

Original Research Article

The Exploration of Arnheim's Theory of Visual Perception in the Field of Art Appreciation and Review in Junior High School

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Abstract: Rudolf Arnheim (German Rudolf Arnheim, 1904-2007) is a famous Gestalt psychologist and aesthetician in the history of western aesthetics. His research on the theory of visual perception plays an important role in exploring human thinking activities. Arnheim's theory of visual perception and related research in the field of art education can provide professional and detailed theoretical support for the teaching of art curriculum appreciation and review in middle school. Through the analysis and exploration of Arnheim's visual perception theory, this paper attempts to apply his visual perception theory to the learning field of junior high school art curriculum appreciation review. Teachers can make use of Arnheim's relevant research results to make students understand and master art language more easily, and make full use of art language knowledge for art appreciation.

Keywords: Arnheim's Theory of Visual Perception; Teaching of Fine Arts in the Junior Middle School; Appreciation Review Course

1. Arnheim and his theory of visual perception

Rudolf Arnheim (German Rudolf Arnheim 1904-2007) has made outstanding contributions in the fields of aesthetics, art psychology and art education. In his works on visual perception, he explained the function of visual perception in detail, and explained the role and application methods of visual perception in aesthetic perception.

1.1 The ideological basis and connotation of Arnheim's theory of visual perception

As a Gestalt psychologist and aesthetician, Rudolf Arnheim has his unique views on art psychology, aesthetics, and art education. He applies the basic viewpoints and principles of Gestalt psychology to the study of art problems. Gestalt psychology school is one of the main schools of modern western psychology. Gestalt is translated as whole or organizational structure, and in China it is also translated as Gestalt psychology. It was first proposed by Wertheimer and was founded in Germany in 1912, and then developed continuously in the United States. Gestalt psychology opposes the element analysis method of traditional psychology. It holds that all things are Gestalt, and the whole exists before the parts, but it is not equal to the sum of parts.

In Arnheim's academic career, the exploration of visual perception is the basis of his academic research. The visual perception theory of Gestalt psychology holds that human visual perception can directly grasp the stimulus experience as a complete form. On this basis, Arnheim further reveals that most of the cognitive activities of human beings to objective things are completed by the ability of visual perception itself, and do not need to rely on the brain. Visual perception has the cognitive ability similar to thinking, and the cognitive process and thinking of visual perception are basically the same. Human beings have initially possessed the ability to understand things at the level of visual perception. He analyzed the role of visual perception in cognitive activities from simple to deep. The traditional view is that the process of cognition includes a series of psychological activities, such as receiving information, storing information, processing and processing information. It is generally believed that except for receiving stimulation experience, other processes are independently processed by the brain. Perception can only obtain perceptual materials, and in the process of receiving information, it needs the guidance of the brain. Therefore, many scholars even believe that the acceptance of perceptual experience can not be included in the scope of cognition. Once the perceptual material obtained by perception enters the processing process of the brain, it will no longer have any characteristics of perceptual knowledge. So perceptual activity and thinking activity are two separate processes. But in Arnheim's view, perception and thinking should belong to the same field. In the process of human cognition, perceptual experience will be affected by thinking, and the cognitive process

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of thinking is only limited to perceptual experience. Therefore, perception and thinking usually operate in coordination rather than exist independently in real life experience. Therefore, Arnheim pointed out: “almost all kinds of psychological abilities of human beings have the function of the mind, because all the psychological abilities of human beings are moving as a whole at any time. All perception contains thinking, all reasoning contains intuition, and all observation contains creation.”^[1]

