

AESTHETICS AND SCIENCE IN KNOWLEDGE SOCIETY: THE CULTURAL ADVENTURE OF SCIENTIFIC IMAGINARY

ESTETICĂ ȘI ȘTIINȚĂ ÎN SOCIETATEA CUNOAȘTERII: AVENTURA CULTURALĂ A IMAGINARULUI ȘTIINȚIFIC

CHIRIAC H.-C.¹

e-mail: horiachiriac@yahoo.com

***Abstract.** Knowledge society represents a type of social organization in which scientific imaginary dynamics has a quite important cultural influence, shaping the image of reality for large categories of people. In a society characterized by ambivalent postmodern attitudes regarding technology, even the emergence of new esthetical trends is sometimes influenced by scientific progress and by the birth of new types of forms. Therefore, giving the contemporary people tendency to search harmony in fiction just the way they searched harmony in nature in the past, the study of scientific imaginary dynamics could represent a good departure point in understanding some of the recent esthetical trends.*

Key words: aesthetics, scientific imaginary, knowledge society

***Rezumat.** Societatea cunoașterii reprezintă un tip de organizare socială în care dinamica imaginarului științific are o influență destul de importantă în plan cultural, modelând imaginea despre realitate pentru categorii sociale largi. Într-o societate caracterizată prin atitudini postmoderne ambivalente față de tehnologie, chiar apariția unor noi tendințe de ordin estetic este câteodată influențată de progresul științific și de nașterea unor noi tipuri de forme. De aceea, ținând cont de faptul ca omul contemporan se refugiază astăzi în ficțional așa cum se refugia în trecut în natură pentru a găsi armonia, studierea dinamicii imaginarului științific ar putea reprezenta un bun punct de plecare în înțelegerea unora dintre tendințele estetice recente.*

Cuvinte cheie: estetică, imaginar științific, societatea cunoașterii

INTRODUCTION

The social character of art and science has been a largely discussed topic long ago and still today it is a quite important one, since global transformations of contemporary society tend to impose the redefinition of art and science themselves. One reason for that could be the fact that art and science have the capacity to influence the way people form their image about surrounding world using their emotional sensitivity, but also their capacity of reasoning. We will try to present the relation between art and science, focusing on their capacity of influencing the way in which knowledge society projects

¹ PhD, Postdoctoral Grant Recipient Romanian Academy, Iasi Branch

the image of reality. However, before starting our presentation, we consider proper to make the distinction between „real” and „reality”, in order to make our path easier and to avoid some ontological confusions. Therefore, we will call „physical real” that level of existence of the external universe that has properties which are independent from the states of human mind. In the same time, we will call „reality” the image of the „physical real” produced within human society.

MATERIAL AND METHOD

Giving the fact that reality, in our acceptance, is an emanation of human mind, more precisely an emanation of human mind in its social dynamics, we can talk about a veritable historical evolution of reality as an image of the physical real, each age having specific characteristics regarding its image of the universe, which constitute an entire world of meanings. In this respect, the term „world” retains for us this social character of human reality.

As to the Art, it expressed since immemorial times the conceptions about human being and its place in the universe that evolved in different historical periods. Starting with the first cosmogonies represented through paintings and sculptures and ending with the subtle relations between the esthetical preferences of some famous contemporary painters and scientific theories like Non-Euclidean Geometries or Theory of Relativity, one can easily observe that the majority of important art works are in some way connected to the general view regarding the place of human being in universe, an aspect that had also great influence upon the way in which human condition was understood in different periods of time.

It is enough in this context to remember the comparison between Renaissance painting and religious painting. This way we can understand better the long history of philosophical positioning that made possible the identity construction of European culture. Quite important artists in the past, from Igor Kandinsky up to Pablo Picasso and Salvador Dali have exploited, within their entire effort of building an artistic reality as a substitute for the real, some of the specific elements that characterize the scientific paradigms popular in their epoch. For example, we can refer in this sense to the non-Euclidean geometries and the Theory of Relativity.

