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Jan Bigaj (Poland)

THE IMPACT OF EVOLUTIONAL INTERPRETATION
OF PLATONISM AND OF WINCENY LUTOSŁAWSKI'S (1863–1954)
STYLOMETRIC METHOD ON PROGRESS
IN THE STUDIES OF ANCIENT PHILOSOPHY

Until the 19th century, the works of the two most eminent philosophical authorities in the Ancient World, Plato and Aristotle, have been treated in a rather naive way as a timeless creation, bestowed upon us from the very beginning in its ready-to-accept, finally developed and perfect form, lacking only an analysis and some comments. Therefore, the ideas of those philosophers, traced in no matter which of their works, were compared adiachronically, at one and the same level, and considered an expression of their ultimate and most mature views, forming at the same time a compact and coherent system¹.

Throughout the whole period of the Middle Ages and later, too, at the universities the teachings of the ancient philosophers were expounded in such a way as if all their works were invariably created during the time of the ἀκμῆ, in the prime of their creative power, like Decartes did, when consciously he started building up systematically the edifice of his philosophy while of mature age, not to change anything in this system after it had been completed. Not the least thought of any possible change in the ideas of those philosophers was admitted, in the same way as for a very long time no one would have even dared to conceive in his mind a mere thought that the principal order of the world, as established by God at the instant of creation, could have ever been questioned.

One had to wait for Darwin and for a, woken up by his theory, revolution in science, similar to the Copernican revolution, to introduce to the world science and to the scientific methodology the concept of progressive changes which, with the time elapsing, give rise to the appearance of quite new forms. The nineteenth century evolutionism not only unveiled the nature in development but also forced us to take the human creativeness as a process in which the author is correcting himself all the time, introducing sometimes

¹ Still in 1824 Bobertag – as observed by W. Lutosławski – when quoting Plato's dialogues *does not distinguish between the earlier and later ones, but he juxtaposes fragments taken from the Timaeus and the Phaedo as if Plato's opinions have not been changing at all.* W. Lutosławski, *O logice Platona*, t. 2, Warszawa 1892, p. 14.

radical changes. This approach did not omit also the tradition-honoured, ancient system of philosophical thought.

The close of the 19th century and the later period witnessed an intensification of the evolutionary studies on an output of the work of ancient philosophers. Very popular were, kept in this spirit, treatises on Aristotle and his *Metaphysics* written by Werner Jaeger already in the 20th century. Earlier, however, a Polish scholar, Wincenty Lutosławski, had created his work on an evolution of Plato's ideas, his logic mainly, which soon became the source of inspiration to other scholars. Quite correct was therefore Jaeger's remark that *the historical humanities of the nineteenth century reached the top of their excellence while struggling with Plato's problem*¹. In this struggle the leading position fell to the Polish scholar.

With no great exaggeration the statement can be risked that Lutosławski was the first one to transfer with firm consequence in his studies on Plato the method of evolution to the ground of historical humanities. Looking for his predecessors in this approach, Lutosławski notes that C. Prantl in his, very highly praised by Lutosławski, *History of Logic*², a chapter of which devoted to Plato he considers to be *the most exact of all the hitherto existing works on Plato's logic (...) still does not distinguish between the successive stages through which Plato's ideas were passing*³.

In Lutosławski's opinion *A fresh start in the study of the chronology and authenticity of the Platonic Canon was made by K. F. Hermann (1839), who tried to find in Plato's genuine dialogues a steady progress at once with respect to philosophical contents and to literary perfection*.⁴ This statement was confirmed, or perhaps simply repeated after Lutosławski, by Jaeger: *C. F. Hermann taught us how to see in Plato's works a slow evolution of his philosophical ideas*⁵.

But Hermann's principle of presenting a gradual evolution of Plato's philosophy was applied to Plato's logic only much later – for the first time by Michelis in 1860⁶. And though, according to Lutosławski, Michelis does it in *a manner rather superficial and careless and wants to determine in a one-sided manner the chronological sequence of dialogues (...) here for the first time we find a consequently conducted differentiation between various epochs in Plato's logical ideas*⁷. The necessity of making such differentiation bet-

¹ W. Jaeger, *Paideia*, t. 2, Berlin 1944, p. 132: (...) *die historische Geisteswissenschaft des 19. Jhrh. ihre höchste Verfeinerung im Ringen um das Verständnis der platonischen Frage fand.*

² C. Prantl, *Geschichte der Logik im Abendlande*, t. 1, Leipzig 1855.

³ W. Lutosławski, *O logice Platona*, t. 2, p. 18. Cf. also W. Lutosławski, *The Origin and Growth of Plato's Logic with an Account of Plato's Style and of the Chronology of his Writings*, Longmans Green & Co., London 1897 [2 ed. 1905, reprint. by Georg Olms Verlag, Hildesheim 1983], p. 17: *He [Prantl] said clearly that Plato's ideas had nothing to do with logic (p. 83).*

⁴ W. Lutosławski, *The Origin and Growth of Plato's Logic ...*, p. 40.

⁵ W. Jaeger, *Paideia*, t. 2, p. 133: (...) *als man sich seit C. F. Hermann daran gewöhnte, Platos Werke als den Ausdruck einer allmählich fortschreitenden Entwicklung seiner Philosophie aufzufassen.*

⁶ F. Michelis, *Die Philosophie Platons in ihrer inneren Beziehung zur offenbarten Wahrheit*, Münster 1859–1860.

⁷ W. Lutosławski, *O logice Platona*, t. 2, p. 19.

ween the ideas of the philosopher who had been active for so long¹ [nb. until being 80 years old] was also claimed by Oldenberg and Peipers.

All those events are but only the first signs presaging what was to be achieved in this field by Wincenty Lutosławski.