1.2 The function of visual perception theory in aesthetic intuition

In Arnheim’s theory, visual perception has a kind of selective ability, which can make people catch the main information faster and improve the ability to deal with problems. In Arnheim’s theory, the ability of “visual perception” described by him is different from the daily use of the eyes to feel external stimuli. “Visual perception” includes not only the process of sensory receiving information, but also the processing and processing of information. In other words, the ability of “visual perception” that Arnheim wants to explore is the ability to process information actively through vision itself. Arnheim believes that “sense organ is not only a tool for receiving information, but also an indispensable condition for general psychological activities.”^[2] In other words, the cognitive activity of human beings is that the sensory organs themselves will actively explore the external world and transmit perceptual materials to the brain. “The primary goal of the sensory organ is to explore the environment of life, to find out what can make life better, and to prevent those aspects that hinder the continuation of survival activities. That is to say, vision is a kind of active feeling form.”^[3]

Arnheim believes that positive choice is a basic feature of vision. Just as it is a basic feature of any other rational thing. When people observe something, their visual perception ability will take the initiative to analyze it and select its important parts. The positive selection of the observed object by visual perception is not only the basic feature of visual perception, but also the primary extraction of the essential characteristics of the observed object. Its selection process is not random and irregular, but completed in the analysis of the observation object. There are two reasons why a part of an observation object can be selected: one is that it is outstanding compared with all the surrounding things; the other is that it meets the needs of the viewer. This paper holds that Arnheim’s conclusion is derived from the “form base” theory of Gestalt school’s perceptual organization rules. The theory of “form base” is also known as the “figure bottom” relationship, which is an important principle of Gestalt psychology. This principle refers to: “in a field with certain configuration, some objects pop out to form easily perceived graphics, while other objects retreat to the secondary position and become the background.”^[4] In cognitive activities, human visual perception ability can grasp the important prominent parts of things, and can choose according to the needs of the subject. These are the superficial processing abilities of visual perception when encountering problems. Visual perception not only has these abilities, but also has the ability to “transform” the perceptual experience in more complex situations. This is not the ability of visual perception given by thinking, but is born of visual perception. In the process of human cognition, not only thinking can not be separated from visual perception, but also visual perception itself is actively transforming things, which is the deeper cognitive ability of visual perception.

Visual perception has the ability of balance, which is the ability of visual perception to adjust the imperfect perceptual experience to “optimal Gestalt”. “Optimal Gestalt” is a concept put forward by Koffka, one of the founders of Gestalt psychology. He thinks: “a kind of excellent Gestalt has such characteristics: it not only makes its own parts form a sequence unity, but also makes this unity have its own unique characteristics. Any change to a superior Gestalt will change its nature, and if such a change belongs to a secondary aspect, the Gestalt will degenerate.”^[5] If a perceptual experience wants to reach a state of equilibrium, each component should be attached to the whole in the most stable form. At this time, no element is allowed to change. This is the requirement for gestalt to maintain stability. The unbalanced perceptual experience will be regarded as transient and accidental, because the components of unbalanced perceptual experience will try to adjust their own state to adapt to the state of the whole relationship. Arnheim’s balance refers to “psychological balance” and “physical balance”. Physical balance is objective and real, that is, the state of a certain object when it is relatively static.

Psychological balance refers to the rational distribution of various forces in perception. Balance is the most stable state in the existence mode of things, so the unbalanced things tend to adjust themselves towards the trend of balance, so that they finally reach the state of balance. The balance reflected in art works is composed of various directional “forces”, but different from the balance of other things, the balance of art is created by artists in order to show its essential significance. If we simply think that art is the perfect form of pursuing balance and harmony, it will make people misunderstand art. As Leonardo da Vinci said, “in a good painting, the distribution and arrangement of characters should be consistent with what you want these actions to represent.” Therefore, the form of balance and harmony is to assist the works of art to convey meaning, and abandoning meaning to pursue form is the behavior of putting the cart before the horse. In Arnheim’s view, the reason why balance is very important to art lies in the fact that art needs a form to express its meaning, and balance can make art present the most effective form to convey meaning. Therefore, no matter what kind of artistic form it can play, it can only play a decisive role in the expression of a certain artistic style. For a work of art, balance is an indispensable element. Only when the distribution of the “forces” that make up the work of art reaches a balanced state, can human beings easily obtain the meaning of its expression in the work of art.

