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## Education

In 1603, Europe's most famous scholar, Joseph Scaliger, observed that 'In the Netherlands, peasant women and men, and almost all maid servants, are able to read and write.'<sup>1</sup> The high rates of literacy struck many visitors in the period, and are repeated and confirmed by historians even today: the Dutch Republic is likely to have been the most literate society of seventeenth-century Europe.<sup>2</sup> The reasons have been sought in a variety of circumstances: a confluence of religious, economic, social, and cultural factors created a fruitful market for the printing presses. Protestantism's emphasis on individual reading of the Bible was generally conducive to passive reading. It was in particular in the context of the further confessionalization of Dutch society after the Synod of Dordt (1618–19) that the Reformed Church put extra emphasis on vernacular understanding of the biblical text. But this religious context alone fails to account for the literacy rates. Scaliger's observation dates from the beginning of the seventeenth century, before the Synod of Dordt and before the plans to further reform society.

Equally conducive to Dutch literacy was the flourishing economy. Businesses needed people versed in double-entry bookkeeping and commercial correspondence. The maritime economy also required a well-trained workforce of navigators, and the open character of Dutch society created a market for language tuition and translation. Social reasons stimulated literacy as well: the peculiar corporational fabric of society led to what Willem Frijhoff and Marijke Spies called a 'discussion culture'. Manifested through frequent meetings on all levels of society, in church and state bureaucracies, translated into much administration and a vast system of bureaucracy, the discussion culture relied on an extensive written archive.

Scaliger's observation prompts the question of how lower-class men and women learned to read and write. The answer can be found to a large extent in the infrastructures created by the urbanized and corporative society. By the beginning of the seventeenth century, a relatively well-functioning system of primary and secondary education was in place that catered to the sons and daughters of labourers, skilled artisans, small-time merchants, and sailors. With ninety-two Latin Schools, six Illustrious Schools, and five universities, the Dutch Republic likely had Europe's densest network of classical humanist education. The solid infrastructure of large numbers of schools offering primary, secondary, and tertiary education was the foundation of both Dutch prosperity and the fame of the United Provinces as a centre of learning. But, just as elsewhere in Europe, many children continued to receive at least part of their education outside these schools.

### **Hands-On Training**

Teenagers trained for a craft in the guilds or at workplaces, often on the basis of a contract that stated both parties' duties. One salient type of vocational training was surgery. In the seventeenth century, the world of the surgeons and that of the theoretically trained academic physicians started to converge; clinical teaching was introduced at some universities in the Dutch Republic. Increasingly, university students were acquainted with surgery through anatomical lessons. Leiden University boasted the first anatomical theatre in northern Europe (1596); in Rotterdam the surgeon's guild opened a dissecting room in 1642. Such rooms were called 'theatres'. The word 'theatre' not only derived from the Greek simply as a place to look at things; it also had overtones of a dramatic spectacle. The collective beholding of death took place in an atmosphere of contemplation. The interiors of Reformed churches might have looked rather plain, but the interiors of anatomical theatres were lavishly decorated with prepared skeletons as emblems of the transience of the earthly life. The anatomist not only cut, but while doing so he also reported aloud on what he was doing. The combination of the spoken word, the observed phenomena, the emblematic environment, and the strict rules of conduct all worked together to give the occasion the sense of an awesome theatre in which the holy Book of Nature was explained.

Another famous guild, ardently studied today, was that of the painters. Due to the scarcity of rich aristocratic maecenases, because of Protestant iconoclasm, and despite the modern fame of some Golden Age painters as highly individual artists, seventeenth-century Dutch painters largely trained for a bourgeois market centred in the cities of the powerful province of Holland. Drawing was not introduced into the curricula of secondary educational institutes until the eighteenth century, so in the seventeenth century instruction in drawing and painting was organized by the guilds, where students trained for about three or four years. At Amsterdam's St Lucas Guild, students as old as twenty were permitted to start their training. As in other guilds, the trajectories show great variations, depending on the individual ways in which masters treated their disciples. It is still a matter of debate to what extent famous theoretical books such as Karel van Mander's *Schilder-Boeck* (1604), which treated techniques such as shadow and perspective, were actually used in the curriculum. Samuel van Hoogstraeten's self-professed reason for publishing his now well-studied *Inleyding tot de hooge schoole der schilderkonst* (1678) was the lack of proper education:

Real painters have usually been made by chance, and how? The youth is brought to some painter or other, or whoever calls himself such, to learn superficial drawing, making figure after figure. Having gained some dexterity in this, they take a paintbrush, and are thus after some time regarded as masters by ignorant people, even before they themselves learn what the art of painting is about.<sup>3</sup>

The urban landscape was also responsible for the relatively good education of destitute children. Cities were proud of their conspicuous orphanages. These often sent their flock from the age of six onwards to work in the textile industry, carpeting, masonry, shoemaking, or bookbinding. In some cases, orphanages ran their own teaching schemes on the premises. Girls trained as seamstresses or milliners.

