

does not believe that everything that can be said in and about philosophy may only be said from the perspective of analytic philosophy. He appreciates analytic philosophy for the fact that it puts great emphasis on the precision of statements and on the justification of philosophical theses. He appreciates analytic philosophers for not trying to build maximalist philosophical systems. The minimalist approach presented by analytic philosophers is not less valuable than the approach of maximalists who develop lofty theories, but who do not bother to make their statements precise or to adequately justify their opinions. He also avoids the other extreme approach, which completely rejects the analytic style of doing philosophy. Thanks to his adoption of a golden mean, the author presents a balanced evaluation of analytic philosophy. Such a study was needed, since in the Polish literature of the subject there are still very few such balanced and moderate “golden mean” approaches. The monograph by T. Szubka is written in a clear and precise language. The author was trying to make his thoughts as precise as possible. He avoids repetitions, which is a true art and a common problem of many writers. Reading the work of Professor Szubka is a real schooling in clear expression and communication of thoughts on difficult subjects. The way the author presents analytic philosophy encourages the reader to study it and to think creatively. The book is an exciting intellectual venture into the complicated world of analytic philosophy.

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Agnieszka Lekka-Kowalik, *Odkrywanie aksjologicznego wymiaru nauki [Discovering the Axiological Dimension of Science]*, John Paul II Catholic University of Lublin Press, Lublin, 2008.

The issue of the axiology of science has received much attention in recent decades. Indeed, the recognition of the value-ladenness of science is one of the most important changes in the meta-scientific reflection on science in the 20th century. In Poland this specific problem is studied particularly by the philosophers in the Department of Philosophy at the Catholic University of Lublin. The scholars from this centre have published a number of articles in this area, and in 2008 published two extensive monographs on the subject: the first one (intended for 2007) was written by a retired professor of philosophy of science and philosophy of nature, Zygmunt Hajduk, under the title: *Science and Values: Axiology of Science – Epistemic Axiology*. It was an attempt to summarize and develop the decades of research in this field; the second one is the monograph reviewed here, written by Agnieszka Lekka-Kowalik, an adjunct scholar in the chair of methodology of science at the same university.

In her book, she aims not so much to describe real science as to develop an ideal of science by answering questions such as: “what types of values should be

taken into account?”, “what place in science should they occupy?”, “what role should they play?” She argues that the presence of value-judgments threatens neither the rationality and objectivity of science, nor the realization of its epistemic goals. In fact, their presence in science calls for metaphysical considerations.

The book has three main goals. Firstly, the author sets off from the ideal of value-free science as exemplified by the position of Max Weber (chap. I, pp. 23-76). She arranges the arguments in favor of this position into three groups: pedagogic arguments, logico-epistemic arguments (Hume), and metaphysical arguments. Then she confronts this ideal with six objections: three of them point out the ideal’s internal inconsistency, while the other three are connected with the practical consequences of developing science, considered as value-free.

The second part (chap. II, pp.77-142) consists in the presentation of the development of the idea of the value-ladenness of science. She considers not so much historical development as the material and logical relations between arguments and theses. Two “turning points” are discerned by the author. Both are rooted in reflection on scientific practice. Firstly, there was the recognition of the essentially evaluative character of scientific praxis. This resulted in scientists accepting epistemic or cognitive values. Secondly, and controversially, there was the discovery that non-cognitive values also played an important role in science. Philosophers came up with more radical theses, namely: that in science some predicates are present that denote moral, social or political values; that value judgments are made not only about theories, but also about other units which constitute scientific practice, such as the choice of research programs, or the choice of ways of organizing the scientific community; that value judgments are present both on the meta-level of science as well as on the object level of science.

