Fake Academic Degrees in the 18th Century?

Y. Zaretsky

Yury Zaretskiy

Doctor of Sciences in History, Professor at the Faculty of Humanities, National Research University—Higher School of Economics. Email: yzaretsky@hse.ru Address: 20 Myasnitskaya str., 101000 Moscow, Russian Federation.

Abstract. Analyzing the most recent historical oeuvres and theses dating back to the 17th-18th centuries, we reconstruct the fundamentals of degree awarding practices used in German universities of the Early Modern Period to understand whether they are comparable to present-day degree fraud practices. We investigate the academic degree concepts accepted in pre-Modern Europe, explore master's and doctoral theses of the 17th-18th centuries, discuss the problem of their authorship, trace back changes in the defense pro-

cedure, as well as the historical and cultural factors which advanced the development of modern doctoral degree. As long as social, cultural, and intellectual transformations that prompted the emergence of the modern academic degree had been completed only by the beginning of the 19th century, we consider it unreasonable to apply the existing scientific and ethical criteria to the degree awarding practices of an earlier era. This does not mean that fake degrees were a rare case or did not exist at all in Early Modern Europe—fraud was just understood in a very different way back then. **Keywords:** history of education, history of science, history of universities, culture of the Early Modern Period, academic degrees, defense procedure.

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Germany witnessed a series of high-profile rows a couple of years ago, when plagiarism was detected in the PhD theses of the Minister of Defense and the Minister of Education. Both had to resign due to public outrage¹. Yet, Germany is by far not the only country where fake de-

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¹ The Federal Minister of Defense Karl-Theodor zu Guttenberg sent in his resignation on 1 March 2011 after the German media dubbed him Baron Cut-and-Paste, Zu Copyberg and Zu Googleberg for substantial plagiarism in his PhD thesis entitled Constitution and Constitutional Treaty. Stages of Constitutional Development in the USA and EU (Verfassung und Verfassungsvertrag: konstitutionelle Entwicklungsstufen in den USA und der EU), which was defended at the University of Bayreuth in 2007. The Federal Minister of Education and Research Annette Schavan was accused of plagiarism in 2012. Her doctorate from Heinrich Heine University in Düsseldorf, which was obtained 32 years ago upon defending her thesis Character and Conscience: Studies on the Conditions, Necessities, and Demands on the Development of Conscience in the Present Day (Person und Gewissen. Studien zu Voraus-

grees held by politicians and top-level officials have been brought into the open recently. Numerous fake credentials were also revealed in the ruling cliques of Greece, Iran, Kenya, Lebanon, Pakistan, Romania, South Korea, and even in the UK, Ireland, and Sweden with their rich university traditions². The US federal authorities have launched a campaign against degree mills offering university degrees to anyone at moderate prices³. The situation in Russia, although somewhat specific, is not unique: the pseudoscientific fake thesis and fake degree business serving Russian politicians, officials, and otherwise affluent people has also been a focus of close public and state attention⁴.

The mass distribution of fake degrees in today's world is caused by the benefits they can provide. Quite naturally, this raises the question: How fairly were degrees awarded earlier, when a university diploma was not a prerequisite for a high-level position or promotion? The question is not that new to historiography [Hörn, 1893; Bengeser, 1964], but it was long studied within the historiographical tradition that Marc Bloch called *the mania for making judgments*: researchers were looking for the roots of modern procedures for assessing scientific knowledge. The validity of degrees awarded was a minor or even secondary issue for those historians. Instead, they focused their attention on the plots and patterns that could confirm the "glorious past" of their alma mater in one way or another, such as university privileges, academic freedoms, forms of management, public significance, curricula, ceremonies, and a liberal campus life⁵.

- setzungen, Notwendigkeit und Erfordernissen heutiger Gewissensbildung), was revoked on 6 February 2013. Her resignation was approved by Angela Merkel three days later, on February 9.
- On revealing fake degrees in different countries: https://www.insidehighered.com/blogs/world-view/politicians-fake-degrees-and-plagiarism
- ³ In 2005, the U.S. Department of Education compiled a database of institutions accredited to issue postgraduate diplomas in order to stop the flow of fake PhD degrees issued by unrecognized universities: http://ope.ed.gov/accreditation/. Nevertheless, over 100,000 fake diplomas are sold in the country every year at the average price of \$1,000, as of 2010. See: http://edition.cnn.com/2010/BUSINESS/01/11/fake.college.degrees/. For a special study on "the degree mill", see Ezell and Bear [2012].
- ⁴ See, for instance, the results of the large-scale Dissernet project (http://www.dissernet.org/) and the documents disclosed by the Science Council of the Ministry of Education and Science of the Russian Federation (http://sovet-po-nauke.ru/).
- This focus on the "glorious past" is quite understandable: universities use history first of all to confirm the high status of scientific knowledge they offer. Actualization of this "glorious past" is most visibly manifested in reproducing the ancient graduation ceremonies, especially in terms of academic regalia (for example, Oxbridge-style gowns and square academic caps almost everywhere), even at very young universities.

However, the past 10–15 years have witnessed a new perspective in studying the history of university degrees. The focus has shifted from tracing the roots and succession to identifying and describing historical peculiarities, allowing for a fresh look at the degree phenomena in the early modern period. As it turns out, the then existing European academic world was totally unfamiliar with today's ideas of the crucial social and cultural functions of a degree, the social role of its holder, the way a thesis should look, its authorship, originality, contribution to scholarship, and the defense procedure. This newly revealed disparity generated a new wave of interest and a number of new studies [Bilder, Daten and Promotionen, 2007; Blecher, 2006; Chang, 2004; Clark, 2006; Der Doktortitel zwischen Status und Qualifikation, 2012; Disputatio 1200–1800, 2010; Examen, Titel, Promotionen, 2007; Füssel, 2006; Promotionen und Promotionswesen, 2001; Wollgast, 2001]⁶.