### **Reading and Writing for Boys and Girls**

The high rates of literacy do not necessarily imply creativity and independence. On the contrary, knowing how to read and write was a means to a higher goal: to learn the catechism and read the Bible. Children had to be trained, not educated; they were expected to answer, not to question, to reproduce and not to express individuality. The expression of emotions

followed established rhetorical or poetical models. The importance of laymen being able to study the Bible was stimulated by Protestantism, but it had a pre-Reformation history.

By the end of the fifteenth century, the cities had largely taken over the medieval parish and cathedral schools. They turned the schools into municipal 'Great Schools' and founded many such schools from scratch, offering primary and secondary education to boys from six to eighteen years old and to young girls. Prepared by the education reform of the Brethren of the Common Life in the fourteenth century and inspired by the rise of humanism north of the Alps from the late fifteenth century onwards, sixteenth-century city magistrates and pedagogues put great emphasis on the study of Latin, although most of the teaching at the Great Schools was in Dutch. The elder children took an active part in educating the younger ones. The great schools offered top classes in Latin for boys aspiring to attend university, which was only for about 10 or 20 per cent of the hundred-odd students typically attending these Great Schools. The power of the cities in the sixteenth century had made possible a prosperous educational market. Yet, tiny villages in the countryside usually also had schools. All of these developments took place under what was still Catholic rule.

It was only during the early phases of the Dutch Revolt that the Dutch Schools became the place for the teaching of Protestant thought, to boys as well as to girls. They were monitored by the ecclesiastical and secular authorities, at the municipal and provincial levels, but they were paid for by the magistracy. Schoolmasters earned additional incomes by charging school fees. Not all families could afford the 6 or 7 guilders required to have their child learn to read and write. To keep poor children off the streets, cities often paid Dutch schoolmasters extra if they took poor children to board. In Utrecht, poor children were sent to the so-called parish schools, which were attached to the municipal churches. Poor children required special treatment, though, for many of them had to work from a young age onwards. The seventeenth century witnessed an increase in special schools for destitute children. The curriculum revolved around inculcating into children a Reformed Protestant morality, and the schools contributed to the Reformed confessionalization of the country, in particular in the period directly after the Synod of Dordt.

First of all, children needed to be able to understand the Bible. One way was for children to learn by heart proverbs based on biblical verses,

prayers, and the Ten Commandments. But for the ability to always take to heart the teachings of the Bible, one had to learn how to read. Reading preceded writing; from spelling books such as the much-used *Rooster Book* (*Haneboek*), children learned letters and how letters formed words. It was difficult enough to recognize the shape of letters, since children had to learn upper-case and lower-case in both Gothic and roman types. Children first trained a couple of years in reading before turning to writing. One of the reasons for this procedure might have been that it made no sense to have children under the age of about nine or ten waste costly paper, pens, and ink due to a limited control over their finger movements. Reading was intensive, not extensive.

Catechism was the second major part of the teaching programme. In the first half of the century the focus was on the Heidelberg Catechism, in particular after the Synod of Dordt. In the second half of the seventeenth century, a special children's catechism gained ground. Learning the catechism by heart required much repetition. Repetition was not practised collectively. A school existed usually of only one room, in which children of different ages and levels worked side by side. They formed small groups or studied individually. A couple of times a day they would be individually questioned by the teacher, who sat prominently on a chair on a small platform or behind a desk in the room, and before whom children queued up to be tested.

Not all teaching, however, was individual or semi-individual, as is clear from a third important part of the curriculum: the studying of the psalms on Saturday in preparation for the church service on Sunday. This was done collectively by all children in the room. The singing of psalms was part of a larger educational programme aimed at instruction on how to behave in a disciplined manner during service as an exemplary member of the Reformed Church. That function was all the more important because the Reformed children formed a minority in the pluriform confessional landscape of the Dutch Republic. In fact, the public Dutch Schools were only part of a larger education sector.

