

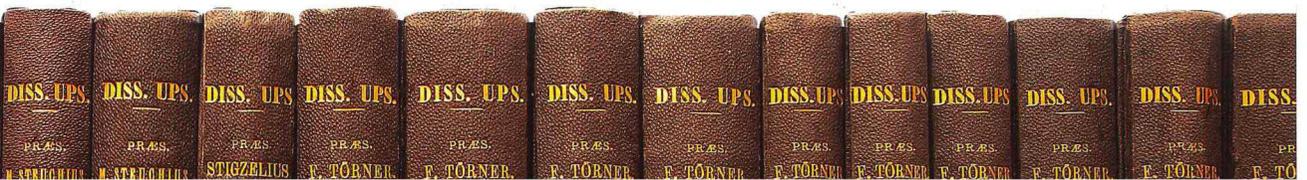
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# Form and Freedom: Dissertation Writing in the 17<sup>th</sup> Century

Dissertations are a central and vital feature of a university's operations and development. Ever since the university system began to develop in northern Italy and in Paris in the thirteenth century, students have been trained in arguing and discussing various issues, with the aim of learning how to get closer to the truth in a question, or to practice using the most effective argumentative language and methods. As a memorial of these centuries of training (which in a way continues in today's dissertations), we have collections of printed older dissertations.

Dissertations from times past have a great deal to tell us: first and foremost, they are normally used when scholars want to get an idea of the state of knowledge and research at the university in all eras, and track tendencies, impacts, and continuities for various ideas and orientations. But they also have much to tell us about what was going on at the universities on other levels throughout these centuries. After all, the final design was not determined solely by traditions and influences at the university, the choice of topic, the supervisor's competence, or the author's writing ability. No, things that do not immediately come to mind also played a role, such as academic rituals, freedom and rules in academic writing, the work mode and resources for the work in general, and the individual student's economic and social situation. All of these influences of various kinds have left their traces in the dissertations, and if we can gather these traces, new facets of university life emerge.

Uppsala University, too, has of course produced dissertations from its very earliest days: More than 13,000 printed dissertations from the period 1600–1855 are found in the University Library's collections.



Although the contents of the dissertations cover every imaginable topic and represent two and a half centuries of the University's development, certain aspects of both form and function were maintained throughout that period. The oldest of these printed dissertations, from the beginning of the seventeenth century, nevertheless appear to be rather remote from our time in many respects. But, to my mind, this is what makes them the most exciting of Uppsala University's older dissertations. Among other things, they have a great deal to tell us about book production, book use, and book ownership in seventeenth-century Uppsala, indeed, about the conditions for academic writing during this period. By simply studying the outer form of the dissertation we can uncover a lot about its time and setting and the individual student's limitations and possibilities in life and for his writing. The form of the dissertation is in fact largely determined by these circumstances.

## Seventeenth-century dissertations

There are some fundamental differences between seventeenth-century dissertations and those of today. For instance, the dissertation was often not solely the work of the individual student: it grew out of the collaboration between him and his supervisor, who was normally also in charge of the public act of defending the dissertation, its *praeses*. The *praeses* was often one of the University's professors. Nor, apparently, was it required that the dissertation contain new research findings. It was sufficient to compile existing sources about a topic by way of elucidating it. It was important to be able to argue the issues during the public defense. We understand that the dissertation as a text document was regarded as important too, in that <sup>generally was</sup> ~~it was a rule that it should be~~ printed, at great expense to the student. It also had several other functions besides serving as a basis for the public defense: dissertations were a way for professors to present their own works

and have them printed and disseminated; they were proof to parents and other supporters of well-invested money, and perhaps, with the help of the dedications that introduced them, a gift in hope of future support. As a large number of copies were printed, a substantial number of which were earmarked for the student *nations* (province-oriented social clubs), they were also most likely used as student literature.

The young men who studied at Uppsala in the seventeenth century did so on extremely divergent terms. Even for fundamentals like lodging and board, there could be great differences among students. The same could be said about previous knowledge, access to literature, and availability of support from teachers. On another level economic security in general played a role, as did social networks, and expectations upon the student, all of which affected his ability to write a dissertation when the time came for that.