Yet, both historians searching for the roots of modern academic degrees and those studying the differences between the degrees of today and centuries ago give a rather unambiguous answer to the question raised in this article. Back then, a degree did not always indicate the holder's academic achievements and bore even less evidence of the quality of a defended thesis. To prove this conclusion, researchers refer to early modern-period contemporaries poking fun at the "mania for degrees" that poisoned the university corporation of that time and at academic degrees being conferred to random people as a result of it. There is a popular anecdote about students of a German university who awarded a doctoral degree to a sheep, dressed it in academic regalia, and carried it all over the city, crying, "Please make way for the new academician!" [Andreev, Posokhov, 2012. P. 331]. Moreover, historians agree that theses and degrees were widely sold in German universities of the mid to late 18th century. As proof, they cite dozens of pieces of evidence by contemporaries, including by distinguished scientists and statesmen [Prahl, 1978. P. 129; Wollgast, 2001. P. 103–104]. This is most often explained by the overall degradation of universities as centers of scientific knowledge: they remained deaf to new ideas of the Scientific Revolution and the Enlightenment and opposed any changes [Rudy, 1984. P. 87; Andreev, 2009. P. 23]. As a result, the role of universities was played by other intellectual hubs in Early Modern Europe, such as academic communities, academies, and in French salons and English coffeehouses⁷.

⁶ In the vast majority of cases, these works describe German universities, which is no surprise since they exerted the highest influence on the formation of university education and university science as they are now.

Universities in Revolutionary France were considered to be agents of the old regime and thus were dissolved in September 1793 by a decision of the National Convention [Guillaume, 1911]. However, they remained the principal

Thus, we can see there were perhaps even more fake masters and doctors in Early Modern Europe than today. But what is "fake"? Does it mean that degrees were obtained by deception, in circumvention of established procedure? Or do they only seem "fake" today? Maybe this was not the case centuries ago. What was the case then? In a search for answers, we will analyze the basic components of the academic degree concept and their evolution from the Middle Ages through the Modern Period: requirements for candidates, social status of degree holders, procedure for awarding degrees, thesis papers submitted for defense, and thesis writing practices. The reconstruction is based on studying university degrees in German universities and analyzing master's and doctoral thesis papers of the 17th-18th centuries.⁸

institutions producing and translating scientific knowledge in German states of the 18th century.

⁸ There was no specific procedure for awarding academic degrees in Russian universities before the late 18th-early 19th centuries. Lomonosov proposed in 1759 that "the [academic] university be entitled to confer degrees in the imperial name" [Lomonosov, 1955. P. 539], but Empress Elizabeth did not endorse the initiative. Neither did Catherine the Great endorse a more detailed proposal that Lomonosov prepared in late 1764-early 1765. He suggested adding the following provision to the new Academy of Sciences privilege project: "6. We hereby allow and order our Academy and University to confer, in our name and under our decrees, academic degrees to all deserving students on the model of Europe, i.e. licentiates and doctoral degrees in law and medicine faculties and master's and doctoral degrees in the philosophy faculty." [Lomonosov, 1952. P. 162-163]). In all fairness, the Academy of Sciences granted master's degrees in Philosophy sporadically, but the procedure has never been described [Ivanov, 1994. P. 12]. The 1755 draft of Moscow University's charter did not say anything about the procedure for awarding degrees, and no regulations were adopted in the decades that followed [Andreev, Posokhov, 2012. P. 338-356; Feofanov, 2011. P. 131-137]. There were occasional attempts to obtain or grant doctoral degrees with no regulations or traditions, but all were in vain [Penchko, 1963. P. 79, 242, 381-382, 396]. Starting from 1764, doctoral degrees were conferred but only in medicine and only by the Medical Collegium, the predecessor of the Ministry of Health, and not by academies or universities: Catherine the Great granted the Medical Collegium the privilege "to confer doctoral degrees in medicine to all its graduates upon examinations of its own" by her Decree from 9 June 1764 [Complete Laws of the Russian Empire. Vol. XVI. No. 12179] (http://www.nlr.ru/e-res/law r/search.php?part=71®im=3). It was only in 1791 that Moscow University was also empowered to confer doctoral degrees by the Decree on Granting Moscow University the Right to Confer Doctoral Degrees to Its Medicine Students [Complete Laws of the Russian Empire. Vol. XXIII. No 16988] (http://www.nlr.ru/e-res/law r/ search.php?part=102®im=3). The right to confer doctoral degrees in law was only granted to the University in the next century, during the education reforms of Alexander I. For an early history of awarding academic degrees in Russia, see [Vishlenkova, Ilyina, 2013; Ivanov, 1994; Andreev, Posokhov, 2012. P. 326-388; Ilina, Wiszlenkowa, 2013; Ilina, 2014].

Medieval universities represented corporations of teachers and students, similar to craft guilds, and consisted mostly of clergymen [Uvarov, 2003; Nekhaeva, 2011]⁹. As long as university activities were determined by pontifical privileges, the primary mission of universities was to translate the recognized corpus of knowledge common for all Christians. The Reformation turned universities into competing centers of theological knowledge, whose mission included defending a particular branch of Christianity. From then on, imperial knights governed the activities of German universities. As a result, universities began focusing more on law, medicine, and civil service studies, apart from theology [Hofstetter, 2001. P. 1–2]. Yet, structural and operational differences between catholic and protestant universities were insignificant. Their ideas of academic degrees and awarding procedures also remained similar [Uvarov, 2000. P. 16–19].

Master's and doctoral degrees were not directly related to academic achievements in the Middle Ages and the Early Modern Period. An academic degree was much like a knighthood or monkhood, so obtaining one was first of all perceived as a moral and legal transformation of an individual [Clark, 2006. P. 198], resulting in a new social status comparable to that of gentry. A degree holder belonged to a special class of scholars with specific benefits and wore special academic regalia¹⁰.

