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Georges Frédéric Parrot and the 'New' Enlightenment

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Abstract: Georges Frédéric Parrot (1767–1852), the first Rector of the University of Tartu (Dorpat) after it was reopened in 1802, was a son of the French Enlightenment. He considered it his mission to implement these ideas in the context of the new university. One of the foci of his activities was arranging the university according to a new type of statutes endorsing free development of all kinds of branches of science in the framework of the so-called 'Academic Republic', which would be no longer dominated by theology. Parrot was successful in his pursuits. The University of Tartu became an outstanding centre of astronomy, mathematics and natural science—the fields Parrot himself was actively involved in. Today, the term Academic Republic is becoming more and more frequently used by the university employees again.

The emphasis on the role of natural science, which was one of Parrot's main ideas, caused the need for a New Enlightenment. This is the term invented by Nicholas Maxwell, the British philosopher of science. Although the focus of Maxwell's New Enlightenment seems to be much narrower than that of the classical one, the final goal is still the same. According to Maxwell, making physics the science proper, the basis of constructing serious academic knowledge, has caused the concentration of research on the quest for some kind of special knowledge, the scientific one. Everything stops there. We have lost sight of the general goal of serving humanity, looking for solutions to actual grave problems that Homo sapiens is facing today. Obviously, to serve the whole humanity was the basic goal of the "original" Enlightenment as well. We have to restore the view of the so-called philosophes concerning the position of social science in the academia. It is social science (and the humanities) that form the basis for the understanding and solving the problems that are of real importance to human life.

Keywords: *blunders of the* philosophes, *Enlightenment, Georges Frédéric Parrot, history of the University of Tartu, Nicholas Maxwell, scientific knowledge, wisdom*

Introduction

It was the reopening of the University of Tartu in 1802 which marked the arrival of the real Enlightenment in Livonia, by that time a province of the Russian Empire. By all evidence, time was ripe for the introduction of novel ideas even in this part of Europe. Still, a special person was needed to make great changes happen. This person was Georges Frédéric Parrot. His background and activities deserve to be analyzed in more detail. As a matter of fact, Parrot himself was a prolific writer, at least for his time, and much has been written about him, mostly in languages other than English, primarily in German and Russian, but Estonian as well (see, e.g., *Tartu Ülikooli…*, 1982; Hempel, 1999; Bienemann, 1902; *G. F. Parroti…*, 1967; Tohvri, 2009). It is high time to begin filling this gap. The whole story of the University of Tartu in the 19th century, and perhaps not only in this period, has to be told in English, the *lingua academia* of the contemporary world.

The history of the University of Tartu is part of the Enlightenment process. Perhaps the same cannot be said about the original founding of the university in 1632 by the decree of the Swedish King Gustavus II Adolphus, as at that time it was part of the Swedish colonization programme of the eastern territories. Still, after a break in its activities and reopening in 1690, the early Enlightenment began to play a visible role. The prevalent ideas are obvious. The most direct proof for this is the activity of Sven Dimberg, Professor of Mathematics. Dimberg's curricula have been preserved and include a really astonishing fact—it appears that Dimberg taught Newton's method in Tartu as early as in the academic year of 1693/94. It may well be that in this remarkable issue he has priority in the whole world. True, he had a tough competitor in the person of David Gregory, who reportedly taught the revolutionary method at the University of Edinburgh as early as in 1688. However, there are serious grounds for doubt whether Gregory really did teach the method of Newton (Eagles, 1977).

Parrot's early years in Livonia

Georges Frédéric Parrot arrived in Livonia in 1795 after having been educated in France and Germany in the best spirit of the Enlightenment. Upon his arrival in this German-speaking province of the Russian Empire, Parrot was shocked by the backwardness of the region in comparison to what he had experienced in Western Europe. As was characteristic of an enthusiastic and bright young man he took to change the situation without further delay. These early efforts resulted in the founding of the Common Welfare and Economic Society of Livonia (*Livländische Gemeinnützige und Ökonomische Sozietät*), motivated by Parrot's initiative to make life better in the region. No initiative goes unpunished, so Parrot was elected the society's secretary for life.

Still, it seems fair to say that Parrot's "trademark" was scientific research rather than social activity during his early years in Livonia when he stayed in Riga, the province's capital. Parrot's "Riga period" lasted for six years from 1795 to 1801. A typical son of the Enlightenment, Parrot was prepared to implement the main ideas of the movement in the most direct way. The great century of the Enlightenment was marked by rapid development of exact natural science. Still, the initial main idea was not to obtain scientific knowledge as such but rather its application for the benefit of society. This controversy set a good stage for Parrot.

