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Aristotle in Prussian Gymnasiums: Why the Texts of the Ancient Philosopher Became Popular for Teaching Logic

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During the nineteenth century, German philosophy developed from a type of general knowledge to an academic discipline at the university. Changes across disciplines to the philosophy of science and psychological surveys created new challenges for the place and purpose of philosophy in the educational system. The content of logic courses for secondary schools (Gymnasiums) was centred on the dissociation of nature and the scale of logic. In this paper, I will examine a number of projects for teaching philosophy at the secondary school level from new humanism to reduce philosophical to philological concerns about different projects offered by Niethammer, Hegel and Herbart. Then, I will focus on the most successful – Adolf Trendelenburg’s *Elements of Aristotle’s Logic* (1st edition of 1836). This work is a compilation of the logical texts of Aristotle, and for as long as sixty years, it was an official textbook in Prussian secondary schools. The aim of the paper is to show how the rethinking of Aristotle’s heritage affected the theoretical and ideological expectations of propaedeutic courses and transformed the image of logic as a philosophical discipline.

1. Introduction

A renewal of Aristotelianism was a phenomenon of German intellectual life in the nineteenth century. This attention to the Aristotelian legacy seems to have been a result of the internal development of such fields as classical philology and philosophy at German (or more precisely Prussian) institutions of science and education.

The reactualization of Aristotle’s ideas can be considered from at least three perspectives: first, the reception of the philosophy of Aristotle in terms of the history of ideas; second, the renewal of Aristotelianism in the context of the disciplinary and institutional history of scholarship; and third, work based on the legacy of Aristotle by certain scholars. In this paper, I combine all three perspectives with a focus on the most popular textbook for secondary school (*Gymnasium*) in nineteenth-century Germany. This book is not a typical philosophical work. The first edition of *Elementa logices Aristoteleae* (*Elementa*) was published in 1836 and was re-edited a nine times until 1892.¹ The Latin editions of *Elementa* were supplemented with a German translation and commentary titled *Erläuterungen zu den Elementen der Aristotelischen Logik* (*Erläuterungen*). It played only a supporting role and was intended to provide guidance and direction, not for students but for teachers. This work was published in 1842 and was republished two more times in the nineteenth century (1861, 1876).

¹ An English translation of Trendelenburg’s *Elementa Logices Aristoteleae* entitled *Outlines of Logic* was undertaken by R. Broughton (Trendelenburg 1898). In this paper, I translate *Elementa Logices Aristoteleae* as *Elements of Aristotle’s Logic* because presumably Trendelenburg attempted to link the title of his book to *Euclid’s Elements*, which is often cited in it.

The editor, translator, and commentator of *Elementa* was Adolf Trendelenburg (1802–1872),² one of the most influential German philosophers in the period after Hegel. Well known as a critic of Hegel’s understanding of logic, Trendelenburg articulated the main claim to Hegel’s philosophy, labelled by him ‘the logic question’ (*Trendelenburg 1843*). This discussion often appeared with Trendelenburg’s slogan as ‘the logic question’ or as a ‘reform of logic’ and was devoted to the role of logic in the system of philosophy (*Peckhaus 1997*, pp. 130–152; *Vilkko 2002, 2009*). The polemic in which many philosophers of the mid-nineteenth century were involved, as described Risto Vilkko, attempted to oppose Hegel’s approach to uniting logic and metaphysics, and simultaneously to overcome the old and inflexible Scholastic-Aristotelian formal logic (*Vilkko 2009*, p. 205).

Trendelenburg’s view on logic was presented in his two-volume *Logische Untersuchungen* (1840), which was first published in 1840 and then re-edited in 1860 and 1870. In this book, Trendelenburg proclaimed a break with the tradition of speculative idealism in favour of paying attention to the development of the empirical sciences. However, in his *Logische Untersuchungen*, the total absence of symbolic formalism is striking even by early nineteenth century standards. Logic was understood by Trendelenburg from broad epistemological and metaphysical perspectives.

Despite this old-fashioned understanding of logic, *Logische Untersuchungen* is an important milestone for the history of logic. In this book, likely for the first time ever, were introduced the collocations of ‘dialectical method’ and ‘formal logic’ as theoretical concepts. These concepts are products of the taxonomy exercise, in which Trendelenburg contradicted the concept of ‘formal logic’³ presented in the works of the Herbartians August Twesten and Moritz Wilhelm Drobish in relation to the ‘dialectical method’ presented by Hegel (*Trendelenburg 1840*, pp. 4–100).⁴

The interpretation of Aristotle’s logic became a battlefield in the discussion of division in the logical domain, and the place of logic in all of philosophical knowledge is related to changing the image of Aristotle’s logic. There is a famous passage in the second edition of Immanuel Kant’s *Kritik der reinen Vernunft* that, since Aristotelean logic does not require retracing a single step, it has changed with regard to clearer exposition of its recognized teachings (*KrV [1787] 1904*, BVIII). Trendelenburg proclaimed a new look for Aristotle’s logic. Regarding Trendelenburg’s schematic division of logic, Aristotle presents a logic that is far from formal, ‘bringing Aristotle closer to the objective demands of modern times’ (*Trendelenburg 1876*, p. VII).

