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On October 8th–9th, 2010 the 24th International Baltic Conference on the History of Science was held at the Tallinn University of Technology (TUT). For the first time in more than 50 years of history of the conferences, the organisers made a decision to publish a peer-reviewed collection of selected conference papers of high academic level, which would appear as a special edition of the already existing international academic journal. Thus a special issue of the *Baltic Journal of European Studies* (BJES), which focused on the history and philosophy of science, was published in June 2011. The issue also included the best of papers from the conference's follow-up seminar, which was held on 17 December 2010 and was dedicated to the questions of the history of natural sciences.

The reasons for that lie in the specifics of Estonian research policy of that time: until the end of 2011 the Estonian Research Information System (ETIS, n.d.) did not acknowledge any of the collections of articles issued by Estonian publishers as being of “scientific merit”, regardless of their actual level and the degree of reviewing. Therefore, it proved to be a reasonable choice to publish the selected papers of the conference on the history of science in a special edition of the already established scholarly journal (formerly known as *Proceedings of the Institute for European Studies*) of the School of Economics and Business Administration of TUT. As fate would have it, the first special edition of the conference on the Baltic science history happened to be the first one to appear under a new name, and surprisingly, considering the circumstances, it turned out to be a very bulky one (412 pages). Since the edition attracted a lot of popularity and the attention of researchers and philosophers of science outside Estonia (Helk, 2011; Petrauskienė, 2011; Mackonis, 2011; Sokolova & Kulasalu, 2012; Sokolova, in press), the Estonian Association of the History and Philosophy of Science in cooperation with relevant Latvian and Lithuanian associations, decided to launch a new peer-reviewed academic journal *Acta Baltica Historiae et Philosophiae Scientiarum*, which would focus solely on the history and philosophy of science, and appear twice a year beginning in the spring of 2013. Thus, the special edition of the *Baltic Journal of European Studies* on the history and philosophy of science could be regarded as a direct predecessor of the

current journal—the fact which, in turn, gives reason for a closer insight into the aforementioned special edition and its contribution to the history of science.

The special edition begins with more general and scientific-philosophical approaches. The special issue of the *Baltic Journal of European Studies* is especially important from the point of view of the modern Estonian philosophy of science. Therefore the article written by Rein Vihalemm, professor of the University of Tartu, introducing the principles of the so-called practical realism, deserves special attention in that regard. The author introduces a new approach in present-day philosophy of science. Vihalemm relies upon the understanding of Karl Marx's practice, proposes a new angle on it, and successfully applies Marx's approach to the contemporary understanding of the essence of natural sciences. With regard to science Vihalemm primarily refers to fields of research, such as entire modern physics, but also a certain part of chemistry, which well enough correspond to the model of ϕ -science (a physics kind of science), created by himself. From the point of view of practical realism it cannot be presumed that science could provide an absolute, true picture of the world, that it could explain "how things actually are". Nevertheless, in the research process certain aspects of reality are unquestionably detected. Science, in terms of practical realism, is not purely dealing with theories, but as the name of the approach indicates, it is practical engagement which mostly comprises experimental research.

Peeter Mürsepp explores the subject matter of scientific knowledge referring to Nicholas Maxwell's recently published book with an intriguing title *Cutting God in Half – And Putting the Pieces Together Again*. Maxwell's suggestion about replacing 'knowledge-inquiry' with 'wisdom-inquiry', which would also require much more focusing on the humanities and social sciences, even to the degree that they could take the place of the current focus, physics, has been regarded as a challenging idea according to the author of the article. However, Maxwell does not abandon his position as a keen-eyed critic of traditional approaches that are based on the methodology of natural sciences, neither does he provide the readers with right directions which would lead them to the proper way where the beams of light coming from the social-humanitarian search for wisdom could be viewed.

