

# The Application of Visual Illusion in the Visual Communication Design

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**Abstract.** With the development of our national reform, opening up and modernization, the science and technology has also been well developed and it has been applied in every wall of life, the development of visual illusion industry is represented in the widespread use of advanced technology in it. Ultimately, the visual illusion is a phenomenon, it should be analyzed from the angles of physics and philosophy. The widespread application of visual illusion not only can improve the picture quality, but also could maximize peoples' sense degree through the visual communication design works, expand people's horizons and promote the diversity of visual communication design works.

## 1. Introduction

In the new era of technology which being more and more developed, now increasingly, the visual communication design has appeared in our life, to be specific, the visual communication design is a design to send some messages to spectators through visual media. It is "a design for all to appreciate and it is formative one". But for explaining why would the visual illusion phenomenon exist, after all, it might all come down to this principle, in short, that is human eyes can consciously balance what they see, and this kind of balance would lead to the visual illusion. For example, the background around the black one would be brighter, and that around the white would be darker. Therefore, applying this visual illusion in the visual communication design works.

### 1.1. The concept analysis of visual illusion

The visual illusion, it is not hard to understand from the literal, the visual communication designers utilize some techniques of expression to show figures and pictures through abnormal forms in their specific works. The process of formation of illusion in vision is actually a process of "the figure itself produces ambiguity", that also is a misconception of people to those external objects.

## 2. The manifestation of visual illusion in the visual communication design.

The visual illusion occupies a significant position in the visual communication design, in view of the novelty and innovation, its advantages are obvious [1]. The widespread application of visual illusion is conducive not only to improve the vitality and figurativeness in visual communication design, but also to meet the basic needs of spectators to the works' artistry and novelty. The visual illusion has abundant manifestation forms in visual communication design, in the process of studying and analyzing it, we should study it from different aspects and viewpoints, and that it would deepen our understanding to the visual illusion in the visual communication design, and we can give the spectators the works with a mighty sense of vision impact and novelty, then to accelerate the development of our country's visual communication industry.



### *2.1. The manifestation of visual illusion in figure creativity*

In the process of designing some specific works of visual communication. The proper utilization of creativity of figure is conducive to the application of visual illusion phenomenon. As we know, the work that visual communication design, its figures normally are shown by a pattern of planar space, for this situation, if applying the visual illusion in its plane figure, some unexpected results and experience would be presented skillfully. In particular, there are different aspects of manifestation in the figure creativity, the next sections would expound it systemically.

*2.1.1. The isomorphic visual illusion of graphics.* For visual illusion, isomorphic image is a creative manifestation, analyzing it from the angle of concept, generally speaking, it is an operation to make isomorphic of images for those elements with internal characteristics and common features, integrate them systematically to become a new image to appear in the eyes of spectators. For example, in the display of some concrete works, the metal display object can be replaced by opposite material, for wooden one. Putting some leaves and fruits on the wood, this could enhance their visual enjoyment and experience provided that they would create an illusion. Therefore, from the view of isomorphic, the visual illusion plays an important role in visual communication works.

*2.1.2. The visual illusion graphics with its background reversion.* Apart from the above the isomorphic in visual illusion, the manifestation of graph background reversion are common, in the process of practice, it has strong practicality and operability. About the graph background reversion, the graph is that we knew, background means something against the figure, as we all know, in the concrete visual communication design, the graph and background are mostly not separated. In a sense, the graphic background reversion is exchanging each position and sequence, making them become one manifestation with common features, that is easy for spectators to form an impressive effects and experience when they appreciate the works [2]. So the graphic background reversion is irreplaceable in the presentation of visual communication design works, we need to take highly of its application.