The paper will discuss the role of Trendelenburg in the renewal of Aristotelianism, following the line developed in recent papers by *Thouard 2009* and *Hartung 2006*. The aim of this paper is to consider a particular text, *Elementa*, in the context of the history of the teaching of philosophy, particularly in secondary schools. This topic links the theoretical frame of Aristotelianism in the nineteenth century, the social-ideological context and the history of philosophy as a discipline.

² In 1986, Klaus Köhnke, emphasizing the significance of Trendelenburg to understanding the philosophical development of Germany in the nineteenth century, called him a ‘Great Unknown’ (*Köhnke 1986, 1991*). Since then, the intellectual legacy of Trendelenburg and his influence have been subjects of much research (*Hartung and Köhnke 2004; Guidotti 2007; Beiser 2013*).

³ Only once did Kant mention ‘bloß formale Logik’ (merely formal logic) as the logic that ‘abstracts from all content of cognition (whether it be pure or empirical) and concerns itself merely with the form of thinking (of discursive cognition) in general’ (*KrV*, B 170). In the first third of the nineteenth century, the notion of ‘formale Logik’ was barely used as the name for a separate logical field. Philosophers who focused on forms in logic preferred to use such concepts as *Formen des Denkens* (*Fries 1819*), *Denkformenlehre* (*Reinhold 1827*) or *Formalphilosophie* (*Drobisch 1836*).

⁴ Hegel did not use the collocation *dialectical method* as a description for a method of his own philosophy. Contemporaries, for instance, Eduard von Hartmann (1868, p. III), acknowledged the role of Trendelenburg in naming Hegel’s philosophy.

To understand why *Elementa* had such success as a school textbook, this paper is divided into three sections. First, I consider the criticisms of teaching philosophy in schools by Berlin intellectuals such as Wolf and Schleiermacher, two alternative (and unsuccessful) projects for teaching philosophy undertaken by Hegel for Bavaria, and Herbart's proposal for teaching psychology. In this section, I introduce the criticism and expectations that schools and reformers had towards philosophy in secondary school. Second, I examine the process of reintroducing philosophy into the Prussian secondary school system and discuss the roles of Hegel and Trendelenburg in this process. The last section is devoted to the new method that Trendelenburg used in *Elementa* and how his book contributed to the image of Aristotelian logic in the nineteenth century.

2. Romanticism Reform in Schools: Philology vs. Philosophy

Philosophy as a school subject in the nineteenth century has a twisting trajectory. Usually, the decision to add a subject to the school curriculum was taken at the school level. However, some formal rules were issued by the government to regulate this process. Unexpectedly, some intellectual groups that had power over educational politics tried to reduce the hours designated for philosophy, and some argued for eliminating philosophy from the programme. However, only a few studies on this topic exist, mainly two monographs by *Perger 1959* and *Albus 2012*.

Until the end of the eighteenth century, philosophy had a solid presence in German secondary schools. One of the most influential figures who promoted philosophy in schools was Friedrich Gedike (1754–1803), a Berlin-based teacher and educational reformer. In 1780, he published a programme paper entitled *Über die Verbindung des wissenschaftlichen und philologischen Unterrichts*. In this text, he proposed the idea of studying philosophy through the primary ancient texts (Gedike 1780, pp. 31–34). For this purpose, for teaching material, he published Latin writings by Cicero (Gedike 1782).

The situation in Prussian secondary schools in regard to philosophical classes had changed completely since the educational reform that was completed in the first decade of the nineteenth century (see, e.g. *Jeismann 1987, 1989*). None of the objects of the philosophical cycle were included in the central reform document of the curriculum of the *Königlichen wissenschaftlichen Deputation* of 1811 (for a further analysis of this reform, see *Lohmann 1984*, pp. 73–92).⁵ Below I will attempt to reconstruct the arguments that lead to excision of the philosophical courses.

The members of this committee in different ways justified the decision to remove philosophy from the schools. The director of the committee, Friedrich August Wolf (1759–1824), was critical of the idea of teaching philosophy in schools. He listed a number of reasons to exclude philosophy from the secondary school curriculum. First, names and dates belonging to the history of philosophy intersect with a general history of scholars (*Gelehrten-geschichte*). Second, it is complicated for students to perceive the connections between systems and to compare and evaluate the truth or falsehood of systems when they need to be able to philosophize. The basic concepts of philosophy are also too complicated for students. However, he estimated the textbook (*Hilfsbuch*) of 'so-called natural logic' (*der natürlichen Logik*) to be a useful option with some practical exercises (Wolf 1835, pp. 106–7).

⁵ The Prussian curriculum plan of 1810 for the gymnasium claimed two-thirds of the hours for languages and assigned the remaining one-third to the sciences. Latin and Greek were recognized in the four upper classes with nearly the same number of hours; French was assigned one-eighth of the time of the ancient languages and German one-quarter. Among the sciences and humanities, mathematics, history, geography and religion received one-third of the hours (*Schwartz 1911*, p. 186).

According to another member of the committee, the historian and diplomat Karl Ludwig von Woltmann (1770–1817), the new philosophy was too complicated for school, but at the same time, a new style of teaching religion could help students to become more interested in philosophy in the future (*Lohmann 1984*, p. 153). However, the more powerful argument might have been that teaching language instead of philosophy was more effective preparation for becoming a philosophically educated person. This paradoxical argument was first offered by Friedrich Schleiermacher (1768–1834), who presented the teaching of the German language as ‘the immediate organ of the mind, and the general of the imagination’; therefore, according to him, the study of the German language, and possibly a class in religion, would suffice to prepare students to study philosophy at the university (*Schleiermacher 1810*, p. 79).