Parrot was by no means the most outstanding experimental scientist of his time. Still he clearly made his mark with several interesting results in chemistry, the achieving of which was driven by the most acute social needs of the time in the region. Parrot's Riga period was prolific in that respect. The focus of his research was on the composition of the air with the goal to find ways to improve air quality in hospitals. His analysis of the water in the Daugava was motivated by similar concerns. Professor Janis Stradinš (1968) has suggested that the experiments done by Parrot and his friend David Gieronym Grindel (1776–1836), who later also became Rector of the University of Tartu, were the first of this kind in the whole Russian Empire.

The fate of the results of the experimental research conducted by Parrot is characteristic of a big problem that became obvious in the works of the leading figures of the Enlightenment, as Nicholas Maxwell (2010) keeps claiming. According to Maxwell, the great *philosophes* of the Enlightenment overestimated the universal power of the scientific method. The method is good for obtaining scientific knowledge. But this knowledge does not disseminate on its own, not to

speak of being directly applicable. Knowledge seemed not to be enough. There is a need for wisdom, the ability to disseminate and to implement.

There are no direct grounds to claim that Parrot suffered from a shortage of wisdom. This all simply became too much for one man. After moving to Tartu, he focused on organizational leadership, rather than research and philanthropy. In these activities Parrot expressed a lot of wisdom of his own. But this wisdom was directed to organizational work, not to scientific research.

The statute of the University of Tartu and the temple of wisdom

The initial idea to reopen the University of Tartu was developed in 1799, while Parrot was still in Riga. Here, the question as to why Tartu and not Riga or any other place in Livonia or even Estonia will not be dealt with. Rather, the focus will be on Parrot's personal achievements. Of course, the main tangible achievement was the reopening of the university itself. But it was not just reopening of a regular university.

The mind of Parrot had run ahead of his time. He was not satisfied with the perspective of the local Baltic German nobility to have another regular *Landesuniversität* with four classical faculties. Instead, Parrot was interested in a new type of university consisting of institutes of research and learning with a good balance between experimental natural science, the humanities, law and medicine. For instance, procuring equipment for research in physics, chemistry and mechanics became a special requirement of Parrot for the university. This attitude is similar to both Parrot and Sven Dimberg. The latter started his scientific activities in Tartu by purchasing an astrolabe and a telescope for the university with his own resources and was, apparently, never compensated for his effort, although a corresponding decision was made by the university senate.

It is still the political rather than the scientific aspect of the story of the reopening that should be singled out and for what Parrot should be given credit. Parrot was most interested in achieving for the university direct submission to the central authorities of the Russian Empire, actually the Tsar Alexander I himself. Normally, universities seek autonomy from the highest authorities in order to guarantee as much academic freedom for their faculty and students as possible. Being directly subordinated to any type of central authorities does not usually serve this purpose well, and turning to the local officials would normally be a better choice. But the

situation in Livonia in the early 19th century was very different. To have his ideas fertilized by the Enlightenment work, Parrot had to secure independence from the local Baltic-German authorities who were more interested in preserving their privileges than introducing any innovation in the social affairs of the time. Any intrusion of free spirit was met with suspicion by the local nobility.

As a matter of fact, Parrot achieved most of his goals—curiously, by means of introducing an innovative statute for the university. In the statute Parrot foresaw the university becoming a kind of scholarly republic where the faculty and students could freely develop together and work out new solutions for any walk of life, having a permanent goal to make life better for the whole society, including peasantry, the lowest class of the time. All this was not just theory. Parrot was determined to create not only the spiritual but also the material environment to make the republic work. Proper landscape planning and architectural solutions were part and parcel of the whole picture.

As always, these ideas could not come from nowhere. Parrot came from a special background which involved much more than just a regular settings of the French Enlightenment. Parrot did not merely study directly among of the leading figures of the Enlightenment but he also actively communicated with them. His main contact among the *philosophes* was Georges Cuvier, with whom Parrot kept up his correspondence even after coming to Livonia. As far as influential organizations are concerned, Parrot was definitely familiar with *Les Neuf Sœurs* lodge, although, due to his young age, he could not become a member (Tohvri, 2011, p. 357). The role of the lodge members in introducing and spreading the ideas of the Enlightenment cannot be overestimated. Even Voltaire himself was a member of the lodge. True, he agreed to join just two months prior to his death. Among the members, however, one can find Claude-Adrien Helvétius and Marie Jean Antoine Nicolas Caritat, Marquis de Condorcet from France but also the famous Americans Benjamin Franklin and Thomas Jefferson. Among the Russian members of *Les Neuf Sœurs* lodge were Alexander Stroganov and Dmitri Golitsyn, and, in fact, all the tutors of Tsar Alexander I (Tohvri, 2011, p. 357). This could well be one of the main reasons why there was a special bond between these two men, Alexander I and Georges Frédéric Parrot. A significant proof of the special bond is Parrot's remarkable success in achieving his aims concerning the reopening of the University of Tartu, especially in subordinating the university directly to the central authorities.