Throughout the centuries, the academic degree hierarchy (*bacca-laureus—licentiate—magister/doctor*) was more or less the same in different parts of Europe¹¹. The highest were the doctoral degree in faculties of theology, law, and medicine, and the master's degree in faculty of philosophy. Doctor of Philosophy was only introduced in the last decades of the 18th century, while the transitional degree of licentiate entitling to teach (*Patent*) disappeared in most universities much earlier [Kintzinger, 2007]. The procedure for awarding degrees was also pretty much the same. At first, the privilege to confer doctoral degrees in civil law (*doctor legum*) was granted by emperors and doctoral degrees in canon law (*juris canonici doctor*) by popes. Later, when the two branches of law were merged, the degree of "doctor of both laws" (*doctor utriusque juris*) was introduced. In the later Middle Ages, the doctoral degree spread to cover theology and medicine and become the highest level of the academic hierarchy¹².

1. Academic
Degree as a
Cultural Phenomenon: Middle
Ages and Early
Modern Period

⁹ For a bibliography of Russian research on the early history of Western European universities, see [Posvyatenko, 2011].

For the evolution of the social role of the doctoral degree and the procedure for its being awarding in German universities before the 19th century, see [Schwinges, 2012. P. 15–23].

¹¹ Admittedly, most German universities did not have the lowest degree of Bachelor.

¹² Academic degree will hereinafter refer to the highest academic degrees: Doctor of Theology/Law/Medicine and Master of Philosophy, i. e. those that required a thesis and a public defense.

The procedure for awarding doctoral and master's degrees was referred to as "dispute for a degree" (disputatio pro gradu) or "inauguration dispute" (disputatio inauguralis). The dispute and the subsequent awarding represented a ceremony held on a holiday in a cathedral or in the specifically adorned main lecture theater of the university. Apart from the candidate and university doctors, inauguration disputes were attended by nobility, city government, and clergy. The ceremonial nature of the event was determined by the important role it played for all three parties to it: the candidate, the faculty, and the academic corporation as a whole [Chang, 2004. P. 134, 140-141]. For the candidate, it was about obtaining a new social status and the associated rights and benefits. For the faculty, it was a considerable budgetary replenishment, in addition to confirming its authority in the academic world. Finally, the academic corporation profited from the new members and the opportunity to get rewards and gifts from candidates. The celebration ceremony after the dispute consisted of a solemn procession, a church service, a public praise of the candidate, a doctoral oath, and transfer of doctoral regalia (insignia doctoralia: a book, a ring symbolizing marriage to the Muses, gloves, and a cap)13. As a Russian historian summed it up a century ago, "If we put aside various accessories (speeches, disputes, reiterated oaths), the procedure for awarding a doctoral or master's degree consisted in dressing the candidates in doctoral or master's regalia" [Suvorov, 2012. P. 184–185]. As the ceremony finished, music began to play and a celebration feast (convivium) began. Actually, the feast also had very much of a ritual, similar to those celebrating new members in a Medieval guild [Ibid. P. 185-187].

The medieval understanding of academic degrees dominated in universities up to the mid-18th century. The degree as a symbol of social recognition, the procedure for its awarding, and the social status of its holder differed much from what we have now¹⁴. The differences come from the nature of society, of which the academic degree makes an integral part. Knowledge developed in a totally different cultural context in Early Modern Europe: secular science was not fully recognized at that time, so its importance and sometimes even existence had to be constantly defended in disputes with Orthodox clergymen [Kivistö, 2015]. The latter would persuade their flock that scientists were guided not by the passion for the supreme celestial truth in their studies but by foul motives like arrogance, vanity, deceitfulness, and greed entailing windbaggery, plagiarism, impudence, and idle curiosity [Kivistö, 2014]. When the social status of knowl-

¹³ For doctoral regalia at Cambridge University of the Early Modern Period, see [Stokes, 2009. P. 38–39].

¹⁴ For preserving the medieval symbolism of doctoral degree in the Early Modern Period, see [Füssel, 2006].

edge changed in the last decades of the 18th century, compliance to scientific standards became the decisive criterion in awarding doctoral degrees.

"Today, we understand a thesis as a text written by an academic degree candidate and defended *viva voce* in front of a group of people (thesis committee or scientific community of the university). The form is obvious—text; the author is indisputable—the candidate. The purpose is equally undeniable—obtaining an academic degree, most often a PhD. Although theses may differ in volume and quality, it is assumed that PhD research should make an original contribution to the body of knowledge. These criteria are considered to be self-evident today" [Chang, 2004. P. 129]. This concise definition given by Ku-ming Chang will serve as the starting point for analyzing the specific features of thesis papers and their defense procedure in the Early Modern Period. We will use examples from the history of German universities of the 17th-18th centuries, which are thought to have had largely the same procedure for awarding academic degrees, with some regional and faculty variations [Andreev, Posokhov, 2012. P. 333–336].

2. Theses and Defense between the Middle Ages and the Modern Period

Not everyone could qualify for an academic degree. Knowledge was only one of the requirements, and apparently not always the most decisive one. Mandatory requirements were of a legal, moral, and financial nature: the candidate had to be a Christian born in wedlock, well reputed, well behaved, and officially enrolled at the university (matriculated). Besides this, they should have studied at this university for some time, obtained a previous degree (from this or another university), paid a defense fee to the faculty or university, published their thesis at their own expense, and taken a solemn oath. Lawyers of the 17th–early 18th centuries also believed candidates had to attend the defense in person and satisfy certain health requirements: have no physical handicaps, be of a sound mind, and have the ability to speak and see [Clark, 2006. P. 197–199].