The position proposed by Schleiermacher and Friedrich August Wolf was close to that of Wilhelm von Humboldt (1767–1835), who connected training in philosophy with the development of language as the medium through which the nation is expressed (*Humboldt 1846*, p. 152). Thus, in the tradition of reforming schools, the teaching of philosophy to study logic and rhetoric now appeared as language practice.

However, not all proponents of educational reform were opposed to philosophy in school. One was a project realized in Bavaria by Friedrich Immanuel Niethammer (1766–1848) in close collaboration with Georg Wilhelm Friedrich Hegel (1770–1831). Niethammer, who occupied the highest administrative position in Bavarian education, implemented four hours per week of philosophy in all four classes of the gymnasiums.⁶ Other significant institutional changes included the establishment in 1809 of the compulsory examination for candidates for the positions of schoolteachers. This norm was implemented in Bavaria three years later with a similar standard to that approved by the Berlin’s colleagues. In accordance with the regulations for the examinations organized for teachers, the teacher had to ‘be aware of all the knowledge that is supposed to be humanistic (*humanistischen*) scientific education’, and philosophy was first on the list (*Instruktion 1809*, p. 1642).

In introducing so many philosophy classes in the normative programme, Niethammer badly needed like-minded people who were able to create a programme that met the prescribed timetable. He enlisted his colleague and close friend Hegel and offered him the place of rector in the newly secularized Nuremberg gymnasium of St. Egidius. Hegel actively joined the educational experiment and since 1808 spent eight years in this position. During this period, the final formulation of his philosophical concept of absolute idealism occurred, the first edition of *Wissenschaft der Logik* (1812, 1813 and 1816) was published. The need to develop large philosophical courses became a convenient opportunity to present his philosophical system in its entirety in a simplified form (see *Pinkard 2000*, pp. 266–332).

After eight years, the ideological climate in Bavaria changed, and the authorities decided to abandon the educational model proposed by Niethammer. Catholic reaction and hostility to the cultural policies of northern neighbours contributed to the withdrawal of philosophy from school plans. It can be assumed that, in addition to the ideological context, one reason for the rapid curtailment of the Niethammer plan was the lack of adequately trained

⁶ In the first grade, students had ‘religious knowledge, knowledge of law and obligations’ (*Religions-, Recht- und Pflichten-Kenntniss*); in the second grade, ‘logical exercises’ (*Logikalische Uebungen*); in the third, an ‘introduction to philosophy’; and in the fourth, an ‘introduction to the knowledge of the context of sciences’ (*Einleitung in die Kenntniss des allgemeinen Zusammenhangs der Wissenschaften*) (*Allgemeines Normativ 1908*, pp. 574–575). The commentary added to the normative programme clarifies that, in the last grade, the programme for philosophy classes should end with a subject called Encyclopaedia of Philosophy (*Allgemeines Normativ 1908*, pp. 582–583).

personnel and the lack of the educational and methodological aids necessary for mass reading of the philosophical course in the desired amounts. Unlike the Hegelian project of the 1810s, based on the author's concept, which even if desired would have been difficult to extend to other gymnasiums, the Jesuit tradition offered programmes adapted for mass teaching. Therefore, in the lyceum – a special institution created within the framework of the Bavarian education system – the philosophical course occupied, along with theology, a central place (*Dickerhof 1975*).

It was not only advocates of speculative philosophy who wanted to use the school to strengthen the influence of their research programme. Johann Herbart (1776–1841), the Göttingen professor who actively worked in psychology and pedagogy, decided the intensive development of psychological research was the reason to introduce philosophy programmes into the schools. Herbart was the first among the German philosophers to provoke a public discussion of the school course on philosophy. In the preface to the first edition of the *Lehrbuch für Psychologie* (1816, p. 4), he spoke emotionally in favour of the return of philosophy to school curricula:

[...] with the success of philosophical thought in recent times, when lectures should not be made easier but harder, the university needs from the gymnasium no less than great support. Mathematics and languages can do much but not everything, at least now when various important improvements in the curriculum are still held back by the indecisiveness of the teachers. Any higher education is at risk of falling into decay if it lacks necessary and timely preparation in public classes. Philosophy is struggling with many internal confusions at this time. Will she be helped by depriving her of what she had? Does one believe that science will benefit if philosophy decays?

In the school presentation of philosophy, Herbart observed an additional resource for psychology – a science that had not yet formed into a separate discipline but was already becoming the subject of fierce polemics. He perceived the writing of the textbook as an intellectual task that was important, first, for the philosophers themselves, as it would help clarify the principles of the new field of knowledge. Herbart's argument starts from the interests not of students but of a discipline. Appealing to the tradition of teaching philosophy in secondary schools, Herbart, quite in the spirit of contemporary educational reforms, declared that philosophy was responsible for the coordination of all scientific fields.

The projects of both Hegel and Herbart tended to use philosophy classes in schools as a source of their research interest. They preferred to call themselves university professors rather than schoolteachers. The two projects did not appeal first to ancient philosophy and offered new cutting-edge philosophical perspectives. However, these first attempts to implement the two projects in secondary schools failed.