Visual perception also has the principle of simplification. In practice, simplification has two meanings: first, it is “simplicity” opposite to “complexity”. Second, when a work of art is hailed as simplistic, people always mean that the work organizes rich meanings and diverse forms into a unified structure. In this structure, all the details are not only in their own right, but also have their own division of labor. Arnheim thinks that in the creation, we should use the way of “simplification” to express the essence of things more clearly. For modern art, “simplification” can be called an important feature of art works. The simplification of art is to extract the most essential structural features in the performance of things. This essential structure can not only represent a single thing, but also represent the same kind of things subordinate to it, and can arouse more abundant connotation in the complex background. Therefore, the simplification of art is by no means simple, but the grasp of the essential structure of things. Through

this essential structure, works of art embody complexity in simplicity. Simplification is also to transform perceptual experience into an orderly, stable and harmonious structural form, or an “optimal Gestalt”, so that visual perception can more directly grasp the most essential characteristics of the observed object.

2. The value and significance of visual perception theory in the field of appreciation and comment

With the development of the appreciation and review courses, its shortcomings have gradually emerged. The author intends to apply Arnheim’s visual perception theory to junior high school art appreciation and review, hoping to make up for its existing shortcomings, so that it can be improved and developed.

2.1 The development of art appreciation and comment in middle school

At the beginning of the 20th century, the art education in our country was obviously influenced by the West, which had strong pragmatism and lacked of art appreciation. Until the early of the Republic of China, the role of art education was gradually explored. The teaching contents of art appreciation appeared in the “New School System Curriculum Outline for Junior Middle School Drawing Curriculum” in 1949. In 1956, “Appreciation and Art Speech” was determined as the basic form of appreciation courses. After the reform and opening up, the “Trial Draft of the Art Syllabus for Primary and Secondary Schools in Ten-year’s Full-time Schools” issued in 1979 covered “appreciation” courses. The reform of art education after 2000 promoted the new development of art appreciation courses. During the past 100 years, China’s middle school art appreciation education has gradually matured and developed as an indispensable part of the middle school art classroom. The curriculum goals of appreciation education are becoming more and more clear, and the courses are becoming more and more diverse. The art appreciation education developed better in China

2.2 Problems in art appreciation and comment in middle school

2.2.1 Lack of visual perception form

The process of understanding perception in academia can be roughly divided into three stages: In the first stage, the understanding of perception can be summarized into two main lines. It is generally believed that emotion related to aesthetics the most closely. Influenced by the theory of evolution, it is believed that the form of art has an evolutionary system itself, and the excellent of this form has nothing to do with human emotions. In the 20th century, these two main lines intersected each other and formed major art schools. However, expressionism and formalism are the two camps. In the second stage, until Susan Lange, in her book “Emotions and Forms”, she concluded that formalism pays attention to form factors, such as organizational rules in dots, lines and surfaces, but does not pay attention to the feelings that these forms conveyed to people. However, Expressionism only pays attention to the subjective factor of feeling, ignoring that people’s feelings are caused by certain specific forms in the pictures. After all, Expressionism does little to help artistic practice. Neither theory is comprehensive. The concept of “expressive form” proposed by her and the concept of “meaningful form” revised by her make a general analysis and explanation for the correlation between form and emotion. The third stage is Arnheim’s theory. Based on the results of scientific practice, he generates a more concrete and persuasive theoretical system. This process of understanding visual perception in the theoretical world can be seen as the hierarchical understanding of the problem between Arnheim and the teachers engaged in art educational practice. It seems that only Arnheim can fully use the concept of art teaching in practice. The executor’s lack of deeply understanding is acknowledging the concept in implementation, but because of the incomplete understanding of the concept, it is difficult to embody the goal pursued by the theory in the implementation. This results in a hierarchical understanding. Although first-line teachers recognize the unity of form and emotion, they cannot integrate the two organically during the teaching process, which makes students confused in the process of feeling or using art language. This difficulty stems from two behaviors of teachers: a rough explanation of “aesthetic laws”; blindly praising students’ differences in feelings.

