

SCIENCE AND DEMOCRACY IN CRISIS MANAGEMENT

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Abstract: The new articulations between science and democracy raise numerous debates regarding the management of contemporary crises, which evoke the complex relations between the universe of scientific work, politics and society, passing through claims of an autonomy of the scientific field and its links with society. Science and democracy must go together in solving contemporary crises through the necessary dialogue between civil society and the scientific community around the choice of research priorities and respecting the margins of professional autonomy of the scientific environment, as a guarantee of the impartiality of knowledge production.

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Science is associated with the idea of progress, being closely linked to the notion of power and democracy, with a significant impact on political legitimacy. Given the current crises that humanity is facing, the legitimate question arises as to whether science takes precedence over democracy and whether it is constrained by politics.

Between science and democracy, the articulation, though necessary, is ambiguous. Efforts are being made to rehabilitate scientific discourse in the public sphere, with the social context inviting a revision of the foundations of science and its relationships with society. “Fundamental science concerns research that focuses on the development of knowledge or its deepening, on the functioning of phenomena of various natures, without aiming at practical application.”² Democracy, essentially, aims at the common good through the participation of citizens in various spheres of social life.

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² „Science fondamentale et démocratie : une articulation ambiguë, mais nécessaire”, Commission de l'éthique en science et technologie, 12 mars 2020, <https://www.ethique.gouv.qc.ca/fr/actualites/ethique-hebdo/eh-2020-03-12/>; Dahan, A., & Guillemot, H. (2015). Les relations entre science et politique dans le régime climatique : À la recherche d'un nouveau modèle d'expertise ? *Natures Sciences Societes*, Supplément(Supp. 3), 6-18; Jacq, A., & GuespinMichel, J. (2015). Science et démocratie : Une articulation difficile, mais nécessaire. *Écologie & politique*, N° 51(2), 107-120.

There are several models of the relationship between science and democracy, from the linear model³ that supports scientific autonomy and the separation between the two, to the social piloting model⁴ which overturns the linear one, stating that scientific development must be subject to democratic decisions in establishing major orientations, and concluding with the dialogic model, as a compromise between the two previous models, by preserving the areas of scientific autonomy (academic freedom) and democratic participation in the orientation of scientific development.⁵

Within the latest model, the dialogic one, the resolution of practical problems is reconciled with the understanding of phenomena, thus creating a space of autonomy for science “in dialogue with an extended democratization effort in choosing the priorities of scientific research.”⁶ Democracy should not be subjugated to scientific knowledge, deliberative procedures should allow for genuine dialogue, avoiding the harmful consequences of expressing particular interests, such as suppressing the results of scientific research that prejudice the financial interests of certain private companies.⁷

Today, more than ever, cooperation between politics and science is demanded, without having to choose between science and democracy. The linear approach to science is questioned when catastrophic consequences are at stake, requiring the “integration of scientific findings and political actions”⁸ to favor the broadest public response to resolving climate crises⁹ developing new energy technologies, and extending lifespan through the acceptance of new therapeutic methods.¹⁰ However, science is still viewed with distrust due to the misunderstanding of the scientific process and the suspicion hanging over scientists that they may seek to influence or exert pressure on society. Only through a shared scientific culture in an appropriate manner can citizens in a

³ Dahan, A., & Guillemot, H. (2015). Les relations entre science et politique dans le régime climatique : À la recherche d'un nouveau modèle d'expertise ? *Natures Sciences Societes, Supplément(Supp. 3)*, p. S8.

⁴ Jasanoff, S. S. (2016). *Contested Boundaries in Policy-Relevant Science: Social Studies of Science*.

⁵ Jacq, A., & Guespin-Michel, J. (2015). Science et démocratie : Une articulation difficile, mais nécessaire. *Écologie & politique*, N° 51(2), p.119.

⁶ *Idem*, p.118.

⁷ *Ibidem*.

⁸ Dahan, A., & Guillemot, H. (2015). Les relations entre science et politique dans le régime climatique : À la recherche d'un nouveau modèle d'expertise ? *Natures Sciences Societes, Supplément (Supp. 3)*, p. 512

⁹ *Ibidem*.

¹⁰ Serge Haroche, « Réflexions sur la science et la démocratie », *La lettre du Collège de France* [En ligne], 37 | Décembre 2013, mis en ligne le 24 janvier 2014, consulté le 25 octobre 2022. URL: <http://journals.openedition.org/lettre-cdf/1592> ; DOI : <https://doi.org/10.4000/lettre-cdf.1592>

democratic society understand that unspoken subjective interests cannot impose scientific facts, which must assert themselves objectively.