Enn Kasak from the University of Tartu presents a thorough analysis of the statement about the exact scientists' religiosity. The fact that present-day exact scientists believe in God does not present a problem here, although that fact is not directly disputed, either. Neither is the possible dialogue between science and religion, which philosophers have to some extent dealt with, brought up

in the article. Kasak focuses on a comparative analysis of a scientist's and a religious person's way of thinking in general: to be more precise, it is the formal similarity between the starting points for both persons' mental activity that is in some respects astonishing. Similarly to a religious person, a scientist cannot make his/her brain work without strongly believing in something that cannot be immediately proven. Since a scientist does not believe in the supernatural, the parallel is not fully adequate here. 'Holiness' in its traditional sense has understandably been disregarded at this point. However, regarding science, it retains a belief in certain basic principles, also inherent in religion, which establishes the entire approach to reality.

Nicholas Maxwell has also been selected as a focal author by Katrin Velbaum, who analyses the relations between traditional, or the so-called standard empiricism and the aim-oriented empiricism promoted by Maxwell, using the method suggested by another distinguished British philosopher John Worrall. The method is known as Worrall's rule, which provides a criterion for comparing scientific theories in terms of scientists' practical research. The section of philosophy is concluded by the German author Jan Radler, who has made an attempt to combine, actually in a rather original way, the two poles of a prominent Norwegian philosopher Arne Naess's legacy—the analytical language philosophy and the so-called 'deep ecology'—at which the author has been quite successful. According to Radler, the empirical semantics in Naess's early work provides an indispensable basis for further development of the so-called 'deep ecology' platform.

The rest of the papers presented in the section of philosophy also deserve special attention. Endla Lõhkivi, for instance, creates a tradition of a feminist approach to science in Estonia. The main focus of the article published in the current edition still lies on giving reasons for cultural normativity of science. Leo Näpinen unambiguously declares—while, of course, reasoning his position in a philosophical manner—that exact science as a way of perceiving the world is unfortunately limited. Regrettably, Estonian philosophers of science dominate in the special edition (as has also been the case at previous Baltic conferences on the history of science).

The bulkiest and also in many ways the most eclectic subdivision of the special edition of the Baltic Conference on the History of Science is devoted to various scientific-historical research issues, which include articles on the history of natural sciences, medicine, linguistics, language, education, and there is even one paper dealing with the issues related to the history of technology. The areas

of research and ways of approaching them have never been deliberately restricted throughout the history of the Baltic conferences; therefore the selection of papers in this edition has turned out to be diverse. Although some ‘serious’ scientists and philosophers of history tend to refer to the works of research that focus on one specific issue disparagingly as ‘local history’ these papers definitely carry certain cultural and cognitive significance. Everyone would like to be noticed, remembered and praised for their contribution; similarly the institutionalised history of science occasionally needs to be re-evaluated: in a number of cases the actual contribution of some historically acknowledged public figure has to be critically reconsidered, whereas the achievements of those who quietly ploughed their field of research but have unfairly fallen into oblivion, need to be brought to public attention. Undoubtedly, one of the most intriguing approaches to such an issue among the articles in this section is by Lithuanian authors Laima Petrauskienė and Jadvyga Olechnovičienė. Their intentionally controversial piece of writing discusses two Lithuanian scientists—the renowned biologist Tadas Ivanauskas and his less known peer Pranciškus Baltrus Šivickis, who were involved in research activities more or less at the same, difficult time for Lithuania. The authors compare the contributions made by the two and pose a question: to what extent is there a correlation between the fame of a scientist and the real value of his/her research; and to what extent do the circumstances outside the science (to be more specific—Tadas Ivanauskas’s vanity and his collaboration with the Soviet power) bring the fame? The fact that makes the situation even more complicated is that Tadas Ivanauskas’s contribution to science and (even to a greater extent) to the popularisation of science cannot be regarded as non-existent. This intrigue, although it remains mainly in the Soviet period, has not lost its topicality even today. The same question could rather be asked from an alternative perspective: why is a person who has devoted him/herself solely to science generally publicly unknown in modern society? Why is a person’s wellbeing and research career first and foremost determined by the person’s relations with power and media?