He was no doubt the child of Positivism, though verbally he was rejecting this trend and more than once expressed his aversion, subjecting it to criticism, mainly for its relations with materialism. Notwithstanding this fact, his own achievements were obviously growing out from the same source as in the field of natural science were the discoveries of a double Nobel Prize winner, his compatriot and woman almost of the same age – Maria Skłodowska-Curie. This source was the Polish variation of Positivism, born after the national defeat in 1863 and flavoured with a romantic cult of science and progress. Lutosławski confesses that in his youth he was studying the works of Positivists, collected mainly around the *Prawda* edited by Świętochowski², and this certainly has moulded his personality of a scholar.

Though in his subjective judgement he was convinced that the idea of Plato's spiritual transformation, which was one of his main discoveries, was prompted to him by another famous transformation, viz. that of Konrad – a romantic protagonist of the drama *Dziady* written by Mickiewicz³, still it seems that in reality this concept was rather driven by the evolutional positivistic ideas across which he came very early and which, in spite of his resistance – influenced him very strongly. Even though he tries to convince us that Romanticism was much more important to him, in reality we can see in him the imprints of Positivism much stronger even than he himself was able to realize. To this trend, no doubt, he owes his passion for science, his willingness to study, his enchantment with wisdom, and his desire to achieve something important in science, which pushed him towards more detailed studies of Plato.

The main subject of those studies was meant to be Plato's logic regarded as an origin of Aristotles' logic⁴ – the subject very ambitious but unimaginably difficult, because requiring detailed search through a vast field of all the reference literature which has ever been written on both philosophers. An expert in philosophy of this rank as Gustav Teichmüller, Lutosławski's master, tried to dissuade him from this task, knowing how enormous it was. But the young scholar started to work with great zeal, pushing laboriously his way through the jungle of various treatises, not to miss by chance something that might prove to be useful for the target selected. Willingly or not, one is think-

¹ W. Lutosławski, *O logice Platona*, t. 2, p. 25.

² *I was at that time reading Prawda by Świętochowski and Przegląd Tygodniowy by Wiślicki – considering these journals the last word in progress.* – Lutosławski confesses in his autobiographical work *Jeden łatwy żywot*, Warszawa 1933, p. 72.

³ Cf. W. Lutosławski, *Seelenmacht*, Leipzig 1899. Let us note the fact that the name of the Polish romantic protagonist *Konrad*, raised to the rank of symbol by Mickiewicz, became also pen-name of the writer Joseph Conrad (Korzeniowski), who after defeat of the rising in 1863 found in the Great Britain his second motherland.

⁴ And this is how after the years he is depicting his intentions: *I wished to investigate this relation in the scope in which Aristotle was considered to be master and creator, and I decided to take up to studies of Plato's logic, neglected because of the great success of Aristotles' logic.* W. Lutosławski, *Jeden łatwy żywot*, p. 164.

ing of those tons of uranium blend that Maria Skłodowska had to shuffle to get one gram of the pure radioactive element – polon.

Lutosławski was also successful in finding his own treasure which let him reverse the course of science. This treasure proved to be a long forgotten study of the Scottish philologist Lewis Campbell, speaking about the time when some of Plato's dialogues had been created.

Already the first steps taken by the scholar in his search disclosed to him the problem of the time sequence in which the writings of the famous philosopher were created. Because – according to his own words – *the determination of an epoch in which each work was written is indispensable in understanding Plato's psychological evolution and his logical theories – therefore examining the individual dialogues in respect of their logical content, their chronology, and authenticity should precede any attempt at exposing the bulk of Plato's logical theories*¹. Of course, the intention of showing the philosopher's ideas in evolution required arranging, first, his works in time.

To be able to show the process which was shaping the logical concepts of the founder of the Academy, the Polish scholar had to deal first with the, tangled as the Gordian knot, problem of the chronology of Plato's works. Science with great difficulty was coping with this problem, which since some time has become a burning issue. The, still very timidly sketched by Hermann, idea of an evolution of Plato's viewpoints, followed by Lutosławski's studies on the development of Plato's logic have finally made that, as observed by Jaeger, *to the foremost position has moved and become of great concern the problem to which previously but only very little importance was attached, that is, the time when the individual dialogues were created*².

The problem of the chronology could not be solved only by means of the content criteria, and this method had to be abandoned when it was noticed that after all Plato's dialogues are also documents of an instinctive evolution of the ideas of their creator, the evolution the successive stages of which can be traced in them even nowadays³. This, signalled here by Jaeger, new evolutionary approach to Plato's works, demanding new methods for establishment of their chronology, to none of the nineteenth century scholars is more pertinent than to Lutosławski.

This is the more true that for the subject of Lutosławski's studies the most important were the, so called, dialectic dialogues, i. e. *Theaetetus, Sophist, Statesman, and Parmenides*, about which Jaeger writes that : *in the centre of interest have now been found these 'dialectic' dialogues (...) in which the old*

¹ W. Lutosławski, *O logice Platona*, t. 2, p. 31.

² W. Jaeger, *Paideia*, t. 2, p. 133: *Denn nun wurde eine bisher wenig beachtete Frage, die der Entstehungszeit der einzelnen Dialoge, in den Vordergrund des Interesses gerückt und entscheidende Wichtigkeit.*

³ W. Jaeger, *Paideia*, t. 2, p. 133: *Diese an sich natürliche und naheliegende Betrachtungsweise, die vor allem an Schleiermacher ihren Vertreter gefunden hatte, schien erschüttert durch die Annahme, daß unruhmliche Spiegelbild einer unwillkürlichen Entwicklung des platonischen Denkens seien, deren einzelne Stationen wir in ihnen noch zu erkennen vermöchten.*

*Plato seems to be settling accounts with his own theory of idea*¹. Lutosławski was also the first one who drew attention to this *settling of accounts*.

