



MAKING KNOWLEDGE
IN EARLY MODERN EUROPE



Practices, Objects, and Texts, 1400–1800

Edited by
PAMELA H. SMITH
and BENJAMIN SCHMIDT

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These developments around 1650 fit within the cultural climate of the republic as a whole in the first half of the seventeenth century. Investigating, recording, and describing are also reflected in Dutch painting, as Svetlana Alpers, among others, has shown.³⁴ A favored subject of Dutch painters in this time was the still life in which both writing instruments and watches are depicted, with a diary often added to the scene as well. Such a still life was painted in 1668 by Maria van Oosterwijk (plate 2), whose art Constantijn Huygens Sr. praised in a laudatory poem. All the objects in her painting are replete with religious symbolism, but they can also be interpreted as a reflection of the close connection between time measurement and diary writing that arose during this time. This painting, the numerous diary entries surveyed in this essay, as well as the very act of keeping a diary, speak to the ways in which all the objects of time-keeping depicted by Maria van Oosterwijk structured not only individual lives but also large-scale enterprises of overseas commerce and empire. But more than this, timekeeping, in all its written and mechanically measured modes, shaped understandings of the individual self at the same time that it helped form a new picture of the cosmos.



 CHAPTER SEVEN

The Moral of the Story: Children's Reading and the Catechism of Nature around 1800

ARIANNE BAGGERMAN

No! Go on: it is something else to know that there is some unknown, planets and stars, mock suns and mock moons, water and land, sea and rivers, humans and animals, birds and fish, insects and plants; something else to contemplate all these carefully in the prescribed manner. To observe, dear pupil! has great advantages over hearing and reading. You must, whenever possible, see everything."¹ With these words the eighteenth-century author J. F. Martinet exhorted his young readers to lay aside their books and go outdoors to see nature, to feel, smell, taste, and—armed with microscopes, telescopes, and other equipment—test it. Wisely, he only did so at the conclusion of the roughly 1,600 pages of his *Katechismus der natuur* (Catechism of the Natural World), when all of creation, from a grain of sand to the human body, had been duly described. In the preceding text the author was less drastic, but he repeatedly encouraged his readers not to limit themselves to reading his book. Their book knowledge should be supplemented by active research out-of-doors. And the actual reading of the book could also be regarded as a walk. It was written in the form of a dialogue in which, during a long hike through various regions of the Netherlands, the master drew the attention of his pupil to the natural world in all its aspects—from the structure of snowflakes, birds' feathers, and grains of sand to the formation of sand dunes, the disposition of the stars, and the structure of the human body.

This encyclopedic knowledge, in combination with the way it was presented, served to foster an awareness of the miracles of creation in young readers, to enrich them with the power of amazement at the natural world, to enable them to enjoy it, to find peace there, but especially to learn a wise lesson. Whether it was the ebb and flow of the tides, the way in which spiders weave their webs, or the path of the earth around the sun,

sources that not only are rare but have also been insufficiently investigated. Historians have only just begun to discuss the possibilities they offer and the specific methods needed for determining their meaning. So far historians have only discovered a few readers, scattered in time and space. One is the sixteenth-century Italian miller Menocchio, whose bizarre interpretation of the creation story was discovered by Carlo Ginzburg.⁹ Robert Darnton has written about a French silk merchant, Jean Ranson, who read and reread the work of his hero, Rousseau, as if it were the Bible.¹⁰ The reading habits of the Englishwoman Anna Larpent have been exhaustively documented by John Brewer, as have those of the Dutch schoolteacher David Beck, analyzed by Jeroen Blaak.¹¹

Interesting as the results may be, these studies have been regarded with distrust by fellow historians. Analyses based on egodocuments—roughly understood to include diaries, autobiographies, personal letters, personal travel journals, and other forms of private writing—do not comply with the strict requirement of representativeness still upheld within this field of scholarship. Yet should representativeness indeed always be the touchstone of historians? Carlo Ginzburg has answered this question with a loud and clear no.¹² Another approach was proposed by myself some years ago, that of reading over the shoulder of the historical reader—in other words, a close reading of both the private manuscript and the printed text itself that was read and commented upon by the diarist.¹³