## Degree Requirements

The great majority of dissertations were thus the result of collaboration between student and supervisor. It is usually unclear whether the student or the supervisor did most of the work on the dissertation. In this essay I stipulate that the student generally at least did some work of his own. It is also rather unclear what requirements the University placed on the design of the dissertation. The fact is that there do not seem to be any sources available that state directly what was required for a passing grade. The constitutions declare that the dissertation must not stand for any, as it was termed, absurd and infidel opinion (that is, not evincing the correct faith), or incite the masses, to which end the dissertations were reviewed by censors. What dissertations were to look like otherwise appears to have been a rather open matter. But this is not especially odd or unique to the seventeenth century. Even today there are actually extremely few, if any, written regulations for what a dissertation should look like. Senior colleagues in one's field determine whether or not the dissertation passes.

## Structure, Public Defense, and Discussion

Despite the lack of written regulations, it can nonetheless be assumed that students had a number of unwritten rules to consider; no doubt there were differing opinions about what a good dissertation was. For example, very many dissertations have a similar structure, which indicates that there were norms or regulations for this. Thus, a dissertation from the first half of the seventeenth century normally involved stated theses, claims. This has to do with the design of the public defense: the claims functioned as points of departure for the discussion that constituted the public defense. In the course of the century these theses were gradually developed so as to contain argumentation and sources, making them look more like paragraphs in a book in the way we are used to today. It was also common for seventeenth-century dissertations to start with an investigation of the concept itself or the terms for what is to be discussed. For instance, if the dissertation is titled *De Cerebro*, (On the Brain), it starts with a look at the concept of 'brain'. This involves a review of the Latin or Greek word's origins to arrive at what was meant by it, when it first emerged, or what elements the word consists of and why. There is also usually a review of what the most ancient authors, from antiquity, had to say about the matter, before going on to the topic. In this way, the outer form is partly determined by the approach that was traditionally used in an academic discussion.

The experimental nature study, as it was called, is something that was making inroads in Sweden in the seventeenth century. It was characterized by the use of the author's own observa-

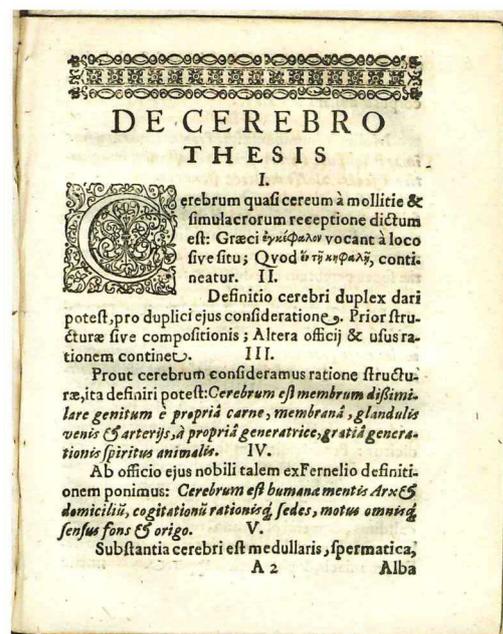
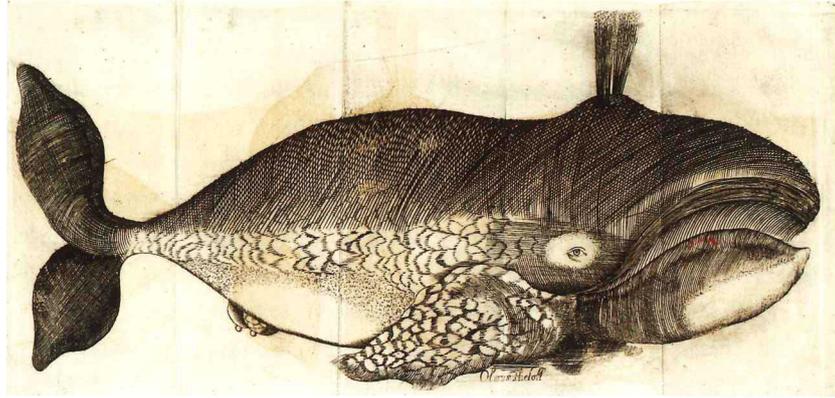


Illustration in the dissertation  
*De Balaena* (On the Whale, 1694,  
*praes.* A. Drossander, *resp.* S. Drake,  
engraving by Olaus Theloff).