2.1. Requirements for candidates

Of course, there were legally supported exceptions. Thus, legal experts argued that a doctoral degree could be conferred to candidates who had not studied at the university for the required period of time or that did not have a previous degree in special cases—per saltum¹⁵. Sometimes degrees could also be awarded without a public defense or even attendance of the candidate—in absentia¹⁶. By the 1730s or so, such cases were considered quite legitimate among men

¹⁵ The requirement for candidates to study at a university prior to defending a thesis had probably become more or less ubiquitous by the beginning of the 18th century [Clark, 2006. P. 201].

¹⁶ Conferring a degree *in absentia* suggested that a candidate should send his written oath by mail [Clark, 2006. P. 200]. The practice of awarding degrees

of law [Clark, 2006. P. 217]. Some experts tended to believe a doctoral degree could also be conferred for academic achievements *post-mortem*—in this case all associated benefits had to be granted to the family of the deceased [Clark, 2006. P. 201]¹⁷.

Validation of such cases allowed some universities and faculties not only to grant degrees to influential people, but also to make money, as defenses were expensive. For example, the 1694 statute of the Faculty of Medicine of the University of Halle set the following prices: 20 thalers for admitting a candidate to degree examinations, 20 thalers for "pre-defense" (*examen rigorosum*), 4 thalers for preparing the inauguration program, 10 thalers as a fee to the Chairman (*praeses*), etc. [Chang, 2004. P. 141]. As modern researchers believe, German and especially Prussian universities of the mid-18th century could sell doctoral degrees at high prices not only without a defense, but even without actually enrolling the candidate. The distribution of degree selling practices and the decline of degree prestige are attributed to the decreased status and reduced benefits of nobility to which people with doctoral degrees were supposed to belong [Chang, 2004. P. 165].

2.2. Disputatio and dissertatio

As the written word was not widespread in the Middle Ages, the notions of "the art of reasoning" (*ars disserendi*) and "the art of disputing" (*ars disputandi*) were used interchangeably and implied an oral statement of opinions [Chang, 2004. P. 129]. Accordingly, the notions of *dissertatio* as the subject of discussion and *disputatio* as its form were inseparable, too. For a long time, *dissertatio* did not exist in the form we are used to, meaning as a scientific work. The points to be defended could simply be written by hand and then read aloud to the attendees of the dispute. However, when a pre-published text became a prerequisite for awarding an academic degree in the late 17th century and first half of the 18th century, *dissertatio* and *disputatio* served as interchangeable synonyms in the names of such texts [Chang, 2004. P. 129; Freedman, 2010. P. 98–99]¹⁸.

Because the oral translation of knowledge prevailed in university teaching for centuries, disputes played a great role and were used, just as lectures, to teach all disciplines at all levels¹⁹. Disputes served

in absentia gradually disappeared in German universities in the latter half of the 19th century [Rasche, 2007b].

¹⁷ Postmortem degrees are still legalized in some universities. See, for example: http://www.tacoma.uw.edu/uwt/enrollment-services/procedure-award-ing-posthumous-degrees-university-washington-tacoma.

¹⁸ Since disputatio (dispute) is also the term for viva voce defense, we will hereinafter use the word thesis (dissertatio) to denote the written text and dispute (disputatio) to refer to the defense procedure.

¹⁹ The importance of dispute as an oral method of knowledge distribution in the Middle Ages was so high that even written genres were built around that

to solidify and deepen the "canonical" knowledge of the Holy Bible, canon and Roman law, schools of thought of Aristotle, Galen, and other universally acknowledged men of wisdom, sacred history, etc. Such solidity was obtained in lectures. High academic performance was most obviously manifested in the ability to debate in accordance with Aristotle's logic, which formed the basis of education for centuries in preparatory philosophy faculties²⁰. The dispute to obtain an academic degree, assessed as a final examination, was recognized as the highest form of university debate for students²¹.

Until the 17th century, disputatio pro gradu had probably only been used to confer Bachelor's degrees, while the procedure for awarding higher degrees was not that clearly defined [Clark, 2006. P. 203]. When inauguration dispute began to be applied to higher degrees, a specific procedure was established to assign particular roles to all players. Technically, there were two parties to the dispute: the candidate (respondens) defending his arguments to be heard by the attendees, and his opponents (opponentes)—university doctors—to dispute his arguments. During the dispute, the candidate had to show the ultimate understanding of his subject, the ability to explain his points and prove them with reference to reputed authors, to dispel any doubts and uncertainty the opponents might have around those points, and finally, to prove his points following the law of dialectics. The opponents, in their turn, had to prove the candidate's arguments wrong and ambiguous following the same law of dialectics, pointing to controversies or even sheer nonsense in the text. In practice, however, there was much more to it than that.

The early printed books preserve images shedding light on who participated in disputes beside the candidate and his opponents. One of the engravings from 1641 shows a spacious university hall with a podium (*cathedra*) in the center, the chairman (*praeses*) on the higher step and the candidate (*respondens*) on the lower. The opponent doctors (*opponentes*) are sitting on benches in front of the two main players, and some very important people are occupying the specially allotted seats in the back and side rows [Clark, 2006. P. 205].

model. *Summa Theologica* by Thomas Aquinas may be regarded as a classical example [Ong, 1982. P. 95].

The "Canonical" corpus of university knowledge underwent changes in the context of the Reformation, development of empirical knowledge, and government legislation, and so did the thesis requirements. However, the inauguration dispute procedure transformed very slowly, so it was up to the 18th century that German authors built their polemic tractates following the canon of oral disputes [Chang, 2004. P. 144–145].

This examination was dubbed inauguration (*inauguralis*) dispute because those who passed it successfully obtained the new status of members of the academic corporation legitimized by all attending and participating university doctors and supported by relevant regalia.

