

A Critical Assessment of German Classic and Modernist Ideas of Colors

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ABSTRACT

This paper contributes to reevaluation of German classic ideas of colors, especially of Goethe. First, the outline and feature of Goethe's theory of color is described. Next academic relation between Goethe and Hegel on color is considered from the development of Hegel's philosophic logic. Then we compare some modernist remarks on German classic thoughts of color from contemporary Aspect.

1. INTRODUCTION

Goethe (1749-1832), well known as the writer of the play "Faust", devoted his energies not only to literature work, but has occupied himself also a good deal with study of the natural sciences. The science of colors is for him beyond a principle subject matter. It is rather his life work. Today, his attacks on Newton's theory of colors turned out to be fundamentally flawed, whereas his master work "Zur Farbenlehre"(1810) provides even now various inspirations for scholars and artists. This paper reappraises German classic and modernist ideas of colors from the contemporary philosophical point of view.

2. GOETHE ON COLOR

2.1 Origin

Goethe's gigantic work "Zur Farbenlehre" is nominated for the most important contribution to the science of colors. A distinguishing feature is his systematic understanding of color phenomenon, which is represented especially by his "Farbenkreis" (color circle) with the notion of polarity.

Goethe's inquiry into colors had many years duration, before the publication in a form of the book in 3 volumes 1810. His academic activity on colors began from a small discovery in January 1790. He did an experiment with prism, in order to test out Newton's doctrine of colors. The observation and judgement then played a crucial role in the formation of Goethe's ideas of colors. His investigation was motivated by a conviction that colors originate from lively interaction of light and darkness, white and black. [1]

The idea of dualistic constitution of chromatic system can be traced back to Aristotle. Aristotle, who analyses colors and human senses in "Περὶ Ψυχῆς" (On the Soul), defines in "Περὶ αἰσθήσεως καὶ αἰσθητῶν" (On Sense and the Sensible) color (χρῶμα); "the limit of the translucent in determinately bounded body" (439a). He explains the genesis of various colors with respect for the oppositional

relationship of light and darkness(439a). Goethe's Theory is rooted deeply on the Aristotelian tradition of philosophy.

2.2 Polarity of colors

Goethe formulated "Farbenkreis", based on the idea of dualistic opposition of colors, not later than July 1793. He explained it in §50 of "Didaktischer Teil" 1808 as it follows: "Considered in general point of view, color is determined towards one of two sides. It thus presents a contrast which we call a polarity and which we may fitly designate by the expressions plus and minus." [2] Later he wrote on the chromatic opposition in a notebook of natural scientific study(1817-22), and characterizes the colors in opposition as "colors which demands each other", and calls them "complementary" [3]. Goethe is counted as the earliest proponents of the notion "complementary colors".

3. GOETHE AND HEGEL

3.1 Hegel as an apologist for Goethe

Goethe's "Zur Farbenlehre" could not have a good reputation just after its publication. It was refused by not a few scientists except for a tiny minority of exceptions. In such a difficult circumstance little number of scholars took side of Goethe. But one of them is Hegel (1770-1831).

In the part of philosophy of nature in "Encyclopedia of philosophical sciences" (1830) he expresses his approval of Goethe's criticism of Newton's Theory [4]. He acknowledges himself to be an apologist for Goethe saying that "it is to Goethe we owe the theory of color adequate to the notion. He was early drawn to study of color and light, especially in connection with painting; and his pure, simple feeling for nature, the first requirement for a poet, forced him to oppose barbarisms of reflection such as we find in Newton." [5] Hegel also understands color, basically following the doctrine of Goethe, with regard to the dualistic relation of light and darkness.

3.2 Hegel's approaching to Goethe's theory

Hegel's during his life time unpublished manuscripts of lectures on philosophy of nature(1803/04) indicates that already in 1803 Goethe's theory of color was mentioned in lectures [6]. Indeed, It is a noteworthy evidence, because Hegel referred to it before its publishing to the general public. But a simple question arises at the same time: how and when he got aware of it. There is a speculation, which is given by the editorial note of Hegels Gesammelte Werke Band V, that he was already in his early days informed of it by a philosopher Schelling (1775-1854), who agreed with

Goethe on his criticism against Newton [7]. Hegel's acknowledgement of Goethe's theory is dated possibly earlier than 1803.

3.3 Hegel's philosophy of arts

Hegel mentions Goethe's theory in his lectures on philosophy of Arts too. He says as following: "Now the beauty of their [=direct opposites, like yellow and blue] harmony consists in avoiding their sharp difference and opposition which as such is to be obliterated, so that in their differences their unison is manifested. For they belong together, since color is not one-sided, but an essential totality. The demand of such a totality can go so far, as Goethe says, that even if the eye has before it only one color as its object, it nevertheless subjectively sees the others equally." [8] The idea of "essential totality" of color plays a principal role in the formation of his theory of Aesthetics, also in the development of the dialectical logical thought of philosophy.

4. SOME MODERNISTS' REMARKS

4.1 Influences

German classic ideas of colors, esp. by Goethe, are even today giving rise to many debates on the essence of color. For example, the theory of dualistic opposition of colors, which is shared between Goethe and Hegel, leads to Ewald Hering's "Gegenfarbentheorie" (theory of color opponency) in 1878

Besides, the color education in the BAUAUS school in Weimar and Kassel succeeded to the classic idea of color.

4.2 Weizsäcker

In 20th century, a German physicist Carl Friedrich von Weizsäcker (1912-2007) admits Goethe's failure in his polemic against Newton, whereas Weizsäcker stresses that the concept of totality in Goethe's theory doesn't lose its meanings. [9]

4.3 Wittgenstein

Another remarkable example is Wittgenstein (1889-1951) and his philosophical investigations on colors. The philosopher studied very late in his life Goethe's "Zur Farbenlehre". He was then a critically ill patient, but he had started on a philosophical book on color; "Remarks on Color". He mentions everywhere in the book Goethe's theory of color. For instance, "Goethe's theory of the origin of the spectrum isn't a theory of its origin that has proved unsatisfactory." (3rd Part §125) "We do not want to establish a theory of color, but rather than the logic of color concepts." (1st Part §22) [10] In these sentences, Wittgenstein expresses in his own style his approval towards Goethe's theory of color.

5. CONCLUSION

Goethe's approaches to color, which we might call subjective and aesthetic one, have been recently reevaluated by some scholars. D. L. Sepper reassessed

Goethe's polemics regarding new scientific researches of color. [11] It just turned out in this research project that the German classic ideas of colors, in particular Goethe's theory of colors, contain various remarkable points from contemporary viewpoint.

5. REFERENCES

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