*Thelott*



tions as a source, observations and descriptions of a natural phenomenon, for example. This work mode is rather unusual in dissertations from the early seventeenth century. But this changes in the course of the century, and this also changes the form of dissertations: now a dissertation in medicine can consist solely of a description based on observations of a case of sickness, a body part, an animal, or a plant.

### Other Formal Aspects of Dissertations

On the other hand, in respects other than their structure, seventeenth-century dissertations can be quite different indeed. Among them, we find both extremely brief dissertations of just over four pages and relatively long dissertations of 200 pages (small in format). We see dissertations without a single reference next to dissertations with up to 22 references per page. Certain dissertations consist entirely of claims cited from other sources, whereas others compile the literature and glean something new from it. This diversity indicates that there were no rules at all regarding these matters or that there was no connection between the length of the dissertation, its references, or originality and the degree that was sought. This probably had to do with the importance of the actual argumentation about the dissertation during its public defense.

### Use of Literature and Unwritten Rules

Older dissertations also have something to say about what rules and norms applied to the student's use of various sources.

A special feature of seventeenth-century dissertations is that alongside published works and well-documented observations, there are often charming, apparently uncritical, references to things the author has heard people say. They thus do not hesitate to take up what other individuals, people unknown to them, have seen in real life, what they have heard others talk about, or what others have written that they have heard tell. Second- and third-hand information is not at all problematic, even if the information comes from someone the author cannot even name, from countries very far away, and is therefore impossible to verify.

It also seems to have been generally accepted for the student to borrow large sections of other works, and without giving a reference. The argument is often heard that plagiarism in the seventeenth century was not plagiarism as we see it today, and that a dissertation was not regarded as a full-scale written academic product. Since referencing is a natural feature of the majority of dissertations, it was nevertheless clearly considered important, but just how important was perhaps contingent on what the purpose of the dissertation was.

## Use of Literature and the Ideal

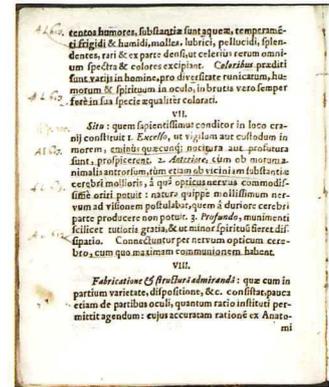
When we see what different types of literature are referred to, cited, or copied in these dissertations, we might ask why precisely this literature constitutes the basis for the dissertations. The immediate response is probably that this was due to the prevailing ideas in a specific subject, such as the professor's/*praeses*' preferences and interests in that regard. But you were actually not allowed to use just any literature you wished. We realize this from texts that relate how it is virtually impossible to cite literature without stepping on someone's toes in a time when everyone was either a fanatical adherent of some line of thinking or a theologian protecting his sphere of interest. We also understand this from the fact that the dissertations were reviewed by censors, and the fact that a certain kind of source literature dominates in the dissertations, whereas other types hardly ever appear.

It is well known that seventeenth-century literature, both fiction and academic, indeed the entire intellectual Western world had a definite ideal, both for how to write and for many other aspects of life: ancient Rome and Greece were regarded, alongside things Christian, as representing certain good values and characteristics, and a *sagacitas*, an intellectual acuity, that the individual aspired to personally. It therefore stands to reason that dissertations from this era largely gather their information from works by classical authors, that is, authors from ancient Rome and Greece. It was also popular to quote ancient poets, who appear with regularity in all types of dissertations, not least those in natural science. Gradually more and more recent works make their way into the dissertations, and the dominance of the classics wanes in the course of the century. At the turn of the eighteenth century, however, they still sometimes constitute the only sources cited in dissertations.

