

Research on Visual Perception Principles in Sustainable Fashion Brand Symbols

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Abstract

Brand symbols are one of the important ways to influence consumer purchasing intentions by conveying brand information. While ensuring consistency in design style, the application of visual perception theory in symbol design emphasizes consumers' visual judgment and psychological responses to the symbols. This paper explores the uniqueness, form, and significance of visual perception principles in sustainable fashion brand design, based on users' perception laws of graphic visual perception and Gestalt psychology. Guided by Gestalt psychology theory, this paper analyzes human perceptual psychology and the laws of visual perception of objects, revealing the relationship between visual information and consumer psychological activities in the symbol design process. By examining actual cases of sustainable fashion brand symbols, the paper explores the Gestalt correspondence rules between symbol design and user psychology. Based on Gestalt psychology's visual perception principles, this study verifies the feasibility of applying visual perception in symbol design, providing theoretical guidance and practical reference for sustainable fashion brand symbol design. This helps brands better convey their core values of environmental protection and social responsibility through visual communication.

Keywords

Visual Perception; Brand; Symbol; Gestalt Psychology.

1. Introduction

Brand symbols serve as a fast track for conveying brand information, an effective way to enhance brand value and increase customer loyalty, a practical means to rationally save on communication costs for enterprises[1], and a trend-oriented summary of the development direction of enterprises. Through a powerful approach, brand symbols establish memory points for the target brand in the consumers' psychological cognition, and their intensity, persistence, and clarity are influenced by design forms and consumers themselves.

For sustainable fashion brands, symbols not only need to convey a sense of fashion but also reflect core values such as environmental protection and ethical consumption, making the brand more visually recognizable and demonstrating its social responsibility. To assess the high recognition of a brand symbol, the principles of visual perception can be used to guide the design. In psychology, visual perception refers to the ability to interpret and utilize the visible light information received by the eyes, involving two stages: visual reception and visual cognition. Various components of visual perception, such as visual attention, visual memory, figure discrimination, and visual imagination, determine how consumers receive, understand, and remember information. For sustainable fashion brands, visual perception not only helps consumers quickly identify and understand brand symbols but also further strengthens the transmission of environmental protection concepts and sustainable development information. Therefore, integrating the principles of visual perception in the symbol design process can

enhance the clarity and memorability of the sustainable fashion brand image and increase brand recognition.

In today's society, the channels for obtaining information are expanding rapidly. As the speed of information interaction enters an accelerated explosion period, breaking through the encirclement of the overwhelming number of homogeneous brands has become an important prerequisite for the development of sustainable fashion brands. Therefore, how to establish brand symbols with high recognition, thereby endowing them with added value beyond the practical value of the products[2], is a contemporary topic related to the core competitiveness of sustainable fashion brands.

2. The Correlative Influence of Visual Perception on the Symbol Recognition Degree of Clothing Brands

2.1. The Process of Consumers Recognizing Symbol Information from the Perspective of Visual Perception

Max Wertheimer first mentioned "Gestalt psychology", a psychological principle that studies human visual perception phenomena. It proposes that "vision is not a mechanical reproduction of elements, but a grasp of meaningful overall structures", which explains that consumers have a processing process when reading information through vision, and this process is subjective and gives their own understanding to reality. The formation of this overall structure can be simplified into three basic steps from the perspective of consumers' recognition of brand symbols, as shown in [Figure 1](#) : ① Consumers view the symbolized brand as a whole and simultaneously make rapid visual comparisons of multiple properties of the symbol to make visual judgments. In this step, these comparisons have no sequence, and consumers make rapid simultaneous judgments in their brains to obtain a simplified overall concept. ② Based on their own experience, they complete the obtained summary information. This completion behavior is the superimposition of their own experience and associative ability, including the understanding of information metaphors, the completion of concepts, the generation of positive/negative emotions, or the generation of brand recognition. ③ They generate potential memory of the information perceived by this symbol. When they observe the same or similar graphical symbols later, they instinctively make comparisons and participate in the new round of reading and information completion as an experience[3].