Thus, the most important foundation, the intellectual one, of the temple of wisdom that Parrot was seeking to create was complete. His plans, however,

were bigger than that. The temple was meant to be a material one as well. An ambitious building process was initiated on Tartu's Dome Hill. The "temple" was intended as evolving in the form of a novel campus. It had to become not only a temple of wisdom but a temple of nature as well. The plan was realized to a large extent but unfortunately the University of Tartu never became a real campus-type university. This goal may still be achieved, though hardly on the slopes of the Dome Hill, currently surrounded by the city. The campus can be built and actually has started to evolve on the southern outskirts of the city. But while the wonderful historical main building, designed by the outstanding architect Johann Wilhelm Krause (1757–1828), cannot be moved away from the city centre, the real campus is not meant to be.

The "New" Enlightenment

The conception of the New Enlightenment, introduced by the British philosopher of science Nicholas Maxwell, offers an interesting intellectual environment for evaluating the Livonian Enlightenment, initiated by Parrot from the point of view of a contemporary thinker. Maxwell's leading idea is that the main figures of the Enlightenment blundered in the Classical period. They chose the wrong way to implement their ideas and were all obsessed with the achievements of natural science. The Galilean-Newtonian method seemed to be universally successful. If it worked for finding out interesting causal relations in the natural world then why should it not be effectively applied in social issues? This expectation was absolutely legitimate at the end of the 18th century and the *philosophes* of the Enlightenment should hardly be blamed for believing in it. Thus, it is similarly true that they did not blunder on purpose. Considering the circumstances they lived in, it is completely logical to think that the method should be applicable to society with as much success as in the case of natural phenomena.

But what was Parrot's attitude to this issue? Was he among the blundering majority? One could hardly expect to receive a conclusive answer to this question ever. Still, why not attempt a speculation? Parrot was keen on experimental natural science. He was convinced that the findings of experimenting scientists can be applied to enhance human well-being in the society. Thus, as far as Parrot was concerned, the stress is correctly in place, as it should be for a follower of the Enlightenment ideas. Scientific research has to be planned along the lines of human needs. Application should be the guiding light, rather than acquiring

knowledge. This is an important feature of the approach that Nicholas Maxwell calls wisdom-inquiry. Knowledge is important but it is not enough. Too often the academia of today forgets this trivial requirement.

Was Parrot really so ingenious that he managed to avoid the typical blunders? Rather he simply had a young man's idealistic enthusiasm to do good to human society—if not in general, at least in his own new region of Livonia. Let us take a closer look at the blunders, their causes and possible ways of overcoming them.

Nicholas Maxwell described the main goals which coincided with the main tasks and the main problems of the Enlightenment as follows:

- The progress-achieving methods of science need to be correctly identified;
- These methods need to be correctly generalized so that they become fruitfully applicable to any worthwhile, problematic human endeavour, whatever the aims may be, and not just applicable to the endeavour of improving knowledge;
- The correctly generalized progress-achieving methods then need to be exploited correctly in the great human endeavour of trying to make social progress towards an enlightened, civilized world. (Maxwell, 2010, p. 168)

Getting these points right is the prerequisite for the success of the central idea of the Enlightenment, namely "learning from scientific progress how to achieve social progress towards a civilized world" (Maxwell, 2010, p. 168).

It is important to note that Maxwell's criticism is different from that of the Romanticist movement, as he himself correctly observes (Maxwell, 2010, p. 169). Maxwell does not think that there has been too much emphasis on natural science in the Enlightenment. This is not the heart of the matter. Natural science can and has to be developed. But it has to be developed for the sake of society, not of science itself as knowledge-inquiry.

The logical question which follows now is whether it is this Parrot-type attitude which is needed to put right the blunders. Obviously, just an answer 'yes' or 'no' would not be sufficient here and a more detailed analysis is needed.