2.2.2 Misleading of the division of performance and reproduction

When teaching, teachers often divide the work into two aspects: expressive and reproducible which could easily lead to two problems: on the one hand, the emphasis on performance often leads to emotionally supremacy. For example, most of the teaching examples show the works of Picasso, Munch or others in this way. The experience of the death of both parents in his youth has made an indelible mark in the depths of Munch’s soul. His “Life Group Painting” celebrates life and love. With the theme of death, his spirit is often in a state of melancholy and horror, expressing the miserable life he feels through twisted lines and patterns. This kind of narration mainly emphasizes the close relationship between the work and the author’s emotions, causing students to think that where there is emotion, there is passion, and passion can make them create paintings, so they think that creating paintings only requires rich emotions. In addition, in the process of reading pictures, for example, the turbulence of curves and the horror of black, white and gray, all these naturally occur in the readers’ feelings. Therefore, people who generally read pictures will not pay attention to the way of accumulating and expressing this emotion. On the other hand, for the emphasis of reproduction, teachers often ask students to analyze the work reflects objective reality in which aspects. It emphasizes the value of reflecting objective reality. This kind of experience makes students feel that as long as they have real painting skills, they could equate physical existence with painting. It enables students to judge the reproducibility of works only by the reality of ordinary life experience, and only accept the well-known realism in our culture. The distinction between expressive and reproducible works hindered students’ understanding of art language again, and established a two-dimensional opposing mode of thinking from the perspective of logic. This model can be used, but at the same time other kinds of understanding must be interspersed.

In Arnheim’s view, everything that can be called art should be expressive. The transformation from what the eyes see to the

reality of the work requires the reorganization of the art language to the object and a certain ability to manipulate the art language. And this kind of “authenticity and infectivity” can be shown on paper because of expressiveness. Expressiveness is very necessary for both abstract art and concrete art, and expressiveness depends on the dynamic effects of various elements in the picture. Arnheim found a point to explain the commonality between expressive art and representational art, that is, through certain means, the objects are presented on paper with changes. This way of understanding is very helpful for students to understand the language of art, let them know that whether it is reproducible or expressive works, the author needs to control the picture.

2.2.3 The alienation of the relationship between culture and image

In this era, the diversified understanding of painting methods has caused teachers in art education to explain works to students from multiple perspectives. However, due to their bias on understanding of visual culture, they often ignore the foundation of visual culture, that is, the manipulating of art language. In the survey, we learned that the general teaching steps are as follows: display the works—students feel the picture, and the teacher analyzes the work in general language, such as the close relationship, the feeling of color, and the introduction of cultural background behind the image and the author’s life experience. This invisibly established a connection between the author’s experience and the work. During the interview process, most students believed that the decisive factor in creating an excellent work was the author’s experience, emotions, and moral cultivation. However, the mastery of the most basic art language of painting has been neglected. The mastery of the art language is the basis for every painter to create. With this foundation, coupled with the artist’s experience and preferences, he can create a perfect work. At present, the sensitive manipulating of art language is often confused with its experience and emotion.

3. The teaching exploration of Arnheim’s art visual perception theory in the field of appreciation and comment

By exploring the application of Arnheim’s vision in the field of perception, this paper tries to link its theory with the field of appreciation and comment in junior high school art teaching from three aspects, and explores its application methods and the cultivation of students’ ability.

3.1 The application of Arnheim’s art visual perception theory in the field of appreciation and comment

In terms of knowledge and skills, the ability of art language to control vision should be understood. Artists have great initiative. To say the least, those who create images have certain control power over the viewers. For this power, Arnheim gives an example and use terms of formal relationship to suggest that all these gentle movements together give people the visual experience of intimacy, desire, modesty, shyness and so on. “Using the body as a medium of expression”, the method Arnheim agreed was to let students feel the artistic language expresses by the object rather than the object itself.

