

History of Science During the Cold War Under the Microscope

Dalia Báthory¹

The Institute for the Investigation of Communist Crimes
and the Memory of the Romanian Exile

Abstract: The general post-communist perspective of historiography on the Cold War era is that the world was divided into two blocs, so different and isolated from one another that there was no interaction between them whatsoever. As revisionist literature is expanding, the uncovered data indicates a far more complex reality, with a dynamic East-West exchange of goods, money, information, human resources, and technology, be it formal or informal, official or underground, institutional or personal. The current volume *History of Communism in Europe: Breaking the Wall: National and Transnational Perspectives on East-European Science* tries to confer more detail to this perspective, by bringing together research papers that focus on the history of science during the Cold War. The articles cover a wide range of subjects, from biology to philosophy and from espionage to medical practices, all sharing an ideological context that continuously impacted and molded the professional relations among scholars from both sides of the Iron Curtain.

Key words: transnational, transformation, Cold War, science

Transcending the East-West divide paradigm of analysis that has been used for so many decades requires a change of perspective and a reinterpretation of the data available so far. The totalitarian model of analysis focused on political-economic changes underwent by nation states under Soviet influence (Marin 2014, 13). Gradually a revisionist model (Marin 2014, 14) is replacing this rather unilateral perspective, a model that takes into consideration a more detailed outlook on aspects of everyday life, on grassroot perception and

¹ The Institute for the Investigation of Communist Crimes and the Memory of the Romanian Exile, Alecu Russo Str., no. 13-19, Sector 2, Bucharest, Romania; dalia.bathory@iiccmr.ro.

appropriation of ideology and power, on negotiation of laws, rules and regulations, on bending state structures and creating breaches for *free spaces* (Poletta 1999, 1) marked by forms of political action. Part of the revisionist trend is also to overpass the national perspective and develop a transnational analytical view over the events of the time, thus deepening the understanding of their impact, complications and ramifications on regional, continental or global levels.

When it comes to the history of science, this latter model highlights the permeability of the so called “Iron Curtain.” The circulation of scientists and ideas was indeed restricted and subjected to surveillance and control, but it never stopped, thus ensuring a flow of technology and know-how and a West-East reciprocal influence with far more impact than it has been previously acknowledged, especially on the satellite countries of the Eastern bloc.

Were we to divide science into two major components, these would be *fact production* and *communication*. As thoroughly described by Bruno Latour in his work *Laboratory Life* (1986), a logical succession of actions monitored and verified, having a certified result with the purpose of producing a *fact*, (a statement beyond authorship – Latour 1986, 82) is what science is made of, while communicating this ordered succession of micro processes confers objectivity to it and transforms it into the mirror image of reality (Latour 1986, 177). Moreover, the specificity of the scientific communication process gives credit to the scientist and creates a market of information, where the stakeholders take interest in the newly produced and released data, as this is the procedure that ensures their career advancement.

This “market” of information is limited to scientists and their competitors who fight for scientific authority (Bourdieu 1975, 23), a position that confers power over the mechanisms of the field and that can convert in other forms of authority. “What is at stake is the power to impose the definition of science” (Bourdieu 1975, 23), in truth a fiction that has no arbiter to have it legitimized except its own “legitimizing authorities” and which is also inherently political. Thus, a scientific habitus is established, ensured by the educational system (Bourdieu 1975, 30). Pierre Bourdieu stresses that the basis of science is the “collective belief in its bases” which is also produced by the scientific field (Bourdieu 1975, 34), while the representations of science correspond to positions in the field, so that these representations are actually ideological strategies, whereby the agents occupying a certain position in the field aim to justify it, while their strategies aim to maintain it and discredit the agents holding the opposing view.

These positions, more sceptical to the positivist pretensions of science, have developed in the past half of the century and have also opened up the possibility of a clearer understanding of how Soviet science functioned, beyond any Manichaeic Cold War interpretations. It is now evident that the

social construction of the scientific fact makes it vulnerable to ideological impact and transfers to it the possibility of becoming a political battleground, even today (Marks 2017, 189).

Nikolai Kremmentsov and William deJong-Lambert organize the historiography of the subject into two large categories: “oppressed science” and “socio-cultural history of science” (2017, 16). The authors use this classification to analyze the Lysenko affair, but it might be extrapolated, as this largely covers the main approaches to the topic of science during the Cold War.

The first category uses the existing resources for analysing the relationship between the authoritarian state and the researchers within the totalitarian paradigm, stressing the Soviet ideological control and rigor, as well as the punitive measures undertaken by the Soviet or Soviet-satellite states throughout the domination of the Leninist-Stalinist regimes. The second category, the “socio-cultural history of science,” looks for a more nuanced perspective, including negotiation of interests and boundaries, cooperation, mutual impact or patron-client relations (Kremmentsov, deJong Lambert 2017, 16). Scholars of the second category also tend to consider Marxism-Leninism as a linguistic channel of communication among scientists, party bureaucrats and political leaders, regarding social scientists as the experts able to use it to create the coherency of the new social order, as well as proof that society is best organized by the Soviet socialist ideology (Kremmentsov, deJong Lambert 2017, 17; Aronova 2011, 185).

