## Eglė RINDZEVIČIŪTĖ, The Will to Predict: Orchestrating the Future through Science,

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As the current world and the unfolding events are perceived as increasingly unpredictable, it is important for scientific prediction to maintain the sense of order and rebuild the confidence in the appropriate predictive knowledge. Historian Eglė Rindzevičiūtė claims that, in order to achieve this, one has to look back at their history. She contributes to a branch of research that focuses on predictive expertise by authors such as Jenny Annderson, Jamie Pietruska, Elke Seefried, or Jens Beckert and builds on her previous research on Cold War-era governance, futures studies, cybernetics, and transnational circulation of ideas and practices of these fields.

In her new book, The Will to Predict, Rindzevičiūtė examines the history of scientific prediction in the context of late modern governance using the example of Soviet Russia. While the focus on an individual country might seemingly limit general conclusions, she hopes this example serves as an instructive one for broader trends and developments in liberal context as well. Also, it casts light on a less known part of scientific prediction as, e.g. in the field of futures studies, where researchers examined mostly Western countries and scholars. The shift to the East is more recent, and this book complements efforts to show that there is no simple West-East transfer, bringing forward cases of non-Western scholars, ideas, and practices.

Rindzevičiūtė draws on the term "will to power" by Friedrich Nietzsche. For her, "the ability to predict is a form of power" (p. 1). Similar to the Nietzschean conceptualization of the experience of power through conscious action with both internal and external struggle, she stresses the complexity that the will to predict (scientifically) faces both with regards to its aims and to its orchestration. Orchestration is another key term of Rindzevičiūtė, which she borrows from the key figure of cybernetics, Norbert Wiener. She uses it to describe the multitude of presuppositions which enable creation of scientific prediction and its actual use in governance. She defines it as a description of "process through which scientific knowledge, social order, and political government are coproduced through the creation of data-gathering apparatus, design of new research objects and subjects, and enactment of new models of order, both behavioural and institutional" (p. 7). It takes an interplay of many different synchronized agencies which must be purposefully organized to achieve this.

Before getting to more complex and global styles of prediction, Rindzevičiūtė explores preceding types of prediction. Starting from ancient Rome, she goes from the pre-modern, through modern, to late modern notion of prediction. As she points out, it would be a mistake to strictly separate these notions to specific eras as they overlap and function alongside and influence each other. According to her, the will to predict scientifically tries to balance different types of prediction and the notion of scientific character of a given type of prediction is a matter of social negotiation.

The main chapters dealing with specific types of prediction are based on selected individuals whose life stories and ideas serve as an entry point into the issues. Aside from father of cybernetics, Norbert Wiener, Rindzevičiūtė uses examples of Russian scholars, which emphasizes the local context and contradicts the notion of a simple transfer of ideas from the West. The individual concepts which I try to summarize in the review may come across as simplified and I can only recommend the reader to consult Rindzevičiūtė's book for a more comprehensive familiarization.

The first such chapter is about statistical forecasting and deals with Nikolai Kondrat'ev whose relevance, ideas, and critique on planning and prediction stretch well into late Soviet Russia. Rindzevičiūtė shows that the ambitions of statistical forecasting were plagued with problems ranging from a lack of available and reliable data, limiting institutional design, to a lack of experts who could process data. Nevertheless, this story indicates the determination to use science while building the Soviet Union even though it contradicted the political aims and limits of the five-year plans. It was supposed to serve to make the society and economy more predictable as well. For this, institutions producing and gathering data needed to be built and experts needed to be educated. But Stalin's purges exacted a heavy toll on the field, and predictive sciences had to wait for their time until the mid-1950s – with the exception of army and security services.

The following chapter about cybernetic prediction deals with quite a different approach in contrast to the Comtean positivist scientific prediction. Explaining the ideas of Norbert Wiener and attempting to reconcile them with materiality, Rindzevičiūtė refuses to postulate an inherent connection between cybernetics and authoritarian tendencies, claimed by many others. In contrast to statistical forecasting, cybernetic prediction which has roots in statistical extrapolation embraces uncertainty and tries to orchestrate the society in a manner which would be reflexive enough to be able to cope with ever changing systems. She stresses the cybernetic enthusiasm which lasted into the 1960s and which postulated the applicability of cybernetic prediction to any purposive system. This optimism later evaporated, and the broad notion of cybernetics was limited to informatics.

For the chapter about social forecasting, Rindzevičiūtė uses Igor Bestuzhev-Lada. The author acknowledges that while he was the face of social forecasting, he is unsuitable to work as a representative of the whole field of forecasting. He was also more of a promoter and manager rather than a brilliant scholar. Social forecasting and its scholars had a very difficult position in the Soviet Russia. While there was a demand for theoretical outputs of social forecasting, there were limitations on what could be achieved due to the unchanged institutional design which fragmented the economy into branches and one could not forecast them as a whole until the late 1980s – and at that point, there was chaos caused by the economic reforms of perestroika –, political unviability of undesirable interpretations, and an ongoing lack of access to data. This led to frustration on the part of the scientists, internal criticism and the overall perception of the planning system as flawed. But the belief that governance should be based on reliable information continued to grow. However, the political constrains were persisting and it was not viable to produce undesirable outputs. Rindzevičiūtė sums it up: "Projecting continuity, social forecasting served as a tool for conserving the status quo" (p. 96).