The lack of studies based on the private reactions of real readers is caused not only by scholarly fear of a theoretical vacuum but also by the paucity of sources. Egodocuments are rare, and diarists who extensively commented on their reading matter are even rarer. Presumably that is the reason why studies on real—nonprofessional—ways of reading always start with a certain reader and follow his or her literary preferences and not the other way around.¹⁴ To find the reactions of real readers to a certain book, hundreds of diaries have to be perused. An additional condition of success is that the book in question has to have been popular, as only then can more than an incidental reader's reaction be expected. So far, such extensive research has not been undertaken. In the case of Martinet, however, I could in part build upon an earlier research project, a recently compiled inventory of Dutch egodocuments written between 1500 and 1914. All Dutch libraries and archives have been screened in the course of an intensive search for such diaries, autobiographies, travel journals, and other egodocuments, both in manuscript and in print, which has resulted in a catalog with brief descriptions.¹⁵ During this research it was possible to trace four readers who wrote about their encounter with Martinet's popular

By approaching books about science with new methods developed in the field of book history, we can learn much about the transfer and spread of knowledge. Martinet's *Katechismus der natuur*, already introduced, will here serve as a case in point. The scientific status of this book is easy to determine. The book does not aim to extend scientific knowledge, but it is a comprehensive and well written compendium of knowledge around 1780. It is much more difficult to find out how the book was received by its readers. Who read the book and why did they choose it? How did they read it and react to it? To find answers we have to track down that rare species: the "real reader."

Although the cultures and practices of reading have been high on the agenda of book historians since the 1980s, the real reader has suffered from neglect. Attempts to identify the readers of books have so far been limited to studies of the putative audience of forewords and prefaces, a method of research which only uncovers the "intended reader."⁵ Much effort has also gone into research based on probate inventories, usually leading to the discovery of another type of reader: the "deceased reader."⁶ Finally, research has been done into booksellers' account books, which has yielded knowledge about the "buying reader."⁷ None of these readers has informed us as to their motives: Why did they own a particular book? Did they actually read their books, or did they merely purchase them to fill their bookshelves? They also remain profoundly silent as to their reading habits: were the books read aloud in company, or did the readers quietly ensconce themselves in a corner? More importantly, there is no answer to the question of how readers interpreted texts—according to the letter, or did they give them new meanings?

Still more important is the question of the horizon of expectation of past readers. The historical reader is no longer seen as a passive consumer, manipulated by writers and publishers and dependent on the logic of the text. According to the French historian Michel de Certeau, the text, by its internal logic, determines the limits of the reader's interpretation; but within these boundaries a reader can imbue a text with meaning of his own invention. Reading was never a form of passive consumption but rather a form of "silent production": "the drift across the page, the metamorphosis of the text effected by the wandering eyes of the reader, the improvisation and expectations of meanings inferred from a few words, leaps over written space in an ephemeral dance."⁸

Questions as to the "silent production" of knowledge, as well as questions about the motives of readers and reading habits, can be answered only through personal testimony: letters, diaries, and autobiographies,

Katechismus. This small pool of readers responding to the same book carries no statistical weight, but the standard of evidence at least surpasses that advocated by Carlo Ginzburg, who maintains that even “just one witness” is sufficient to make a case.¹⁶

Thanks to this research it was possible not only to ask the kind of questions historians are always so eager to ask but also to find answers to them. In his introduction Martinet has revealed the intended reader: children and young men and women. But what was the impact of his book on its intended young readers? Did they agree with—or at least understand—Martinet’s conclusions? Did they develop the new attitude toward nature that Martinet advocated? Before entering into such depths of reader response, we need to establish the background of Martinet’s concept of nature.