Tracing carefully the path taken by the evolution of ideas of the creator of the Academy, Lutosławski noticed that at certain point Plato's ideas were suddenly changing with all the symptoms of a radical turn. The consequence was rejecting by Plato an original concept of the idea and self-criticism in this respect, while as a main object of his studies has now emerged a new revelation: the soul or the ego. Since that time Plato has become – in Lutosławski's opinion – the creator of a new trend in philosophy, viz. the spiritualism, which was said to take over the place of idealism. The turn in the interests and convictions related with the discovery of ego was experienced by the philosopher from Athens at an advanced stage of his life; in spite of this, it resembled transformations typically experienced by young people, to mention just Lutosławski himself, who at the age of twenty two, while studying Plato, discovered the eternity of his own soul².

The investigations of the Polish scholar revealed some secrets which the Ancient Philosopher did not want to disclose fully to his contemporaries. This was not only the mere spiritual transformation which he had gone through, but also a sort of initiation related with this transformation. The discovery of these facts in Plato's philosophical biography, the facts showing a radical turn in his beliefs, is ranged among one of the most important scientific achievements of Lutosławski. It had a very strong impact on further course of studies on the ideas and teachings of also other Greek philosophers, Aristotle mainly.

It suddenly let everybody realize that the ideas proclaimed by those luminaries of the thought did not appear at once in their final and perfect form, but were undergoing an evolution, were burdened with mistakes, and often required some improvements. The authorities of the calibre of Plato and Aristotle were finally claimed to have the right to make mistakes and change ideas like every other ordinary mortal. Owing to this, the images of those philosophers, men of genius – no doubt, but ordinary people, too, were liberated from this hieratic monumentality in which they had been kept for so many centuries. And their magnificent systems were shown right in the process of being born: i. e. laboriously constructed for years, undergoing never ending improvements and corrections, and abandoned and rejected sometimes, too.

The dynamic and diachronic approach to Plato's heritage, with attention drawn to a reversal in his ideas that happened in the later period of his life, became possible only after the, so called, dialectic dialogues had been placed in that period – the achievement totally owed to Lutosławski. Until then, even in the antiquity, those pieces of work were believed to be an early output of Plato's creative activity, and were placed somewhere between the *Cratylus* and the *Banquet*, i. e. before 385 BC. To Lutosławski, since the very begin-

¹ W. Jaeger, *Paideia*, t. 2, s. 134: *Im Brennpunkt der Erörterung standen nun mit einem Mal jene „dialektischen“ Dialoge Parmenides, Sophistos und Politikos, in denen der späte Plato sich mit seiner eigenen Ideenlehre auseinandersetzen scheint.*

² W. Lutosławski, *Jeden łatwy żywot*, pp. 108 sq.

ning, it seemed hardly possible to reconcile the exceptional maturity of those works with an early period of their supposed creation, and therefore he was looking for confirmation of his speculations. And he did find it in the above mentioned work written by Campbell.

It was a comprehensive, and very solidly prepared introduction to a school edition of dialogues: the *Sophist* and the *Statesman*, published in 1867¹, in which a modest and unknown on a wide forum scholar from Scotland was trying to prove through linguistic analysis a late period of the creation of those works. *Campbell saw a striking resemblance between their style and the style of the 'Laws' and enumerated hundreds of minute similarities, judging correctly that, like the 'Laws', Plato must have been writing these works while being already old* says Lutosławski² and emphasizes the fact that science has let this discovery pass totally unnoticed³. It took 30 long years to elapse before it was brought to light precisely by him, the Polish scholar, who decided to support Campbell's thesis with new arguments, using to this end an output of numerous philological dissertations read by him on Plato's style.

This, exactly, gave origin to his own genuine method of establishing the chronology of works written by this ancient author, commonly known as stylometry. Adopting certain work whose date of creation was well known as a reference point, he was comparing its stylistic features with other works whose date of creation he wanted to find out. Since all scholars unanimously agree that the latest Plato's work are the *Laws*, a criterion helpful in dating any arbitrarily chosen work of this author can be the, reflected in the language, degree of its remoteness from the *Laws*.

Let us draw in general outline the essence of stylometry, which by the scholars is generally considered an eminent and important contribution to the historical and philological studies on Plato's, and not only Plato's, works. In a most comprehensive way it was disclosed by Lutosławski in his chief work written in 1889–1897: *The Origin and Growth of Plato's Logic With an Account of Plato's Style and of the Chronology of his Writings*⁴.

Using twenty main reference items dealing with Plato's language, the author distinguished 500 of the most typical stylistic forms encountered in the *Laws*, which he called stylems. These included both single words (often of minor importance, like particles and conjunctions) as well as idioms and grammatic forms of various types, syntactic constructions, and even a specific arrangement of words. He was next calculating the frequency of their occurrence in the examined text and, basing on this frequency, was ascribing to

¹ *The Sophistes and Politicus of Plato, with a revised text and English notes*, by the Rev. Lewis Campbell, M. A., Professor of Greek in the University of St. Andrews, Clarendon Press, Oxford 1867.

² W. Lutosławski, *Jeden latwy żywot*, p. 220.

³ W. Lutosławski, *Jeden latwy żywot*, p. 219: *And in relation with this discovery I dugged out a long forgotten and never appreciated before work edited by a Scottish philologist in 1867. This Scot, Lewis Campbell, buried his memorable remarks on Plato's style in a long preface to a special issue with comments on two dialogues: the 'Sophist' and the 'Statesman'.*

⁴ W. Lutosławski, *The Origin and Growth of Plato's Logic with an Account of Plato's Style and of the Chronology of his Writings*, Longmans Green & Co., London 1897 [2 ed. 1905, reprint. by Georg Olms Verlag, Hildesheim 1983].

them various levels of significance typical of the work examined. Consequently, he distinguished four levels of significance, assigning to each level a numerical sign from 1 to 4.

a) The stylistic structures which appear in a dialogue only once are called casual and bear number 1.

b) Number 2 is ascribed to recurring forms.

c) As significant are regarded those which, depending on the volume of the work, occur at a frequency practically oscillating between 3 and 20, and to those is ascribed number 3.

d) Finally, the highest number 4 is attributed to those parts of a text where a stylem occurs very frequently or when, due to some well justified reasons, it is of some special significance; these cases are claimed to be very important.