It is within this latter category that it can be understood how the circulation of ideas, transfer of knowledge and technology, as well as communication between the two ideological and military blocs could happen, despite the political antagonistic discourse and tensions. The current volume of *History of Communism in Europe* is an exponent of this paradigm and contains papers based on several presentations delivered at the *Breaking the Wall: A National and Transnational Perspective on East-European Science* conference, organized in 2017 by the Institute of the Investigation of Communist Crimes and the Memory of the Romanian Exile (Bucharest, 10-13 October 2017). The conference papers are completed with a few perspectives on mechanisms of soft diplomacy pertaining to science, as well as two perspectives on the transformations in the field of philosophy in Romania.

William deJong Lambert’s paper “*The Difference Between No. 1 1928 and No. 1 1930 is Great Indeed.*” *Theodosius Dobzhansky’s Self-Imposed Exile from Soviet Russia - The “Dr. Zhivago Period”* describes the struggles of Soviet biologist Theodosius Dobzhansky, who was interested in researching mutant strains of *Drosophila melanogaster* during the Interwar period, to obtain residence in the USA for pursuing his research interests. Having discovered that there was a team led by Prof. Dr. Th. Morgan at Colombia University

researching the same topic, he applied for a scholarship from the Rockefeller Foundation and travelled to United States. As the political sphere interfered with research in the Soviet Union, and scientists lost control over what they were allowed to study, Dobzhnasky's interest to return home diminished, and he made efforts to keep his position in Dr. Morgan's team.

Jean-Claude Dupont's contribution, *L'histoire médicale et politique du pavlovisme en Russie et en France: Fernand Lamaze et le cas de l'accouchement sans douleur*, illustrates the history of Pavlovian principles of psycho-prophylactic method of painless childbirth, as the impact of the Cold War on the circulation of ideas was triggering political controversies over medical topics.

A third breach in the Iron Curtain is presented by Mirosław Sikora, in *From Promising Agent to Suspicious Francophile. Professor Stefan Węgrzyn and his Contacts with Professor Jean Charles Gille through the Lens of the Polish (counter)Intelligence (1958-1976)*. The article contains a contextualized case study on scientific relations between the Eastern and the Western Blocs, illustrated by the professional collaboration and friendship of Polish computer scientist Stefan Węgrzyn with French engineer Jean Charles Gilles, who was conducting military research at the time. The article reflects the political implications of such relationships and the consequences Węgrzyn had to endure, by resisting several attempts of recruitment made by the Polish political police.

Luciana Jinga follows the transfer of knowledge in the scientific field of sexology in Romania. The article *Science and Politics during the Cold War – The Controversial Case of Sexology in Communist Romania* puts forward the hypothesis that despite the Soviet inspired ideological context, Romanian researchers managed to keep pace with the Western practices, by following their "personal credos" and maintaining the dialogue with the researchers from the other side, thus instilling a fourth breach in the Wall.

The second section of the current volume contains two analyses that relate to science as an instrument of soft power. Corina Doboş' article, *Swinging Statistics: Population Research and Political Construction in 20th Century Romania*, is at once a clear illustration of how statistics was used as a tool for studying the working force in order to follow the social changes brought about by the socialist transformations and to design targeting policies, especially with regard to demographics, and a thorough account on the stages of replacement and afterwards recuperation of researchers on vital statistics. The role of the Socialist Republic of Romania in the international debate on the topic of population during the 70s is also underlined in her research.

Irina Nastaşă-Matei explores another facet of soft-power during the Cold War, namely the academic exchanges and the transfer of knowledge between the two antagonistic blocs. More specifically, the paper presents the situation of Humboldt fellowships and Romanian Humboldt fellows between 1965-1989, during the Ceauşescu era. At least the first two decades of this regime

created circumstances more conducive to knowledge transfer, as it was to this country's interest to promote technological advancement and thus find overt and covert modalities to develop it.

Philosophy was one of the important targets of change during the period of socialist transformations, as it stood for the main framework of the revolutionary worldview that was supposed to support the radical societal modifications. The articles comprising the third section of the journal deal with these changes from two different viewpoints. Cristian Vasile follows the biographical avatars of Constantin Ionescu Gulian in order to illustrate the changes within the Institute of Philosophy of the Romanian Academy (an institution that suffered several transformations regarding its name during the communist decades as well, therefore I use Romanian Academy as a generic denomination), as he was one of the main managers in the field of philosophy in Romania. Daniela Maci's article adds nuance to the status of philosophy in Romania, by shedding light upon the changes that took place in the philosophical vocabulary in Romania, as well as in the education system.

All the microhistories and analyses presented in the current journal broaden the perspectives on the important role of science in the everyday lives of the Soviet/Soviet modelled societies. Moreover, they illustrate the circumstances, the kind of interests to serve as reference and the conditions in which the Iron Curtain could be bent or moulded, in order to allow the necessary flow of money, technologies, ideas and practices needed for the economic development of both the East and the West.

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