The History of the Book of Nature

Martinet opened his work with the words “philosophy is a catechism to strengthen faith.”¹⁷ What he called philosophy was in fact something more limited, physico-theology, or natural religion, as it is called in English, an intellectual movement going back well into the seventeenth century, and at that time a way of reconciling the contradictions between science and Christian faith. Experimental science aided by its new tools, the telescope (invented by Newton and perfected by Christiaan Huygens) and the microscope (invented by Antony van Leeuwenhoek), revealed a surprising world, which surpassed the limited universe of Descartes’s mechanistic philosophy. The bond between God and nature, which Descartes had severed—animals without souls, creation without God, nature without secrets—came into its own again with the physico-theologians. Descartes’s arrogant attitude toward nature was replaced by an honorable admiration for a marvelous universe, too large for man to comprehend, or, to quote the physician and biologist Swammerdam, “too high for my dull mind to grasp.”¹⁸ In this view, natural scientific research was essentially a religious undertaking: research into God’s invisible hand to strengthen religious beliefs. Nature was seen as a perfect mechanism, designed by God—the “master artisan”—a fine-tuned mechanism, as the physico-theologians would say. All living creatures from ant to human had their specific function in a greater whole, forming a “great chain of being,” invented by God in his infinite wisdom and power. From an endless number of possible laws, God had chosen those that were best for man and all other parts of this chain.¹⁹ Experiencing nature as a sinister and threatening contingency made way

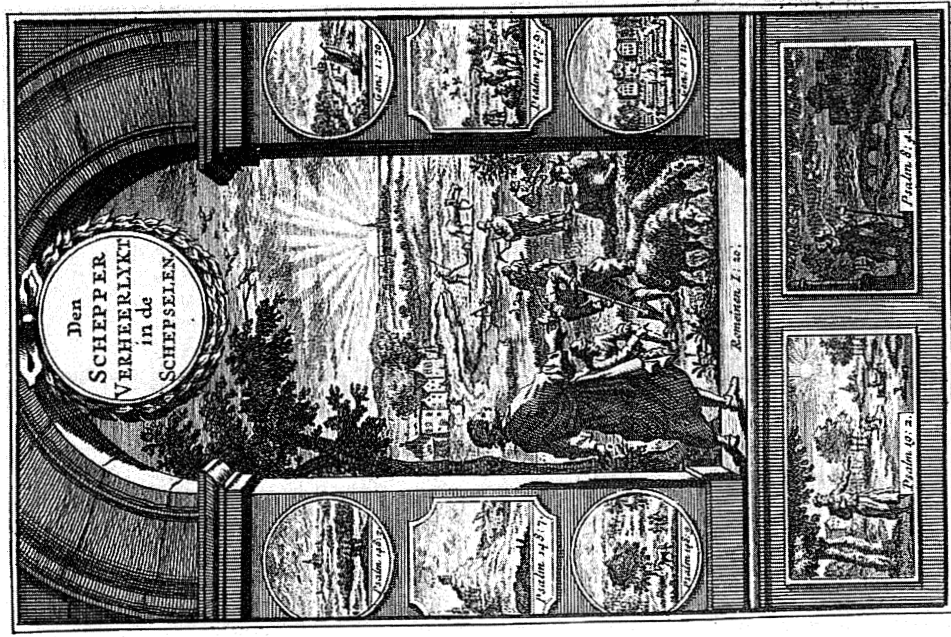


Fig. 7.2. “The Creator worshipped in His creatures.” Frontispiece of J. Van Westenhovens, *Den Schepper verheerlykt in de Schepselen* (Haarlem: C. H. Bohn, 1771), vol. 1.

for the “enlightened” and relieved feeling for nature that Alexander Pope famously described:

Nature and Nature’s laws lay hidden in the night:
God said, “let Newton be!” and all was light.²⁰

Humans lived, as Leibniz said, in the best of all possible worlds.²¹

requested me to do so, they are like sparrows, avid for anything I care to offer."²⁶

In contrast to the practical demonstrations that Martinet's pupils enjoyed in Zutphen, his *Katechismus der natuur* in fact contained mainly bookish knowledge. It made an attempt, however, to bridge the gap between the readers and the book of nature as much as possible. The work was situated in the Netherlands on purpose, richly illustrated and written in the form of a lively dialogue between the enthusiastic master A., modeled on the author himself, and one of his insatiable "sparrows" of his catechism lessons, the pupil De V.²⁷ The catechistic character of the book was reinforced by the rules of living with which the book closed, which were urgently requested by the pupil to enable him to go on enjoying nature to the fullest and to the greater glory of God after the departure of his master. The personal bond between master and pupil—in other words, between author and reader—is emphasized even more by a portrait of the author printed, not on the first, but on one of the last pages of the work, as an aid to the pupil during his further life. This portrait is supposed to have been drawn by the pupil De V., who had begged his master for this privilege.

