

RECONNECTING POLICY MAKING AND SCIENCE: HOW DO WE DO IT?

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The Rector, Prof. Franco Anelli about:

“The contribution of research in shaping the society of tomorrow”

Distinguished Members of the European Parliament, Speakers, Ladies and Gentlemen

1. The topic of my speech implies a question to which I anticipate the answer: the contribution of research in shaping the future of society depends on how policymakers, intellectuals, economic agents and citizens will decide to orient research and use its results.

In other words, it depends on the research policy which will be adopted. Good policies will grant a useful research, and outcomes able to give people a better life and to improve social values; wrong policies will lead to an unequal society, in which advanced knowledge and technology will be accessible only to the happy few.

There is no doubt that the progress of science has transformed our society, and changes have occurred progressively faster in recent years. This acceleration originates from the increasingly rapid progress in science and technology, but also from the faster rate with which progress affects our social organisation, our behaviours and our lives. This ever more immediate repercussion raises questions concerning how to govern these phenomena.

2. During history, science and politics have gradually intertwined. Researchers and scientists found their clear-cut social *status* in the Humboldtian University. Since the nineteenth century, University has become a social institution, the recognised place where efforts are made to promote knowledge (a collective effort, as funded by public resources) and to train new generations. In this context, university students can play a crucial role: they are the main *medium* to spread new knowledge across society.

3. After the Second World War, governments fully realised that the State had to intervene in the field of research. The most evident symbols thereof are the Vannevar Bush report: “*Science: the endless frontier*” (1945) and the *Steelman report* (“*Science and public policy*” - 1947), which emphasise the need to strongly invest in research, as a premise to significant economic development. Since then, research has acquired a new important interlocutor: the markets, which can promote it and influence it.

The idea of "knowledge economy" emerges: science and higher education become factors of production, like work and capital. The role of these factors is ever more crucial in the developed countries, which underwent industrialisation during the nineteenth and twentieth centuries and now find it hard to compete with newly industrialised nations in terms of production costs. They must therefore concentrate on knowledge and technological contents.

4. To credit research with the task of "shaping" society means understanding its social and ethical impact. It means abandoning the reassuring idea of a linear and neutral development of science, and being aware that the progress of knowledge dictates fundamental choices, both when choosing which researches to promote and when deciding on how to govern new knowledge and techniques.

It is a difficult task, because policymakers must face two challenges: uncertainty and complexity.

Uncertainty: new frontiers of science and technology may have both positive and negative effects. The outcomes of scientific research on society are not a priori foreseeable (Rein Social science and public policy, 1976). And uncertainty cannot be automatically solved through additional research or reduced through comparative evaluations of research results (Craye et al, International Journal of risk assessment and management, 2005);

Complexity. The social and economic environments on which research policies, and their outcomes, have to impact are problematic, interlaced.

A risk society cannot expect to solve its problems relying exclusively on scientific development. It should lead that evolutionary process, and use its results to pursue the common interest. This means that we should first of all be able not only to solve problems, but also and foremost to identify them.

5. It is no longer merely a question of how many resources need to be allocated, of how to distribute them and how to evaluate results. Research funding undoubtedly is an important topic, that could be significantly addressed by European institutions. Ralf Dahrendorf sustained the idea of Europe as a "common market" and an open area for knowledge and scientific research, designed in order to achieve the fifth freedom (free circulation of researchers and scientific knowledge); today the European Research Area and the different *Framework Programmes* are implementing this project.

It would be however a serious mistake to address research as a "simple", one-dimensional problem, which only concerns the acquisition of new knowledge, the elaboration of new methods or technologies. It is instead a complex issue as it involves a plurality of evaluation levels. Today it is widely accepted that research policies require, for their own social and moral legitimization, transparency, information, and participation of the public. With the waning of absolute objectivity, the democratic responsibility of scientists and research establishments imposes an exchange with other forms of knowledge and experience (Bijker et al., *The paradox of scientific authority*, 2009).

Recognising the need for debate, information, participation, makes it clear that *research policies* are increasingly less a purely objective issue – concerning the relationship between investigation projects and financial needs – while impacting more heavily politics, social order, the use of common resources, the choice of the research fields in which to invest and their final objectives.

6. In this landscape, what should be the role of scientific university research in building the future European society? Answering this question requires making explicit, to use John Henry Newman's famous quote, "*the idea of a University*" that one has in mind, which necessarily originates from the image of the *person* that one wishes to shape through university studies and to serve through the progress of knowledge.

The founder of our University planned to create a "*real university*": he meant a university in which education was attained through research and the involvement of students in critical investigation.

In these terms, as Pope Francis stated in his recent speech at the Council of Europe "*Education cannot be limited to providing technical expertise alone. Rather, it should encourage the more complex process of assisting the human person to grow in his or her totality.*"¹

7. These objectives should be kept in mind when defining European Union research programmes.

From this point of view, I am glad to mention our research programme *Active Aging and Healthy Living* as an example. It is indeed a multidisciplinary investigation conducted with a *human centred* approach. Any references to the values of the person and its centrality are not a call to abstract ideals, but could and should become a method of investigation: in the choice of topics as well as in defining the aims and the methods to achieve them.

This approach finds a fertile ground in universities, as institutions which tackle complexity not (only) through hyper-specialization, but try to synthesise and address problems considering their manifold aspects.

This requires the ability to couple “research according to paradigms” with “research according to needs”. This is something more than a call for an interdisciplinary approach. It requires changes in methods, objects, interests within the single discipline. It requires, in brief, a challenge to traditional categories and the creation of a new type of scholar, capable of adopting a new approach.

This can be the task and the contribution of universities. In the 1930s, Josè Ortega y Gasset, intervening on the role of science, culture and universities in shaping European identity, wrote: *“Without science the destiny of the European man would be an impossibility. The European man represents, in the panorama of history, the being resolved to live according to his intellect: and science is but intellect in form.” Is it perchance a mere accident that only the European has possessed universities, among so many people? And the university is the intellect, it is science – erected into an institution. And this institutionalising of intellect – is the originality of the European*².

² J. Ortega y Gasset, *La missione dell'università* (1930), trad. it, Guida, Napoli, 1991.

8. In conclusion, then, the issue of how research contributes to shaping our future society does not allow a unique answer. The only certainty is that its impact will be increasingly significant.

And thus, research will always be at the centre of choices, which will manifoldly affect the life of individuals and of society as a whole. These choices cannot be taken away from the people and be assigned to a technocracy of scientists. To choose wisely, we need an educated population, able to grasp the impact of certain choices, with strong moral values necessary to make decisions; on the other hand, to conduct researches adequate to satisfy the needs of people and communities, we need new scientists and scholars, who are able to cross cultural borders and boost the dialogue between specialised knowledge.

This is the aim of universities, which confirms their still modern and vital role. With this strong belief, we offer to Europe our contribution.