The position of the chairman above everyone else clearly indicates the special role he played in the process. As researchers have recently discovered, his role was, indeed, extremely important and sometimes even decisive in the dispute. Not only did the *praeses* monitor compliance with the established dispute procedure and announce the results, but he also prepared the arguments to be defended by the candidate (i. e. *dissertatio*) in most cases and helped him answer the questions during the debate²². For decades, the *praeses* was the central figure of the dispute, until a new defense procedure was developed towards the end of the 18th century. By the beginning of the next century, the functions of *praeses* transformed into those of a research adviser [Clark, 2006. P. 238]²³.

2.3. From disputatio to dissertatio, from oral to written word

Historically, the defense procedure changed together with the thesis text. First of all, theses grew in volume. Beginning from the mid-17th century, theses transformed from short points covering several pages submitted for discussion into small tractates, including not only detailed argumentation but also appendices and praise to dignitary patrons. There was no way to just read aloud such theses before the dispute anymore. As focus shifted from oral word to the text, lengthy opening speeches and long-drawn debates became superfluous. The latter half of the 18th century introduced a new defense procedure, where the key roles were played by the opponents asking questions on the pre-read text and the candidate answering them. The chairman only performed organizational duties from then on. A thesis paper published and distributed prior to defense was assigned an independent value as a full-blown research paper that did not require extensive oral explanations [Chang, 2004. P. 154]. This way, the written thesis was born from oral dispute for an academic degree [Clark, 2006. P. 2041.

Modern theses owe their existence, inter alia, to the fact that the written word gradually replaced the oral word in the scientific discourse of the Early Modern Period. As the Enlightenment recognized human intelligence as the ultimate measure of truth, theses turned from commentaries to the corpus of canonical ideas into the source of new academic knowledge. In the decades that followed, it was the scientific contribution of published and defended theses that became the paramount criterion of assessing not only young researchers, but also schools of thought, faculties, and even universities [Chang, 2004. P. 155–156].

The Latin verb *praesideo*, from which *praeses* derives, means "to sit before", "to preside", and also "to protect" "to defend". Some German universities held disputes without *praeses* from the end of the 17th century, but these were apparently very few.

²³ For a detailed analysis of dispute transformations in the 18th century, see [Marti, 2010].

Martin Luther's Ninety-Five Theses are sometimes cited as an example of an early handwritten thesis, although they were designed not for an inauguration dispute, but for that of a public university (which never happened, as we know). Having compiled and "published" his theses, Luther was going to prove their points as a praeses, while one of his disciples would be his respondens [Chang, 2004. P. 145, 147]. The earliest published theses designed for inauguration disputes were no more than defense announcements, which later transformed into thesis title pages [Chang, 2004. P. 147]. German universities published such theses from the mid-17th century. At first, they were referred to as "disputes" (disputatio), but the more familiar term "theses" (dissertatio) was adopted very soon. Theses were usually published in quarto, with their title page specifying the thesis name, university name, names of praeses and respondens, venue and date of defense, and name of the printing house. Their volume could vary from 20 to 100 pages in the mid-18th century. The structure could also be different: simply a list of arguments, a comprehensive research into something with references to other authors, or something in between.

The surviving documents from that epoch also provide information on the circulation of theses. For instance, the 1737 Statute on Founding the Faculty of Medicine of the University of Göttingen stipulated that out of the total number of thesis copies, 20 would go to the king and his government in Hannover, 7 to the faculty, 10 to the *praeses*, and 6 to other faculty professors—who would obviously serve as *opponentes*. Quite naturally, the candidate would also order some copies for his patrons, colleagues, friends and family, etc. Therefore, the circulation had to be at least 50 copies or more, considering that some of them were sold in bookshops, particularly those with names of famous professors as *praesides* on the title page [Chang, 2004. P. 157].

Of course, it was not only through the fast evolution of printing that the modern understanding of the thesis developed; it was also through substantial transformations in the academic culture as such, particularly the established superiority of text over dispute, the recognition of the candidate as the sole author of a thesis, and the originality requirement. As a result of these transformations, the inauguration dispute as the primary method of candidate assessment was replaced by the thesis in some German universities—especially Prussian universities—by the mid-18th century. The decline of dispute was also prompted by introducing new candidate examinations approved by the state: the pre-defense examination to assess a candidate's level of knowledge (the abovementioned rigorosum) and postdoctoral examinations to qualify for medical, legal, and military licenses. Besides, in some universities masters and doctors had to take one more examination—disputatio pro loco—to be awarded the title of professor [Clark, 2006. P. 203-204].

2.4. Thesis: form and structure

3. Thesis Authors

Among the issues associated with the degree awarding practices of the Early Modern Period, thesis authorship is one of the most discussed [Freedman, 2010. P. 109–110]. The challenges historians face when searching for the answer to this question are not restricted to the fact that there was no clear definition of authorship or legal regulation of copyright at that time. It was also about lacking the idea of an author as an individual person, the sole creator of the work who has exclusive rights and bears responsibility for its content, which is self-evident to us today²⁴. The foregoing applies to such peculiar forms as thesis, too. In order to understand what a thesis looked like in the 17th-18th centuries, what challenges there are to determining authorship, and how important authorship was in awarding academic degrees, let's consider the particular case of *Dissertatio de plagio literario*.

3.1. Dissertatio de plagio literario

The thesis entitled On Literary Theft was publicly defended in the Faculty of Philosophy of Leipzig University on 6 August 1673. The text was published by a local printing house according to the established procedure and must have been pre-distributed to all designated persons under the university regulations. The title page indicates the genre at the top—dissertatio philosophica—then the name of the thesis below—De plagio literario²⁵. Next, the name of the praeses, Jakob Thomasius (Jacobus Thomasius), is typed in a smaller font with a detailed list of his titles. Next come the venue and date of the dispute, and only then the name of the candidate who had to answer publicly the questions from the scientific community (publice respondendo tuebitur), Johann Michael Reinel (Johann Michael Reinelius). The very bottom of the page bears the name of the printing house and that of its owner (Lipsiae, Sumptibus Christoph. Enoch. Buchta). There is nothing extraordinary on this title page, and it may safely be called typical of the epoch. What does distinguish De plagio literario from other theses of the time is its volume of 280 pages, which is a few times larger than average.

