

FRANCIS BACON AND LIMITING THE LIBERTY TO LEARN

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Francis Bacon may be described as a breakthrough philosopher, who still holds medieval views, and yet deals with modern concepts. Was he then a modern philosopher, and, more precisely, did he belong to the so-called seventeenth-century reformation, or was he still a medieval thinker? (It would be appropriate to place Bacon in the mainstream of Renaissance philosophy. Yet, to emphasise the breakthrough nature of his thinking, we accept the division of philosophy into three periods: the Ancient Times, the Middle Ages and the Modern Age. Thanks to this we can better capture the clear-cut nature of the philosophical ideas promoted, referring them to a wider theoretical perspective.) Most of the history of philosophy solves this problem for the benefit of the first thesis, though not everyone agrees with that (M. Heitzman 1927). "Perhaps none of the modern philosophers has caused as many disputes among historians as Bacon. (...) Because even if the philosophical literature related to the great names in philosophy may be more substantial, no one other has been the subject of such contradictory views as Lord of Verulam. (...) One may enumerate a list of thinkers, some of whom praise Bacon, whilst others discredit him" (*Ibidem*, p. 3).

Is it justified to consider Bacon's thinking as a matter of liberty in the seventeenth-century philosophy? Chronologically, the period of his activity definitely falls on the early 17th century, but his direct influence, especially on continental philosophy in that century was practically insignificant. If his thinking made any impact, it was predominantly on the later epochs, *i.e.* the 18th and early 19th centuries. What was of particular importance was the postulate to systematically acquire knowledge (the method) and the cult of science, which was supposed to solve the practical problems of mankind (the latter idea was to become a major postulate of the Enlightenment). From that point of view, Bacon is an unquestionable pioneer of the modern times, even though it is a *post factum* attempt to find the modern roots of his theory. Before we move on to a more detailed analysis of Bacon's views, let's pose a thesis with large reservations (Further on, I will prove that he was permeated with the spirit of medieval scholastics, but, what may sound para-

doxical, it will not determine to which epoch Bacon is supposed to belong to. Por. M. Wiszniewski, *Bacon's method of explaining nature with the addition of some information of Sędziwoj, the Polish alchemist*, Warsaw 1876, as well as the monograph by M. Heitzman, *op. cit.*, in which the author makes a systematic analysis of Bacon's views, treating them as a consistent development on one idea i.e. alchemy. Por. also J.C. Briggs, *Francis Bacon and the Rhetoric of Nature*, Cambridge-Massachusetts-London 1989, p. 8.), that he was a seventeenth-century philosopher (The modernity of Bacon's views, see Ch. Whitney, *Francis Bacon and Modernity*, New Haven-London 1986, as well as J. Martin, *Francis Bacon, the State, and the Reform of Natural Philosophy*, Cambridge 1992).

Our basic task is to reconstruct the idea of liberty that is found (here one should ask if it really is found) in Bacon's philosophical system (the reference point to solve this problem could be the article by K. Leśniak, *Francis Bacon or liberty perceived as knowledge*, [in:] *The Antinomies of liberty. From the history of the liberty philosophy*, edited by M. Drużkowski and K. Sokół, Warsaw 1966, but unfortunately the above-mentioned text is a description of Bacon's philosophy, and more specifically its abstract, where the concept of "liberty" appears only marginally. Therefore, the only use of the article is a reflection that Bacon wrote very little about liberty, just as did K. Leśniak). Unfortunately, there are virtually no passages devoted to liberty as such in his works (See M. Nitecki, *Bacon of Verulam and the eternal philosophy*, Cracow 1916, in the quasi-chapter *The general view on Bacon's philosophical speculations. Their principal deficiencies. Bacon on the human soul and free will* writes: "Bacon claims that human life should be based on nature as the only common model. This nonsense of Bacon's was the worst of all, because it led to atrocious results in the modern science, the most harmful for man's happiness, against the induction target of Bacon's, who aimed to multiply the joy and happiness on earth. In this theory, one had to overlook one specific power, which has no match in the entire nature, namely free will, in which the single important element is the source of happiness). The concept of "liberty" appears when other issues are being discussed and mostly in the form of understanding it naturally, i.e. as an unhindered choice from several options. In view of the above, the problem of liberty should be approached in a special manner; we have to determine it within the framework of Bacon's entire system. The plan of a certain synthesis of the philosophy by the author of *Novum Organum* can be found in *The Great Restoration*. Without going into specific details of the work (a detailed analysis of this work was conducted by K. Ajdukiewicz in the foreword to F. Bacon's, *Novum Organum*, translated by J. Wikarjak, Warsaw 1955), one may assume the thesis, using certain mental shortcuts, that