In the early twentieth century, Friedrich Paulsen (1846–1908) wrote that philosophy had lost its suitability for teaching in school and had become unsuitable for mastering by schoolchildren. 'Such a state of affairs philosophers and historians of education associate with the fact that, after the Kantian revolution, there was not a single system that everyone would recognize' (*Paulsen 1907*, p. 798). However, an analysis of the arguments of the Prussian ideologists of school reform shows that philosophy had lost its suitability for teaching in the literal sense of the word. The argument was that there was no conventional national consensus in the professional community, and philosophers were not nominated at all.

3. The Return of Philosophy to Schools

The process of restoring philosophy at Prussian secondary schools was not straightforward. In this section, we will justify that the Hegel proposal to introduce philosophy classes to the school curriculum made for the Prussian government in 1822 was significantly different from the project that Hegel submitted in Bavaria. I will justify that Hegel's approach played a dual role – on the one hand, it reinforced the place of philosophy in a school's programme; on the other hand, it gave rise to new tensions about the way in which philosophy should be taught. Trendelenburg's *Elementa* can be considered a continuation of Hegel's initiative. This statement seems surprising given the image of Trendelenburg as an anti-Hegelian.

After a brief stay in Heidelberg in 1818, Hegel, at the invitation of the minister for education and religion of Prussia, Karl Altenstein (1770–1840), obtained a position at the University of Berlin. At the same time, Johannes Schulze (1786–1869) joined this ministry as chief counsellor of education. Johannes Schulze had become a follower of Hegel and even attended his lectures. The intellectual influence of Hegel on the political elite helped to strengthen the position of philosophy in Prussian educational institutions. A significant event for the return of philosophy to Prussian schools was the commission of Hegel to draw up an expert report for the minister of education on the possibility of teaching philosophy in the gymnasium.

Hegel's *Über den Unterricht in der Philosophie auf Gymnasien* (1822) (published only in 1835) not only has theoretical value but is also important as a model of argument oriented to the highest level of the Prussian bureaucracy. Like Herbart, Hegel pointed to the connection between philosophy in school and philosophy at the university. However, unlike Herbart, who saw in secondary schools an additional resource for the development of philosophical research, Hegel emphasized the insufficient preparation of the graduates of gymnasiums 'to speculative thinking and to the study of philosophy' (Hegel 1835, p. 362). A significant element of the report is a retelling of key moments of school reform in the 1810s. Hegel approved of the introduction of the ancient languages and religion into the programme as well as the rejection of the full-sized philosophy course. Then, he proceeded to present his plan for teaching philosophy, concerned that 'the general education of the spirit is not impoverished in gymnasiums' (Hegel 1835, p. 367). The course should consist of four parts: (1) psychology; (2) the initial foundations of logic, including Kantian categories; (3) evidence of the existence of God as an abbreviated version of the division of metaphysics; and (4) ethics. The hours for all these classes were made available by the curtailment of programmes in the German language and the cancellation of lectures on the legal encyclopaedia.

The programme proposed by Hegel seems highly traditional, if not reactionary. Unlike his own plan for the Bavarian period, Hegel recommended empirical psychology, which essentially brought his project closer to Herbart's proposed model of the philosophical course. Apparently, this measure was perceived by Hegel himself as forced. In the report, this part of the philosophical course is awarded a contemptuous epithet: 'the so-called empirical psychology' (Hegel 1835, p. 362). Despite shifting his position towards the position presented by Herbart, his theoretical opponent, Hegel did not mention his opponent's textbook. Moreover, declaring that he could not recommend any of the modern textbooks, he referred to textbooks on the philosophy of Christian Wolff. The mention in this context of Wolff's name, which is actually a reference to the legacy of the Enlightenment, is even more unexpected from a man who, not long before, had declared adherence to the principles of humanistic reforms.

Hegel not only bypassed Herbart's work but also, in recommending the morally obsolete Wolffian literature, motivated a search for new authors capable of developing a

textbook based on the proposed concept. If he truly made such a calculation, then it turned out to be correct: within a few years, textbooks on philosophy appeared that were inspired by Hegel's recommendations. One of the most popular textbooks of this generation was *Lehrbuch für den ersten Unterricht in der Philosophie*, written by August Matthiae (1823).⁷

In addition to Matthiae's works, two textbooks *Propädeutik zur Philosophie* by Wilhelm Schirlitz (1800–1878) (1829) and *Vorbereitung zu philosophischen Studien* by Theodor Heinsius (1770–1849) (1833) appeared. The expert opinion of Hegel, who affirmed the need to include philosophy in school curricula, was published only posthumously in 1836 and entered this collection of works. The appearance of several textbooks whose authors were obviously familiar with the content of the report reveals the availability of channels for the dissemination of professional information. Because it was not published in a separate text, Hegel's expert opinion was almost unchanged in the basis of the regulations in 1825. The regulations that first mentioned the new subject, 'the classes for philosophical preparation' (philosophischen Vorbereitungs-Studien) were preceded by a preamble that reported that philosophy was being introduced into the circle of gymnasium subjects according to the wish of many respected teachers that had long been expressed to the ministry (*Verfügung vom 26. Mai 1825* 1835, pp. 121–123).

