeper, more vivid, and fuller depiction of their inner emotions.

The Disney animated film Tangled tells the story of a long-haired princess who escapes from a tower where she was imprisoned by a witch and experiences the world outside. When the princess first escapes the tower and encounters this entirely new world, she cannot contain her excitement and exhilaration [10]. On one hand, she longs to break free from the witch's long-standing control and yearns for a beautiful world; on the other hand, she fears that her escape will provoke the witch's fury. The princess is torn by inner conflict. The scene employs bright and vibrant yellow-green tones (such as grassy elements) in some areas and low-saturation dark blue tones (such as nighttime or shadowy corners) in others, creating a stark contrast that highlights the protagonist's conflicted emotions — her yearning for the outside world and her fear of reprimand (Figure 6).

Figure 6. The Disney Animated Film Tangled.

In the film My Neighbor Totoro, there is a scene where the elder sister Mei, concerned that her father returning from work might get caught in the rain, waits at the bus stop with her younger sister and an umbrella. Mei stands under a dim and yellowish street lamp waiting for her father. Throughout this sequence, the contrast between yellow and black colors is evident. This series of color changes in the scene serves two purposes: on one hand, it subtly conveys the loneliness of Mei and her younger sister Satsuki, while on the other hand, it effectively communicates the deep attachment both sisters feel toward their father (Figure 7).

Figure 7. My Neighbor Totoro.

3.2. The Enhancing Effect of Scene Colors on Thematic Emotions

Colors in scenes can not only express the protagonist's inner emotions but also enhance, intensify, and underscore the thematic emotions of animated films. While watching animated films, viewers' emotions fluctuate with changes in scene colors as the plot develops. Through the enhancement and intensification of scene colors, audiences can better immerse themselves in the film's storyline, which aids in expressing the animated work's thematic emotions.

The film Princess Mononoke, created by Studio Ghibli in 1997, explores the relationship between humans and nature. The movie depicts contrasts between black smoke emitted from forging sites and the blue sky, as well as between bare land after deforestation and lush vegetation in forests, all reflecting humanity's endless exploitation and destruction of nature. Hayao Miyazaki's works consistently strive to establish themes of survival, purification, and love, evoking feelings of utmost purity and sincerity. He often employs extremely pure colors to highlight the emotions expressed in his works. In numerous films such as Ponyo on the Cliff by the Sea, Castle in the Sky, and Howl's Moving Castle, the skies in animated scenes are rendered in exceptionally pure blue without any impurities, creating an extraordinarily clean and calming effect that starkly contrasts with the gloomy skies of modern metropolises. This color scheme accentuates the quintessential purity and sincerity characteristic of Miyazaki's works (Figure 8).

Figure 8. The Film Princess Mononoke.

4. Conclusion

As a crucial visual element in animation scenes, color maintains an inseparable connection with emotional expression, with the two elements interacting and complementing each other. This paper has conducted a thorough analysis of color's role in enhancing emotions in animation scenes, beginning with Fan Xiwen's theory regarding the interrelationship between "scenery" and "emotion", extending to the integration of animation scenes and emotions, followed by a systematic review and analysis of existing research, and finally exploring the application of colors in different types of animation scenes.

The vibrant and bright colors employed in children's animations and culturally distinctive works, as well as the sophisticated use of somber and gloomy hues in thriller and fantasy animations, all fully demonstrate color's pivotal function in creating atmosphere, conveying emotions, and highlighting themes. Moreover, through in-depth examination of how scene colors amplify both the protagonist's inner emotions and the thematic emotional content, this study further substantiates color's significant position in emotional transmission within animation.

Nevertheless, current research still presents limitations. Future studies should conduct more systematic and profound investigations into the interaction mechanisms between color and emotion, pay closer attention to cultural variations in emotional expression through color, and explore innovative applications in animation production. Such efforts will enable animators to utilize colors with greater precision, thereby creating works with enhanced emotional resonance and cultural depth. This approach will allow audiences to not only enjoy visual stimulation but also deeply comprehend the emotions and themes conveyed by the works, ultimately promoting the advancement and flourishing of animation art.

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