In reality it was of course not the pupil De V. who signed this rather sophisticated portrait but someone with the same initial: the famous Dutch artist Reinardus Vinckles. From the portrait the author looks out at the reader with a look of understanding, not with his book in his hand but holding his hat. With his hand he points explicitly to the window, through which we can see the picturesque river landscape near his hometown, Zutphen, with rainbow and dramatic clouds. The teacher has fulfilled his role as mediator. He trusts that his pupil has developed the right state of mind to look at nature through his eyes: "Go on! You must see everything!" However, though nature may be more important, the author dominates the scene. This is confirmed by the caption underneath the portrait, where pupil De V. exclaims that the sight of his teacher will be a source of inspiration during the rest of his life: "Seeing the representation of your person will impress on my heart when I shall be away from you."²⁸ In his foreword the author had already expressed the hope that his book would generate a new attitude toward nature. He sees a future "Fatherland" populated by "a people that are better educated in the wonderful knowledge of creation."²⁹

Could those expectations be exaggerated? Martinet's *Katechismus* was a huge commercial success. On the basis of the high sales (six thousand copies in the year of publication alone), reprints (at least six), abbreviated versions, and imitations of and supplements to Martinet's *Katechismus*, it would not seem too bold to assume that Martinet's ideas found

The main message in Martinet's *Katechismus der natuur*, in other words, was anything but new. His book, within and outside the Netherlands, was preceded by a surge of physico-theological writings, which had been typified by one of his contemporaries as "the flooding of the Nile before Egypt." Nor can it claim the honor of being the first Dutch physico-theological children's book. N. A. Pluche's famous sixteen-volume *Spéciale de la nature* had appeared in a Dutch translation forty years earlier.²² However, it was Martinet's *Katechismus*, and not Pluche's *Schouwtonneel der natuur*, that triggered an avalanche of catechisms of nature for children, in all sorts of shapes and sizes, appearing well into the nineteenth century. Martinet's success in the Dutch market, relative to Pluche, can be partly explained by the fact that the work was more compact by four volumes and thus more affordable than the sixteen-volume *Schouwtonneel*. A more important difference, which has not drawn much attention, was the typically Dutch character of the work. The scenery into which Martinet lured his readers and the scenic vistas he opened to their minds' eye were all recognizably Dutch. The scenery of the Netherlands was not dull, Martinet assured his readers, but offered unlimited variation. From the "many stagnant waters . . . in North Holland," where mosquitoes thrived, he led his readers to the expansive meadows between Amsterdam and Enkhuizen, the "planted orchards and rich wheat fields" in the Betuwe, the "grand spectacle of the open sea, which near Scheveningen and elsewhere seems to disappear into the clouds," the dunes built up by God to protect the western seaboard—"born of crashing floods and flurrying winds, the raging shocks of the fiercely roaring sea serenely to receive"—and the "green forests and the gray rolling heathland with the yellow sands, . . . of the hills of the Veluwe."²³ Especially in a genre that wished to stress the acquisition of knowledge by starting close to home, such recognition was important.²⁴

In his preface, Martinet stated that he had written the book to fill the gap with which he had been confronted in his lessons to young people during his ministry in Zutphen. At these well-attended gatherings he taught groups of boys and girls not only their Heidelberg Catechism but also the "Catechism of nature."²⁵ His pupils' eagerness to acquire this knowledge can be seen from one of his letters to a university friend to whom he addressed a request for demonstration materials: "I am in need of large quantities, for every week I teach 38 young ladies of the first rank their Catechism. . . . For this large company, which has eyes and wants to see, I perform physical experiments to compensate for the dryness of instruction. And they have to see many things from Natural History. They have

