



Quasi-scientific Approaches Made by Impressionist Painters (Claude Monet) and Literary Naturalists (Emile Zola)

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Abstract

The history of Europe witnessed the triumph of science, economic expansion, social improvement, and political progress in the middle decades of 19th Century. There emerged a new cultural trend of Positivism that matched with this progress and prosperity in the society. Naturalism in literature and impressionism in paintings, in abroad sense, both belonged to the Positivistic cultural movement. Emile Zola, a French Positivistic Realism-Naturalism novelist, took Impressionism as an ally of literary Naturalism in the search for quasi-scientific procedures and finding. In his defense of Impressionism, Zola declared, "Here then is what the Impressionist painter exhibit, exact research into the causes and effects of light, flowing in upon the design as well as the color". (Note 1) This short paper, therefore, has tried to make a comparative study of quasi-scientific approaches made by literary Naturalists (Emile Zola) and Impressionistic painters (Claude Monet) and to address the reasons why Zola applauded Impressionism.

Firstly, I have put Naturalism and Impressionism into the landscape of Positivistic cultural movement in the mid 19th century, trying to find out the roots for Zola's taking Impressionism as an ally of Naturalism. Secondly, I have tried to concentrate on the Impressionism and the quasi-scientific approaches made by Impressionist painters like Claude Monet. In the following part, I have found similar scientific approaches in Zola's works, especially in *The Experimental Novel*, and *Nana*. Thus, in the last part, I can conclude that the reasons why Zola took Impressionism as an ally of Naturalism are that they were both parts of Positivistic cultural movement, and both were trying to transfer science into literature and art.

Keywords: Positivism, Positive movement, Impressionism, Naturalism, Quasi-scientific approaches

1. Positive movement: From Charles Robert Darwin, Auguste Comte to Hippolyte

Adolphe Taine

In the middle decades of 19th century, the social landscape was changed as a result of the triumph of science. In the political spheres, industrialisation and economic expansion led not only to the material progress, but also people's demand for democracy, equality and liberty. Liberal movements flourished throughout Europe and even influenced many countries outside Europe. In the religious spheres, Due to the growth of influence of the state and intellectual alternative, there was a declination of the influence of religion among the mass. Science was taken as a secular religion and people turned to respect science as they respect religion before. In late 19th Century, Europe was truly embraced by the triumph of natural science. Charles Robert Darwin (1809-1882), an English naturalist, firmly established the theory of organic evolution known as Darwinism. "He pointed out the existence of variations—differences among members of the same species—and suggested that the variations that prove helpful to a plant or an animal in its struggle for existence better enable it to survive and reproduce. These favourable variations are thus transmitted to the offspring of the survivors and spread to the entire species over successive generations. This process he called the principle of natural selection". (Note 2) Although Darwin himself applied these ideas only to natural world, they were soon employed in constructing social and political theories as well. Some people argued that a process of natural selection also existed within human society, which was characterized by the principle of 'survival of the fittest'. People were encouraged to

be self-reliant, because, for them, inequalities of wealth, social position and political power were natural and inevitable. This kind of ideology was called Social Darwinism, which had a significant influence upon positivistic movement.

Indeed, in the mid 19th century, Positivistic science became the new theme in the society. Positivists like Auguste Comte, Hippolyte Adolphe Taine, Emile Zola, Claude Monet and Edgar Degas began to search for the social physics and to translate natural science into other domains of the society. Auguste Comte (1798–1857), a French philosopher, aimed to transform all philosophy into a philosophy of science, which he called positive philosophy. In his books *Course of Positive Philosophy* and *System of Positive Polity*, he explained the development of man by what he called “The Law of Three Stages”, namely theological stages, in which events were largely attributed to supernatural forces; metaphysical stages, in which natural phenomena are thought to result from fundamental energies or ideas; and positive stages, in which phenomena are explained by observation, hypotheses, and experimentation. (Note 3) Hippolyte Adolphe Taine (1828–1893), in his *History of English literature*, used socio-historical method of analysis, which had great influence on philosophy, aesthetics, literary criticism, and the social sciences. (Note 4) Emile Zola and Claude Monet were searching for quasi-scientific procedures and finding in the domain of literature and the domain of art.