Apart from these official schools, there was a busy market of commercial 'additional' or 'adjunct' schools (*bijsholen*): private schools that were completely independent. Private teachers who ran such schools offered courses in French, arithmetic, bookkeeping, and navigation, often specializing in one of these, or tailoring specifically to girls. Depending on the costs, some of them were more specialized and efficient. Some of them were run by women and focused on learning

how to write. Women often ran nursery schools, looking after children of working mothers and perhaps teaching them some basic reading.

Some teachers at Dutch Schools taught the elder children basic mathematics, but usually instruction on how to add, subtract, divide, and multiply was given only on request and could be learned more fruitfully from a teacher who specialized in teaching numeracy. The most frequently used book on the subject was Willem Bartjens' *Quantifying: Holding the Basic Rules of the Art of Arithmetic*, published in 1604 and republished numerous times in the next two hundred years. Bartjens applied counting to specific systems of weights and currencies, providing countless exercises dealing with such things as compound interest, but he provided no algebra or geometry.

Another important specialization of the private education sector was navigation – a vital concern in the Dutch seagoing empire. In 1586, the self-acclaimed pioneer of education in seafaring, Robbert Robbertsz, started a private school in Amsterdam and found his own niche in the market, catering to adult students. The success of his school translated into a much-used schoolbook on the subject in 1612. The 'free market' and the lack of standards of private education in navigation led to fierce competition in the mid seventeenth century and to a flourishing market in printed instructions on seafaring, bridging the gap between new scientific insights and old seafaring practices. To survive, many private teachers also moonlighted as teachers of bookkeeping and surveying. From the 1620s onwards, public school teachers were increasingly capable of giving basic lessons in the art of navigation – a welcome supplementary income to their teachings. Near the end of the century, the market continued to expand. Of course, once at sea pupils – even after receiving instruction – still had much to learn in practice, as had always been the case.<sup>4</sup>

French Schools had existed since the beginning of the sixteenth century, frequently offering instruction not only in French conversation, but also in reading and writing, or even in arithmetic, calculation, double bookkeeping, and other subjects, usually on the parents' request. They rose to popularity after the first wave of southern migrants at the turn of the century: in the period 1570–1630 some 418 schoolmasters are recorded to have migrated from the Southern to the Northern Netherlands; not all of them were French teachers, but most of them who were came from Antwerp. The schoolbooks of the prolific Antwerp Protestant Pierre Heyns, for example, were extremely

successful, even before he relocated to Haarlem in 1595. Heyns catered to both boys and girls. He adopted the tradition at Latin Schools of writing plays for his boys and girls to stage. He dedicated an edition of one of his French plays to a former female star pupil.<sup>5</sup>

At the end of the seventeenth century, a second wave of French-speaking migrants reached the Republic. After the Revocation of the Edict of Nantes, most cities featured at least one French School, frequented by children of the Dutch elite. A well-known French schoolmaster in Amsterdam was Pierre Marin, who in the last decade of the seventeenth century started to publish two French grammars which were in popular demand. French Schools found a niche in the market by offering education for girls: before the 1630s girls attended schools dominated by boys, but after that girls-only schools opened. This tendency was reinforced by widows who took over the schools their husbands had formerly run (and in which they often had played a significant unofficial role anyway).

The frontispiece of one particular schoolbook of the French schoolmaster Caspar van den Ende gives evidence of mixed education (Figure 17.1). It depicts the interior of a school with thirteen boys and three girls, apparently all teenagers. Although a manual for schoolmasters of 1591 recommended that girls be separated from boys, here the sexes intermingle,<sup>6</sup> suggesting regular and genteel conduct. To the right is the schoolmaster on a raised platform, holding up his paddle while hearing one of his students, or perhaps administering punishment. Another pupil waits her turn. At the other side of the room boys seated at a table consult one another over books. One of them points out a book page to a girl standing. An ink pot sits in the middle of the table. On the wall are suspended some of the elder pupils' schoolbags with writing utensils – a customary sight on seventeenth-century depictions of Dutch school interiors. The boys all sport hats, apart from the one who is being heard by the master. Engravings of Dutch schools that come from sources other than title pages of books (the latter usually acted as advertisements) often show younger children sitting on the floor and give more a chaotic impression than this orderly classroom.