It is also interesting that the thesis was extremely popular among readers at the end of the 17th century. A second, enlarged edition of *De plagio literario* was published by the same Leipzig printing house in 1679, six years after Reinel's defense²⁶. The endpaper now featured

As historians found out long ago, an author is not a supertemporal phenomenon but a changeable product of specific sociocultural contexts, and the past eras understood authorship very differently from today. See two pioneering studies by French historians: [Chenu, 1927; Chartier, 2006. P. 44–77].

We have dropped some optional information contained in the title page for the sake of brevity. The full text of the thesis: http://reader.digitale-sammlu-ngen.de/de/fs1/object/display/bsb10528689 00005.html

https://www.deutsche-digitale-bibliothek.de/item/WYOESNQJD55BG5LPK-MYKLBB6FMOXXTRA

a big engraved portrait of Thomasius dated 1674, and the original text was supplemented by six appendices on 72 pages. The half title before the appendices reads: "Additions to M[aster] Jakob Thomasius's Dispute On Literary Theft (Ad Disputationem M[agistri] Jacobi Thomasii De plagio literario accessiones). Thus, the thesis defended by Reinel in 1673 is called a dispute, Thomasius is called the author of the additions, and Reinel's name is not mentioned at all. The second edition was reproduced 13 years later by Jena printing house in 1692²⁷. The title pages of these two re-editions did not change in any way as compared to 1673.

The content also remained the same, representing a detailed explication of literary theft using a scholastic method of argumentation. Plagiarism is defined as consciously concealing the name of the real author of the text being presented by writer, i. e. as a special case of deceit. People of each category have their own sins, says the author, and this particular sin is only characteristic of writers and researchers. After the manner of Aristotle, who identified four causes inherent and identical to every object, the author of this thesis explains the four causes of plagiarism: a moving cause (causa efficiens), final cause (causa finalis), material cause (causa materialis), and formal cause (causa formalis). Based on this, he develops various classifications of literary theft and cites numerous examples of each type from works by ancient and contemporary authors.

The success this thesis enjoyed among the reading public was obviously explained both by the overall interest of the scientific community for the subject (ethico-philosophical and polemical tractates of the 17th century explored various kinds of plagiarism, comparing it to theft and disapproving of it in every possible way [Kivistö, 2014. P. 118]) and by the scientific merit of the work, particularly the numerous examples from papers of acclaimed authors. Anyway, the oeuvre by Johann Konrad Schwarz, a professor of Coburg University, published in Leipzig in 1706 and foreworded by Johann Franz Buddeus, a famous theologian, not only had virtually the same title, but also used lengthy quotations from the thesis²⁸. Besides this, *De plagio literario* must have owed part of its popularity to the name of its *praeses*, the renowned scientist, teacher, philologist, Aristotelian philosopher, professor of rhetoric and moral philosophy at Leipzig University, and later Rector of the famous St. Thomas School²⁹.

²⁷ https://download.digitale-sammlungen.de/pdf/1435304743bsb10651067.pdf

²⁸ It was titled De plagio literario liber unus. See https://books.google.ru/books?id=CHBEAAAAcAJ&printsec=frontcover&hl=ru&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false.

²⁹ Thomasius was one of the scientists who were the first to argue that a thesis should represent an autonomous tractate, rather than short arguments to submit for discussion.

Yet, who ultimately was the author of the thesis successfully defended by Reinel in the Faculty of Philosophy at Leipzig University on 6 August 1673? It appears that no documentary evidence has been preserved. Nevertheless, historians believe virtually unanimously that it was chairman Thomasius who authored the work, and not Reinel who was actually awarded a master's degree in philosophy for the defense. The conclusion seems quite convincing: hardly could a humble student produce a paper demonstrating a masterful command of Aristotelian logic and a brilliant knowledge of works written by dozens of authors both ancient and modern³⁰.

The case of *De plagio literario's* authorship is by no means exceptional. Historians have enough reasons to believe that until the mid-18th century theses were most often written by university professors presiding over the disputes [Chang, 2004. P. 129], probably for some extra charge [Chang, 2004. P. 151]. In order to understand why such practices were not considered deceitful, we now turn our attention to the requirements candidates had to satisfy in the dispute.

First of all, a candidate had to prove he understood well the competent opinions by Aristotle, Galen, Pliny, and other ancient and contemporary philosophers referred to in his thesis, as well as the arguments stated by the *praeses*, who was the author in most cases. Neither answers to opponents nor the thesis itself were required to make original contributions to knowledge [Chang, 2004. P. 151]³¹. Thus, a candidate only had to defend the points developed by someone else in order to get a degree. The principal "qualifying requirement" for the future doctor or master, apart from showing conversance with the text, was the ability to answer the captious questions of opponents and speak confidently in public. To put it simply, we can say that the *praeses* prepared "examination questions" while writing a thesis [Chang, 2004. P. 151], and the candidate answered them in front of "committee" (with the help of the *praeses*, where necessary).

However, modern library catalogues do not agree on who should be considered the author of the thesis. Both names are mentioned in most cases, though in different order: most often Thomasius and Reinel, but Reinel and Thomasius can also be found. Reinel alone is mentioned rarely. In the catalogue of the Library of Congress, the 1679 edition is registered under the name of Thomasius as praeses, while Reinel is mentioned in the related names section as respondent. Yet, the 1692 edition is described as Reinel's work, Thomasius being mentioned as praeses in the related names section.