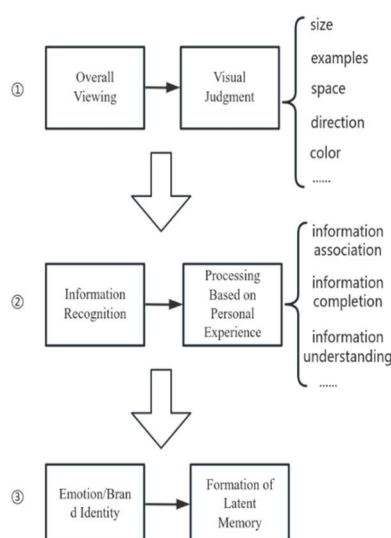


Figure 1. The Process of Consumers' Recognition of Brand Symbolic Information in Gestalt Psychology

2.2. Psychological Phenomena Analysis of Visual Perception Principles

Visual perception, as an early form of intuitive psychology derived from the Gestalt school, is the ability to interpret visible light information reaching the eyes and utilize it for planning or action. In the minds of psychologists, perception differs from sensation[4], as sensation relies on instinctive reactions, while perception involves psychological responses[5]. As a type of perception, visual perception is related to the brain's comprehensive analysis of visual information. Rudolf Arnheim mentioned in "Visual Thinking" the relationship between vision and perception, arguing that vision contains thinking, and this cognitive activity is internal to perception and inseparable from it, which is related to the mechanism of vision generation.

After light reaches the retina, it first stimulates visual nerve cells, which convert light signals into biological signals and continue to transmit them to the brain. These signals are restored into images in the brain and, through extremely complex processes such as human experience, memory, analysis, judgment, and recognition, form vision, creating concepts of object shape, color, etc. in the brain. Therefore, visual perception consists of two parts: visual physiological reception and visual psychological cognition.

Based on this principle, new understandings can be established for art based on sensation, design based on human painting, and clothing based on expression, each with its own domain. More importantly, symbol design based on creation can derive effective methodologies from the study of visual reception and visual psychology, making it operational.

3. The Process of Shaping Symbolic Information of Clothing Brands based on Visual Perception

3.1. Balance Shaping

Only by achieving visual balance in the flattened symbolic images can the information that the brand intends to convey be transformed from a vague concept into something clear and easily understandable. Conversely, symbols that fail to achieve visual balance give people a sense of ambiguity, indistinctness, and incompleteness. Such ambiguous expressions are not conducive to consumers' recognition and memory of the brand's intended messages, such as brand content and brand philosophy. At the same time, this imbalance can create a psychological "force" in the consumer's mind, which, although different from physical force, still has a certain direction and magnitude, and is likely to cause a sense of confrontation among consumers.

To ensure that brand symbols have balance, when designing, it is necessary to consider the combination and arrangement of design elements from multiple perspectives such as size, color, and direction, making the unit elements that the brand needs to express distinct and differentiated, providing visual stimulation to consumers. When analyzing and associating in the brain, they have a clear perception and generate unique brand memory points. Therefore, to directly express meaning through form, it is necessary to establish a clear and definite visual force structure in the symbolic graphics to achieve perceptual balance [6].

3.2. Structural Simplification Shaping

Simplifying the presentation form of symbols can enable consumers to receive, judge and process the conveyed information more efficiently when viewing them. Compared with complex structures, simple forms have a greater ability to make viewers feel logical and orderly, which is in line with the requirement that brand symbols need to have high distinctiveness and be easily recognizable. At the same time, subjective simplification and objective simplification are two different concepts.

When simplifying brand information into visual symbols, it is necessary to pay attention to the amount of picture elements included. This quantity not only refers to the number of elements but also has a high correlation with the symmetry of the elements. Whether they are

symmetrical, the direction of symmetry, and the distance from the center of symmetry to the edge will all affect the total amount of elements. In other words, discarding the expression of multiple structural features and determining the core of the conveyed information is the control of the sense of order and regularity of the overall symbol picture, which is an important part of brand symbol creation.

At the same time, this structural simplicity is directly related to the transmission of complex brand information. Simple forms can still accurately and completely express complex or even obscure meanings. This form of simplification achieves the unity of readability and legibility while transmitting efficient information.