The success of French was due to the rise of France as Europe's central power in the seventeenth century, which also dealt a significant blow to Latin as the elite's second language after Dutch. Even among the English and Germans, French was the court language *par excellence*.<sup>7</sup> For getting to



Figure 17.1 Detail of the title page of *Le Gazophylace De la Langue Françoise et Flamende, dat is Schat-kamer der Nederduytsche en Francoysche Tale*, 1654.

grips with English and German, Dutch students were dependent on private teaching, although most people aspiring to learn these vernaculars did so for commercial reasons and probably picked up enough of the language along the way to conduct negotiations.

Next to French, Latin remained important. In the course of the sixteenth century, the Great Schools were institutionally separated into Dutch and Latin Schools. Even if Latin Schools struggled to find Protestant successors to Catholic rectors during the Dutch Revolt, it is remarkable that small towns with fewer than a thousand inhabitants maintained Latin Schools throughout the seventeenth century. Latin Schools, however small, imparted symbolic power, through the prestige of the classical curriculum and the social status this bestowed on the pupil. Latin Schools were frequented by the sons of the higher strata of society: regents, merchants, physicians, preachers, and government officials. Most of these boys moved on to universities, later to take their place in leading positions in society. Girls were excluded from Latin Schools, as they were from the universities – the famous case of Anna Maria van Schurman, who attended Professor Gisbertus Voetius' theological lectures in Utrecht in the 1630s sitting behind a curtain, constitutes the proverbial exception to the rule. Girls who learned Latin



did so through private tuition – as did many boys. A wide selection of private tutors was available, in particular in the cities.

A peculiar private initiative to provide instruction to the common man came from the Amsterdam physician Samuel Coster. In 1617, this Arminian-leaning playwright opened his so-called Dutch Academy, teaching mathematics, astronomy, navigation, history, Hebrew, philosophy, literature, and drama to adult citizens. The male burghers of Amsterdam were also to be taught how to dance, treat women, and speak in public. Two of the century's most famous Dutch playwrights, Hooft and Bredero, each had a play staged in the Academy. The Academy demonstrates the friction between innovative ideas and conservative powers: Coster's original method of having subjects taught by means of vernacular plays remained limited to a small number of stagings. His plan to provide public lectures in Dutch on academic subjects never took off: only during the first year did two teachers give instructions in arithmetic and Hebrew. The Synod of Dordt gave the final blow to all lessons. In 1622, Coster sold the Academy building, after the church council accused the Academy of harbouring Arminian and Mennonite sympathies. Despite its failure, Coster's initiative signifies that rhetoricians and playwrights appropriated educational roles and programmes.

### **A Multi-Confessional Landscape**

Without the permission of the magistracy, no private person was allowed to run a Dutch, Latin, or French School. Although the secular authority usually had the final say in matters of dispute, the individual balance of power between the church council and the magistracy in each town determined how much control the church could exercise. In rural areas, many of the new Reformed teachers met with long-term hostility from a population which remained Catholic.

Near the end of the sixteenth century, only an estimated 10 per cent of the population were confirmed members of the Reformed Church, and it is unsurprising therefore that there were numerous private schools of other confessional bents. In Haarlem, Utrecht, and Nijmegen, Catholic communities or nobles were successful in keeping Catholic tuition afloat. The famous natural historian Anthonie Leeuwenhoek learned Latin in a more or less illegal Catholic boarding school in Warmond. Depending on their religious zeal, magistracies often permitted

Lutheran schools. After the Synod of Dordt, the supervision of the *bijsscholen* intensified, but that did not stop the city of Rotterdam in 1634 from appointing a Remonstrant as rector of its Latin School. In Haarlem in 1642 there were twenty-eight Baptist and eleven Catholic schoolmasters active, alongside the thirty-five schoolteachers employed by the city in the Dutch Schools and Latin School. In Amsterdam, Spinoza first went to the rabbinical school connected to the Portuguese synagogue, without ever making it to the higher classes. Later on, he attended the private school of the Catholic schoolmaster Franciscus van den Ende, where he learned Latin. He was older than his fellow pupils, and he might have paid his fees, in turn, by teaching Hebrew to others.<sup>8</sup> A Jew could attend a Catholic school because there was no clear ‘pillarization’ of education: Jews, Mennonites, Lutherans, and Catholics could both attend Reformed schools and later enter the universities (although professors had to be of the Reformed faith). In places with large Catholic communities, Reformed teachers were softer on Reformed confessionalization, lest they alienate Catholic families and miss out on school fees. Catholic pupils could, for example, be exempted from learning the psalms for church services on Sunday, which they did not attend anyway. As we have seen in the case of Coster, education outside the schools was often associated with libertine teaching. Thus the headmaster of one of the two Amsterdam Latin Schools, Matthaeus Sladus the Younger, complained that competing private tutors upheld unorthodox religious ideas. This time, the Amsterdam city magistrates turned a deaf ear, according to the Amsterdam professor Gerard Vossius, because their own children learned more from private lessons than from the public lessons at the Latin School.<sup>9</sup>

