

**Review of Krzysztof Brzechczyn,
*Idealization XIII: Modeling in History***

Giacomo Borbone

University of Catania

In the 1970s there appeared the Idealizational Conception of Science (ICS) – an alternative approach in philosophy of science, different from epistemological assumptions of neo-positivism and Popper's hypotheticism. The works of Leszek Nowak (1943–2009) – the founder of ICS – firstly appeared in Polish at the beginning of the 1970s but in English in the 1980s (Nowak 1980). The important tool of dissemination of idealization was *Poznań Studies in the Philosophy of the Sciences and the Humanities* whose first issue came out right in 1975 (first as a journal) – a book series devoted to philosophy of science and of human and social sciences founded by Nowak himself.

This philosophical book series, besides being the main diffusion instrument of Nowak's thought and that of the Poznań School, is now an important cultural vehicle characterized by a high scientific profile, also proved by numerous monograph issues devoted to the main problems concerning philosophy of science, where the most important western philosophers and epistemologists published articles and essays.

As it is well known, the keystone of Nowak's thought is the Idealizational Conception of Science, whose importance and validity is now widely recognized. The starting point of Nowak's epistemological reflections is both simple and innovative: there is a difference between abstraction and idealization. In fact, differently from what has been upheld by inductive philosophies or even by the positivist and post-positivist ones, the latter should be considered as the core of scientific method and not the first, according to Nowak. This

scientific approach starts from a methodological study of Karl Marx's and Galileo Galilei's works. Leszek Nowak re-elaborates it in a creative way, establishing a close comparison with the most significant conceptions of contemporary epistemology. It has got its conceptual nucleus in the need to separate 'essence' from 'appearance' – developed by Marx, who had taken it from Hegel – in order to catch what is more essential in phenomena, which is, according to Nowak, the fundamental aim of science.

In fact, there is a substantial difference between abstraction as it appears from a methodological reconstruction of Karl Marx's *Capital*. Even though Marx used the term 'abstraction', he intended it in a radically different way from the empiricist conception. To understand better this difference, we can take the example of Galileo's law of free fall:

$$s = gt^2/2.$$

So, Galileo disregards in this law some factors that we know act on bodies, operating in that way with some 'counter-factual assumptions'. In its complete form, the formula will be the following:

$$\text{if } R(x) = 0 \text{ and } g = \text{constant, then } s(x) = gt^2/2.$$

In this transcription, we can notice the way the air resistance on a body x , $R(x)$, equals to zero and the gravitational force is assumed as constant, when in reality we know that things are different, but that is the real way how scientists work: they formulate – sometimes tacitly – some 'idealizing assumptions'.

The thesis of Nowak and his School consists, therefore, in maintaining that mature science proceeds by systematic idealizations, so science works as follows: (1) we introduce idealizing assumptions, (2) we formulate idealizing laws and (3) we gradually concretize and 'approximate' these laws.

The difference between abstractive procedure and idealizing procedure consists in the fact that, while the first is applied by human intellect obtaining universal concepts from the knowledge of particular objects (by the generalization of empirical facts), by 'idealization', we proceed 'enclosing between parenthesis' some aspects of phenomenal reality that we consider secondary, in order to take into consideration the essential factors of the phenomena under investigation. Classic abstraction finds its roots in works of Aristotle who used to consider it the building block of theoretical sciences like mathematics, physics, and so on. However, Aristotelian abstraction

used to refer to immediate reality and that is why it is not able to catch the deep discrepancy between essence and appearance.

Thanks to the idealizational approach, science loses the dogma of the objectivity, because we are aware that scientists do not aim so much at giving us a perfect representation of what the world is, but rather as approximate an image of it as possible.

The issue of idealization in science demonstrated its scientific fertility also in other cultural fields apparently too far from epistemology, just like psychology, linguistic, history, sociology, *etc.* The last volume of the *Poznań Studies in the Philosophy of the Sciences and the Humanities* that we are presenting here, entitled *Idealization XIII: Modeling in History*, is dedicated right to the relationship between history (or more general social sciences) and idealization. This monograph issue, that to be exact is the thirteenth volume dedicated to idealization, has been edited by one of Nowak's pupils, namely the philosopher and historian Krzysztof Brzechczyn.

Krzysztof Brzechczyn's introductory essay, *Between Science and Literature: The Debate on the Status of History. An Introduction*, opens the volume in question. This essay summarizes very well the overall theoretical position of both the Poznań School and Krzysztof Brzechczyn, regarding the role of idealization in history. Krzysztof Brzechczyn analyzes, in the light of the ICS, two different historical approaches: on the one hand, the positivist one of Carl G. Hempel and on the other hand – Hayden White's narrativism. While Hempel collocates every kind of explanation (including the historical one) under the deductive-nomological model (that does not allow any explanation if we use idealizational laws), narrativism considers history be closer to literature instead of science. Brzechczyn, in the light of the ICS tries to enucleate the main limits and imperfections of Hempel's and White's arguments.

Idealization XIII is composed of four sections, the first is dedicated to the ontology of historical process, the second one to the relationship between scientific modelling and historical methodology, the third one to the relationship between scientific modeling and scientific practice and the last one contains some contributions of the main Polish philosophers of analytical philosophy of history.