Basing on these findings, he proposes the notion of a unit of significance and sums up next the measures obtained for each of the examined works. Even these rough numbers show unmistakably the sequence of the writings; the situation becomes even more evident when the measures are expressed in decimal fractions, obtained by dividing the results by the number 718, which denotes the measures of significance calculated for the *Laws*. And so, a very low value of the fraction calculated for the *Apology of Socrates* and amounting to 0.02 makes us place this work in a time very remote from the *Laws*, and as such considered to be one of the earliest writings, while the *Timaeus* with the value of 0.60 very definitely approaches the *Laws*, and hence appears to be written in a later period.

Introduced to the theory of stylometry, the numerical system makes this theory much more precise, shifting its position closer to the methods applied by natural science. Proceeding in a way similar to that adopted by natural science, its author also tries to formulate a basic law on which this theory has been based. He calls it the law of stylistic affinity. This term is immediately associated in our mind with the term *chemical affinity* used by the natural science which had once been the prime object of Lutosławski's interest. This basic law of stylometry (*Law of stylistic affinity*) runs as follows: *Of two works of the same author and of the same size, that is nearer in time to a third, which shares with it the greater number of stylistic peculiarities, provided that their different importance is taken into account, and that the number of observed peculiarities is sufficient to determine the stylistic character of all the three works.*¹

This law the author considers to be equal with the laws of nature as he writes: *Dies Gesetz is ein induktiv gewonnenes Naturgesetz*². According to Lutosławski, ultimately *man's style is the work of nature, in the same way as his character and physical posture are*, and therefore its investigation gives way to formulation of some generalisations, like it happens in the case of va-

¹ W. Lutosławski, *The Origin and Growth of Plato's Logic ...*, p. 152.

² W. Lutosławski, *Nachtrag zu der vorhergehenden Abhandlung in: Zeitschrift für Philosophie und philosophische Kritik* 110, p. 218. This was Lutosławski's comment submitted after a summary of his stylometry written in the German language by P. Meyer had been published (cf. P. Meyer, *W. Lutosławski's Theorie der Stylometrie auf die Platonische Frage angewendet*).

rious intricate natural phenomena. After all, quite frequently, when investigating the phenomena encountered in nature, we also come across some factors which disturb and hence complicate simple events, nevertheless certain regularities can still be traced. The high degree of intricacy of the examined cases does not exclude the possibility of forming relevant generalisations.

Any positivist would easily agree with those enunciations. Certain approximation to physicalism could be even traced here: the subject of humanist's interest, i. e. mainly the cultural phenomena, differs from the subject of interest of a naturalist only in the degree of complicacy. This confirms the impact that the scientific orientation, originating from positivism, had on Lutosławski. As in natural science, also in the science of history he strives for maximum certainty of his statements, deduced from the hypotheses set up previously. It was his stylometry which was supposed to give this certainty as regards the time sequence of the written works.

And indeed, formulated with the aid of stylometry conclusions regarding the chronology of Plato's works have in many cases been fully confirmed by arguments taken from other sources. For example, the dialogue *Sophist* is, according to the words spoken by Plato himself, a continuation of the *Theaetetus*, which means that certainly it was created at a later date. The stylometric calculations give for the *Theaetetus* 233 measures (0.32 in respect of the *Laws*) and for the *Sophist* 468 (0.65).

On the other hand, both the *Sophist* and the *Statesman* make almost one whole: the same characters occur in them, and the plot and subject matter of the latter work are an extension of the former one. The stylometry gives for the *Statesman* 493 measures (0.69), i. e. the tally slightly higher (by 25 measures (0.04) only) than that obtained for the *Sophist*. As it follows from the context, the dialogues must have been written shortly one after the other, hence the tallies are so similar, and because the *Statesman* was created as the second work, its tallies are slightly higher. What an astonishing consistency!

Another example: It is a well known fact that an extensive dialogue – the *Republic* – was not written in a single time unit, but the individual books were created in various periods. Certainly the first book is the earliest, and the last one, i. e. the tenth one, was composed much later. The same fact is indicated by the stylometry, which to Book I ascribes a measure relatively low, i. e. 49 (0.07), and to Book X a measure much higher, i. e. 132 (0.18).

As regards the *Republic*, Lutosławski with satisfaction emphasizes the reliability of his method. To finally bring this, scattered in pieces, work – the *Republic* – into one integral whole, during its final revision Plato was forced to introduce some changes, specially to the initial books, to adapt them to the remaining ones. Yet, in spite of this revision, the stylometry can trace their early origin, which proves that there are no amendments capable of disturbing the efficient operation of a stylometric method.

There were, however, also those who criticised the method of stylometry, picking up some facts which seemed to put its value in doubt. And so, for

example, Jezienicki¹, the reviewer of a Lutosławski's work *The Origin and Growth of Plato's Logic ...*, quotes Campbell's remark stating that, compared with probable time of its creation, the *Phaedrus* reveals too great number of casual words common with the *Laws* when, on the contrary, the *Parmenides* reveals a rather scarce number of those words, although – according to some opinions – it should belong to more or less the same period as the *Theaetetus*, the *Sophist* and the *Statesman*. Of all Plato's dialogues, their number is proportionally even the least frequent. These two cases should indicate, in the reviewer's opinion, how deceptive the conclusions drawn with the aid of the stylometry can be.

But in my opinion, one can easily explain the quoted exceptions without impairing the reliability of the stylometric method. It is only necessary to examine in detail the structure of these two works and take into account different origins of the individual fragments.

As regards the dialogue *Parmenides*, I have tried to prove elsewhere² that the author of a prevailing part of this work (*Parmenides II*), i. e. more than a half or maybe even three-fourth of the work, was young Aristotle, and hence it would be, of course, difficult to find in this part any stylistic features common with those found in the *Laws*. The few stylems common with the *Laws* can be traced only in the first chapters of the dialogue, written no doubt by Plato himself and, more important even, at a time more or less concurrent with the *Sophist* and the *Statesman*. Since only slightly more than one-fourth of the work can be ascribed to Plato himself, no wonder that the number of the respective stylems, and hence of the measures of significance, is so low compared with the volume of the whole work.