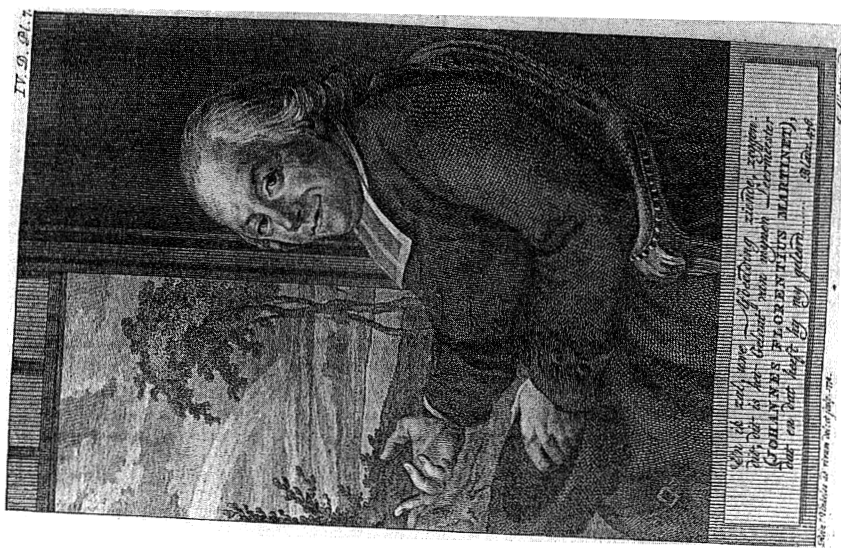


Fig. 73. "And I will, while looking at your Portrait, say this, this is the Face of my Tutor and such things I learned from Him." In J. F. Martinet, *Katechismus der natuur*, 5th ed., 4 vols. (Amsterdam: J. Allart, 1782–89), vol. 4.

wide circulation.³⁰ The abbreviated version for younger children—*Kleine katechismus der natuur voor kinderen*—which appeared in 1779, also ran to six reprints. The spread of this work was not limited to the Dutch Republic alone, and Martinet's *Katechismus* was translated into French, German, Malay, and English and released by publishing houses in Leipzig, London, Philadelphia, Dublin, and Batavia.³¹ Further evidence of its popularity is to be found in a number of eighteenth- and nineteenth-century sources. Intensive research into household inventories has revealed that the book was a standard possession of nineteenth-century families. The list of top-ten authors (those occurring more than ten times in the inven-

ories) compiled by Marie van Dijk shows Martinet's *Katechismus* in second place.³² According to the customer ledgers of Van Tijl booksellers in Zwolle, Martinet's work was among the bestsellers. Even before any reviews had been written,³³ sixteen inhabitants of that town acquired one or more volumes of *Katechismus der natuur* in 1778–79.³⁴ They were a rather heterogeneous group. Among them was the mayor, important merchants, senior officials, and academics, as well as junior officials, shopkeepers, a milliner, and a charcoal burner.³⁵ Han Brouwer, who researched the customer ledgers, concluded that the book, in contrast to other titles sold by Van Tijl, inspired "unity among all classes."³⁶

Research into reading societies yields the same perception. The book circulated both in an Alkmaar society consisting mainly of merchants and shopkeepers and in the more elite Leiden society called *Utile Dulci*.³⁷ A nameless society in Hindelopen also had it among its humble possessions. Jacob van Lennep and Willem Hogendorp came across the *Katechismus* during their walking tour of the Netherlands in 1823 when they had lunch in the "bawdy inn" Het Gouden Anker at Hindelopen: "Here there was a reading society; their list of books was posted on the wall, and this precious museum consisted of twenty-six works, such as *Inleiding tot de geographie; Historie der kozakken; Geschiedenis der landing in Noord-Holland; Star; Letteroefeningen; Katechismus der natuur; Predikatie bij gelegenheid der inwijding van de kerk te Molquerum*; and so on."³⁸ The irony underlying this passage is a telling reference to Martinet's popularity. In a remote corner of the Netherlands where the streets were deserted ("we had already walked the length of two streets and not seen a creature excepting a cockerel and a dog") and the library was situated in a dilapidated inn, the reading matter must have been limited to absolute essentials—among which we find the *Katechismus der Natuur*.