The Latvian psychiatrist Vladimirs Kuzņecovs’s primary conclusion drawn in his article about the history of medicine is also of great interest to the reader. Having studied the archival data about the early history of the asylum for the mentally ill at Riga Citadel he discovered that the Crimean War, in a paradoxical way, contributed to the first phase (abolition of military supervision over asylums) of improving the living conditions and level of treatment of mentally handicapped people in Latvia, which was part of Russia at that time. Ieva Libiete’s article also sheds light on the history of the treatment of mentally ill people in Latvia, but in the 1930s. She points out that Latvia was one of the first countries in the

world to introduce insulin treatment, which regardless of the fact that scientific explanation to its effect is obscure until today, has proven to be effective. The Finnish researcher Mikko Kylliäinen's article tells the reader about the history of bicycle and bicycle societies in the second half of the 19th century. Quite surprisingly, this field had scarcely been researched. Kylliäinen reveals that the first evidence of using bicycles in Estonia dates back already to spring 1869—less than a year after the manufacturing of bicycles in the world had started. The readers also learn that the history of bicycle in Estonia has its own “great figures” who have fallen into oblivion (e.g., Carl Rüütel and Taavet Rähn), and that already before the past century, several Estonian bicycle societies (Yuriev's cyclists' society *Taara* and *Kalev*) were actively involved in more general societal problems, thereby contributing to the birth of the Republic of Estonia. Epi Tohvri from the Tartu College of TUT makes a statement in her article that Georges-Frédéric Parrot, rector of the University of Dorpat (Tartu) after its reopening at the beginning of the 19th century, was one of the first persistent advocates for academic freedom in the eastern part of Europe. Parrot, a follower of the Enlightenment ideas, insisted that the University of Dorpat needed statutes that would grant the university full autonomy from bearers of whatever power or ideology. It is worth mentioning that at the same time principally similar ideas had started developing overseas, on the other coast of the Atlantic Ocean. Already in 1779 Thomas Jefferson, later president of the USA, sent the Legislative Assembly at Virginia a document regarding the establishment of the University of Virginia in Charlottesville, which included proposals rather similar to Parrot's ideas.

Latvian researchers Iveta Kestere and Iveta Ozola give an overview of the development of pedagogy as a concept and as an entire field of research. Pedagogy or educational science (according to the common terminology in Estonia) has, after its final separation from philosophical and theological disciplines in the 18th century, gone through a significant development and differentiation. An attempt has been made to develop suitable terminology for different aspects and sub-disciplines of pedagogy, but the process has not always been very persistent. In the 1920s, for instance, the Latvian terms *pedagogika* and *pedagogija*, were introduced. The former referred to the theoretical principles of educational science, while the latter comprises the related practical activities. The authors find, in some respects contrary to expectations, that although the term ‘pedagogy’ has become obscure, its ambiguity rather serves as an advantage, considering the current developments in the field, according to which in addition to humanitarian approaches it has also become more topical to approach the subject from the point of view of

social and natural sciences. Heldur Sander's and Toivo Meikar's overview of the development of the collection of Tartu Botanical Gardens in the first half of the 19th century should also be mentioned as an interesting piece of writing. This paper is an indication that the meticulous study on a specific issue can reach a particular level if it is carried out with great care. The paper has already captured the attention of Vello Helk, the grand old man of Estonian history research, who resides in Denmark (Helk, 2011). Helgi Vihma concentrates on the development of Estonian linguist Johannes Aavik's activity as a language reformer. Karin Reich and Elena Roussanova from the University of Hamburg describe Carl Friedrich Gauss's correspondence with Baltic-German scientists. Algimantas Grigelis and Leonora Gelumbauskaitė shed light on the new archival data regarding the founder of Lithuanian mineralogy Roman Symonowicz's trip to southern Poland, Hungary and Transylvania in 1803. In his article, Andrejs Veisbergs, professor of the University of Latvia, draws attention to the fact that unlike other Baltic nations, namely Latvia was in the vanguard of issuing bilingual dictionaries, at least during the first period of its development (i.e. from the 17th to the end of the 19th century). Marina Loskutova from St Petersburg persuades the reader that the history of congresses held by Russian naturalists gives evidence that in its essence scientific activity was network-based, to put it in the modern way, already in the 19th century. Sander and Meikar in their aforementioned article actually convince the reader of the same fact.

Although the editors of the special edition faced a complicated task, as approximately one fourth of the articles were rejected for one reason or another, it was interesting and worthwhile in the long run. Moreover, the experience the editors have gone through has given birth to a new journal of history and philosophy of science.

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