## Use of Literature and Access to Literature

What literature was used must also have been dependent on many practical circumstances. The most important one of these is probably the access to literature at Uppsala University, and especially for a student writing a dissertation. One might ask: did the student have any choice to speak of when it came to what authors he wanted to use?

Generally it can be said that the books that constituted the early University Library, including those that were brought in as war booty from



Throughout the dissertation *De Oculo*, (On the Eye, 1651, *praes.* J. Franckenius, *resp.* J. Hofvenius) somebody has made note of which passages were taken from another author.

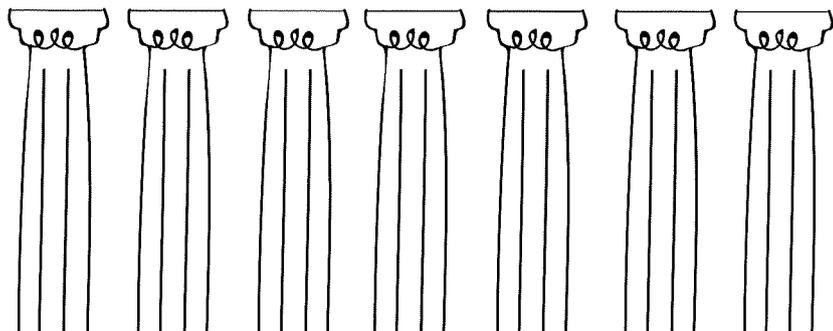
the 1620s onward, were in principle not available until the latter half of the seventeenth century. This was especially the case for students. Nor did the collections always contain what the writing academic was looking for: although the war and confiscated private libraries created a library rich in volumes (at mid century estimated to comprise 8,600 printed works and 1,200 manuscripts), the literature was not acquired in accordance with the University's special requests or needs, and even less in accordance with needs of any particular subjects. Nor did the most attractive literature ever make it to Uppsala, and there were frequent complaints from professors that the library's book collection lacked any relevance to their work. The attractive works, moreover, were generally on long-term loan to the professors in their homes, and in many cases they were never returned.

The production of Swedish academic literature besides dissertations was low in the seventeenth century. It has been established that not many academic works other than dissertations were published at the University in this period. This is no doubt one of the reasons that the works cited in dissertations, even discounting the classics, were virtually all foreign. It is easy to establish that Swedish science at this time rested entirely on foreign science and knowledge production.

When it came to the possibility of purchasing books privately, the access to newly published literature in special subjects was limited, to say the least. The opportunities consisted of waiting for fairs, or traveling to other countries. Uppsala got its first bookshop only in 1616, but even after that the town was periodically without an established bookseller. If a student had the resources to travel, of course, he could either buy books along the way or make copies of important passages from books in libraries he visited.

Making long journeys and being in a position to purchase the books they needed was of course not an option for most Uppsala students. Unless he had already managed to create a small book collection, the student was dependent on the books he could get access to through those close to him, such as his own family or his friends or his family's friends, and through his *praeses* or other teachers he had established good contacts with during his University studies. The *praeses*, as a professor, had made more progress in collecting books, and there are also examples of professors' having lent students books they had borrowed from the University Library. A student might also have gathered lecture notes, his own or other students', or collections of copied excerpts from other works, and of course it was also possible to copy references from other works, text and all. Earlier dissertations were also readily available. The dissertations had been printed since the early seventeenth century in Uppsala, treated a wide variety of subjects, and were at the disposal of students at the *nations*.

Another type of literature that was rather easy to access and had been used in Sweden since medieval times and was available in many editions



consisted of the writings of the best-known classical authors. This classical literature was also used as literature for teaching from the lowest grades in school and was therefore something a student was familiar with and perhaps owned a volume or two of personally. Part of instruction was to memorize long sections of the texts, especially the poetry. The classics, both in print and in manuscript form, were also a natural part of the war booty and were probably among the standard offerings at fairs. Previous dissertations in the subject referred to the classics, and it was easy simply to copy them when necessary. Also, quoting the classics was probably a sure way of not stepping on anyone's toes.