Nevertheless, for an analysis of the effect of this literature on youthful readers around 1800, we will have to dig deeper for sources more eloquent than household inventories, catalogs, or customer ledgers.

Moving Images: Readers in Action

The first witness is Jacob Nieuwenhuis, born in 1777, the son of a shopkeeper who sold hunting equipment and fireworks. In 1848, when Jacob wrote his autobiography, looking back on a long life, first as a minister, later as a professor of philosophy, he clearly remembered when he first became acquainted with Martinet's work.³⁹ On his fourteenth birthday,

in 1791, the book had fallen into his hands like manna from heaven. Jacob extensively described how, at the time, he would get up at four in the morning to go into his parents' garden with his friend Berkhout. There they would do their homework in the garden house, play in the garden, and do their "hobby studies" until it was time to go to school. Their hobby consisted "of making all sorts of notes and summaries of what we had read and found remarkable." Before Martinet's *Katechismus* came to hand, Jacob and his friend had to make do with copying hardly legible remedies from the papers of Berkhout's father. This source was completely exhausted by the two boys: "even prescriptions for dropsy, epilepsy, rabies, difficult delivery, suckling tricks, and many others, we copied carefully. You never knew whether then or later, both in our own households and for the beneficent and charitable healing of others, it might come in handy."

The present of the *Katechismus der Natuur* therefore must have seemed heaven sent: "I cannot remember that any other book presented to me gave me so much pleasure as this one. It was Martinet, morning, noon, and night. It was always there beside me as I worked for school, and just the sight of it made me work harder so that I would gain more time for reading Martinet." Jacob turned out to be Martinet's—indeed any author's—ideal reader, for not only was he inspired by him, but sixty years later he acknowledged his debt to the author (still very much alive in the mind of his reader) who had opened his eyes to the wonders of the natural world and had been a beacon to him in his later career as a theologian, a scientist, and a philosopher:

It was as if Martinet had opened up all creation for me, and his pleasant, pious spirit, well versed in human nature, inspired the whole work and filled me with respect for nature, with deep awe for the wisdom, omnipotence, and goodness of the Creator, perceptible in all his works. Blessed Spirit! if you could look down on Earth and know the utility that all your writings have engendered, if you could read my heart, could perceive the impression you made on my spirit and the zeal for natural science with which you filled it; then, even now, after more than half a century, you would be party to the gratitude of an old man of seventy years, who is happy to bear witness to the infinite debt he owes to your works!

One could ask if Martinet, as a guru, did not overshoot his goal in this case. Nieuwenhuis's mental horizon seems to be much less dominated by the "goodness of the Creator" than by Martinet himself. When Jacob looks

up to heaven, he sees, not God looking down, but the author of his favorite children's book.

Jacob Nieuwenhuis can be seen as Martinet's paper pupil, De V, grown up and with undiminished enthusiasm and all the fluency of speech necessary to serve as a propagandist. Among the three other "readers in action," there is also a real "De V." She was not a figure made of paper but one of the "38 young ladies of the first rank" whom Martinet taught both the traditional Reformed catechism and the catechism of nature, one of the hungry sparrows who could never get enough of studying the phenomena of nature. This was Anna Aleyda Staring, daughter of the mayor of Zutphen. We learn more about her later passions in the autobiography written by her son, Maurits VerHuell. In this document he extensively discusses his mother's passion for nature, said to have been inspired by "the reverend Martinet, by whom my mother was confirmed in the faith."⁴⁰ Only when his mother was staying at the family's country house near Doesburg was she really in her element: "There my mother was cheerful and happy and ever admiring the beauty and wonders of her natural surroundings, which she would point out to us with warmth and emphasis."⁴¹ Martinet was a passionate adherent of "the theology of utility"—the efficiency of nature in all its aspects—and the idea apparently took root in his pupil. We find it reflected, for instance, in her attitude to the house cat, Snoek. In her opinion this cat was "the epitome of cat virtues: courageous in a fight, cunning in the catching of rats and mice, meek and docile and faithful like a dog."⁴² We also find evidence of her, at the time, unusual attitude toward thunder and lightning. She did not seek shelter indoors but would take her children outside to enjoy the spectacle: "There she made us remark how majestically the pregnant thunderclouds approached, how lightning flashed down and thunder rolled, what sharp shadows lay across the scene, how softly the crowns of the high oak trees would rustle, how calmly nature awaited the downpour of salutary rain, how childish it was to be afraid, since out of a hundred bolts of lightning often not one would reach the ground."⁴³