Religious confession did not rule absolute in Dutch education because schools were not run by the church. However much pietistic authors of Reformed educational books such as Willem Teellinck and Jacobus Koelman might have wished it, Reformed schooling had no monopoly over education and the official schools were never really turned into pietistic learning grounds. The only type of teaching the Reformed Church controlled entirely was the Sunday school for the poorest boys and girls, who had no opportunity to attend a school because they needed to work all week to contribute to the family’s small income. On Sundays, the local minister taught them prayers and the catechism and to read the Bible, as well as some writing. In some

places, the welfare organization of the public church ran its own schools throughout the week.

The limited power of the church is demonstrated by its inability to push confessional school regulations, known as *school-ordres*. The national synod of 1586 in The Hague designed such a programme, but it faltered. The provincial synod of Groningen drew up a programme in 1654, hoping in vain that the provincial states would endorse it. Secular school orders were more successful: in Utrecht, in 1654, a provincial school order was accepted, and a year later followed a school order for the Generality Lands. The latter aimed to reduce the number of private Catholic schools, but without much success; their number actually increased in the years following its introduction.

### **Institutions of Higher Education**

Lured to Leiden in 1593 by the stick of looming religious persecution in France, and by the carrot of a princely salary with no obligation to teach, Joseph Scaliger spent his last and most productive sixteen years in Leiden. There, he did not simply complain about the miserable weather conditions, about his Dutch colleagues drinking too much, and about his fellow citizens urinating against the church after Sunday morning's service; he also took great care of a cherry-picked group of brilliant students and exploited the leading position of the Dutch printing houses. 'Leiden is a swamp amidst swamps, but its library is a great asset; students can actually study there,' his students quoted him as saying. 'Learning has been exiled everywhere, but it flourishes anew in this small corner of the world, Holland,' something for which Scaliger claimed credit: 'It is Leiden's marvel, such a pretty university. It was founded when the States [of Holland] had no money. Since the appointment of new professors at this university was arranged through favouritism and personal bonds, it declined. But I have been the reason why they sent professors like Everhardus Vorstius, Dominicus Baudius, Daniel Heinsius, and Lucas Trelocat the Younger to Leiden.'<sup>10</sup> When Scaliger died in 1609, his *Legatum Scaligeranum* laid the foundations of the University Library's famous oriental collection. His study of oriental languages tremendously stimulated the rising importance of philology. His predecessor, the great Flemish humanist Justus Lipsius, had claimed to have made 'philosophy out of philology', but Scaliger

separated the two again: with him, philology rose to prominence as a field in its own right and was developed further by the next two generations. As such, his work was also the bedrock upon which critical historical thought could develop in the Republic, Britain, and elsewhere.<sup>11</sup>

Since the rise in the 1930s of the idea that the seventeenth century witnessed a 'Scientific Revolution', historians of knowledge have focused primarily on certain theories and practices in philosophy and the natural sciences which were 'new' in the experience of seventeenth-century learned people. But seventeenth-century scholars invested at least as much energy in the pursuit of new techniques to study the human past: philology, historical criticism, and theories of language. At a time in which a broad Faculty of Arts prepared students for a study at one of the three 'higher' faculties of medicine, law, and theology, natural science continued to be very much embedded in a philosophical discourse, and philosophy was largely conducted in the context of the study of Greek and Roman antiquity. The Faculty of Arts was therefore also designated as a Faculty of Philosophy, or of Letters. The measure to which faculties were receptive to new philosophies differed widely. The development of knowledge in the seventeenth century should not be seen as a clash between Renaissance humanism and the New Science; instead it appears that the knowledge traditions at universities were pluriform and dynamic. There was not one type of Aristotelian philosophy, and the ideas of the French philosopher René Descartes, who lived and wrote in Holland, were received in creative ways inside and outside the universities.