On the other hand, as regards the *Phaedrus*, then – taking again my arguments put forward in³ – although the main stem of this work, comprising the rhetorical speeches of Lysis and Socrates on *Eros*, must have been written still before the *Banquet*, and therefore quite early, a comprehensive lecture on the soul, forming the central part of the work, was included into the text much later, that is, after Plato's discovery of ego (*nota bene* again disclosed by Lutosławski). This passage obviously breaks the construction of the whole work, and one cannot resist the temptation to think that it is out of place here, and might have *penetrated* into the text from the time approaching the *Laws*.

It is this passage and its stylometric measures which make us place this dialogue in a time almost concurrent with the *Theaetetus*, since the difference in the tallies calculated for both is minimal, and actually amounts to 220 and 0.31 for the *Phaedrus*, and 233 and the respective fraction of 0.32 for the *Theaetetus*. Hence follows a conclusion that the former work had been created just before the latter one, but even Lutosławski himself observes that before writing the *Theaetetus* Plato had a few years break in his creative activity,

¹ M. Jezienicki, *Kwestya platońska w świetle najnowszych badań Winc. Lutosławskiego* in: *Eos* 5, 1898–1899, pp. 158–168.

² J. Bigaj, *Platon a inni* in: *Heksis* 3–4/1998, pp. 60 sq. [English summary on p. 184].

³ J. Bigaj, *Wincentego Lutosławskiego spotkania z Platonem* in: *Filozofia i mistyka Wincentego Lutosławskiego*, (ed.) R. Zaborowski, Warszawa 2000, pp. 29–46 [English summary on p. 291].

which must have considerably increased the time-gap between both works. An explanation to this problem should be sought in this, included much later, mini-treatise on the soul. Also from this ordeal the stylometry escapes victorious.

Using stylometry, Lutosławski comes to a conclusion that eight of Plato's writings fall to the last twenty years of the philosopher's life, i. e. to the age between 60 and 80. These are : *Theaetetus*, *Parmenides*, *Sophist*, *Statesman*, *Philebus*, *Timaeus*, *Critias* and the *Laws*. The most eminent achievement of the creator of stylometry as regards the chronology of Plato's works was certainly his final decision to shift the time of creation of the, so called, dialectic dialogues to the last period of Plato's activities. Since that moment no one could doubt it any longer that the philosopher created those works after having completed the age of sixty, while previously they were considered Plato's early literary and philosophical output. Stylometry has turned out to be a success of the Polish scholar.

Werner Jaeger emphasizes the crucial importance of this newly established sequence in the creation of Plato's dialogues, writing in his work *Paideia: This result of the philological investigation must have been a serious shock to the classical Schleiermacher's chronology of Plato's writings, as it suddenly turned out that many of the dialogues which, on account of their methodology, were considered an early output of Plato's work and at the same time a sort of foundation in the edifice of Plato's philosophy, were in reality created in the late period of the philosopher's life. This was an incentive to start a far-reaching revision of opinions on the whole of Plato's philosophy, the opinions which throughout the whole past half-century [and safely we can add: throughout the whole past two millenia] have remained basically unchanged. The interest was now focussed on the „dialectic“ dialogues: the Parmenides, the Sophist and the Statesman, in which the old Plato seems to be „revising“ his original theory of the idea¹.*

The latter statement is a brief summary of the discovery made by Lutosławski whose name is mentioned by Jaeger shortly afterwards, though only in the second place after a rather unknown name of Jackson, drawing attention to the fact that both could see in *Plato's works dated to a late period of his activity a departure from the early concept of metaphysics²*. Yet – strange enough – when speaking about the characteristics of a stylometric method, the name of the Polish scholar is not mentioned by Jaeger at all.

At first, he is relating this method in a rather impersonal manner: *The contradictory conclusions to which an analysis of the content of the individual*

¹ W. Jaeger, *Paideia*, t. 2, p. 134: *Dieses Ergebnis philologischer Untersuchung mußte das klassisch gewordene Platobild Schleiermachers endgültig erschüttern, da sich mehrere von ihm für früh und vorbereitend gehaltene Dialoge, die sich mit methodischen Problemen befassen, als reife Alterswerke herausstellten. Das gab den Anstoß zu einer vollkommenen Umwälzung der Gesamtauffassung der platonischen Philosophie, die ein halbes Jahrhundert lang im wesentlichen unverändert geblieben war. Im Brennpunkt der Erörterung standen nun mit einem Mal jene „dialektischen“ Dialoge Parmenides, Sophistos und Politikos, in denen der späte Plato sich mit seiner eigenen Ideenlehre auseinandersetzen scheint.*

² W. Jaeger, *Paideia*, t. 2, p. 134: *Gleichviel ob man die Alterswerke Platos als Preisgabe seiner eigenen früheren Metaphysik auffaßte (...).*

works has led as regards the chronology of their creation compels us to search for a solution to this problem which will consist in careful tracing of the changes in the style of these dialogues, recording some linguistic characteristics which can form a feature typical of and common to a selected group of dialogues, and thus enable us to determine their relative chronology.¹ Having summarised in a rather faithful way the essence of stylometric studies, the author starts to criticise them.

And yet, after a success at the start, this trend in the studies has been discredited because of its obvious exaggeration, as according to its rules it would be enough to make the linguistic statistics a mechanical operation to be able to place with satisfactory preciseness each of the dialogues in a chronological order². This is an obvious hint to Lutosławski though without his name being mentioned. One cannot, however, agree with Jaeger's objection. Why should the possibility of making calculations *mechanical* prove a weakness of the method? Today, in the epoch of computers, it should rather raise its value!