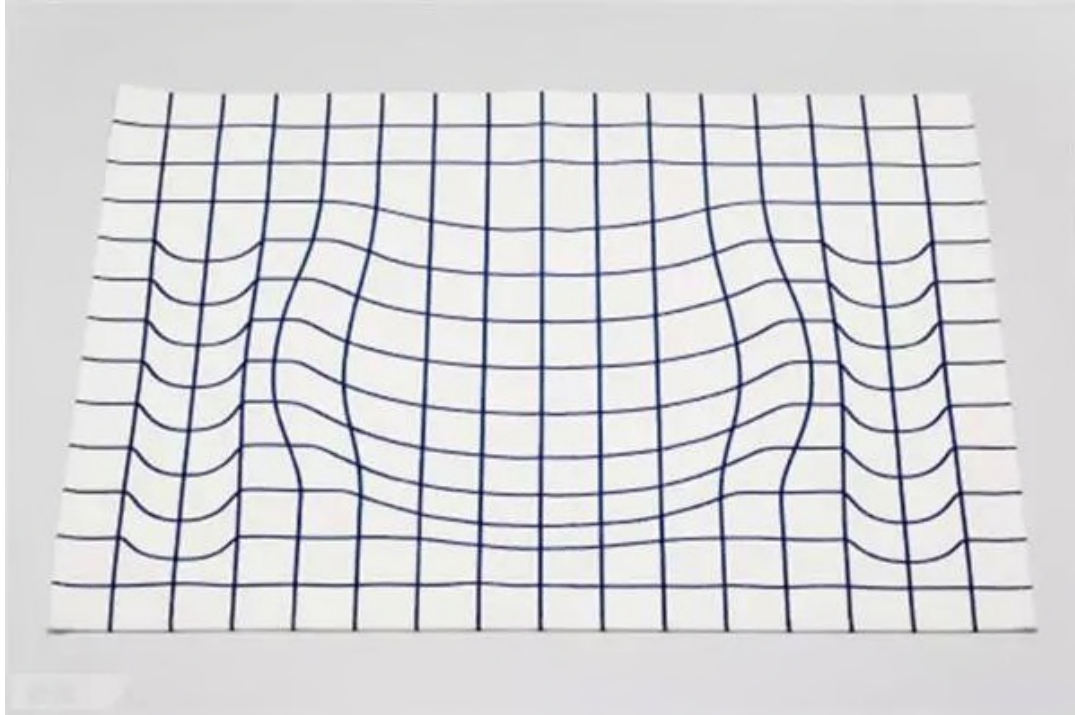
*2.1.3. Multidimensional visionary visual illusion graphics.* The multidimensional visionary visual illusion graphics is related to the dimensionality and space in the concrete manifestation forms. Generally speaking, the graphics and matters that we see are all two- dimensional, however, applying the multidimensional visionary patterns in works reasonably and efficiently can realize the three - dimensional even four - dimensional visual enjoyment and experience. For two- dimensional space, using the basic principle visual illusion and its manifestation form to break through its inherent setting and forms, then fully combine with active visual language, integrate those disorder matters together, and to present something with both internal thinking logic and a certain content to spectators, thus to produce illusion. Hence, multidimensional visionary manifestation are vital to the graphic creativity, it not only make spectators feel something different, but also promote spectators receive the designers' emotion when they appreciate the works, and enhance their experience and feelings on works, so to promote our visual communication industry's progress and development.

### *2.2. The manifestation of visual illusion in color application.*

In our daily life, there exists a rich of colors, in the visual communication works, the selection of hue is also an art, and the requests to colors are varied for different visual communication works. This also requires designers must have a basic understanding mastery of color and hue in practice. For bright colors would give people a sense of free and easy, but dark color would make people fell heavy. Similarly, the application of visual illusion is the same as it. In general, it can be divided into the illusion application of color visual communication which caused by color itself and one of contrasts between colors.

*2.2.1. The illusion application of color in visual communication which caused by color itself.* In terms of classification of colors, there exists many colors in our life, what's more, thinking on the hue, the color can be divided into "cold-warm" and "bright - dark". On this level, the manifestation content of its hue and the design of visual communication are combined together is benefit for designers to apply

visual illusion into the works [3]. The concrete principle of application is to match those different hues to hit the vision, and make it create an illusion. Such as, in our daily life, we all know one in black looks thinner than in white, actually, that takes advantage of the visual illusion phenomenon between colors see below.