The author then goes on to identify three types of attempts to defend the idea of value-free science against these revolutionary perspectives. Lekka-Kowalik shows that none of them proved to be successful. According to the author, both of the turning points specified unveil an inner axiological dimension of scientific enterprise. These results call for a systematic development of the axiological dimension of science with the aim being to explain the status, place and roles of value-judgments in science. Indeed, the main burden of the monograph (chap. III, 143-304) seems to rely on the critical presentation of three proposals about the axiological dimension of science put forward by Evandro Agazzi, Hugh Lacey and Helen Longino. Although these authors belong to different philosophical traditions, they share some important perspectives (which are specified by Lekka-Kowalik). All three authors accept the aforementioned turns in science, but they also support the rationality and objectivity of science. In their proposals they do not actually describe real scientific practice but formulate ideals of science as practice and institution (Lekka-Kowalik borrows the term “ideal” in regard to science from Stefan Amsterdamski). They offer comprehensive contributions to the discussion on value-free science and construct their own conceptions, which are meant to explain the sources of the value-ladenness of science and the role of values in scientific practice in general. However, in the course of a very fine and detailed analysis

all of them are shown to be inadequate approaches to the axiological dimension of science. Agazzi's system-theoretic framework deprives moral judgments of their categorical character and thus makes them dependent upon the "well-being" of the scientific system. In relation to Lacey's proposal Lekka-Kowalik indicates three kinds of shortcomings: the problematic status of making impartial theory-choices; the danger of efficiency becoming a more important criterion for evaluating theories than their epistemic merits; and that the plurality of value-complexes and of strategies must lead ultimately to epistemic relativism. Finally, the critical contextual empiricism of Helen Longino does not present any criteria to distinguish which contextual values should be taken into consideration in value-judgments, and which should not; there are also no criteria for assessing which points of view are to be taken into account by the community of scientists. According to Lekka-Kowalik, all these problems are in fact unsolvable. Therefore the proposals discussed, seem not to be sufficient explanations of the sources, roles and places of value judgments in science. This fact makes all three conceptions unsatisfactory approaches to the axiological dimension of science.

However, they do have some merits and could be helpful, if some additional assumption or restrictions are applied to the theses analysed in chapter three. In the fourth chapter (pp. 305-371) Lekka-Kowalik tries to spell out some of the shared intuitions, questions, and ideas of Agazzi, Lacey and Longino. The fundamental issue common to all three authors is an understanding of values as constitutive qualities for a "good" being of a determined kind, and as qualities of real beings, which fulfill the function of criteria for evaluating whether a being is such as it should be. Furthermore, the author wants to preserve, and develop as such, their ideas concerning: the understanding of value-judgments; the understanding of the aim of science together with the place of truth; the understanding of scientific knowledge as a good for human beings and the responsibility of science rooted in this.

Lekka-Kowalik states that the dichotomy between cognitive and non-cognitive values proves to be insufficient for the adequate characterization of the values present in science. Instead she proposes the distinction between values which are goals of science, and values which are inferential indicators of the realization of those goals. This makes it easier to distinguish between values intrinsic (internal) to science such as: the values-goals of science; cognitive values which indicate the epistemic merit of methodological units like theories and hypotheses; values that are functionally cognitive and which foster the realization of the epistemic goals of science. These types Lekka-Kowalik sees as constitutive values of science (modifying Longino's terminology). According to her, some moral values also belong to constitutive values. The fourth type, are defined as other values. Such refinements help the author to distinguish various types of value-judgments and help to determine their proper roles in science. The number of values may change. It depends on whether a particular quality-value has its validation. Indeed, for the author the salient point is the question of value validation. Only Longino seems to deal with this question in some way. Validation ultimately has to refer to metaphysics. This is the important conclusion for Lekka-Kowalik.

Indeed, Agazzi, Lacey and Longino claim that cognitive values should be considered as binding on all the scientists on rational grounds. Lekka-Kowalik supports this thesis. Such a thesis presupposes the correlation between the epistemic merit of a theory and the cognitive values determined independently of the preferences of scientists. According to the author, this illustrates the necessity to link the epistemic value of a theory to a concept of truth in its classical sense as *adequatio rei et intellectus*. The efforts to explain the nature of science and its goals reveal the need to reintroduce the concept of truth. Science has to develop in “the horizon of truth”. According to Lekka-Kowalik, cognitive errors and the aspectual character of human cognition cannot be the reason for the elimination of truth as the goal of science. The truth gives unity to human knowledge and becomes the source of the scientific ethos, because it has “binding power”. From this perspective, impartiality in accepting a theory means favoring truth.

