

SCIENCE AND HUMANITIES

Never before have science and humanities been so close together. Both have been present since remote times, but the progress of science and technology, as well as the very abundant applications that have appeared in recent times and the many innovations that are occurring daily, are leading to their increasing interactions.

The important advances of science in the past, such as the demonstration of the heliocentrism of the solar system, the law of universal gravity and the theory of the evolution of the species, among many others, shook the minds of thinkers and led humanists to look at science. The ethical implications of the most important and future path-tracing advances achieved in the 20th century are so numerous that they have opened a new field of concern and inquiry. On the one hand, in the physical sciences are the theory of relativity, quantum mechanics and the domination of nuclear energy, with its extraordinary benefits when employed for the well being of mankind and its immense damages when used for war and destruction. On the other hand, in biology are the discovery of the double helix and the consequent and progressive unfolding of the genetic code, with the extraordinary benefits that it promises and the evident risks of the use of its potential for evil.

The needed revision of the ethical principles underlying these advances in science and technology is noteworthy, and the development of bioethics is particularly highlighted. The changes that are taking place are not occurring exclusively at the level of doctrine and teaching, but also have practical manifestations. Nowadays no research institution or hospital center can be found without a bioethics commission whose important role everybody recognizes.

It is not possible to conceive presently an academic program in any of the branches of science and its applications that would not include an option for the humanistic analysis of the realities and the consequences of scientific development. Nor can a teaching program be conceived in the humanities that would not include the analysis of the impact of the development of science on the life and coexistence of human beings. In fact, the subject of science and humanities acquires an ever growing relevance in secondary school programs.

The growing contacts and interactions between practitioners of both areas is certainly enriching. Besides representing an inquiry about human nature, it offers the possibility of revealing complementarities that are hard to foresee at the interior of each specialty and of posing novel options for the solution of problems resulting from the isolation of any given area. Such interactions overcome the apparent confrontation of two cultures, humanistic and scientific, and open the doors to the concept of science as culture. In the end, it is conceived that both of them are mutually nourished.

The opinion of natural scientists about the humanities is in a welcome process of change. The need for a counterbalance to the isolation from human aspects that is shown by the activity of many researchers, and the consciousness of the influence of science and technology on all the aspects of contemporary activity, lead to such a change. The manifestations of the spirit are affected by the surrounding material progress, by the changes produced in nature and by those produced by man, all of which end up in the consideration and re-evaluation of the validity of the results and consequences of scientific and technological progress.

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