Next we can read only about Campbell's merits: *An ingratitude it would be, however, to forget that the greatest progress in the interpretation of Plato's works that has ever been made since the times of Schleiermacher is owed to certain discovery of a philological nature. Namely, a scholar from Scotland, Lewis Campbell, observed most correctly that some of the longer dialogues have a number of the stylistic figures in common; they also reappear in the Laws, the last of Plato's works, never finished by him. Hence Campbell has drawn a correct conclusion that these are the features of Plato's style dated to the time of his old age*³.

Long before Jaeger's remark, Lutosławski had already drawn attention to all those facts. Therefore *an injustice equally great it would be to forget that to Lutosławski and no one else science owes a revelation of the, totally neglected by this science for over 30 years, outstanding findings of the Scottish philologist, reinforced next with the new and strong arguments, after all, accepted by Jaeger, too.*

For what Campbell had proved was only the late date of the creation of two dialogues: the *Sophist* and the *Statesman*, while Lutosławski, using his stylometry, put in chronological order the whole creative output of Plato's

¹ W. Jaeger, *Paideia*, t. 2, p. 133: *Die widerspruchsvollen Schlußfolgerungen, zu denen die inhaltliche Analyse hinsichtlich der Zeitfolge der einzelnen Werke gelangt war, führten zu dem Versuch, durch die bloße exakte Beobachtung des Stilwandels in den Dialogen und durch die Feststellung gewisser sprachlicher Eigentümlichkeiten, die das gemeinsame Merkmal bestimmter Dialoggruppen sind, eine relative Chronologie zu begründen.*

² W. Jaeger, *Paideia*, t. 2, p. 133: *Nach anfänglichen Erfolgen hat diese Richtung der Forschung sich durch ohre Übertreibungen zwar diskreditiert, da sie schließlich durch vollkommene Mechanisierung auf dem Wege der Sprachstatistik die zeitliche Stellung jedes einzelnen Dialogs festlegen zu können wählte.*

³ W. Jaeger, *Paideia*, t. 2, pp. 133–134: *Doch es wäre undankbar, zu vergessen, daß der größte Um-schwung, den das Verständnis Platos seit Schleiermacher erfahren hat, einer rein philologischen Entdeckung zuzuschreiben ist. Der schottische Platoerklärer Lewis Campbell machte die glückliche Beobachtung, daß eine Anzahl der größeren Dialoge durch Stilmerkmale miteinander verbunden ist, die sich genau so in den ‚Gesetzen‘, dem unvollendet hinterlassenen Alterswerke Platos, finden, und schloß daraus mit Recht, daß diese Merkmale also für seinen Altersstil charakteristisch sind.*

work. So, this *greatest progress* mentioned by Jaeger was *de facto* achieved due to Lutosławski, inspired maybe only by Campbell, of whom, by the way, the world of science (Jaeger included) has learned only from Lutosławski.

It was also Lutosławski who, through his studies on Plato, has evoked an interest in the chronology of writings and in the evolution of thought of other ancient philosophers, and above all of Plato's disciple – Aristotle. Jaeger himself owes him a lot in this respect. In his chief work, laying the foundations of an evolutionary interpretation of Aristotelism: *Aristoteles. Grundlegung einer Geschichte seiner Entwicklung*, he clearly refers to similar studies on Plato, in which Lutosławski's work holds a leading position. One might even think that Jaeger envied Lutosławski his success in Plato's question and decided to achieve something similar with Aristotle.

At the very beginning of his treatise he observes¹ that at the time when the whole literature dealing with the process of formation of Plato's philosophy was written, Aristotle's evolution was not only totally disregarded, but no one has even bothered to mention his name, as if timelessness was a typical feature of his philosophy. As regards the scholars studying Plato's works, he fears that, like in the case of the studies made on Plato's style, they may be carrying things too far, falling into a sort of evolutionary fanaticism in which they will be losing sight of the most important trait in the philosopher's teachings, i. e. his theory of the idea.

This is an obvious allusion to Lutosławski who has been emphasizing very strongly Plato's departure from idealism and his self-criticism observed at a late period of activity. So, muses Jaeger anxiously, if in the case of Plato's evolution one could go that far, what will happen in the case of Aristotle when even the slightest hint to the problem of a chronology of his writings and evolution will raise discontent and indignation. These remarks made by Jaeger, who obviously wanted to devote to this problem a starting part of his book, clearly indicate that he drew his inspiration from Lutosławski's work.

Only after the barriers existing so far had been broken down and new trails in the studies had been blazed by Lutosławski could Werner Jaeger introduce his novel concept of Aristotelism. The, presented in his treatises, evolutionary concept of Aristotle's teachings, emphasizing the Stagyrte's gradual departure from Platonism, which later became a very convenient criterion in establishing the chronology of his writings, was transplanted from Plato's evolution, whose departure from his own theory of the idea was discovered by no one else but Lutosławski. It is generally believed that it was Jaeger who, at the beginning of the 20th century, gave Aristotle the chance to have *post mortem* his great adventure. One must not forget, however, that earlier, owing to Lutosławski, something similar happened to Plato and played the role of a *spiritus movens* for the next event to happen.

Although Jaeger avoids any explicit reference to Lutosławski, an obvious

¹ W. Jaeger, *Grundlegung einer Geschichte seiner Entwicklung*, Berlin 1923, p. 2: *Man darf ohne Übertreibung sagen, daß in einer Zeit, wo über Platons Werdegang eine ganze Literatur zusammengeschrieben ist, von der Entwicklung des Aristoteles kaum jemand redet und jedenfalls fast niemand weiß (...).* Emphasis mine – J. B.

convergence between some of his ideas and those of Lutosławski can be easily traced, e. g. emphasizing Aristotle's dependence on Plato – the fact previously totally ignored and for ages making the scholars believe that the teachings of those two philosophers should be discussed and commented separately, compared at most. There is also a distinct analogy in interrelating the problems of a chronology of the created works with an evolution of thought pronounced by both Greek philosophers.