The introduction of a new subject necessitated the preparation of teaching staff capable of leading a philosophical course. The regulations instructed that the teaching should be entrusted to 'the most experienced teachers', and if there were none, this problem should be reported to the ministry. The aspiration of the administration to control the quality of teaching is shown, for example, in the development of special regulations for the gymnasium of Magdeburg (*Circular-Verfügung vom 12. August 1825* 1831, pp. 126–127). This document described in detail the amount of knowledge of philosophy that should be learned by students by the end of the course and recommended teaching philosophy by August Matthiae's textbook.

The problem of determining the qualifications of the teachers was supposed to be solved on the basis of a model approved in Bavaria, namely, through the introduction of the candidates for the teaching positions to an examination 'on philosophical subjects'. According to the circular, knowledge of logic and metaphysics and of the history of philosophy and psychology was subject to verification. The examinee was to demonstrate 'in his thoughts proper thoroughness, clarity and order' (*Circular-Verfügung vom 13. August 1825* 1835, p. 236). In addition to oral tests on these subjects, a philosophical and pedagogical written examination was established that lasted from an hour to an hour and a half.

Unlike the requirements for the school curriculum on philosophy, the requirements of the circular can be interpreted as an attempt to neutralize Hegel's influence. Therefore, the examinee should be able to 'clearly separate logic from metaphysics' (*Circular-Verfügung vom 13. August 1825* 1835, p. 237). This recommendation was likely directed against the presentation of an exclusively Hegelian philosophical programme on the examination, one of the points of which argued the need to replace metaphysics with logic. Another passage of the document can be read as a refusal to accept only the Hegelian view. Perhaps it is in

⁷ A supporter of Kantian philosophy, August Heinrich Matthiae (1769–1835), had taught logic, psychology and religion since 1804 in the senior class of the Friedrichs-Gymnasium in Altenburg, where he had served as director since 1802. A philologist and schoolteacher, Matthiae did much to provide German gymnasia with teaching aids. He was the publisher of Euripides, Homer, Herodotus and other Greek authors and was the author of a popular textbook on Greek that was even translated into English. In a biographical sketch of his father, Immanuel Constantine Matthey (1808–1845), conveyed his father's opinion about the need to teach philosophy in the gymnasium: 'Young people who developed and formed their minds through a thorough study of ancient languages and mathematics in secondary school should pay attention to the activities of the spirit and laws by which it works' (*Matthiae* 1845, p. 191).

this connection that the circular specifically emphasized the need to observe the ‘correct and at the same time trivial’ principle ‘that there is no and there cannot be a law according to which academic youth should study only one philosophical system’ (*Circular-Verfügung vom 13. August 1825* [1835](#), p. 236).

The introduction of the course of ‘philosophical propaedeutic’ as a mandatory subject required a new educational position, which was approved in 1837. Developed by a supporter of Hegel’s philosophy in the Ministry of Education, Johannes Schulze, the regulations completed the transformation of the curriculum from 1810. The educational standard of 1837 existed until 1856. The rules, which remained unchanged for almost twenty years, however, could not protect the philosophical propaedeutic from the reaction that followed the March revolution of 1848. According to a decision made at a conference of teachers of Prussia in 1849, philosophical propaedeutic was abolished as a separate subject. Since the beginning of 1860, the philosophical content started to return, however as a part of German classes. Thus, the Ministerial script on German classes from 1862 encouraged philosophical interests by providing information on psychology, performing logical exercises, and teaching the basic methods of scientific inquiry (*Kern* [1867](#), pp. 34–38).

The first edition of *Elementa* by Trendelenburg ([1836](#)) and the second edition of *Erläuterungen* (1861) coincided with important milestones in the history of the regulation of teaching philosophy in schools. In both cases, *Elementa* was not only demanded but was an essential factor that strengthened the position of philosophy in school. It was perceived as supporting Hegel’s philosophy, both by those who supported and those who opposed it. The obvious support of Trendelenburg by the Hegelians is evidenced by copies of the first edition of *Elementa* being ordered for all educational institutions at the expense of the ministry by the direct order of Johannes Schulze (*Perger* [1959](#), p. 61). Trendelenburg himself stressed this tradition. In the introduction to the Latin edition of *Elementa*, Trendelenburg referred to Hegel. He cited Hegel’s memorandum *Über den Unterricht in der Philosophie auf Gymnasien* from 1822, which was first published only a year before *Elementa* ([1836](#), p. XIII). The continuity was noted by Trendelenburg’s colleagues, for example, the author of a review in the *Neue Jahrbücher für Philologie und Pädagogik* (*Stahr* [1837](#)).

However, Trendelenburg did not belong to the Hegelians. In addition, he established a reputation as ‘anti-Hegelian’. This image helped his work to remain popular during the early 1840s, when, after the death of Karl Altenstein, Schulze’s administrative influence significantly decreased, and initiatives related to his name met with resistance.

Trendelenburg’s position was meaningfully close to the position of Friedrich Beneke (1798–1854), who opposed Hegel’s programme of teaching philosophy in school. An opponent of Hegel and a supporter of empirical psychology, the Berlin scientist Beneke, believed that for many philosophy even at the university was too complicated. In his opinion (*Beneke* [1842](#), pp. 146–147), grammar was sufficient at the gymnasium, which

serves as a direct preparation for the study of philosophy and, above all, for the study of general or philosophical grammar and for logic, to which the grammatical forms of individual languages refer just as natural sciences to mathematics. What is the subject of an abstract construction for general grammar and logic (their universal forms) develops in the grammar of individual languages in a specific way, under the influence of external conditions that are not taken into account in the abstract construction.