Prudence in the fields concerning the environment, pharmaceuticals, and energy must echo the demands for protection and security of today's society, through the definition of intelligent and tailored scientific policies in the given circumstances.

The mass media plays an essential role in the proper understanding of the role of science in solving contemporary crises, by adopting a vigilant but not negative attitude towards scientific information, by providing well-founded arguments for divergent issues, without pursuing the media spectacle of sterile debates based on merely better or poorly founded opinions.

The flaws of democracy explaining current crises

“Democracies are, in their own way, living systems. But it is not enough for them to live: they must also survive.”¹¹ For this survival, democracy needs mechanisms to make it robust and complex. Current democracies suffer from the lack of altruism (the duty of solidarity), the absence of genuine dialogue among participants in democratic life, and the inefficiency in achieving well-being. Science and education play a key role in rejuvenating the political system to strengthen democracy.

Does democracy need science? Under this title¹² Pierre Papon interrogates the relationships between science and society, emphasizing the need to give science a more civic dimension, as public policies today have a scientific dimension that cannot be overlooked. Democracy needs science, with a precise understanding of the role it must fulfill.

Science is the body of knowledge about “matter, immaterial, the Universe, living things, and society”¹³ knowledge acquired through experimentation, observation, and interpretation of data, and then formalization into theories that allow the interpretation of observed facts, distinguished from mere opinions or ideologies by reproducibility and falsifiability.

Universalism, communitarianism, the pursuit of an interest, and organized skepticism constitute the foundation of values on which science is based. Even though there are uncertainties in scientific knowledge, it is riskier to make choices without considering them, as “it is better to bet on science.”¹⁴

The advent of the digital, even though it promised immense leaps in knowledge, its net contribution to major discoveries must be relativized because,

¹¹ P. K. Philippe Kourilsky (2019). *De la science et de la démocratie*. Odile Jacob. Paris. p. 1.

¹² Papon P. (2020). *La démocratie a-t-elle besoin de la science?* CNRS Editions.

¹³ *Ibidem*.

¹⁴ *Ibidem*.

apart from accelerating the production of knowledge, it has not produced anything extraordinary.

The dialogue between science and society.

Science and democracy, although operating differently, constantly interact. “The paths of science should mobilize all disciplines, but we must note that the human and social sciences are the poor relative of expertise, even though they are indispensable for evaluating the economic and social impacts of numerous techniques.” Researchers are tasked with analyzing society to paint an accurate portrait that leads to political decisions. However, public authorities do not trust science. Whether it is Donald Trump declaring that climate change is a Chinese hoax or the Italian Prime Minister stating that most vaccines are useless and dangerous, science seems to be detested by some political regimes, so scientists must play the role of defenders of the democratic system.

How did they come to play this role? A first explanation lies in the reversal of power relations. If in the second half of the 20th century, all global powers were democracies, the situation seems to be changing, with autocratic countries like China reigning over the global economy. This leads some people to perceive the “weakness” of democracy and the importance of having populist and autocratic leaders. The second explanation lies in the flaw of science in understanding that the world is terribly complex, and solutions to problems are not magical and require time, even conflicting with certain interests of very powerful private firms. Another explanation is that scientific studies disturb politicians' projects, who even accuse scientists of being activists, thus erasing their diligent work in one fell swoop.

The democratic regime remains the only one that truly allows scientists to criticize and improve all aspects of modern life. In the current context, where the fate of democracy seems to be going through dark days, the survival of this type of social model passes through the work of scientists positioning themselves as “watchdogs” of democracy¹⁵.

Conclusions

It has highlighted the complex interaction between science and democracy, emphasizing the crucial importance of a balanced relationship between the two. It reveals how science and society influence each other, emphasizing the difficulties in maintaining a harmonious coexistence in the context of present political and social changes. Furthermore, I emphasized the need for scientists to become

¹⁵ Alexandre Roberge, „Science et démocratie. Des rapports complexes. Quand les scientifiques sont vus comme des enqueteurs”, <https://cursus.edu/fr/13243/science-et-democratie-des-rapports-complexe>

defenders of democracy, in the face of political trends that seem to undermine the role of science in making political decisions.

By highlighting the critical importance of maintaining a healthy relationship between science and democracy for the well-being of society, I underscored the need for trust in science and the promotion of open and objective dialogue between scientists and authorities, to address the complex challenges of the contemporary world. Finally, I underscored that the survival of democracy depends largely on the active involvement of scientists in protecting democratic values and transparency in the decision-making process.

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