Bacon's entire philosophy is limited to science, and more specifically to the methodology of science. Bacon creates a vision of how science is supposed to develop and which ways it should go to achieve the utilitarian goals.

Bacon's methodology may be presented in the following order:

1. The source of knowledge is the senses.
2. Reason converts the sensory material (similarly as a mirror reflects an image).
3. Reason is, however, contaminated with errors, resulting from its construction, as well as those acquired through experience (just as a mirror that is not perfectly smooth distorts an image).
4. The errors (idols) must be recognised and removed, and the perception must be cleared (the mirror must be polished to eliminate distortions).
5. The tool which made it possible to do this is elimination induction (reason must be equipped with tools, such as a hand needs a compass to draw circles, and then even a person with no experience will manage perfectly well).
6. Only by working methodologically can one create science, and from its general and specific theorems one may gain practical benefit (inventions).
7. Acting in this way will secure happiness for mankind.

Is there a place for liberty in this methodology, is liberty at all needed? Does the idols theory not indicate the complete entanglement and subordination of human reason, which excludes liberty? Despite these doubts, Bacon in his *Valerius Terminus of the interpretation of nature with the annotations of Hermes Stella* recognises two basic directives, required to pursue science according to the scheme presented above. He calls them the directive of certainty and the directive of liberty. "The fullness of direction to work and produce any effect consists in two conditions, namely the certainty and liberty. A directive is certain if it does not limit itself to certain cases, but is always intallible. A directive is free, if it does not limit itself to certain processing methods but extends on all possible means and ways consistent with the poet's apt saying: *sapientibus undique latae sunt viae*; because where there is a great variety of processing means, there is also a greater possibility to choose one of them" (Bacon 1961, p. 98). Therefore, in this directive, and thus in the entire science, there is an assumption of liberty, without which true science may not exist.

This results from the world's great diversity, from the fact that we are not able to foresee all its cases and determine the causes that may produce a desired affect. Liberty understood in this way makes the development of science possible. "If due to a lack of the directive of certainty one is deprived of the effect, then due to the lack of the directive of liberty one may be

exposed to the action being brought to a halt” (Ibidem). Without liberty further development of science is not possible, which is a derivative from the fact that, it is liberty that “because it freeth election of means needed to produce a desired effect” (Ibidem, p. 99). However, one has to remember that Bacon’s predominant objective is practical activity, which is why he points out that even if both principles had already been known to Aristotle, they only referred to speculative theorems rather than to practical implications (Por. T. Czeżowski, Aristotle, Galileo, Bacon in Philosophical lectures, Edition 2., Toruń 1969, p. 143-149, the author points out the similarities between Bacon and Aristotle, contrary to what is suggested by Bacon himself in his postulates to reject the theories of the latter. The similarities are very significant, which is why Czeżowski develops Baconian methodology from Stagiryte’s assumptions: “Both [Galileo and Bacon] accepted the principal postulates of Aristotle’s methodology: 1) the hierarchical construction of the theory, which is comprised by the knowledge of facts and the principal theorems explaining it, as well as 2) the categorical nature of the principal theorems. Both, however, emphasised the relation of the principal theorems to the knowledge of facts against the school tradition”, (p. 143-144).