The problem of theoretical relations between the Polish scholar and the German scholar, sensed at first glance, requires a more detailed examination. Very astonishing is, however, the markedly expressed depreciation, sometimes even purposeful concealing by Jaeger the merits of the Polish scholar and full of reserve attitude towards his achievements. If we abandon the idea of seeking in this fact a remote echo of the anti-Polish campaign of *Kulturkampf* which, taking into account the historical background and the nationality of both scholars, quite easily comes to our mind, then the reason could be a thorn of envy felt by Jaeger that it was not him who enjoyed the role of a pioneer in this novel approach to the subject – a consequently carried out diachronic analysis of the creative output of the Greek philosopher with indication and documentary evidence of changes in his opinions.

Meanwhile, Lutosławski's method since the very beginning of its development has been arousing a vivid interest among the scholars in numerous centres of education in different countries. First of all, Lutosławski was capable of arousing the feeling of not only appreciation but even enthusiasm in Campbell himself, who later greatly helped the Polish scholar in elaborating an English version of his work. From the very beginning, the circles of the British scholars assumed a very friendly attitude towards the Polish scholar, accepting the results of his work and the method itself, and organising for him, among others, meetings in the philological societies, like *Oxford Philological Society*, or *Hellenical Society* in London; he was also offered assistance in editorial work and proposals of cooperation.

Owing to the support of the British friends – philologists, Lutosławski could also present his *law of stylistic affinities* to the French audience from the *Académie des Inscriptions* in Paris. On this occasion, appreciating the progress made in our knowledge and understanding of Plato's works, the philologist E. Weil put forward a proposal to prepare in international cooperation a new dictionary devoted to this philosopher.

Finally, unexpectedly early, the Polish scholar entered with his theory of stylometry the German ground. A few months before his work appeared in the English version, a comprehensive summary of one of its chapters, the one that exposed the theory of the stylometry, had been written in the German language by professor P. Meyer¹. Owing to this summary, the philologists in Germany could get familiar with the subject, relatively early, accurately, and without the need to study an English origin.

And so, on the turn of the 19th and 20th century, every scholar in the world

¹ Cf. P. Meyer, *W. Lutosławski's Theorie der Stylometrie auf die Platonische Frage angewendet* in: *Zeitschrift für Philosophie und philosophische Kritik* 110, 1897, pp. 171–217.

interested in this subject could learn about the results of Lutosławski's studies, and from that time onward every scholar felt obliged to make a reference to them in his own studies¹. The success of the Polish scholar was undeniable, and his contribution to the world science enormous. The, established by him, chronology of Plato's works was generally accepted, and his stylometric method started to be used also in the studies of other ancient philosophers, Aristotle mainly.

Inspired obviously by this method, the Swiss scholar, Josef Zürcher, proceeded in 50-ties of the past century to detailed linguistic studies of Aristotle's writings; an output of his efforts appeared in 1952 in the form of a study entitled: *Aristoteles' Werk und Geist* with its shocking conclusions regarding an origin of those writings. From Zürcher's analysis it resulted that *Corpus Aristotelicum* in its present form was in prevailing part written by Aristotle's disciple and his successor on the post of the master of the Lyceum – Theophrastus. In the same way as Lutosławski, Zürcher was making a quantitative comparison of some selected stylistic phrases in the examined texts; with this difference only that in his studies the role of Plato's *Laws* took over the preserved fragments of Theophrastus' work and the literary works of Aristotle himself (mainly *Protreptic*).

Zürcher's dependence on Lutosławski's achievements leaves no doubts. It clearly shows up even in a rough comparison of the work of both scholars, although in a reference list of publications he was using, Zürcher has never made even the slightest mention to the name of the Polish scholar. This can be, however, understood to some degree, since his study refers to Aristotle and not to Plato and, moreover, it is true that *ad verbum* he never quotes Lutosławski in the text. The mere fact of using someone's method does not, according to the rules of science, demand quoting of the source. Some formulations, however, not only prove a relationship between the Swiss scholar and the creator of stylometry, but without the least doubt straightly refer to him.

When, for example, addressing those who doubt the possibility of establishing a chronology of *Corpus Aristotelicum*, he observes² that *if this could be done with Plato's dialogues*, it should also succeed here, it is hardly possible to understand it in any other way than as an allusion to the success of the chronology developed by the author of *The Origin and Growth of Plato's Logic*. In a like manner, when he starts discerning in the style of Aristotle's writings some typical phrases, counts them and hence draws conclusions on the authorship and chronology of the writings, one can see that he is following the path once cleared by Lutosławski, taking over from him the concept of stylems.

Until the early 20th century, Lutosławski's findings on the chronology of Plato's writings from the final period of his activity had been commonly accepted. The fact that the, accepted for so long by scholars, chronological

¹ Cf. E. Sachs, *De Theaeteto Atheniensi mathematico*, Berlin 1914, p. 19, n. 1.

² J. Zürcher, *Aristoteles' Werk und Geist*, Paderborn 1952, p. 124.

order of Plato's writings the science mainly owed to the Polish scholar was recalled in 1983 by K. M. Sayre who wrote: *This belief was based largely upon the stylometric investigations of Lutosławski and several other European scholars of the early twentieth century*¹. At the same time he makes reference to W. K. C. Guthrie who also must have been aware of Lutosławski's merits.

The disputes flared up again when in year 1953 G. E. L. Owen in his publication: *The Place of the 'Timaeus' in Plato's Dialogues* revised the stylometric method². Once again stylometry became an object of polemics in which the name of the Polish scholar, still living at that time (he died in 1954), started appearing and reappearing in various scientific journals. In favour of the traditional chronology, and hence of the value of stylometric argumentation, firmly came out, among others, H. Cherniss (1957). According to Cherniss' way of understanding the stylometric evidence, the dialogue *Timaeus* should remain there where it was placed by Lutosławski³.