However, Trendelenburg refused the popular idea presented by Johann Heinrich Deinhardt (1805–1867), a follower of Hegel’s approach of teaching philosophical propaedeutic, to replace empirical psychology in the programme with Aristotle’s concept of the soul (*Deinhardt* [1840](#)). Like Beneke, Trendelenburg refused to teach psychology at school altogether,

finding it, on the one hand, too complicated and, on the other, so rapidly developing that the propaedeutic exposition of it was difficult (Trendelenburg 1876, p. XV).

Trendelenburg's proposal that philosophical studies focus on logic suggested a specific understanding of logic, not as a technical subject but as the paradigmatic basis of all knowledge. Unlike Beneke, who linked logic only to grammar, Trendelenburg viewed the task of school logic as linking all the subjects of gymnasium education into a unity. According to Trendelenburg, all school subjects can be divided into two groups: 'one is rooted in languages, and the other – in mathematics' (Trendelenburg 1876, p. XIV). Lessons of logic 'should be treated not as external multiple subjects of curriculum, but as a way to achieve that interconnected unity that is needed today more than ever' (Trendelenburg 1876, pp. IX – X).

4. Back to Aristotle: Philology in the Service of Philosophy

Elementa presented a very clear logic programme. It contained not only the propositional logic that was broadly presented in German logic books at this time but also induction as a method of science. Trendelenburg tried to avoid presenting his own theory in this text; however, he organized Aristotle's fragments in a way that juxtaposed the texts with Trendelenburg's discussion. In this actualization of Aristotle's legacy, we can define two aspects: first, the context of the new way of interaction between philological and philosophical studies and second, the context of the discussion of the disciplinary boundaries of logic.

Trendelenburg's appeal to the philosophy of Aristotle should be considered in the context of increased attention in modern Germany to the whole body of texts of the Greek philosopher. It should be noted that the philosophical authority of Aristotle at the beginning of the nineteenth century was not high. Aristotelian texts supplemented the texts of ancient commentators, and new Latin commentaries were presented in university-wide lectures on logic since the sixteenth century and were frequently referred to in the seventeenth century, for instance, commentaries by the Italians Jacopo Zabarella (1533–1589) and Giulio Pace (1550–1635) (see Ashworth 2005). However, in Kant's lifetime, the corpus of the texts of the ancient thinkers was unstructured and disjointed, and translations were not accurate (Eusterschulte 2007). Riccardo Pozzo has shown that we can find some 'traces' of the impact of Aristotle and especially Zabarella's 'pure Aristotelianism' on Kant. However, as the researcher had to admit, the philosopher from Königsberg presumably never engaged in a direct reading of either any Aristotelian texts or anything by Zabarella (Pozzo 2004).

In the 1810s, following the enthusiasm for the texts of Plato, philological and philosophical interest extended to the legacy of Aristotle. An important stage in the development of the Aristotelian heritage was the decision, with the active support of Schleiermacher in 1817 at a meeting of the Berlin Academy of Sciences, to begin a critical edition of the collected works of the ancient philosopher. The large-scale project, entrusted to Augustus Brandis (1790–1867) and Immanuel Bekker (1785–1871), was promoted by Berlin as the centre of the new pan-European philological research (see Hartung 2006).

The desire to clarify the layers of tradition united philologists and philosophers. The project on the publication of Aristotle provided a wide field for philological and philosophical studies, demonstrating the successful interdisciplinary interaction carried out by the young university in conjunction with the renewed Berlin academy. Trendelenburg belonged to this new generation of scholars.⁸

Trendelenburg's inspiration of Aristotle was much broader than the only interpretation of his text. Trendelenburg considers Aristotle to be a symbol of his own, in the word of

⁸ Trendelenburg's interest in ancient philosophy, originally inspired by the philologists A. Beck and H. Richter, was also encouraged by Hegel (Bratuscheck 1873).

Gerald Hartung, ‘science policy programme’. The main principle of this programme was precisely articulated by Trendelenburg in one statement published in the preface to the 1860 edition of *Logische Untersuchungen* (1860, I, p. IX):

[...] it lies in the organic worldview, which was founded by Plato and Aristotle, continued from them and formed in a deeper examination of the basic concepts, as well as individual sides and as interactions with the real sciences, and must gradually be completed.

To understand this passage, we need to understand the strategy of how Trendelenburg appealed to the legacy of the Greek philosophers and supposedly highlighted three main elements.

At first, Trendelenburg uses Aristotle’s name by referring to his general theoretical framework. Being released at the time of debate on materialistic understanding of human nature, ‘the organic worldview’ was a teleology approach. Aiming to contest a mechanistic view, the organic worldview postulated that the world of things and the world of thought are, in principle, structurally comparable or, more precisely, in its own words: ‘the external world of being and the internal world of thinking’ (Trendelenburg 1840, I, p. 110). This is an essentially idealistic framework by contrasting other idealistic approaches at that time and estimating empirical knowledge to be very valuable.