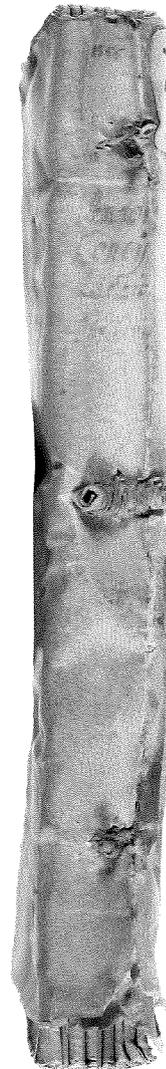
### Access to Libraries of Friends, Family, and Acquaintances

However, not all students were entirely left to their own meager book collection, the imperfection of the University Library, or repeating formulations in timeless works. As mentioned above, one avenue that remained open was to gain access to other people's private book collections. Here, too, the prospects were different for different students. For instance, we can assume that the young Rudbeck (cat. no. 2.2), besides his supervisor's library, also had access to his father's large library (which actually largely consisted of decades of borrowed books from the University Library). The sons of affluent families and children of academics in general no doubt were in a better position in terms of access to literature than other students were. As a student, one could surely affect the situation by cultivating one's contacts in an advantageous direction.

### Economic Conditions

One part of the dissertation is even more directly determined by the economic conditions surrounding its creation, namely the dedications that most often introduce the dissertation. It was not inexpensive to produce a printed dissertation. It was not merely that the dissertation had to be printed in large numbers; in the eighteenth century it was a matter of 600 copies. Students also had to pay for the binding of presentation copies, the purchase of gifts in connection with the public defense, and a post-defense banquet for a large number of people. For a student of constrained means, this could be more or less out of reach. Even though the University attempted to regulate expectations regarding post-defense festivities and the scope of dissertations, these rules had little impact.

One way to try to cover these costs was to dedicate the dissertation to real or prospective sponsors. Whom one dedicated one's dissertation to depended on who one was and what one wished to achieve with one's dissertation. Rudbeck the Younger, who was from a successful academic family, takes up in his dissertation *De propagatione plantarum* (1686) an economic-botanical topic, "how to multiply plants," with knowledge geared to developing agriculture in Sweden (cat. no. 2.2). It is provided with a large number of beautiful engravings and distinguishes itself also in gen-



eral in terms of scope, ambition, and access to sources. It is dedicated to the queen of Sweden, Ulrica Eleonora, and she rewarded it with a stipend of 100 ducats. Another type is represented by Cat. No. 3.4a, the dissertation *De salmonum natura* from 1730. It deals with salmon and various ways of fishing them in East Bothnia. The *respondent* Daniel Bonge is from Ulcåborg in East Bothnia, and the dissertation is introduced by dedications to the clergy in that province and to friends and relatives with notable titles in the economic sphere. The book is dedicated to a total of eleven people. Perhaps Bonge wished to propose himself for a position in the fishery business back home.

## Congratulations and Social Networks

Finally, I would like to mention a common phenomenon in seventeenth-century dissertations that survived for several centuries: congratulations, which most often appear on the last page of the dissertation. Congratulations are generally written in verse by fellow students, and sometimes also by other well-wishers, such as one of the University's professors. What these congratulations looked like, and who wrote them, was determined by the student's social context. If we study congratulations together with the dedications in the beginning of the dissertation, we can uncover valuable information about social networks within the academy.

The friends' attempts at poetry did not always impress the teachers, and the contents were not always fit for mixed company. The censorship the dissertations were subjected to could therefore also impact the congratulatory verses. This is why we will never be able to read the poem that professor of medicine Lars Roberg wrote to his student P. Leetström, in the dissertation *De libella* (On the Dragonfly), in 1732.\* It was quite simply removed from the dissertation. Together with censored sections of other dissertations, along with dissertations that were never approved, this deleted verse, in its very absence, can illustrate the University's view of itself, its honour and how it should be safeguarded, and its ultimate jurisdiction over what was produced in its name.

\* A copy of this dissertation including the original poem of Roberg's was found in the Royal library, Stockholm  
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