The following two chapters are especially relevant for the global situation of today as the ideas and practices analysed by Rindzevičiūtė are ever present in contemporary Russia. The first chapter deals with Georgii Petrovich Shchedrovitskii and the notion of prospective reflexivity. This concept aimed to deal with the pervasive informal side of the Soviet economy and society. While it was worded in a more neutral and general way than in the scientific predictions, it still proved to

be very popular among Soviet managers. Due to the limitations of the Soviet economy, they constantly dealt with pressing, everyday matters. Shchedrovitskii used the long-term time scope to break them out of their everyday scripts in simulation games. He has a substantial legacy and the Russian managerial thinking still draws heavily on his ideas about prospective reflexivity, promoted in particular by his son. The latter chapter deals with the theory of reflexive control and Vladimir Lefebvre. In contrast to prospective reflexivity with its aim of cooperation, the aim here is victory. "To enact reflexive control means to lure the opponent into a frame of thinking that would eventually lead to the opponent's disadvantage (p. 122). According to the principles of the theory, one should deceive opponents – i.e. lead them to a certain course of thought – to restrict their options in order to make them more predictable. This is a way how to deal with opacity and uncertainty, which is still frequently used in many situations in Russia. Rindzevičiūtė connects reflexive control with many examples of strategic deception by Russia in recent years and shows how much influence it has on the Russian government's approach to dealing with conflict situations and problems.

The last thematic chapter deals with global prediction. On the example of Nikita Moiseev and his concept of noosphere, which mixes biosphere with governmental apparatus, Rindzevičiūtė demonstrates how the global complexity has proved unsuitable for both previous types of scientific predictions (for instance, cybernetic systems are suitable to deal with simple goals and complexity presents a problem). In this context, the orchestration of scientific prediction becomes crucial. To navigate the complexities of global prediction – i.e. basically inevitably failing in the end -it is essential to create an environment capable of effectively producing and applying predictions of a lower rank. Moiseev's theory of governance emphasizes slowing down the pace of change and argues that at the highest level, the state should focus on setting broad survival limits and offering negative guidance rather than specific goals. By slowing down the pace of change, his approach aims to allow predictions at lower levels to be produced more accurately and applied in the right place, at the right time, and in the right combination. Rindzevičiūtė states that these - and other - observations about the unsuitability of cybernetic notion of purposive governance on a global level could be very fruitful even in the contemporary situation.

In conclusion, Rindzevičiūtė presents a concise analysis of the development of scientific prediction in Soviet Russia. She describes how

at first, the positivist scientific prediction after the First World War criticized the practice and theory of planning and how it was organized. After the Second World War, the dysfunctional orchestration of scientific prediction, which served to legitimize decision, is changing with the rise of Khrushchev and with what she calls cybernetic sensibility. The author then arrives at the late modern concepts of scientific prediction which are the foundations of the Russian governmental imagination even today. What deserves particular attention in the face of Russia's aggression in Ukraine is reflexive control, but prospective reflexivity and the concept of global governance as guidance through milieu are also worth considering as useful tools for navigating the complexity and uncertainty of today's world.

Rindzevičiūtė states that the aim of the book was "to develop a sociological and historical study of prediction that is sensitive to plurality" (p. 187). She has certainly accomplished this goal in a comprehensive manner. The different types of scientific prediction clearly show the intertwined plurality of predictive knowledge, which became increasingly diverse through time. The examples of Russian scholars stress the local character and roots of many ideas while not side-lining the influence of knowledge circulation from elsewhere.

It is a difficult story to weave as the development of the scientific predictions is quite dynamic, interdisciplinary and spontaneous. Rindzevičiūtė draws from many different fields - e.g. neuroscience, cybernetics, psychology, environmental sciences and others – and she refers to many important personalities. The number of mentioned scholars can feel overwhelming at times, but I consider it mostly justified as it may serve as a signpost enabling the reader to delve into many different topics. Sometimes, different prediction techniques yield similar results, but as Rindzevičiūtė warns, the epistemological differences should not be ignored. The account of different types of scientific prediction may feel unbalanced as e.g. the part dedicated to reflexive control theory lacks an impact analysis in a similar measure as the other types but this is due to the nature of the field. Moreover, I would argue that the case of Soviet Russia and its usefulness for understanding the development of liberal context would benefit from more examples that would efficiently link these different stories. Rindzevičiūtė seeks to connect the history of scientific prediction with the contemporary world not only in the example of the Russia's aggression in Ukraine, but also in the context of the system of governance, global models, and climate change. Various crises repeatedly demonstrate that (scientific) prediction is a vital tool in our world. Rindzevičiūtė emphasizes that without proper and democratic orchestration, scientific prediction risks becoming mere conjecture. Even then, failure at some point is an almost certain outcome. But should we give up the will to predict because of this? Rindzevičiūtė answers: "Probably not" (p. 191). We should learn from our failures so that "we can fail better" (p. 193).

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