Thus, Art proved to be capable of influencing the information transfer between artistic imaginary and social imaginary. This kind of subtle influences took place in both ways, an art work like Picasso's Guernica being a good example of transposition of some historical events, like the massacre that took place in the Spanish War and became a cross point of social imaginary, at the level of the artistic imaginary.

As to imaginary, we use to oppose it to the real in everyday language. We make use of this distinction when accusing a person, for example, of deluding us in some respect by telling us “imaginary things” instead of “real things”. As a matter of fact, generally speaking, European civilization is quite a suspicious one regarding any imaginative excess of individuals, any such a person being in danger to be considered in a precarious mental state, especially if one can prove that imaginary interposes excessively between its consciousness and the surrounding “real”. In fact, Europe spent quite a long time trying to eliminate mythological and religious imaginary from the consciousness-nature equation (I. G. Barbour, 1990).

On one hand, the process was a gradual one and coincided with the rise of modern thinking, but also with a desacralization of the world. Ioan Petru Culianu is one of those authors that deplore the decreasing capacity of modern people to control their fantasy, their imaginative processes, and the direct implication of this phenomenon being that such people could be manipulated easier (I. P. Culianu, 1994). On the other hand, the imaginary processes of contemporary people are quite influential, especially if we take into account the importance of artistic imaginary nowadays. Still, in comparison with Renaissance, we are today the witnesses of a naturalization process of human imagination, a phenomenon firstly detected by George Santayana (J. H. Randall, 1954). At the same time, the same process of naturalization played a crucial role in the rising of modern scientific methodology in Europe, an event that triggered another fascinating process: the refinement of scientific representations and of different types of imaginary implied in the development of human knowledge (Jacqueline Russ, 2002).

Fact is that other cultures, many of them oriental, no less refined than the European one, missed the opportunity of inventing an experimental science just because they had troubles in distinguishing the imaginary from the real. It seems that, in order to attribute constructive power to human phantasy as regards the effort of understanding the world, is quite important to admit the fictional character of human phantasy products. Making the distinction between real and imaginary represents, in fact, the first step in understanding the positive role played by imaginary in the development of human knowledge. In this respect, some oriental cultures, like the Indian one, for example, oftenly ignored the fictional character of human consciousness conceptual products and, by doing that, had real troubles in distinguishing between the human consciousness products and the physical real. Without this distinction, such cultures had difficulties in getting rid of mythical imaginary and were not able to develop a methodology for improving the descriptions of the surrounding world using pragmatic criteria and, therefore, did not develop a veritable descriptive imaginary with positive impact upon scientific knowledge (J. L. Bodinier; J. Breteau, 2000).

On the contrary, in European culture, in the periode of modern science development, there was a taff competition between descriptive imaginary on one hand and mythological and religious imaginary on the other hand. Giving the fact that imaginary things always lay between rational and irrational, between cultural and individual, when investigating the imaginary realm one has to adopt a wide perspective regarding the complex interaction among human consciousness, human reasoning and the surrounding world. Here we have to remember what we have mentioned previousely, that the term „world” retains for us the social character of human reality, because, in fact, descriptive imaginary is culturally modelated, due to the fact that different societies privileged different manners of conceiving the physical real, favourising in this process some specific types of representations in front of other types, just because the first seemed to be more culturally plausible and suitable to describe or to represent the world. The goal was always that of building a form of harmony in consonance with the mythological cosmogony and religious of those societies in the specific hystorical moment of their development. That is why the historical moment of European culture when modern science was developed had a cultural and theological background that favoured the epistemological rationalistic optimism that made possible the modern scientific discourse, and such a background should not be ignored when analyzing the rise of modern science and its descriptive structure or ideology.