The second strategy following from the organic worldview is to apply Aristotelian theoretical concepts to a contemporary concept of his time, scientific inquiry. In *Logische Untersuchungen*, Trendelenburg discusses ‘motion’, ‘force’, and ‘purpose’ by referring to texts of Aristotle as well as citing the latest research by physiologists, for example, Johannes Müller (1801–1858), or the biologist Karl Ernst von Baer (1792–1876).⁹ Another discipline where a philosophical implication of the organic worldview can find confirmation is linguistics. Trendelenburg refers to the book *Der Organismus der Sprache* by Karl Becker (1775–1849) (1827), who was, by the way, his father-in-law.

The third element of Trendelenburg’s Aristotelism emphasizes the wish to reform the whole domain of philosophical disciplines. While Kant prescribed Aristotle’s logic as a set of bases for technical rules that have a modest place in the whole building of philosophy, according to Trendelenburg, Aristotle’s logic should be considered a source for the renewal of philosophy. Trendelenburg used the logical legacy of Aristotle as a theoretical and rhetorical frame for his own programme, aiming to begin a discussion among his contemporaries.

The main point of this discussion, labelled by Trendelenburg with the catchy slogan ‘logical question’, as has been summarized by Risto Vilkkö, was disagreement between two opposing camps of the Herbartian formal logicians and the Hegelian idealist metaphysicians (2007, p. 203). As I mentioned at the beginning of this paper, in *Logische Untersuchungen*, Trendelenburg classified Herbartian formal logicians as proponents of ‘formal logic’ and Hegelian idealist metaphysicians as proponents of ‘dialectical method’. Using this innovative classification, Trendelenburg attempted to categorize two extremes positions and offer a new third perspective as the correct one.¹⁰ This new option, according to Trendelenburg, was associated with Aristotle.

Philosophy should transform into ‘a theory of science’, whose task is to understand the methods and results established by scientific inquiries. Trendelenburg insisted that the

⁹ For more scientific context of *Logische Untersuchungen* and especially Trendelenburg’s advocacy of theology against Darwinian Ernst Haeckel (1834–1919), see Beiser (2013, pp. 46–59).

¹⁰ The same strategy that Trendelenburg employed in his view on history of philosophy that has been presented as a discussion between proponents of materialistic and idealistic philosophies (Trendelenburg 1849).

foundation of philosophy should rest on ‘real science’. This understanding of the goal of philosophy was the main point of disagreement with the previous traditional German idealists, especially Hegel, which preferred to see the foundation of the empirical sciences lie in philosophy. In *Logische Untersuchungen*, Trendelenburg focused on a critic of Hegel’s understanding of logic, arguing that the logical mechanism described by Hegel in *Wissenschaft der Logik* and in part one of *Encyklopädie der philosophischen Wissenschaften* is just invalid. Three years later after the first publication of *Logische Untersuchungen*, Trendelenburg devised a catchy negative answer to the main claim against Hegel’s concept of logic. He asked: ‘Is Hegel’s dialectical method of pure thinking a scientific procedure?’ (*Trendelenburg 1843*, p. 26).

Risto Vilkkö characterized the discussion ‘as a battle on two fronts’ (2007, p. 205). The opponents from the other camp were followers of the Herbartian view of logic from August Twisten (1789–1876) and Moritz Drobish (1802–1896). Although the Herbartian approach to logic for present researchers is not as well known as Hegel’s project, in the middle of the nineteenth century, it was not less important. The main idea of Herbart’s approach, which was fully developed by Moritz Drobish, is that logic as a normative and formal discipline should be separate from metaphysics and psychology. He wrote (1851, pp. 8–9):

Logic is not an Organon of thought but only a regulator of it, but a tool of indirect knowledge. While mathematics is special for the knowledge of nature, this is the logic without which even mathematics would not be possible for any kind of knowledge.

According to Trendelenburg, the whole project of formal logic has a drawback: it ‘intends to grasp the forms of thinking in and of itself, without looking at the content in which these forms appear’ (*Trendelenburg 1840*, I, p. 4). The right alternative should understand logical forms as rooted in the nature of things. The correct interpretation of Aristotle’s logic as his own approach is presented in full in *Logische Untersuchungen*. In *Elementa* and in *Erläuterungen*, he avoided expressing this own philosophical position; however, the selection of the text has worked well for this point of view. This polemic strategy seems to have been very successful. Moritz Drobisch responded to Trendelenburg in the foreword to *Neue Darstellung der Logik* in the editions of 1851 and 1863. Despite disagreement about Trendelenburg’s interpretation of Aristotle and the task of logic, he called his approach after Trendelenburg’s label ‘formal logic’ and credited Trendelenburg’s *Elementa* for Logic (*Drobisch 1851*, p. IX).

The success of this application was thought to justify the fairness the organic worldview. The programme was not only a philosophical theory but also assumed implementation in educational and academic settings. By delivering a new edition of Aristotle’s writings, Trendelenburg expected to contribute to the actual scientific process, especially in the major domain of his time, philosophical knowledge. *Elementa* was not the first text of Aristotle’s released by Trendelenburg. Several years before, Trendelenburg published Aristotle’s work *De anima libri tres* (1833). This edition, although it was not part of the collection of Aristotle’s works published by the Berlin Academy of Sciences, fit well with the general plan of the Berlin philologists. Of the 560 pages of the book, the Greek original occupied only 109 pages, and the remaining four-fifths of the book comprised a detailed philological commentary, including the study of textual variations of the copies, a comparative analysis of the fragments taking into account the entire Aristotelian textual corpus, and an index of Aristotle’s terms.