The traditional universities sometimes suffered competition from a polymorph intermediate form: municipal Illustrious Schools or academic gymnasia. These educational institutions provided education on an academic level, although they did not have the right to grant degrees. Cementing a bridge between the Latin School and the university, they often guided students to universities eventually.

Illustrious Schools and universities mushroomed during the Dutch Revolt. The first university to be opened within the rebellious provinces was that of Leiden in 1575. From the start, the university met with rival agendas, some humanists advocating the study of rhetoric, poetry, and history, thought of as the prerequisites for cavalier governors. Calvinists, in contrast, thought of the university as primarily aimed at providing the country with properly trained Reformed ministers.

The university in fact provided both. The idea that a school was a 'seminar for state and church' featured in almost all the plans for founding Illustrious Schools and universities.<sup>12</sup>

Despite the failures to found institutions of higher education in places peripheral to the economic and political centre of Holland, such as Nijmegen, Middelburg, and Maastricht, the establishment of five new universities and eleven Illustrious Schools within less than a hundred years in such a small geographical space is remarkable. It signals the revolutionary changes in Dutch education as a result not only of the growth of the population, but also of their relative high literacy, even if only about 2 per cent of male adolescents actually attended university.

### **The European Appeal**

The combination of the *libertas philosophandi*, the strong humanist tradition of classical and biblical philology, and advanced research infrastructure helped Leiden to fashion itself as a leading university in Europe. Throughout the long seventeenth century, students flocked to Dutch universities from all over Europe, in particular (but not exclusively) from Protestant territories. 'I am in Leiden, the metropolis of the Muses in Holland', the French scholar Samuel Sorbière exclaimed in 1660, 'The university still has more than three thousand students, who come hither from the far end of Poland.'<sup>13</sup> In 1649, 44 per cent of all newly enrolled students were born outside the Dutch Republic. Most of the foreign students came from the German Empire, Calvinists and Lutherans alike. Over the period 1640–1740, some 986 Germans studied in Utrecht – three times as many as the combined number of English and Scottish students (325). Yet the attendance from across the Channel was hardly negligible. Nor was the attraction limited to the first half of the century: in Leiden, the number of Calvinist Scottish students tripled in the second half of the seventeenth century, pushed by the Restoration in Britain, and pulled by the Calvinist curricula and the possibility of learning French in Holland. Throughout the century, a Dutch education warranted fame, prestige, and tradition.<sup>14</sup>

The vibrant culture of learning at the universities facilitated, and was facilitated by, an economic and social knowledge infrastructure outside the schools. Amsterdam and Leiden were among Europe's main

publishing centres, in particular since so much French and Latin literature for the European market could be printed here with relatively few restrictions. The country's scholars were not only well integrated into the European learned correspondence network known as the Republic of Letters, but in fact constituted one of its main centres, together with Paris and London. Leiden, Utrecht, The Hague, and Amsterdam ranked as capital centres of this community of scholars and scientists, not just because of the cosmopolitan universities and access to printed books, but also on account of the excellent lines of communication. Philologists active in the Dutch Republic constituted the elite of the European Republic of Letters, and scholars vied to strike up epistolary contact with them.<sup>15</sup> In the second half of the century, they were joined in their high reputations by philosophers such as Pierre Bayle, John Locke, and Thomas Hobbes, who all stayed for a prolonged period in the Dutch Republic precisely because it had established itself as a centre of learning in the first half of the century.

### **The Appeal of Literary Studies**

The Illustrious Schools, like the Latin Schools, offered primarily propaedeutic teaching: deep into the eighteenth century, these academic gymnasia stood in a tradition of late humanist classical scholarship. The success of this type of school was largely due precisely to this somewhat conservative curriculum, on which the new sciences and the new philosophy had little grip. Even in the liberal city of Amsterdam, where Descartes was active, Cartesianism was introduced at the Illustrious School only after it had been normalized at Utrecht and Leiden Universities. Significantly, Pierre Bayle in 1693 had to abandon his chair as professor in Rotterdam on the accusation of spreading atheism.

