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EDITORIALE

LEADER

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SCIENCE AND POLITICS

The relationship between science and politics has always played a crucial role in society, at least since the 19th century, with two fundamental historical milestones: the Enlightenment, and the Industrial and Technological Revolution. Two examples will suffice to understand the paramount importance of the above relationship: on the one hand, the breakthroughs of nuclear physics and the development of the atomic bomb; and, on the other, the recent Covid-19 pandemic, the race for vaccines, and the different responses given to it by the various countries around the world. With regard to the latter example, in addition to disputes about the adoption of vaccination campaigns during the pandemic, we are now witnessing radical changes in direction, driven by the establishment of new governments making assessments and decisions that are at times completely different from those of previous administrations.

These are just two of the many examples that demonstrate the difficult and sensitive interplay between science and politics. A third element, equally important in today's society, should be added to the previous two: information. Information is no longer transmitted only through traditional media, but also disseminated on social media, practically without any control.

Hence, the politics-science-information triangle may acquire very critical and potentially dangerous connotations: critical, because a scientific truth can be purposefully biased; and dangerous, because this bias may entail decisions having negative repercussions on communities. It is clear to all of us that the forceful entry of Artificial Intelligence into our lives has made everything even more problematic and extremely critical (see Leader 2/2013 of this Journal).

Some interesting "reports" highlighted the different facets of the complex and complicated interaction between science and policymaking and of the role of civil society therein. Among these reports, I will mention just two. The first is entitled "Contested science – Public controversies about science and policy" by the Dutch Rathenau Instituut, published in 2014. The second, to which I had the opportunity of contributing, is called "Scientific Advice for Policy Making: the Role and Responsibility of Expert Bodies and Individual Scientists", issued in 2015 by the Organisation for Economic Co-operation and Development (OECD). As both papers date back before Covid-19, they provide us with a view of the relationship between science and policymaking not yet distorted by the traumatic experience of the pandemic.

A more recent example of the extent to which political, scientific, and technical issues may come into contact with each another is the design and construction of a strategic infrastructure, such as the bridge across the Strait of Messina, between Sicily and Calabria, in southern Italy.

In this instance, we are observing a continuous spillover effect from the realm of political debate, or rather confrontation, to that of technical–scientific discussion. To be more precise, political arguments and polemics are hinged upon and often leverage purely scientific issues. We are witnessing political confrontations that use technical–scientific "weapons" to attack and challenge the counterparty, by resorting to various instruments, both political and legal (administrative justice).

Having delved into some of the relevant technical issues, I can say with certainty that the wealth of technical–scientific data and findings underlying the design of the above-mentioned infrastructure has been subject to a major and despicable manipulation by some policymakers and media, including well-known national TV investigative programmes. In some instances, the data contained in the project documents was actually mystified for the sole purpose of injecting elements into the political debate and the public opinion that cast shadows and doubts on the feasibility and safety of the project.

One of the most debated issues concerns the seismic hazard to which the infrastructure would be exposed, in terms of both seismic shaking ("seismic action") and presumed "active faults" outcropping near the foundations of the pylons and the anchor blocks of the suspension cables.

The bitter clash taking place in the recent months and the arguments put forward by both opponents and supporters of the bridge construction, as seen from a privileged and, above all, informed vantage point on the state of the art, leaves us really bewildered.

REFERENCES

Blankesteijn M., Munnichs G. & Van Drooge L. (2014) - Contested science: Public controversies about science and policy. The Hague, Rathenau Instituut: 44 pp.

OECD (2015) - Scientific advice for policy making: The role and responsibility of expert bodies and individual scientists. OECD Science, Technology and Industry Policy Papers, No. 21, OECD Publishing, Paris: 50 pp. http://dx.doi.org/10.1787/5js3311jcpwb-en