The directive of liberty is also known as „the principle of common sense”. This means that when we talk of liberty in the sense of choosing means, the choice we make is not entirely voluntary, but directed on a practical goal, which is the discovery of the truth. Such an understanding of liberty must be contained *implicite* in the methodology of Bacon’s science, and above all in his eliminating induction, i.e. in the proposed way of reaching the „true general theorems” as well as when we want to promote „experiments that bring light, not ones that are useful” (Bacon 1961, p. 93). It is the experiment that determines the choice of means, but within the limits that allow discovering the truth. “But now we have to start discussing the means which support the induction and place it on the right path, and then to the specifics, the hidden processes and structures, and all the rest (...), so as to finally (while taking a decent and faithful care) hand people over their own destiny, liberating their reason and making it mature as it were” (Ibidem, p. 368).

Therefore, taking into account the limitations and imperfections of the human mind, it has to be liberated of what interferes with the true cognition (the idols theory) thanks to eliminating induction. This is supposed to secure the possibility for a free choice of means to determine the truth. By scientific discoveries and liberation of the mind, liberate man as well, *i.e.* make it possible for him to continue further unhampered actions and power over the world. It has to be emphasised that the power is limited to the nature world only. Let us remember that human mind “does not have to be added wings, but rather lead and ballast to suppress all leaps and ascents. And this has so

far not been done. When this happens, one will be able to have better hopes for science" (Ibidem, p. 132-133).

The two types of liberty presented above refer to the assumptions about science. The first is understood as a free choice of means in the search for truth, which requires a certain mental autonomy. The other concept of liberty results from the benefits of science, *i.e.* power over the world of nature. However, the latter case hides a certain contradiction (antinomy), or perhaps a limitation of liberty, which Bacon emphasises in various parts of his methodology of science. "Man's rule in the world is only based on crafts and sciences. This is because one may not rule the nature otherwise than by being obedient to it." (Ibidem, p. 159). It is precisely this limitation that may give him the power. For this reason, liberty has its limits, although it offers unhampered power, but only when we subject ourselves to nature, whereas nature itself is limited by the fetters of science. Such liberty brings practical benefits.

There is no liberty without limitations, which seems to form the fabric of Bacon's views, and this will be a statement typical to the entire tradition of British philosophy in the 17th century. Bacon understands the requirements of the natural world, "because no powers are able to disconnect or break the chain of causes" (Ibidem, p. 41). He is also aware of the ambiguity in the perception of liberty, or the danger contained in it. In the essays entitled *O wysokich stanowiskach* Bacon openly writes: "it is a strange desire to search for power and lose liberty, or to search for power over others and lose the power over oneself" (Bacon 1959, p. 43). The idea of liberty appears to be a certain understanding for the requirement or the need to introduce limitations resulting from liberty (Por. K. Leśniak, *Francis Bacon or liberty understood as knowledge*, where the author attempts to prove that "Man's liberty stands for ruling the nature and forcing it to serve him" (s. 179), which as shown above is not as unambiguous, or simply not entirely consistent with Bacon's own views, which may be better expressed by the motto: "serve nature in order to rule it". Leśnik does not seem to notice this antinomy of liberty).

The idea of limiting liberty is even more distinctly presented by Bacon in the context of public life. Here using liberty may simply be dangerous. "If anyone dares to use the liberty of judgement, the entire burden will be carried by them, and will not be able to use anyone's help in any way. And if they accept that, they will experience the fact that this resourcefulness and generosity will constitute a significant obstacle in their way to success. This is because in those areas human activity was locked up in the writings of some authors as if in jail and if one does not agree with them, they are immediately branded as a restless soul and a troublemaker" (Bacon 1961, p. 120).

One who does not realise these threats resulting from the specific nature of the public life wilfully exposes themselves to the danger of breaking the

law. Moreover, liberty is not at all a common desire, and those who use it choose to be somewhat isolated socially. Bacon does not judge those who use liberty, but rather warns and reminds that this is what social life is like. Therefore, he encourages to conform and subject oneself to the rigours of social expectations, which is indeed a contradiction of liberty.