4. The Formative Generalization of Visual Perception Applied to Symbol Design of Sustainable Fashion Brands

4.1. Heterogeneous Isomorphism

Heterogeneous isomorphism occurs when the forces and form structures produced by different elements in a symbol tend to be consistent, and people form a positive aesthetic psychology under visual perception activities [7]. This is manifested in brand symbols where the symbol's framework is fixed, and the elements filled in, such as color, lines, texture, etc., change. Columbia is an outdoor brand with a long history. It started by producing raincoats and rain hats and has developed into one of the world's largest outdoor clothing brands through continuous development of outdoor sportswear and high-tech fabrics. Since its establishment in 1938, Columbia has been committed to innovation and environmental protection, reducing its impact on the environment and protecting natural resources through various means. [Figure 2](#) shows the logo of the brand Columbia.

The graphic part of the Columbia logo can be simplified into a 45-degree tilted square, which is linearly divided into four squares in the middle. Then, elements that the brand wants to express are added to represent the image of weaving. Each square is divided into two top corners and long strip graphics with added arcs are added. The addition and combination of these internal graphics and lines still maintain the original geometric square structure, and the establishment of the framework and the force of the internal elements reach a balanced state, conveying a firm and powerful visual image to the viewer. This is precisely the manifestation of visual perception heterogeneous isomorphism.



Figure 2. logo of Columbia

4.2. Completeness

Gestalt psychology is also known as the psychology of form. Under the principle of visual perception, due to the physiological mechanism of human vision, when the human senses are stimulated by light and receive symbolic information, if the existing experience does not match the pattern seen, a "filling phenomenon" will occur. This phenomenon is not controlled by human subjective initiative but is naturally generated in the subconscious. Therefore, this psychological phenomenon can be well applied in the design of some logos, such as implied shapes, etc. This approach is often presented in clothing brand symbols through several forms such as figure-ground relationship, tangency, repetition, overlap, combination, coincidence, and exaggeration.

Banana Under is a Chinese brand that focuses on sun protection technology and innovative design, founded in 2015. The brand name "Banana Under" is derived from the word "banana", symbolizing that the brand is as fresh and natural as a banana, and its design concept adheres to the respect for nature and the pursuit of a comfortable life. Banana Under is committed to providing consumers with high-performance, fashionable, and comfortable sun protection clothing and equipment, aiming to help people better resist ultraviolet radiation and enjoy outdoor activities. Figure 3 shows the logo of the Banana Under brand.

The logo of Banana Under uses black segmented color blocks and the blank space in the picture to prompt the viewer to fill in the shape of the blank space in their mind and associate it with the shape of a banana leaf. This associative behavior increases interest and enhances the impression, allowing consumers to establish a memory point for the brand.



Figure 3. logo of Beneunder

4.3. Personification

Consumers sometimes view brands in a way similar to how they view people.[8] In the field of social psychology, the Stereotype Content Model (SCM) regarding interpersonal perception suggests that individuals' perceptions of groups tend to have fixed tendencies in terms of "competence" and "warmth". The "competence" perception mainly reflects individuals' evaluations of a social group's creativity, skills, intelligence, and confidence, while the "warmth" perception mainly reflects individuals' evaluations of a social group's friendliness, enthusiasm, sincerity, and trustworthiness[9-10].

The impact of brand personification on consumers' purchase intentions[11]. For instance, Zhong Ke and He Yun demonstrated that the personification of element brands can accelerate the dissemination of information, enhance consumers' understanding of the information, and thereby increase purchase intentions. Lee and Oh [12] found that personified interaction can enhance consumers' perception of enthusiasm, leading to higher purchase intentions.

In summary, brand personification refers to the use of personification marketing strategies by enterprises to endow brands with human-like appearances, actions, and expressions, allowing them to exist and develop as "people". It has the functions of making brands more concrete, vivid, and beautiful. There are mainly three benefits of brand personification: first, it makes the brand image more vivid and helps consumers understand the brand; second, it promotes communication with consumers and gains brand recognition; third, it establishes a connection with consumers and meets their social needs. Currently, brand personification has developed into an important marketing tool and has received extensive attention from both the industry and academia.[13].

Save the Duck is a sustainable fashion brand headquartered in Italy, founded in 2012. The brand is renowned for its innovative down-free jackets and is committed to producing environmentally friendly and fashionable clothing. It particularly focuses on materials that can replace traditional down and advocates the "zero animal" concept, always maintaining a high level of social responsibility.