2. Quasi-scientific research by Impressionist painters

After the declination of Romantic Movement, some French painters launched Impressionistic movement reacting against the romantics’ emphasis on emotion as subject matter and rejecting the role of imagination in the creation of works of art. They observed nature closely, with a scientific interest in visual phenomena and brought scientific analysis into their paintings.

The birth of Impressionism linked with the friendship of students of academic painter Marc Gleyre, Monet, Renoir, Sisley, and Bazille. “These four met regularly at the café Guerbois in Paris with Cezanne, Pissarro, and Morisot and later with Degas”. (Note 5) They attempted to depict transitory visual impressions, often painted directly from nature, and by the use of pure, broken color to achieve brilliance. In the year 1874, the first Impressionist Exhibition was held in Paris with about thirty participants, including Pissarro, Sisley, Renoir, Degas, and Monet. (Note 6) This group of people was called Impressionists because of a picture by Monet entitled *Impression: Sun Rising*. (Note 7)

The characteristics of Impressionistic paintings could be summarized as (1) fidelity to first impression, (2) passive reproduction, (3) choosing to paint in the open air, (4) focusing on transitional effects and (5) trying to show the changing reality. As Zola declared in 1880, “These men propose to leave the studio where painters have cooped themselves up for so many centuries, and go forth to paint in the open air, a simple act of which the consequences are considerable. In the open air, light is no longer of a single sort, consequently there are multiple effects, which diversify and radically transform the appearance of things and beings. This study of light in its thousand decompositions and recompositions is what has been called more or less properly Impressionism” (Note 8)

- (1) Faithful to the first impression. The Impressionists were faithful to the first impression of appearance of things. Their objective was merely representative, but they tried to represent things exactly at the moment when they first saw them. Henry James criticized that the Impressionists simplified the problem of art and ignored the possibility of beauty in painting. However, he did clarify that the essence of an Impressionistic painter was to give a vivid impression of how a thing happens to look at a particular moment. (Note 9)
- (2) Passive reproduction. Passive reproduction is another characteristic of Impressionist paintings. The painters represented things just as it was, without distortion, manipulation, or effort at stylization. The scene had been passively reproduced. In other words, they were representing reality in a very objective way.
- (3) Open air. Indeed, open-air paintings embodied several elements of the outdoors: the natural effects of light and the surroundings, realistic and contemporary subject, quick grasp of scene at the first glance. The first large scale, finished important open-air work was Monet’s *Luncheon on the Grass* (1855–1856), (not to be confused with Monet’s famous 1863 work of the same name.) (Note 10) Monet’s another work *Women in the Garden* (1866), his new painting approach rejecting traditional technique and compositional type, was finished entirely outdoors. (Note 11)
- (4) Transitional Effects. With the changes of the light conditions or the weather conditions, the scene was not the same as it was at the first glance. Monet, for instance tried to paint a series of pictures, which depict the same view under different light or weather conditions.
- (5) The Changing reality. Because the Impressionists were faithful to their first impression and emphasized on transitional effects, they were being able to choose contemporary and realistic subject, and to present modern society.

Claude Monet (1840–1926) was a founder of Impressionism and was considered the most consistently representative painter of the school. Light was the God of Monet in his long life. He was enthusiastic to portray the variations of light and atmosphere brought on by changes of hour and season. Different from Romantic painters, Monet’s objective was

not to arouse emotion, but to explore matters scientifically. Monet's representation of light was based on his knowledge of the laws of optics as well as his own observations of his subjects. He often showed natural colour by breaking it down into its different components as a prism does. (Note 12) In his later works Monet allowed his vision of light to dissolve the real structures of his subjects. He chose simple matter, making several series of studies of the same object at different times of day or year. For instance, he chose to paint of group of haystacks in a field, the lily-pond at Giverny or the west front of Rouen Cathedral, showing the same motif under different conditions of light and weather. (Note 13) Just as Zola said, he was doing scientific research into the cause and effects of light upon the design as well as the colour.