³¹ Nor did the originality requirement apply in the late 18th century, when candidates were mostly writing their theses themselves following a plan approved by the professor. The author's main goal was not to contribute new knowledge to the world but to provide another well-reasoned interpretation of universally acknowledged truths.

3.2. Degree mill

Some universities held inauguration disputes so often that professors hardly kept up supplying theses. As estimated by Ku-ming Chang, one of the professors of the Faculty of Medicine at the University of Halle advised the thesis research of 159 students during 20 years of working experience at the turn of the 18th century. If we assume that an average thesis had 50 pages and no thesis plagiarized another (although this is known to have been practiced), then he had to produce nearly 400 quarto pages, which makes an impressive volume. Meanwhile, as professors also had to deliver lectures, organize student disputes, write tractates, and preside over university meetings, they did not have that much time for theses [Chang, 2004. P. 153]. However, because there was still no originality requirement, professors could easily modify previously articulated arguments in their new works.

If we compare the number of theses defended in Germany during the 18th century to the overall number of professors, it becomes obvious that the latter were simply unable to generate that many texts. Part of these must have been produced by candidates, but hardly a large proportion. There were also third-party authors, most likely *eruditi viri* with academic degrees and no university positions. At least some historians mention a degree mill (*Dissertation-Fabriken*) that existed in Germany at that time, offering the rich and boastful massive opportunities to buy pre-written theses at fixed prices [Chang, 2004. P. 154; Clark, 2006. P. 208]³².

So, candidates did not normally have to write a thesis to get a master's or doctoral degree in the Late Middle Ages. The only task they had was to defend as convincingly as possible the points formulated by professors during the dispute. It was actually the only way it could be done, as students were not considered capable of writing anything worthy of the scientific community's attention. When a student wrote a thesis himself, it could be perceived as a challenge to that community even as late as the 18th century. Unsurprisingly, when student papers finally began to supersede theses written by professors, the latter started complaining about the loss of scientific quality [Rasche, 2007a. P. 198].

As the 1653 Statute of the University of Marburg put it³³, theses in the Faculty of Divinity had to be written by *praesides*, while students were not allowed to do this (*Ipsi praesides conscribant disputationes:* studiosis ne permittant scribendas)³⁴. If compelling reasons existed,

authorship

^{3.3.} From professor to candidate

³² However, whoever the author was, theses had to be approved by the relevant faculty prior to dispute.

³³ Here and elsewhere, cit. ex: [Hörn, 1893. P. 59].

³⁴ Some universities held disputes without *praeses* beginning from the late 17th century. Yet, it did not necessarily entail the sole responsibility of the candidate for the text, which could be written by a university professor or someone else [Chang, 2004. P. 151].

an exception could be made for students who had studied at the university for a long time and shown the depth of their knowledge, but only upon permission of the faculty (*nisi forte ex singulari eaque gravi causa veteranis, quorum probe perspecta est eruditio, hac parte aliquid de facultatis consensu concedendum judicetur, idqueetiam non crebro)*³⁵. Some later sources also prove that preference was given to professor authorship. Thus, the abovementioned professor of medicine of the University of Halle reported at the close of his days (he died in 1734) to have written most of the theses defended under his advising, while the rest was written by students under plans he developed [Chang, 2004. P. 152].

The transformation of candidates into sole thesis authors was not a linear process, and students as well as professors could be authors in the same university at the same time. Let's consider two theses from the early 18th century cited by William Clark [2006. P. 208–210]. Their distinguishing characteristic is the indication of authorship (auctor) next to the traditionally specified names of chairman (praeses) and candidate (respondens) on the title page. In both cases, authorship belongs to the same person, Johann C. Tschanter, as candidate and author (respondens et auctor) on one title page and as author and chairman (auctor atque praeses) on the other.

The first thesis, *De eruditis studiorum intemperie mortem sibi accelerantibus, dissertatio I, eaque historica* (On Scientists who Accelerated Their Own Death with Immoderate Studies. Part I—Historical)³⁶, was presented to doctors and masters of Leipzig University in October 1704.³⁷ The name of the *praeses*, Gottfried Boettner, appears separately on the title page, which most probably means he did not have a hand in the paper³⁸. The second thesis, *De eruditis studiorum intemperie mortem sibi accelerantibus, dissertatio II, eaque physica* (On Scientists who Accelerated Their Own Death with Immoderate Studies. Part II—Physical)³⁹, was defended in the same place on 30 December 1705, but under the chairmanship of Master Tschanter, who was also mentioned as the author (*auctor atque praeses*)⁴⁰. A certain Johann C. Wolf was mentioned as the candidate

³⁵ Student authorship restrictions were less strict in the faculties of law and medicine: Studiosis, cumprimis veteranis, ut disputationes ipsimet conscribant, easdem a Praeside et Decano Facultatis approbatas imprimi eurent, permittitor.

³⁶ http://reader.digitale-sammlungen.de/en/fs1/object/display/bsb10642 361 00002.html

³⁷ It was only on 1 December 1703 that Tschanter was conferred a Bachelor's degree [Clark, 2006. P. 208].

³⁸ amazon.com (2011 facsimile edition) mentions Gottfried Boettner as the author and Johann C. Tschanter as the creator.

³⁹ http://reader.digitale-sammlungen.de/de/fs1/object/display/bsb11173 314 00001.html

⁴⁰ Tschanter obtained a master's degree on 5 May 1705 [Clark, 2006. P. 208].

(*respondens*) on the title page. However, as Tschanter was the author, this Wolf was very unlikely to have been engaged in writing the thesis. Most probably, he obtained his degree for defending thesis points in a dispute, just as the majority of other candidates.