The same level of conservatism is routinely ascribed to the universities: historians point out that the major innovations in science and philosophy took place outside the universities. When it comes to natural science, this seems to hold true for the first three quarters of the seventeenth century. But the attraction of the Dutch universities lay in other subjects: they ranked as powerhouses of international Calvinism and as the homes of some of Europe's most advanced scholars of historical criticism. Leiden University, principally, ranked as the most fashionable

European university, its professors of history and philology being celebrated across Protestant and Catholic Europe alike. In fact, it was precisely the great literary tradition of humanism, in particular its highly sophisticated biblical criticism, that earned the Dutch centres of learning their fame.<sup>16</sup> When it comes to vernacular culture, it might be that 'the literature and poetry of the Republic met with little resonance abroad'.<sup>17</sup> But that is to overlook the bilingual literary culture of the seventeenth century. Daniel Heinsius' Latin poems and theories, for example, had a profound influence on German vernacular poetry.<sup>18</sup> In the case of the natural sciences, it has been stated that 'none of the famous Dutch scholars who made important contributions to international scientific developments were university professors'.<sup>19</sup> But for a seventeenth-century student, philology and theology were perhaps more 'scientific' than medicine. All too often, historians still judge the Dutch Golden Age by anachronistic standards. To focus on Descartes, Spinoza, and radical thinkers, on Christiaan Huygens and Leeuwenhoek, is to ignore the enormous reputation which the Dutch philological school enjoyed in Europe. The historical and philological study, for instance, of the Bible and the church fathers conducted by professors at the arts faculties was felt to be highly urgent and relevant in the debates which raged not only between Catholics and Protestants, but also between different sects within Protestantism or even within Reformed Protestantism. Failing to acknowledge this is to project post-seventeenth-century evaluations of natural science and radicalism onto a culture that focused on reading and interpreting the Bible.

In this vibrant learned and literary culture, much of the education was not vocational or scientific, but moral. Daniel Heinsius, a professor of Greek and of history, custodian of Leiden's University Library, and a notorious alcoholic, not only attracted students from all over Germany due to his poetical theories in Latin, but was also popular because of his attachment to poetical production in the vernacular. When he (pseudonymously) published a hugely successful love emblem book in the vernacular in 1601, he not only tied into a European tradition which had developed different characters in different regions (in the Spanish empire, Counter-Reformation themes dominated the genre, while in France the heroic emblem literature focused on the position of the king): he also created a new sub-genre of amorous emblem literature which flourished in the Dutch Golden Age. The genre targeted the younger generation. A second love emblem book by Heinsius was

directed, according to its title, to ‘illustrious, honest, brave, virtuous, and sensible women’. What is so striking is that we have here the product of a rising philological superstar (Heinsius was Scaliger’s favourite pupil), occupied with highly specialized issues of early Byzantine Greek poetry, who at the same time turned to producing love emblems in the vernacular, accessible to a section of society that was never able to enter the institutions of formal education. Learning, again, was not just some specialization; it was heavily contextualized within a moral discourse of which the lessons applied equally to the scholar and the common folk. The main representative of the emblematic genre was no doubt Jacob Cats, whose emblem works were intended for the younger, middle, and older generations simultaneously by offering, respectively, lessons in love, in civil conduct, and in piety.

### **A Theatre of Education**

Taken together, the pluriform educational landscape of the Golden Age provided a theatre of education which shaped oral, pictorial, and written cultures in Dutch and Latin to appeal to various layers of Dutch society and to numerous students abroad. Preachers taught moral lessons in church, professors delivered public lectures in the halls of a large number of education institutions, and students’ disputations were open to any male interested. Perhaps the Amsterdam professor of history and rhetoric Petrus Francius was not the only one to take his students to the theatre to show that the living word required appropriate body language. That oral education was accompanied by melodies. Printed songbooks and pamphlets containing songs were not limited to liturgical instruction, but also conveyed moral lessons in love and public conduct. Manuals, emblem books, and the use of natural historical drawing to portray the Book of Nature show that the culture of the image was not restricted to painting. The relative freedom of the presses, the high levels of male and female literacy, and the flourishing of philological culture were not simply the result of Protestantism’s emphasis on the written word, but bespoke the vibrant humanist Renaissance culture so typical of the urbanized regions of early modern Europe.



## Notes

1. H. J. de Jonge, 'The Latin Testament of Joseph Scaliger, 1607', *Lias* 2 (1975), 249–58.
2. E. Kuijpers, 'Lezen en schrijven. Onderzoek naar het alfabetiseringsniveau in zeventiende-eeuws Amsterdam', *Tijdschrift voor sociale geschiedenis* 23 (1997), 490–523.
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