The scientific research in painting was developed by Edgar Degas (1834-1917), a French Impressionistic painter and sculptor. Degas was not interested in the play of light but the characteristic gesture. His favourite subjects were ballet dancers, women at their toilette, café life. In order to paint *Dancer with Bouquet* (1878) and *Women Ironing* (1884), (Note 14) he made notes and sketches from living models in motion to preserve informality of action and position. These two pictures, therefore, were very successful.

Although impressionist painters were characterized by their ability to catch their first impressions and to paint the outdoor scenes objectively and scientifically. From my points of view, however, the success of impressionist painters did not lie in their quasi-scientific research, but in their ability to suggest the mood and atmosphere in their seemingly story-less paintings. Just as Zola could not really attain his aim of objectivity, impressionists were better at subjective evocation than objective depiction.

3. Emile Zola and his quasi-scientific research in literature

From Monet to Degas, the quasi-scientific research was always the theme in Impressionistic paintings. Zola, similarly, was searching for the quasi-scientific procedures and finding in his own literary creed.

Emile Zola (1840-1902), a French naturalistic novelist and writer, tried to translate nature into literature and applauded the usage of art as an experimental instrument. Fin-de-Siecle writers, Wilde for instance, were anti-utilitarian and believed that "art was useless" and "art is art as such". Emile Zola did not agree with this idea and believed that art was useful for quasi-scientific research. In Zola's large number of novels, he tried to present the characters in minute and often sordid detail, basing on scientific techniques and observation to French society under the Second Empire. In the following part of the paper, I shall concentrate on Zola's experimental method of writing through the analysis of his *The Experimental Novel* (1880) and *Nana* (1880).

"Naturalism is not at all a literary dogma, it is a scientific method. Therefore Naturalism is the transposition into literature and art of the means of investigation employed by science for the study of earthly phenomena". This was Henry Ceard's definition of the phenomenon of Naturalism in 1885. (Note 15) Admittedly, his remark was far from complete to explain literary naturalism, which was not only a scientific approach, but also a philosophical and artistic tendency. However, this remark drew our attention to the naturalist novelists' emphasis on their experimental method of writing.

The physiologist Claude Bernard had strongly influenced Zola's development as a naturalist. In his work, *Introduction to the Study of Experimental Medicine*, Bernard had tried to establish a method for the investigation of medicine, Zola, tried to adapt Bernard's method to literature. *The experimental Novel* (1880) manifested Zola's faith in Science. He tried to use the following three steps in writing novels: first, the observation of the subject and careful documentation before his writing and then, the experiment itself and last, the observation of the results of his experiment. In other words, a novelist like Zola was both an observer and an experimenter. As an observer, Zola interviewed experts (even including the madam who arranged prostitution before his writing of *Nana*), visited many places (including coal mines and many shabby areas in Paris), wrote thick documents based on his research, made thoughtful portrait of his protagonists, and outlined the action of each chapter. In short, his starting point of view was always based on very carefully selected scientific data. This very accurate documentation led to great success. *Nana*, for instance, was republished 10 times within a very short period of times to satisfy the large number of readers throughout Europe.

In *Nana*, the most controversial experimental novel of Zola, the author tried to prove that heredity and environment were the two main elements influencing human development. Darwinists held a view that the individual was a product of natural history. This was highly significant for Zola who came to view the individual as a product of environmental conditions. Zola examined the nature of his heroine, a prostitute who indulged in sexual exploitation and luxury life in different social surroundings. In the book, Nana changed her social roles frequently, from an actress to a skipper, from a concubine to a housewife, and lastly, from a housewife to a prostitute. The evil surroundings under the second empire moulded her human nature and her fate was doomed.

Nana is one of the long series called *Les Rougon Macquart*, a history of a family under the second empire of France. The family had two branches, namely, the Rougons, small shopkeepers and petty bourgeois, and the Macquarts, poachers and smugglers, some indulging in alcohol and having mental problems. Nana (1852-1870) was the daughter of

Jacques Louis and Claude Lantier, from the Marquarts branch. (Note 16) The bad heredity from the Marquarts branch, for Zola was the other reason for her doomed tragedy.

