

## Science and Humanities: Two Different Worlds?

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When, in 1959, C.P. Snow published 'The Two Cultures and the Scientific Revolution', he was referring to the contrast between traditional and scientific culture. He thought that in his time there was a growing difference between the former, which was the humanistic culture of the intellectual literati, and the latter, full of the optimism of those who could not only read the book of physical nature, but also proposed ways to obtain maximum welfare for human beings as a result of what he called the scientific revolution. However, despite the fact that Runciman<sup>1</sup> is partly right in describing this work as "intellectually crass, politically naïve, historically shortsighted and rhetorically inept", it nevertheless does offer some keys to an alternative interpretation of the main questions raised by his thesis.

My first observation refers to the afore-mentioned distinction between traditional or humanistic culture and modern or scientific culture, which is clearly based on English universities' practice and, more importantly, on examination requirements to which Snow refers explicitly, as though there were nothing in between. But there are - as he himself admitted - among those who are not natural scientists, quite a few who share a good number of values with the latter. In my opinion, those of us touching on this matter in the 21st century have to proclaim the reality of the existence of the social sciences, which undoubtedly constitute the third culture to which some of Snow's contemporaries referred.

Also of interest to us, though for different reasons, is another thread in Snow's reasoning relating to his specific admission that "the scientific culture really is a culture, not only in an intellectual but also in an anthropological sense", as this statement contains a key for the understanding of scientific culture in another way. Thus, when some years previously Alfred Norton Whitehead considered the relationship between science and the modern world<sup>2</sup>, he stated clearly that "science is transferable from country to country and from race to race, wherever there is a rational society". The fact is that this prerequisite is far from being fulfilled everywhere, if by 'rational society' we are to understand one in which conditions favouring the rooting of the

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<sup>1</sup> W.G.Runciman: *Two Bodies, One Culture*, The British Academy, London, 2002, p.2.

<sup>2</sup> A.N.Whitehead: *Science and the Modern World*, Mentor, New York, 1956.

industrial-scientific attitude exist, or are created. Here, among other possible examples, one might recall that not one of the sacred books of the orient, from China and India, makes any reference to the economic concept of profit, not even in the negative form of usury, as in the scholastic literature of the Middle Ages.

Furthermore it has to be stressed that a scientific culture defined in this way not only exists in our societies, but also that in the second half of the 20th century science had been converted into technoscience. Its unstoppable capacity to change the world demonstrates the decisive role played by knowledge and scientific-technological development in exercising citizenship, to such an extent that, in the words of Vladimir de Semir, "to live with your back to science in the 21st century means renouncing the power to steer your own life".<sup>3</sup> This same author points out the impossibility of avoiding involvement in human beings' current capacity for discovery, or of remaining uninvolved in the ethical debates started by science or in the important political and social decisions that need to be made following its conclusions.

Technoscience constitutes an important part of our cultural heritage because it is present everywhere. "A cultured person no longer knows Latin, but does know computer science. Such a person still knows history, reads literature, listens to music and contemplates artistic objects, but also has a basic knowledge of science and technology."<sup>4</sup> Nowadays, indicators of scientific and technological development weigh as heavily as economic interests in the classification of societies according to their degree of prosperity and development. In order to incorporate a society into the technologically advanced category, or to accentuate its development in this direction, it is necessary to assume the values promoted by modern science, such as precision, strictness, generality, and empirical adequacy, as well as those of technology, such as utility, efficiency, efficacy, and reliability.

However, despite science's visible advantages and achievements, one can reasonably state that there is still a crisis of confidence in science in our societies, as revealed by the report on 'Science and Society' produced by the House of Lords' Select Committee on Science and Technology (UK), in March 2000. Many of the afore-mentioned values are questioned due to public reticence towards scientific authorities, and because the information reaching people is determined by the creation of a reality that the

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<sup>3</sup> Vladimir de Semir: "Ciencia fieramente humana. ¿Una tercera cultura?", *Blanco y Negro Cultural*, 18.1.2003, p.4.

<sup>4</sup> Javier Echevarría: "Tecnociencia y valores", *Blanco y Negro Cultural*, 18.1.2003, p.7.

communications media seriously distort. It is therefore necessary to combat this distortion, but, unfortunately, I cannot deal with this here.

If the humanities are removed from our societies, something remains that endorses the principles of science without having the physical-natural world and its laws or regularities as its object. What we have in mind here are the social sciences, or at least a part of what is today recognised as their content. This was patent in Auguste Comte's conceptualisation of sociology as social physics, but it is less clear today when so many studies lack statistical representation, or are inspired by intuition lacking proof, or are even of an improbable nature, yet accepted as fully-fledged science in departments of social sciences or economics, and not as work preliminary to research in the strict scientific sense.

Runciman, quoted above, opposes the acceptance of social sciences as a third culture. In order to justify his belief, he aims to refute both what he calls an out-and-out reductionist position, which dreams of a single physical science capable of also embracing all biological and human sciences as well as the position of those who "defend the absolute difference between the human or social sciences, that are subjective and charged with values, and the natural sciences, that are objective and neutral".<sup>5</sup> Clearly, Lord Runciman's position isn't different from adopting the viewpoint that there are only two bodies and one culture, or, in other words, that at the present time science and the humanities are both scientific in the generic sense explained above. However, one may doubt whether the inverse proposition is true: that natural science is also humanistic. To be so, it would have to contain a series of values from which it is, by definition, exempt since in science man is not the measure of everything.

Thus, I return to my own position. I consider that while science and the humanities do indeed constitute two clearly separate fields of knowledge, the social sciences as currently understood are applicable to the study of both, having their own content in which scientific knowledge is often mixed with purely humanistic knowledge in the sense of being speculative, intuitive, or impossible to falsify. Within the social sciences there are approaches that are as rigorous as those in the natural sciences and others which approach or even lapse into fantasy or, worse still, into prejudice. The fact is that the credit and social prestige of both types of human and social sciences are not equal, and persons without prestige show increasing interest in parasitizing them, or even denying them.

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<sup>5</sup> W.G.Runciman, *op.cit.*, p.3.

By way of conclusion, I can summarise my introduction as follows: for Snow only two cultures exist, the humanistic or traditional one and the scientific or modern one; for Runciman one culture and two bodies; and for those who argue in favour of an adequate recognition of the social sciences, either three cultures, or one culture and three bodies.