In terms of emotion and attitude, students’ direct visual contact is particularly important. If the art creation is to materialize the artist’s thoughts and observed things into visual images, then the art appreciation is to transfer the observed objects into the concept of the artist. That is to link the theme with the connotation. The way that Arnheim’s theory adopted in appreciation of art is based on visual intuitive feelings. He said: “My works are based on the assumption that I only discuss in the scope of symbols conveyed by form, color and movement, because I believe that the meanings that can be directly interpreted, such as high and low, center and edge, light and dark, are the key to all the explanation about art.” He emphasized that teachers should take direct visual contact as their essential task when conducting appreciation teaching. At the same time, teaching can assist the analysis and interpretation from the psychological and historical perspectives, but it cannot be used as the main teaching methods to transform art appreciation class into history and psychology class. In any such ancillary discussions, the instructor’s attention should be paid to direct visual observation, visual contact with works of art, students’ own experience of artistic practices and their contact with other people’s works of art. It is the direct experience of art that is worth discussing. The eye is our main tool for understanding the outside world, which can capture the essence of things and know the truth. But why are so many people who are often exposed to art these days but unable to appreciate it? Arnheim believed that such people’s instinct to understand art through their eyes disappeared, and that our own visual perception ability was gradually degraded in the process of being ignored, while the purpose of appreciation course should be to awaken students’ own degraded visual perception.

Arnheim once discussed the specific process of appreciating a painting in his book. He said: “when we face a painting, the first impression will exclude many details and be completely unaware of the subject of the painting. Our eyes will reveal to us the style of the work, its creativity, its sense of balance or imbalance, and the basic composition of various forces established by the works. In this initial impression, namely ‘direct visual contact’, the essence of the work has been presented. Of course, we will further enrich the image by examining the details of the theme. It seems like a person approaching from a distance to watch a flower. When a person is still far away from the flower, the flower has already presented its colorful color. When approaching it and watching it carefully, it further reveals the texture characteristics of the flower, the different colors, and various overlapping curve shapes. It is them that are put together to form the image. And our memory and knowledge will enrich our understanding of the name of the flower and legend of it, as well as our understanding of this painting. In the teaching of art appreciation, the understanding and discussion of art should start from the specific works, from the specific feeling of the content conveyed by the works, and organically combine the form analysis and the theme analysis, which is a good art appreciation teaching.

In terms of process and method, the tension of art works should be transferred. In Arnheim’s view, the dynamic shown in the static artwork actually stems from the tension in the structural form of the art. Tension is another important principle in the way perception controls art works, and it is also the charm of art works. There is no real movement in the static picture or sculpture, so tension only exists in the perceptual experience. When the aesthetic subject perceives a certain style, the visual perception will become isomorphic movement trends such as expansion, contraction, advance and retreat into the cerebral cortex of the subject,

making the aesthetic subject feel the movement of the artistic works. Arnheim said that the “motionless motion” produced on the static artwork is due to the fact that when the subject’s visual perception controls the structural form of the artwork, the perception arouses the physiological force in the brain which is the same as the “force” of movement according to the “force” contained in the art, thus making the brain feel the movement. In addition, perceptual stimuli will never produce a static pattern. When any perceptual force enters the psychological field, the balance in the psychological field will start to move, and the final return to a stable state is only a temporary balance of the opposing forces. In other words, the expressiveness of the visual object, in addition to its own form of composition, is more endowed by visual perception activities.