Liberty, according to Bacon, carries a serious threat; what is more, it is to a certain degree dangerous to people who use it. For this reason, he distinguishes between two major areas, to which it is applicable: science and politics. In science, he recognises liberty as a basic condition for development, whereas in politics he is a declared opponent of liberty. "In political affairs, any change, even for the better, is suspicious for reasons related to political disturbances, as political affairs are based on solemnity, dignity, fame and opinion, not on evidence" (Ibidem, p. 121). Conservatism in social and political affairs is clearly visible in *The New Atlantis*, as well as in Bacon's rather "servile" life, whose morality was ambiguous to say the least. The limitation of liberty contained in Baconian utopia was aptly encapsulated by J. Szacki: "Bacon's objective was mainly, if not only, the knowledge of nature. In other matters, he preferred to rely on tradition rather than risk, which accompanies all great changes: anxiety. In other words, this pioneer and revolutionary in science, was a conservatist or even an opportunist in politics and social affairs – which is contrary to most utopians" (Bacon 1995, p. 8). What people need is not liberty, as it might be noted from the message of *The New Atlantis*, but health, wealth, happiness, order, etc., and this can be provided by human knowledge of nature and technical innovations. Living in comfort and happiness, we do not think of liberty, which might lead to changes in their own assumptions, and thus lead to the loss of what we possess.

Bacon's life also indicated this conservatism (or even opportunism), because it was subjected mostly to career. Biographical motifs should be limited to philosophers' thought, but in this case it is hard not to refer to the imperfection of his personality. "He was proud and ambitious at times, but also humble and servile, especially if he found his own business in it." (Nitecki 1916, p. 6). In one of his morality essays, Bacon preaches of the dangers brought by accepting bribes, but he himself is convicted and deprived of his public functions precisely for that reason (Bacon 1959). He notes that the real world is governed by rules, and predominantly those that favour the stronger, whereas liberty is an ideal, which would interfere with the country's internal and external peace. Bacon is not the type of an autonomous wise man, such as for instance Benedict Spinoza (Por. Bacon's biographies contained [in:] K. Leśniak, *Francis Bacon*, p. 9-18; M. Nitecki, *op. cit.*, p. 15-

32; as well as J.G. Crowther, *Francis Bacon. The First Statesman of Science*, London 1960, pp. 302-324).

We need to ask again whether Bacon was a philosopher who should be placed in the mainstream of mature philosophy of the 17th century. After all, it is still in the scholastic system (e.g. "the form" as the basic subject of cognition), or as some claim – in the scholastic and alchemic system. He practically did not affect in any way the seventeenth century – thinking, especially on the continent, he brought so few valuable elements that would survive until the present. "Even before him, this area had been conquered for experimental science by Leonardo da Vinci (1452-1519), Galileo (1564-1642) and J. Kepler (1571-1630). The pioneers of the modern science did not use Bacon's advice or listen to his inspiration" (Leśniak 1961, p. 33). "Bacon's scientific orientation was so weak that he may be considered a scientific ignorant" (Ibidem, p. 37). "A new scientific theory based on their own methodological indications has been developed neither by Bacon nor anyone else. In the same way, these did not affect the studies of scientific theory in that era. Locke only mentions Bacon once as one who criticised the scholastic tradition, (...) Hume does not mention him at all" (T. Czeżowski, *Aristotle, Galileo, Bacon*, p. 146., and further Czeżowski writes: "Galileo developed his method in research practice, whereas his methodological considerations are scarce. Bacon on the contrary: he widely expands his methodological program, but he himself is not an explorer in the area of detailed studies (but rather an ignorant who is trying research), and the uses that he provides are artificial. The study of the nature of heat, which was Bacon's principal example, was going along a different track in physics than Bacon indicated". C. Vasoli, *Encyclopaedism in 17th century*, translated by A. Aduszkiewicz, Warsaw 1996, in turn, points to Bacon as the one who significantly contributed to the creation of the idea of encyclopaedic and common system of knowledge, aimed at man's revival, p. 6). Bacon's achievements in science are mocked by his contemporary biologist William Harvey: "He wrote on science like a Lord Chancellor" (J. Martin 1992, p. 172).