Speaking about the interaction between human consciousness and the world, a crucial role here was played by human capacity of signifying the surrounding environment, of identifying harmonious shapes and intelligible structures, because the effort of knowing the world has an underlying aesthetical character that unifies the simplicity of mathematical formalism with the harmony and elegance of modeled shapes of nature. And this character is reflected by most of the theories in natural science, making us to understand more and more clear that the universe became interesting for human mind just because, at first, it impressed aesthetically human sensitivity. And this situation can be observed in the science of Ancient Greeks that were so obsessed by the harmony and order of the kosmos, but also in the science of the XVII-th century where nature could be known just because God, in his kindness, made it accessible for human mind aesthetically but also epistemologically.

RESULTS AND DISCUSSIONS

It is time to emphasize some convergence points between scientific imaginary and artistic imaginary. First, we have to observe that we are going to deal with two types of descriptivism. Both artistic reality and scientific reality are made of descriptions and lay on a transfiguring principle that puts them in relation with the physical real, whose image they intend to be. Whereas artistic descriptions have an expressive force based on subjectivism that has a symbolic, expressionist or surrealist nature, the scientific descriptions are based on conscious objectivism that has a realist nature, but having also an important fictional component, more or less visible, in case of experimental Physics, but most of all in case of theoretical Physics. Of course, this fictional component is a utilitarian and provisory one, as we mention earlier.

What actually unites these two types of descriptions is their arbitrary character, in the sense that they are both used in the effort of configuring a reality as an image of the real and within this effort some aspects of the real are arbitrary emphasized as essential and become important, whereas others are ignored. Both Art and Science are rich in such arbitrary descriptions of the real, both Art and Science develop types of discourse that contribute significantly to the emergence of an arbitrary shaped image of the real (R. Frigg, M. C. Hunter, 2010).

What distinguishes them one to the other is the general character of their analysis of the real: while Science is trying to develop objective analysis, Art is basically subjective in its endeavor. Scientific and artistic paradigms influence a lot the style of this effort and quite often, what was neglected in some period of time becomes important in another period and sometimes is declared essential later. That is why we can talk about a veritable historically evolving matrix of generating significance, valuable for every artistic and scientific paradigm separately.

Being populated with “common places” that characterize the circulation of social representations, both scientific and artistic imaginary depends on specific features characteristic for different historical periods in the human

society development. Such characteristics can be observed in Science and Art, from Galileo Galilei to Niels Bohr on one hand, and Hieronymus Bosch to Edward Munch on the other hand, for example. One should not be so surprised that the general opinion regarding what is considered to be beautiful and what is considered to be true suffered dramatic change on the transition from ancient agricultural society to industrial society, from industrial society to post-industrial society and finally, from post-industrial society to knowledge society (Pekka Himanen, 2001).

CONCLUSIONS

Nowadays the reciprocal influence between Science and Art manifests at two levels, giving the fact that network society, which is highly dependent on information technology as regards the transgressing of temporal and terrestrial barriers, is in a continuous expansion. And such a reciprocal influence has less to do these days with Greek Kalokagathia and more with the specific tension of the contemporary dialog between aesthetical and epistemic components of reality.

At the first level, we have the import of some scientific elements into the contemporary discourse, such as fractal patterns, cognitive unconsciousness, laser techniques, holography etc.

At the second level, we have the transference of some principles concerning the effort of configuring a reality as an image of the physical real, which is intelligible from a social point of view. Thus, both scientific reality and artistic reality became multi-dimensional, highly dynamic, built around notions like chaos, quantum decoherence, astronomical and mathematical singularities etc. They became multilayered at the level of the meanings embedded in scientific and artistic discourse and highly dependent on the transformations and dynamics of the network society.

Taking into account all those aspects maybe is not so surprising that nowadays contemporary people have the tendency to search the ultimate meaning and harmony in the world of fictional descriptive representations the same way they tended to search harmony in nature, cultivating aesthetics of the garden centuries ago.

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