All three authors analysed in the book do not consider scientific knowledge as separated from human being. On the contrary, science is the science made by man. Scientific knowledge constitutes a good for human beings if it helps them to develop their humanity. Their good gives the ultimate justification for science. This fact delineates the extent of the responsibility of science: for knowledge, for scientific community, for human beings and for society. According to Lekka-Kowalik, there is no competition between the value of truth and the value of human being. Knowledge is good for the human being, and we should not acquire it by putting in danger human beings, society or the environment. In such situations, knowledge runs the risk of being deprived of its goodness. The results of science are, and have to be, in a relation to reality and to human beings. From such a perspective “what is immoral or against human dignity becomes also non-scientific”.

According to Lekka-Kowalik, there is the constant danger of absolutizing one aspect of science and thereby isolating science from the totality of the human condition. She sees a remedy in putting science within some metaphysical and anthropological perspective. According to her a proper research paradigm for developing a conception of the axiological dimension of science is give by classical philosophy in the sense established by the so-called Lublin School of Philosophy. Her reasons are twofold. Firstly, a theoretical one: classical philosophy accepts, on the one hand, all the theses which, in the view of the author, are necessary for understanding science and its value-ladenness (truth as *adequatio*, the rationality of science, the possibility of justifying some value-judgments, etc.); on the other hand, it sees human beings as open to truth, as what enables them to flourish. Secondly, practical reason: classical philosophy considers itself as the “self-consciousness” of culture, and is able to evaluate changes in modes of developing science and in the education of a new generation of scientists.

Her project, however, seems to have some limitations. Some of them she is aware of. She knows that her proposal certainly requires the rebuilding and modifying of the received understanding of science. And this is a very complex enterprise. As she acknowledges, her idea would lead to the development of a conception

of science with an axiological dimension, and not to a conception of the axiological dimension of science. Such a conception would be an ideal of science, and not a rational reconstruction of scientific practice. Her proposal is only a kind of methodological and philosophical “guideline” for it.

The question arises, whether the metaphysical and anthropological framework proposed by the Lublin School of Philosophy (i.e. existential Thomism as an autonomous philosophy) is convincing and attractive enough for scientists to take it on board and consider it as an ideal. Does history show that the Thomistic philosophical framework is able to stimulate and foster modern science? The thinkers who developed this philosophical approach have been distancing themselves in a programmatic way from dialogue with science. The version of Thomism fostered in this school tended to be immune from interaction with the scientific world-view. Regrettably, the author does not present any considerations based on this school of thought. She satisfies herself with a sketch of the project. In this regard, her book seems to promise much but ends suddenly. It will be interesting to see how the proposed perspective is able to deal with so many difficult questions.

On the whole Lekka-Kowalik is very skillful in her critical analysis. She makes a number of helpful distinctions and she cares about the conceptual precision of her terminology, noting many subtle differences in concepts. The book is a good overview of recent very important changes, and insightfully examines ways to overcome difficulties, as well as helping to critically understand their philosophical significance and impact.

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Venturing into Magnum Cathay, 17th Century Polish Jesuits in China: Michał Boym (1612–1659), Jan Mikołaj Smogulecki (1610–1656), and Andrzej Rudomina (1596–1633).

International Workshop, 26 September – 1 October, 2009, Kraków, Poland

For the first time in the history of the Polish Jesuits, an extended International Workshop, of high quality, has taken place at the University School of Philosophy and Education “Ignatianum”, in Kraków, focusing on the three Polish Jesuits: Michał Boym 卜彌格 (1612–1659), Jan Mikołaj Smogulecki 穆尼閣 (1610–1656), and Andrzej Rudomina 戶石 (1596–1633) – all three of whom were missionaries in China in the 17th century. This international symposium in Kraków contributed to common scientific exchange and to the discovery of the science, wisdom and culture of China.

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