In fact, both parts form a single work, which also points to Tschanter's authorship of both theses, first as the *respondens* and then as the *praeses*. Yet, we cannot say for sure that they were not produced by a humble degree-mill ghostwriter.

Most researchers believe the key social, cultural, and intellectual transformations that prompted the emergence of the modern academic degree happened in the latter half of the 18th century. As a result, the "heroic theater" of oral dispute gave place to the prosaic publication procedure, and the candidate turned form the interpreter of someone else's work into the independent creator of his own scientific text [Clark, 2006. P. 208]41. The changes were largely promoted by the development of printing and the Enlightenment philosophy that gave powerful rational and secular momentum to scientific knowledge. As a result, the old idea of a doctor as a holder of specific moral and legal status was replaced by the idea of a doctor as a thesis author and creator of new scientific knowledge. From then on, the paramount criteria for awarding the highest academic degree were the candidate's own thoughts, instead of the ability to reproduce the words of others, argumentation, and public speaking skills. As for academic privileges, they faded away with the dawn of the new era that declared the equality of all before the law⁴².

The solemn rituals around the dispute also lost their symbolism and gradually transformed into purely bureaucratic procedures. By 1785, Austrian universities abolished doctoral oaths, which had been an integral part of the inauguration ceremony since the Middle Ages; Bavaria abolished most oaths and academic dresses for doctoral graduates in 1804 [Clark, 2006. P. 202]. Beginning from the 19th century, German universities required a pledge of authorship signed in person instead of an oath of being lawfully begotten [Ibid. P. 210].

Johann Gottlieb Fichte developed new doctoral degree requirements in his *Plan for the Institution of Higher Education to be Established in Berlin* in the early 19th century [Fichte, 2010]. In his work, the philosopher stressed that, apart from examinations (he was talking about candidates for a doctor of philosophy degree, but the require-

4. Development of the Modern Academic Degree

⁴¹ In Clark's opinion, the transfer of thesis authorship from praeses to respondens had been completed by 1800 [Clark, 2006. P. 238].

Privileges gave way to meritocratic preferences: as German states nationalized their education, academic titles became officially recognized and provided a great advantage when applying for a public office [Clark, 2006. P. 202, 203].

ments were universal) a candidate had to write a thesis *himself* and defend its fundamental points publicly before the committee. Fichte also argued that the text should not only be assessed in terms of the author's expertise and effort—it also had to be as perfect itself as handiwork by a medieval craftsman.

The new understanding of scientific knowledge and the Romanticist idea of human uniqueness also required for the originality of theses proposed for defense⁴³. Although Fichte believed thesis topics had to be suggested by academic advisers, he also was against advisers acting as chairmen of the defense. Thus, the intellectual merit of a thesis became the key degree-awarding criterion under the new concept, which was soon adopted by the newly created University of Berlin [Clark, 2006. P. 169].

The practical implementation of these ideas dates back to the later period of the mid- to late 19th century⁴⁴. However, there is very little agreement about the historic moment when the present-day idea of an academic degree became common. The only thing researchers agree on is that the process was long and painful. As evidence they refer to Friedrich Wilhelm Theodor Mommsen, a famous historian and professor at the University of Berlin, who wrote angrily about German "factories" producing "pseudo-doctors" as early as 1876 [Mommsen, 1905. P. 402–409].

* * *

After what has been said about the academic degrees of the Early Modern Period and the differences in the rules for awarding them back then and today, it is time to ask whether those degrees should actually be considered as fake? In other words, should we apply the existing scientific and ethic requirements to the degree holders, texts, authors, inauguration dispute procedure, chairmen, opponents, universities, and the overall scientific community of that time? In terms of science, the answer appears quite obvious that indeed we should not, as Early Modern science and the scientific community were much different than what we have today⁴⁵.

The ethic aspect is less obvious, especially in buying theses written by third parties. Was it regarded as a blatant fraud as it is today? This is highly unlikely, because no one made a big secret of it back then. Besides, future masters and doctors were never required to be

⁴³ Fichte formulated the research originality requirement in his *On the Nature of the Scholar* [Fichte, 1806].

⁴⁴ In William Clark's opinion, the mindset of the modern academic community developed between the 1770s and the 1830s [Clark, 2006. P. 220]. However, the present-day understanding of academic degrees dates back to as late as the second half of the 19th century [Schwinges, 2012. P. 20].

⁴⁵ For the historical and cultural characteristics of scientific knowledge in the 18th century, see [Porter, 2003].

authors of defended papers. There is also ambiguity surrounding the disapproval of contemporaries regarding the practice of degree buying and selling. What exactly was disapproved? The inauguration dispute itself implied paying a great deal of money to the university. In that sense, candidates "bought" their degrees even when they authored their theses and answered the captious questions of opponents without the help of the *praeses*. Were critics confused by the dispute turning into a formal procedure? Or by the practice of paying extra to buy the favor of the praeses and opponents? Or was it a situation where master's and doctoral diplomas were simply signed by the faculty deans and notarized by the universities? Or was it about "simplified" per saltum and in absentia procedures? While attempting to answer these questions, we should not forget that Early Modern Europeans traded not only academic degrees, but also public offices, titles of nobility, and forgiveness of sins, making no secret of these either. Those practices were condemned by some sections of society, but were never considered a criminal fraud and even found support from other sections⁴⁶.

The situation regarding the plagiarism of theses was also unclear. Although university professors, as we have seen, criticized it as an unclean practice and sometimes accused their colleagues of it, there are no examples of grave consequences, let alone litigations, for "literary thieves". Even when plagiarism was detected, it never drew public attention. Apparently, the social condemnation of thesis plagiarism and the purposeful fight against it are relatively new phenomena.

Of course, this does not mean that fake degrees were a rare case or did not exist at all in the 18th century, unlike today; it is simply the case that fraud was understood in a very different way.

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