

ART IN COMPARISON TO SCIENCE

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When I was very young, Giorgio de Chirico wrote the wonderful introduction for the monograph on Paola Levi Montalcini, my sister, published in Turin in 1939. The text, in Italian and French, which was written without payment, illustrated every aspect of Paola Levi Montalcini's painting, pointing out the substance and talent behind it.

I have been asked to say a few words on the comparison between Art and Science.

For a long time, it was thought that science was something chemical, of a somewhat dreary nature. Cerio, the scientist, tries to determine something that takes place outside of its existence. The world's activity persists beyond the scientist's mind. Instead, it is thought that the artist creates from nothing, independently from outside reality.

Today we know that it is not like this.

We know that both of them, the scientist and the artist, do not create out of nothing, but from that which is sent, from sensations, in abstract form to the brain.

From a scientific and artistic point of view, the cerebral circuits put into practice are the same.

What is the difference between the scientist and the artist?

There are considerable differences.

The scientist, more so than the artist, is capable of being both the spectator and actor at the same time. At his work desk, he has acquired, with time, the habit and ability of seeing how the brain functions. The same can only be partly said of the artist. The artist also works in relation to his own difficulty, yet this does not mean he creates out of nothing: one compared to the outside, the other compared to himself. In both cases, the active nervous circuits are the same because they live off the enormous creativity of the brain, which is Man's privilege.

The differences are in the way they proceed. With the scientist, an undertaking is initiated by a person's intuition, and then proceeds collectively, combined with others.

It is not solely about that scientist. Everything that I have done, my discoveries, are the formidable fruit, the combined solutions of other collaborators and colleagues who have given rise to new material.

The artist is entirely about himself and his work can not be of a collaborative nature. One can not improve a *cantata* by Bach, one can not improve a work by Michelangelo or Raphael or Dante. It is therefore an independent and single work that can not be continued. The nervous circuits can function in one way or the other. In my personal experience, the way in which my sister behaved, a great artist, made me understand that the journey is identical in both, the artistic field and the scientific field. In both cases, it is research, as I have already said. For the scientist and the artist, the actual act is similar to Minerva coming out of Jupiter's brain, representing the toil as a long work in itself.

Nevertheless the two actions are very different, even if the activity of the nervous system is the same. As I have said, it is exemplary that within the same family, one can become a scientist and the other an artist. One deals with creativity; the creativity is carried out not only in science and art, but in all spheres related to *Homo sapiens*. This is what we are today, that we know about. It is about creativity. Artistic work and scientific work are the same, as particularly noted by Albert Einstein. Einstein said at the end of his life that he owed his remarkable discoveries about space, material and energy, the subject which completely shook up all that had previously been known, to a work by Buldov: an intuition that did not derive from a collection of data, but from the fact that the brain, from morning till night, until the end of this wonderful existence, worked, created. He created from an intuitive point of view, thus both in a scientific and artistic way.

It is intuition that counts, for what very little I can assert from my modest activity.

In the case of my sister Paola, greatly admired and respected by Giorgio de Chirico, it was this remarkable intuition that he particularly praised in his introduction,¹ during the years of persecution.

Translated by Victoria Noel-Johnson

¹This text is published on the following pages, p. 467-472.