Through the examination on Paris prostitutes, Zola was making a diagnosis of social diseases, but did not make a prescription for the ill society. He only objectively drew a vivid picture of the dark corners of the world and left enough margins for the public to draw its own conclusions. Please not to understand me wrongly at this special point, I am not trying to say that Zola's novels are a set of physical data; they are the invention of the author, implying Zola's understanding about the society.

Although Zola took his novels as experimental reports and regarded himself as a man of science, not a man of artist, he, at the end of the ends, is a man of artist, not a man of science. This is for the following reasons. Firstly, his carefully selected of data, and therefore, the facts that he portrayed could not become a "record" of social landscape. He was not recording, selecting, and classifying. He was inventing and creating! Secondly, it was Zola who controlled the characters' reactions to the circumstances in which he had chosen to place them. A real scientist, on the contrary, had little control over the reactions before he found the truth. My father, a chemistry teacher always told me that he never knew what would happen to his tube when he put chemical materials into it. Or another example, Bell never knew what a telephone would be like before his invention of it. They could predict the result, but could never control it. That is why scientists need to make experiments to prove their hypothesis. A novelist, however, has the complete control over the actions and behaviour of his fictional creations. As the controller of his characters, Zola might observe the real world very carefully and transposed his observation into his novels almost scrupulously, but he could never be possible to attain the degree of objectivity that he wished.

4. Conclusion

From the above comparative study about the quasi-scientific research in paintings and in literature, we may find two important reasons why Zola took Impressionism as an ally of Naturalism. First, Naturalism and Impressionism were both parts of the whole picture of positive movement. The philosophy of Auguste Comte, the writings of Hippolyte Taine, and Darwin's *Origins of the Species* significantly influenced the development of naturalism and impressionism. Secondly, Zola believed that Impressionists were researching into the caused and effects of light upon the design as well as the colour, just as he himself was researching for the influence from the social surroundings and the heredity upon the characters in his novels. As Monet found it was less challenging working in his studio than working out doors, where tones and values were transformed from minute to minute, Zola set characters in changing social surroundings and tried to examine the external influence on human development.

Although both Impressionist painters (like Monet) and Naturalistic writers (like Zola) were all emphasize on the quasi-scientific research, their successes, from my point of view, were not because of the scientific approaches, but the implied capability of their works of showing the changing reality, suggesting mood and atmosphere, implying their thorough understandings about the society.

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Notes

Note 1. M. Biddiss, "Progress, Prosperity, and Positivism: Cultural Trends in Mid-Century", in: B. Waller ed., *Themes in Modern European History 1830-90* (London-New York 1995) 190-212

Note 2. The Columbia Encyclopedia, Sixth Edition. 2001

Note 3. Ibid.

Note 4. H. Taine, "The Principles of Historical Analysis", (Introduction to History of English Literature, 1864).

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Note 5. The Columbia Encyclopedia, Sixth Edition. 2001.

Note 6. Edward Lucie-smith, *A Concise History of French Painting*, Thames and Hudson Ltd., 1970, 225

Note 7. Ibid.

Note 8. M. Biddiss, "Progress, Prosperity, and Positivism: Cultural Trends in Mid-Century", in: B. Waller ed., *Themes in Modern European History 1830-90* (London-New York 1995) 190-212

Note 9. Mains, John William, *Literary Impressionism: A Study in Definitions*, University Microfilms International, London, 1978

Note 10. Ibid.

Note 11. Ibid.

Note 12. Edward Lucie-smith, *A Concise History of French Painting*, Thames and Hudson Ltd., 1970

Note 13. M. Biddiss, "Progress, Prosperity, and Positivism: Cultural Trends in Mid-Century", in: B. Waller ed., *Themes in Modern European History 1830-90* (London-New York 1995) 190-212

Note 14. Ibid.

Note 15. Brian Nelson ed., *Naturalism in the European Novel*, Berg Publishers, Inc., 1992, pp.15

Note 16. This information was from google website.