No matter what was the final output of those disputes⁴, the method developed by Lutosławski is still inspiring scholars working on the problem of a chronological order of the writings of ancient philosophers. Until now stylometry has been and still is raising vivid interest in the world of science, is examined as well as completed and improved, and first of all, is still used in philological investigations of various ancient texts. The majority of scholars feel no constraints to pay a tribute to the Polish scholar and recognize openly his merits.

Even if Lutosławski's name is not explicitly referred to, the mere term *stylometry* is, owing to its leading position in scientific terminology, immediately associated in our mind with his name (stylometry = Lutosławski's method). It was no one else but him who pioneered this method on the ground of philology, introducing it with full success to the studies on the chronology of the writings of the ancient authors. As observed by Gabriel Korbut: *The stylometry was for the first time used by W. Lutosławski to establish the chronology of writings of one author (Plato)*⁵.

Like in the case of the above mentioned Zürcher, who was using this method to establish a sequence in which *Corpus Aristotelicum* had been

¹ K. M. Sayre, *Plato's Late Ontology*, Princeton 1983, p. 256.

² K. M. Sayre, *Plato's Late Ontology*, p. 256: *The event in 1953 that shook this widely held belief was the publication of Owen's "The Place of the Timaeus in Plato's Dialogues", which on the basis of a reassessment of the stylometric evidence mounted an argument for the chronological priority of the Timaeus over the Theaetetus and the Parmenides.*

³ Cf. *Although Owen's argument convinced a considerable number of English and American scholars, the spirited rebuttal of Cherniss (1957) had the effect upon others of reinforcing the Timaeus in its traditional shadow-casting role.* K. M. Sayre, *Plato's Late Ontology*, p. 256.

⁴ Sayre himself, though not without reservation, recognizes the validity of the conclusions drawn from Lutosławski's calculations regarding the time when, e. g. *Parmenides* was created, assuming that the two, obviously differing from each other, parts, which Sayre calls *Parmenides I* and *Parmenides II*, were written in different time spans. *In applying the resulting 248 measures to Lutosławski's data, I have kept separate tallies for Parmenides I and II (...) Lutosławski did not distinguish these two parts in a compiling his results (...).* K. M. Sayre, *Plato's Late Ontology*, p. 266.

⁵ G. Korbut, *Wstęp do literatury polskiej*, Warszawa 1924, p. 23.

created, also in more detailed studies carried out recently by Christian Rutten on the chronology of the creation of the individual books of *Metaphysics*, Lutosławski's method can be traced once more, even if Rutten was making his calculations by means of some formulae much more complicated than those applied by Lutosławski, and was aided in his work by the most modern devices available in laboratories of the linguistic statistics¹.

So, we can see that our contemporaries not only did not reject the method introduced so effectively over hundred years ago by the Polish scholar, who at that time was forced to make calculations by the technique one might call *craftsman's work*, but have enriched this method with the achievements of modern technique. The prophecies of the pioneer, or – strictly speaking – creator of the method, on its crucial importance in the Arts have to a great extent come true.

Lutosławski himself saw in his stylometry a vast potential of applications in historical studies, comparing its significance with the significance which paleography used to have for historians, and he wrote: *This exceptional importance of one particular case will have produce a new science of style, which will enable us to decide questions of authenticity and chronology of literary works with the same certainty as paleographers now know the age and authenticity of manuscripts. This future science of stylometry may improve our methods beyond the limits of imagination, but our chief conclusions can only be confirmed, never contradicted by further research.*² With the present technical means ready at hand, one can easily imagine, e. g. computer programmes using the rules of stylometry.

In my opinion, the impact of Lutosławski's work goes far beyond the limits of only practical application of the stylometric method in such definite cases as chronology or authenticity of these or other writings. It seems to me that any attempt at formulation of some strict rules which would ensure high degree of accuracy in the conclusions drawn on any from among the various types of past events is very important for the methodology understood in a broad meaning of this word, since it can give a strong argument to one of the parties involved in an ever-lasting dispute about the place which history is supposed to occupy in the family of various branches of the science. In the situation when numerous experts studying progress in the human knowledge are ready to underestimate the essence and significance of a historical factor in man's cognitive capabilities and to depreciate the history-related branches of science, any effort at improving the tools capable of bringing to light the truth, and the will to get maximum certainty in respect of the events that happened in the past are never praised too high.

The intention to use these efforts in making this field of the studies get closer to the, so called, exact sciences also deserves special praise. It suddenly

¹ Cf. Ch. Rutten, *Métaphysique B and Γ: Essai de chronologie relative in: Aristotele Werk und Wirkung*, t. 1, Berlin – New York 1985, p. 280, n. 29: *Le traitement informatique de la Métaphysique, lequel sert de base à mes recherches stylométriques, a été fait (...) au Laboratoire d'Analyse Statistique des Langues Anciennes de l'Université de Liège.*

² W. Lutosławski, *The Origin and Growth of Plato's Logic ...*, p. 193.

turns out that the difference between the main gnoseological objectives and means leading to achievement of those objectives in various branches of science is by no means as great as it has always been preached by the methodology. Let us observe that man's cognitive endeavours are principally directed in two directions: prospectively to the future when he tries to guess what will happen, and retrospectively to the past when he wants to know what has already happened. And in both cases the knowledge of certain laws that rule the transformation of the future into the past is helpful, or indispensable, even if these laws are not eternal, absolute and exceptionless, as such laws probably in our world do not exist.

The majority of the branches of natural science upon discovering certain laws teach us, first of all, how to use them in order to make a step forward into the future: mechanics allows us to forecast astronomical phenomena and operation of technical facilities, chemistry – the formation of various substances, etc. To a very small degree only these laws are used in penetration of the past. In reconstruction of the past one can still feel the lack of relevant theories and practical rules sufficiently reliable to lead us to the true knowledge. Therefore it would be difficult to overestimate any attempt of the sort of those which were made by Lutosławski.