The answer to the question posed above is, nevertheless, positive. Bacon was a modern thinker. And, paradoxical as it may sound, for reasons that make us discriminate him, *i.e.* due to the uselessness of his considerations, because these turned out to be incorrect. (A different view on this issue is held by T. Kotarbiński, *Bacon on the future of science, The Polish Science*, vol. XVII, considering that "Bacon's views in his own country fell on fertile soil. (...) In approximately 1645, London saw the beginning of the meeting of a team of experimenters, thus forming what later became known as the Royal Society, *i.e.* the London Academy of Science. (...) One of the first participants, mathematician Wallis, looking back, counts Bacon's times as

the beginning of the so-called “new philosophy” (*i.e.* experimental knowledge of nature) in England. It is commonly believed that work at the Society was conducted with Bacon’s philosophical heritage in mind” (p. 15-16), which is not entirely consistent with Bacon’s true impact on the experimental philosophy). Yet, this is precisely the power of its impact as they inspired others to continue the search in the methodology of science. An error is often more creative than the discovery of truth. “The main source of the charm beaming from Bacon’s writings does not come from objective problems he dealt with, but from their psychological tone, from the mood that can be sensed in them” (Nitecki 1916, p. 5). This aspect of his work was especially appreciated by the Enlightenment.

Such was Bacon: in his life – a ruthless careerist, in science – a dilettante, in philosophy – a combination of a scholastic with an alchemist (Por. C.D. Bowen, *Francis Bacon. The Temper of a Man*, Boston – Toronto 1963, where the author presents the dramatism and the polarity of Bacon’s biography. “Francis Bacon’s life, with its slow rise to political power and its sudden awful fall, is a drama on the heroic scale of the old Greek tragedies”, p. 3). But he was also a great visionary; he was able to set an objective, a completely new one, which proves to be the right one for mankind, and which was developed by the modern times. But mankind needs objectives more than the truth. Let us define an objective, and we can achieve anything – this is the most valuable of Bacon’s messages. Here one can find another ambiguity of his attitude. He set himself a target, which was gaining political power, and he managed to achieve it. After all, the end justifies the means (he sympathised with Machiavelli), but one needs a goal and determination to pursue it.

So what is left of liberty? It was limited to science, to the right to choose from the greatest possible number of options, because it is “liberty that makes science more creative” (H.B. White 1968, p. 2). Failure to observe this limitation exposes an individual to threats coming from the world of politics, and this is what Bacon is warning us about. If we limit liberty, or even the considerations of it, to the necessary minimum, we will be happy and only this should be the main goal of mankind. Liberty is certainly valuable but also dangerous (*Ibidem*, p. 72, “Bacon certainly did not suppose that perfect liberty in one sphere of learning protected liberty in another”. Analysing Bacon’s political views, the author limits them to science only and the possible conclusions resulting from the utopia *The New Atlantis*. The views contained in it are “politically correct”, as they do not address the problem of social changes, but only transformations in science). This last statement is the essence of Baconian apotheosis of conformism.

The later considerations of liberty on the British soil would, however, ignore this danger, connecting this issue with unequivocally with politics and religion. Bacon merely made allusions in this direction, warning against an unambiguous attitude. Liberty brings changes, and he was interested in preserving a personal and national *status quo*. The breakthrough, even if timidly, was completed in science, which is, after all, about acquiring new knowledge. This is impossible without liberty. But science is only a beginning. When the discussion over the concept of liberty has been initiated, no one can stop, and it is only a matter of time when it begins to make claims to statements in the sphere of politics (Hobbes) or religion (Locke).

Abstract

Francis Bacon virtually limits liberty to scientific activity, to the right to choose from the largest possible number of alternatives. This makes science more creative. Bacon suggests that going beyond the limits of liberty may expose us to danger from the world of politics. This is why Bacon recommends conformism in social life despite the revolutionary nature of his discoveries.

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