The first section, *Ontology of the Historical Process*, opens with the essay by Marcell Handelsman entitled *Possibilities and Necessities of the Historical Process*. Handelsman states that there are two fundamental factors of the historical development, that is to say determinism, on the one hand, and the indeterministic doc-

trine of pure and free human will, on the other hand. Between these two extremes, there is a wide area of possibilities that comprises all different ways to perceive the historical process.

Jerzy Topolski in his *The Activistic Concept of Historical Process* applies a reconstruction of the Marxian concept of historical process and, in the light of this concept he tries to give an answer to the two main problems connected with the historical process: what is exactly the subject of human actions and the question of the structure of human actions.

Leszek Nowak, in his *Class and Individual in the Historical Process*, analyzes what he considers the two main problems with respect to the role of the individual in history. According to Nowak the treatment of this issue presupposes a preliminary distinction between ‘global entities’ (class, nation, *etc.*) and ‘individual entities’ in the social domain. Nowak asks himself if global entities exist independently from the individual ones (this is the position assumed by the existential holism) or if we have to deny this possibility (existential individualism). To the question concerning what factors are more important in the historical process (the *global entities* or the *individual ones*?) Nowak states that essential holism assigns a primary importance to the former while essential individualism – to the latter. On the base of this differentiation Nowak applies his non-Marxian Historical Materialism (a combination of existential individualism and essential holism) in order to define the role of the individual in history.

The second section starts with Topolski's *Idealization Procedures in History*. In his essay Topolski lists four idealizational procedures that, according to him, are used by historians, namely: ‘factualization of the source material, modelling the image of the past reality, narrative abstraction (summarizing) and explanative abstraction (omission)’ (Topolski 2009a: 90).

The next essay is Tadeusz Pawłowski's *Typological Concepts in Historical Sciences*, where the author analyzes the importance of typological concepts. According to Tadeusz Pawłowski:

The typological concepts allow comparisons among the objects with respect to the intensity of the possessed by them properties. They allow introducing order into the chaos of manifold phenomena which the researcher encounters, and to systematize it. In particular, typological concepts allow researchers to present evolutionary series of the investigated phenomena (Pawłowski 2009: 109–110).

In Pawłowski's opinion: 'the scientific usefulness of the typological concepts [...] depends principally upon their systematizing and heuristic value' (Pawłowski 2009: 119). Topolski, in his essay entitled *The Directive of Rationalizing Human Actions*, discusses the idealizational nature of the rationality assumption and its role for the explanation of human behaviour.

In *Methodological Peculiarities of History in the Light of Idealizational Theory of Science*, Brzechczyn recurs once again, but in a more comprehensive form, to the subjects he discussed in his introductory essay. He presents an extension of idealization concept of science allowing accounting some peculiarities of historical sciences. Brzechczyn distinguishes two types of essential structures of the investigated phenomena: an essential structure dominated by the main factor and the essential structure dominated by a class of secondary factors. In the essential structure of the second type the total influence of secondary factors upon the investigated phenomenon is greater than the influence exerted by the main factor, although the power of the influence of the main factor is greater than the power of the influence of any secondary factor taken separately. In such kind of essential structure the cascade effect may occur. The investigated phenomenon is subjected to the main factor in a given period of time. However, the gradual accumulation of secondary factors has a greater influence than the main factor. The influence of the main factor is overbalanced by, metaphorically speaking, a cascade of secondary factors. In this situation, Brzechczyn says, the hierarchies of the model are upside down because in this case the main model describes the cascade action of the secondary factors, and only the derived model deals with the action of the essential factor. Also, the structure of narration is changed. In *The Model and its Concretization in Economic History*, Topolski considers some types of concretizations in the history of economy, namely: 'chronological, territorial and factual' (Topolski 2009b: 270).

The third section (*Modeling in the Research Practice*) opens with the essay by Henryk Łowmiański, *Why did the Polanian Tribe Unite the Polish State?*, followed by some Topolski's comments (*Comments*). Then comes Jan Rutkowski's *Theoretical Considerations on the Distribution of Incomes in a Feudal System*, also accompanied by Topolski's comments. Subsequently there is another K. Brzechczyn's essay, *The Distinctiveness of Central Europe in the Light of the Cascadeness of the Historical Process*, where the author uses the concept of *cascadeness* of the historical process to explain

the rise of manorial-serf economy in the 16th century Central Europe (Czech, Hungary, Poland). The third section closes with two other essays: J. Topolski (*The Economic Model of the Wielkopolska Region in the 18th Century*) and Bogusław Leśnodorski (*There was not one Causa Efficiens of Poland's Partition*).

The fourth section (*Analytical Philosophy of History. Polish Contributions*) closes the volume *Idealization XIII*. In this last section we can find various contributions that consider classic problems concerning the difference between general laws and historical generalizations and different models of causal explanation. This section contains the following contributions: Andrzej Malewski and Jerzy Topolski (*The Nomothetic versus the Idiographic Approach to History*), Stefan Nowak (*General Laws and Historical Generalizations in the Social Sciences*), Stanisław Ossowski (*Two Conceptions of Historical Generalizations*), Jan Such (*Scientific Law versus Historical Generalizations. An Attempt at Explanation*), Andrzej Malewski and Jerzy Topolski (*On Causal Explanation in History*).

In conclusion, the recent *Poznań Studies* volume provides a wide overview of the possible ways to deal the relationship between history, sociology and economical history and scientific methodology. Modeling in history, maybe, can perplex a lot of historians imbued with classic-humanistic culture, but their effort in the study of the relationship between history and scientific modeling or scientific idealization is more than ever desirable.

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