In commenting on the Aristotelian treatise *De anima libri tres*, Trendelenburg adhered to philological rules and did not resort to procedures of philosophical interpretation. Despite

the fact that much more attention was paid to the terminology used by Aristotle than that required by traditional commentary for philologists, Trendelenburg's philosophical gesture laid outside the commentary on the ancient Greek text and consisted of the publication of the psychological work of Aristotle. Aristotle's doctrine of the soul, according to Trendelenburg, could make a significant contribution to the contemporary discussion around the intensifying research in psychology (Antonelli 2001, pp. 33–135).

Elementa, despite the fact that it was only a compilation, was edited by Trendelenburg with an emphasis on philological elegance. He not only provided the selected fragments with extensive commentaries but also offered his version of a Latin translation. In general, Trendelenburg's work in translating Aristotle into Latin should be assessed in the context of discussions that arose in connection with the publication of the collection of Aristotle's works by the Berlin Academy of Sciences. According to the philological tradition, the translation could be performed using the intermediate language, which was Latin. Moreover, the authoritative publication of ancient sources was usually accompanied by a Latin translation by the publisher of the text. In opposition to the tradition that was actively voiced by Schleiermacher, the participants in the publishing project successfully insisted on the observance of these rules, and the third fully Latin volume was published with updated translations but without a name of translator (Schröder 2009).

Selected fragments of Aristotle's logical writings in Trendelenburg's *Elementa* are a cross between comments on philosophical texts in the spirit of late antiquity and a methodological guide for teachers. *Erläuterungen* went far beyond the traditional interpretation of the ancient text. Moreover, Trendelenburg's interpretation of Aristotle's text allowed him to present the historical reconstruction of a logical project as normative knowledge for an actual discipline. The obscurity of the genre allowed Trendelenburg to painlessly violate the rule that constituted the new philology, namely, a genre-divided textual analysis of the treatise and a philosophical-hermeneutic reading. The aim of *Elementa* was to show the connection of the ancient Greek terms with the modern philosophical lexicon.¹¹

The publication of the Latin translation made it possible for schoolchildren to become acquainted with the specifics of philological work, as it offered a painstaking reconciliation of the different versions of different copies of the same text fragments and clarification of the most suitable variants of the conjectures. The construction of conjectures often appears in the *Erläuterungen* as an example of a scientific problem. Trendelenburg's aspiration was, on the one hand, to enrich philosophical knowledge with philological methods and, on the other hand, to expand the philological vision through philosophical analysis. Interest in terminology, in the history of individual concepts, corresponded to the philosophical programme stated by Trendelenburg. The philosopher observed an important advantage of his manual in that, simultaneously with the development of logical laws, students could master the thesaurus of philosophical concepts. He was convinced that 'Almost all our philosophical words, as far as they are concerned, bear the traces of Aristotelian origin through the mediation of the Latin translators and scholastic commentators' (Trendelenburg 1876, p. X).

Trendelenburg was not alone in his desire to use Aristotle's philosophy as material for school aids, which set the task of learning philosophical terminology. A similar project was developed by Franz Biese (1803–1895), a teacher at the Joachimsthalschen Gymnasium in Berlin, who wrote a book titled *Die Philosophie des Aristoteles in ihrem inneren Zusammenhange mit besonderer Berücksichtigung des philosophischen Sprachgebrauchs*

¹¹ The use of a philosophical resource in updating philological knowledge, provoking a discussion of the future of philology, attracted the attention of another philosopher from the field of philology – Friedrich Nietzsche (1844–1900) (Whitman 1986).

(1835). The theoretical formulation of the study of the history of the lexical and terminological use of concepts was revived in a later work of Trendelenburg as ‘a history of the doctrine of the Categories’ (Trendelenburg 1846). Later, thanks to the efforts of Rudolf Eucken (1846–1926) (1879) and Rudolf Eisler (1873–1926) (1899), this work formed the basis of an independent research programme.

5. Conclusion

The new theoretical basis and the research practices behind it had a significant impact on the character of a large part of the disciplinary landscape of German philosophy. The inclusion of *Elementa* in school curricula contributed to a significant update of both the teaching methodology and the very nature of philosophical work. This kind of philosophical work as a collective philological reading was completely new for the German philosophical community of the 1830s. The formation of seminars on philosophy is associated with training in *Elementa* as well as Trendelenburg’s courses at the University of Berlin. Trendelenburg himself for more than 35 years led the so-called ‘philosophical exercises’, which consisted of reading and commenting on the texts of Plato and Aristotle (Schneider 2005).

By the end of the 1850s, the logic in the presentation of Trendelenburg seemed ideologically safe and was not only associated with neohumanist education but even recognized as necessary for the better development of natural science subjects. However, this state of affairs did not last long. In 1858, when Wilhelm became Prinzregent, substituting for his brother King Friedrich Wilhelm IV, attitudes towards the teaching of philosophy in school changed, and philosophical studies were again included in the gymnasium programme. In addition, beginning in 1859, lessons on logic were introduced into the Realschule, which, in contrast to the gymnasiums, concentrated not on ancient languages but on natural science subjects (remarkably, Paul Fryer (1889) published an additional instruction manual for Trendelenburg’s texts).

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