As we know, Nicholas Maxwell agrees that natural science has to be developed. But it is a grave mistake to make the method, worked out for classical mechanics mostly by Galileo, a model for any kind of research directed at any aspect of reality. The classical scientific method just enables one to get started with

research in a value-free manner. This is very important in physics. It is important in chemistry as well, at least partly. The classical method is good for what Rein Vihalemm calls φ-science (Vihalemm, 2001)—that is science that constructs the object of research for itself becoming constructive in addition to its hypothetico-deductive character. The constructive-hypothetico-deductive science has been very successful since the days of Galileo. Many fruits of this success have been applied. At the same time, the stress has exclusively been on acquiring knowledge, as pure as possible. This kind of φ-scientific knowledge is possible and valuable. The same kind of pure knowledge cannot be produced, however, when we study something connected to life. It is true that, in principle, the classical method can be applied to any kind of research. The result that can be obtained, however, is again a kind of pure knowledge. But such kind of knowledge is sterile. It certainly can be of some help in obtaining some information about systems involving life but can hardly be applied with any efficiency because of the complexity and variability of the systems. Thus, strict adherence to the method of classical science prevents all branches of science concerned with life, including social science, from developing. By all evidence, this is the main reason why there exists a widespread perception that social scientists constantly fail to address real social issues that matter to people. Social scientists often tend to blame politicians for the lack of will to make use of the results of social research. Sometimes these accusations are justified, but there are two sides to the coin. Quite often, the nature of the results of the studies of social scientists does not facilitate their applicability. At times, social scientists themselves should have to look into the mirror and ask themselves how society could benefit from their work.

Nicholas Maxwell claims that this is really social philosophy that we need, not social research as such. Perhaps even some kind of philosophies of life are required that can be assessed, just like competing scientific theories. "[D]iverse philosophies of life may be critically assessed with respect to each other, with respect to relatively uncontroversial, agreed ideas about aims and what is of value, and with respect to *experience* (observational and experimental results)" (Maxwell, 2010, p. 181). Maxwell is looking for a Karl Popper type of approach for the whole building of science. As it is known, Sir Karl argued for falsifiable scientific theories that can hardly be found anywhere except in mathematized natural science. Maxwell, a follower and a critic of Popper at the same time, sets the task to generalize his patron's approach into philosophy itself, claiming that gradual improvement of the philosophies of life is possible. Needless to say, it is a very problematic task. Even more problematic, however, is the aim of calling philosophy to help in tackling problems with government, education

or art. Success here is crucially important for the whole new approach to the philosophy of Maxwell. Submitting philosophy itself to constant assessment and aims improvement is a prerequisite to making it applicable as the basis of the whole academia. This is the key to the whole New Enlightenment of Nicholas Maxwell. It is important to understand that the question is not just laying philosophy as it is as the foundation of all science, to replace physics with metaphysics. Philosophy as it is would not do the job. However, a changed philosophy that is open to adjustment could. By all evidence, it is Maxwell's belief that his new approach to philosophy (Maxwell, 2010) would do the job if the academics would take trouble to study and follow it.

It is true that the progress achieving methods of science have not been correctly identified so far, not to speak of other crucial tasks of the Enlightenment. There is no evidence to suppose that Georges Frédéric Parrot had any idea of or even any interest in thinking about methodology. His approach could rather be called a synthesis of the exact natural science-oriented typical Enlightenment approach and that of the Romanticist movement. After all, such conclusion seems to be in good accord with Parrot's character.

Conclusion

Georges Frédéric Parrot was a notable person, although not one of the most famous personalities involved in the Enlightenment movement. Still, he could perhaps be called a *philosophe* by Nicholas Maxwell. But how it would be correct to define Parrot's relationship with the blunders of the *philosophes*?

Philosophy was important to Parrot. It may well be that he attempted to find a unifying philosophical basis for all of his experimental studies. Although Parrot wrote a lot, especially during his Riga period, there is no evidence that he ever succeeded in this task. But the aim was there. What is still lacking is the idea that the philosophical foundation itself should be open to criticism and change. Parrot, however, had the persisting idea of making the life of the lower classes better—this would develop the society as a whole, which was an important Enlightenment idea. As far as he was concerned, experimental research into chemistry and physics was inspired by overcoming the grave social problems. As a matter of fact, this might be the reason why Parrot did not become a first-class scientist. His focus was too much on the fruitful

experiments rather than looking for "light-producing" ones, if one were to use the terms by Francis Bacon. The "fruit" can legitimately be the ultimate goal, although sometimes it cannot be approached directly. This was the main mistake of most of the *philosophes*. But by all evidence, there was no way for them to avoid this mistake. Time was simply not ripe. The *philosophes* cannot be blamed for this shortcoming but we can. Now it is high time to reverse our reason towards the problems that really matter. The New Enlightenment is on its way. In principle, everything is set for correcting the blunders. Unfortunately, just the good will of the academics is lacking so far. Perhaps it is a naïve statement but studying the life and work of Georges Frédéric Parrot might be beneficial for curing this sceptical attitude.

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