Arnheim’s analysis of the shape, space, light, color and other elements of perceptual style is to reveal the “tension” in visual experience by analyzing these elements of visual experience. Arnheim pointed out that there is no visual pattern that exists only for itself. It always reproduces something beyond its own existence. That is to say, all shapes should have some forms of content. As the basis of visual object’s expressiveness, “tension” can make static artwork produce dynamic. Tension in art mainly includes “tilt”, “deformation” and “overlap”. The fundamental reason why these three ways can produce motion lies in “a strong imbalance tendency in the form structure of art, which breaks the Gestalt balance tendency in our visual perception, and our visual perception balance will strive to resist the imbalance in the form of art and demand to return to the balance. In this way, there is a real confrontation between the imbalance of the object and the balance tendency of visual perception.”^[6] In Arnheim’s view, this kind of tension that can make people feel the sense of movement is very important for art. He said, “If painting and sculpture do not convey dynamic tension, they cannot depict life. Expressiveness depends on the basic nature of the perceptual power we experience when we perceive a particular image, namely expansion and contraction, consistency of conflict, rise and fall, advance and retreat, etc. When we realize that these dynamic properties symbolize some kind of human destiny, expressiveness will present a more profound significance.”^[7]

3.2 Using Arnheim’s art visual perception theory to cultivate students’ ability

The first ability to cultivate students is to create a “mind map”. When students know the basic skills of artists manipulating the viewer’s vision, and the style with the characteristics of the times, teachers can stimulate students’ thinking from the perspective of differences. Any style has its own characteristics of openness. If there is a more refined standard of the style, we can discover it further. With the traditional view, art history is a linear sequence of self periods. Each period has a set of fixed and unchanging characteristics, and at the same time, it can clearly show the start time and end time. So that people have much more understanding of the actual complexity of historical facts, so it is necessary to allow a variety of overlapping, accidental exceptions, self integration, subordination and replacement. The clear boundary between one style and another becomes indistinguishable. The complexity of this kind of development broadens the students’ views on “keeping and changing”. Therefore, only by knowing certain rules and accumulating their own unique experience, and the corresponding artistic language organization method can they express their own thoughts so as to promote students to create their own “map”. Because of the great extent of freedom within the rules, arts can help students establish a sense of self-worth.

The second ability of cultivating students is the ability of image isomorphism and transfer association, which is the basis of developing students’ divergent thinking ability and creative ability. Because of the possibility of similarity in structure, appearance or feeling between things, such things can be called isomorphic things. The ability of people to associate one thing with another in some aspects is called the ability of transfer association. Things that can trigger people’s ability of transfer association often have the possibility of isomorphism with other objects.

Within the discipline: select the similar but different works in the theme, expression and many other aspects to compare. We can compare the works from the point, line, surface, color, material, texture and other aspects. Different combinations can form a variety of pictures to convey the readers’ diverse feelings. Some works are characterized by dots and lines, such as Vincent Willem van Gogh’s *Starry Night*, while Cubic works can be said to be characterized by face or body.

The third is the ability of multi-dimensional reconstruction of images. After years of development and accumulation, its connotation and denotation have changed. There are also different opinions on the definition of “what kind of work is real”. We can use this feature of art to cultivate students’ ability of multi-dimensional thinking. When we look at things from different angles, we have different understanding of objects. The teacher connects the content in the classroom with the real life. For example, through the discussion of “what kind of art works show the truth”, students realize that different conclusions can be drawn from different perspectives. Then the cognition is transferred to the understanding of some things in daily life, so as to treat some contradictions and disputes in life with such a cognition. It is very important for students to form a good emotional attitude and values. Through the above-mentioned methods, students’ multi-dimensional thinking ability can be cultivated, which paves the way for the formation of their multicultural mentality, and to a certain extent, makes up for the deficiencies in the field of art appreciation and comment in junior high school.

4. Conclusion

Arnheim’s art visual perception theory injects a new perspective to examine the development of art appreciation and comment in middle school, which provides a new way for teachers to conduct an appreciate teaching and students to understand art works. Arnheim’s art visual perception theory plays an important role in enriching the theory and practice in the teaching field of appreciation and comment, which helps teachers enrich their teaching contents and forms and broaden their teaching ideas. Through practices, the theory of visual perception is applied to the classroom, and more attention is paid to the cultivation of students’ perception and application of art language, so that students are interested in their own visual perception ability and have certain cognition and understanding of art language.

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