**Figure 1.** Visual Illusion Pictures.

*2.2.2. The contrasts between colors.* Apart from the above visual illusion phenomenon which caused by color itself, there is also one caused by the contrasts between colors. The contrast technique is not only commonly used in literature, but also is widely used and of core value in aesthetics. When presenting a work, there are some essential differences between using color contrast or single color on its representation effects. For instance, matching the black with red, yellow and golden, not only can create a visual impact, but also maximize its function to against the dominant hue. This shows different color contrast can bring different visual experience and feelings to people.

### *2.3. The manifestation of visual illusion in the graphic design*

The basic manifestation of visual illusion can be transformed to a concrete manifestation by graphic design. In the new era of China's socialist modernization, under the tendency of economic globalization, the whole society develop in the trend of multiplication, hence, people put forward higher requests for enjoying concrete visual communication works, the designers would combine with some arbitrary and spontaneity elements in the process of adding elements, integrate them into a visual sign to present to spectators, this process is a process completing graphic design. For example, in modern works, adding some traditional elements or things would take people to another state, and through making creative combinations on the graphic to achieve the perfect performance.

### **3. The meaning of the widespread use of visual illusion in visual communication design**

The widespread application of visual is vital to the charm showing and expression of emotion of visual communication design. For it can not only improve the levels and aesthetic perception of works, what's more, it can realize more visual impact aesthetics and mental or physical experience by some simple operation. Therefore, designers should become better acquainted with the visual illusion, widely apply them to improve the visual communication works' quality when they design concrete works.

### *3.1. The analysis and research based on the meaning of visual impact.*

In the socialism market competition, the works of visual communication are very common, and all levels of works exist in the market. Most visual communication designers always apply some traditional techniques and skills of expression when they design works, that is easy to cause visual fatigue to spectators. In this case, skillfully applying the visual illusion can relieve spectators' long term visual fatigue [4]. Making full use of visual illusion not only can cause giant impact on their vision, but also can give a shock to them, thus to enhance appreciation effects.

### *3.2. The analysis and research based on the meaning of graphical simplification function*

For graphical simplification, it is, in essence, not a simple operation to simplify the graphs, but to show the nature of the concrete object by the manner of simplifying implementation according to it. To present the profound truth on the basis of simplification. Hence, the widespread use of visual illusion has a great influence in the graphical simplification.

### *3.3. The analysis and research based on the meaning of improving graph's space sense*

In the above discussion, we have actively discussed the two-dimensional space of gray, with the continuous improvement of people's aesthetic requirements, so the two-dimensional space cannot fully satisfy the basic needs of spectators. Therefore, to apply visual illusion skillfully, you can make fully use of some methods and skills to excavate three-dimensional space even the four-dimensional space, so as to present more comfortable works to spectators on the basis of increasing its sense of layer.

## **4. The analysis and research on application strategy of visual illusion in visual communication design.**

### *4.1. The application analysis of visual illusion based on the angle of communal shape*

From the point of communal shape, the basic application of visual illusion is to integrate those graphs with different properties, so as to achieve the final result. That is to say, adopting the communal partial shape or edge to create a new implementation model, and this new graphs may show something different by visual illusion.

### *4.2. The application analysis on visual illusion from the angle of graphics transformation.*

For a graph, if it is analysed from different angles and different effects would be gotten. In other words, to transfer the background of graph and the implementation itself, and on this basis, to apply hyperspace to effectively present the object of works.

## **5. Conclusion**

In the new era, while the society and economy is being developed constantly, the technology is also being improved continually, in this circumstance, the manifestation forms of visual communication design appear in public become more widespread. In the process of its development and progress, the appreciation needs of spectators become higher and higher, and designers' design level are being improved continually. Combining visual illusion with visual communication design works is conducive not only to improve the levels of designers, but also to maximize the progress and development of visual communication industry, thus improve our country's construction level of socialist modernization.

## **Reference**

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