Figure 4 shows the logo of the brand Save the Duck, which personifies the brand image as a singing duck. This aligns with the brand's sustainable positioning of saving ducks and conveys a humanized "lively sense", bringing the brand closer to consumers.



Figure 4. logo of Save the Duck

5. The Significance of Sustainable Fashion Brand Symbol Design Following the Principles of Visual Perception

5.1. The Information Impact Force of Sustainable Fashion Brand Symbols is Enhanced

If the principles of visual perception are followed in the design process, sustainable fashion brands often comprehensively consider the overall relationship among elements such as color, size, and dynamic state in symbols, and enhance the expressiveness of information by coordinating these "perceptual elements". When constructing patterns, designers consciously clarify and stratify elements, and create moderate visual conflicts at key visual points, especially in the design along the "skeletal structure lines" or the main lines of composition. For instance, by using techniques such as sharp color contrasts, size contrasts of elements, and the movement trends of graphics, not only is the visual tension of symbols enhanced, but also their information presence in the eyes of the audience is strengthened. This impact enables consumers to capture the core visual information of sustainable fashion brands in a short time and quickly establish cognitive connections with their existing experience systems, achieving information completion and the generation of new memory points. From the perspective of brand communication, this instantaneous strong sensory stimulation and cognitive activation can effectively enhance the recognizability and memorability of sustainable fashion brands, thereby increasing brand awareness and promoting the improvement of customer loyalty.

5.2. Information Persistence of Sustainable Fashion Brand Symbols

From the perspective of enhancing the information persistence of sustainable fashion brand symbols, symbols themselves possess a unique language. When fashion brands design symbols, by integrating visual perception elements, they are actually optimizing their symbolic language. By enhancing the visibility of symbols, design can effectively prolong the viewer's gaze time, allowing the symbols to form a more profound impression in the consumers' consciousness. This design not only may cause the symbols to repeatedly emerge in the consumers' minds but also may leave a deep morphological memory in their subconscious. This enhanced persistence of symbolic information has a significant impact on brand recognition and development, creating a sustained cognitive advantage in the brand communication process.

5.3. Enhanced Brand Recognition of Sustainable Fashion Brand Symbols

A successful brand visual symbol can effectively integrate and strengthen consumers' identification with the brand. From the perspective of visual communication and visual perception, when consumers see a harmonious, clear, and layered brand symbol with a sense

of order, this symbol can clearly present the core features of the brand, prompting the audience to form a common understanding of the brand [14]. Consumers' brand identification often stems from their personal emotional projection onto the brand, and this sense of identification is closely related to the gestalt and personification characteristics of the symbol. Symbols can evoke emotional projections, triggering immediate or long-term psychological responses in consumers. When consumers encounter brand symbols that meet their aesthetic standards, they may become interested in the story behind the brand and identify with its positioning. These reactions not only convert potential consumers into actual customers but also enhance the brand's affinity and further increase brand recognition in the process of improving brand loyalty.

6. Summary

Essentially, a brand is a cultural construct that acts on the psychological level of consumers, and the brand symbol is the most direct visual carrier of this psychological effect. It establishes a strong information interaction channel with consumers through recognizable visual actions. The theory of visual perception provides a psychological basis for this interaction process, revealing the physiological and psychological laws of human information acquisition, thereby offering theoretical guidance for the design of sustainable brand symbols.

In the process of symbol design for sustainable fashion brands, the application of visual perception mainly lies in the balanced shaping and structural simplification of symbol information. Through the organization and integration of visual elements, the design can present forms such as heterogeneity and homology, gestalt, and personification, making the symbol not only convey the concept of sustainability but also have stronger information impact and longer-lasting memory. This design strategy not only enhances consumers' attention to the brand and sensory memory but also further boosts brand recognition.

At the same time, as the carrier of cultural symbols, brand symbols are constantly evolving with changes in cultural context and consumption trends. When sustainable fashion brands construct visual symbols, they must combine the semantics of the times and social values, and choose design methods that align with the core concepts of sustainable fashion brands to achieve the unity of modern visual expression and cultural depth, continuously enhancing the brand's communication power and influence.

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