On the many long walks taken by Maurits with his mother and sister, not only Snoek the cat but also Martinet was their constant companion. Thus, Anna would urge her daughter to make a collection of birds' feathers, "in imitation of the famous writer, the reverend Martinet." She herself, following Martinet's example and assisted by the little Maurits, started a collection of mosses: "Thus, the noble woman succeeded in instilling a passion for natural beauty in the hearts of her children. . . . Neither a remarkable shadow nor glittering fall of light on heath or woodland would



N A A R S T I G J A N T J E.

Fig. 7.4. "Industrious John. Little John favors book reading to catching Butterflies." In J. F. Martinet and A. van den Berg, eds., *Geschenk voor de jeugd* [1781], vol. 1.

go unnoticed by her, not a birdsong went unheard."⁴⁴ In turn, Maurits was to develop into a passionate collector of butterflies. In later life he achieved fame as an entomologist who illustrated his work with drawings showing meticulous biological detail.⁴⁵

An eye for detail—to see God's omnipotence in the square millimeter—was also developed in Jan Pijnappel, when he was eleven years of age. During the daytime he read Martinet "with great pleasure," as he noted in his diary in January 1806.⁴⁶ In the evening he saw everything himself with the microscope: "We saw [everything with great amazement and pleasure] several beautiful things; for instance, a slice of a lime tree, the prickly plants growing in the dunes, several seeds, the dust on a fly's head, also a complete fly, the funnel in the throat of a bee, the beginnings of the skin of a plant, and more magnificent and amazing things."⁴⁷

Otto van Eck was only one year older—twelve—when he first mentioned reading Martinet's *Katechismus* in his diary. His notes are much more elaborate than those of Jan Pijnappel and give us the opportunity to observe a reader of Martinet in action during the course of several weeks. Because he was a very diligent writer (his parents obligated him to keep a diary and tell them everything about his thoughts and his reading experi-

ences), we know that this young reader did not read the book in the intended order. He picked his own way or followed the advice of his parents, to whom he regularly read aloud from the work. The order in which he read seems to have been determined, not by the author, but by the events happening around him. Thus, he read about the structure of grains of sand when garden work on the country estate was at a high point.⁴⁸ The garden was being transformed from a classicist to a romantic English landscape garden with meandering streams, which necessitated a lot of digging by the gardeners.⁴⁹ Otto wrote proudly that he had helped the workmen carry the wheelbarrows of sand. With the aid of Martinet's *Katechismus*, the already-interesting heaps of sand the laborers generated took on a deeper significance: "Tonight I read Martinet on sand, which [when regarded with the naked eye] may seem very ordinary, but when a magnifying glass is used it appears that each grain is an artful triangle or round ball."⁵⁰ The structure of snowflakes was on the program in the middle of the winter, and Otto read Martinet's discussion on people's natural tendency to be strongly attached to life, in spite of the promise of perfect happiness in the hereafter, not surprisingly after a period of illness.

In the beginning Otto's summaries of what he had read in Martinet stayed close to the original text. Later on, however, more interpretation was added. Take for instance Otto's already-quoted confession on 17 November 1792: "This evening I read in Martinet about the greatness of God's works. I must confess that the creation of the slightest things in nature (such as a leaf of a tree) by far exceeds the best things made by the hands of men, both in artfulness and in neatness."⁵¹ Otto's conclusion, however, differs greatly from Martinet's. Otto does not conclude that this is proof for the existence of God. Instead, Otto writes that the insignificance of human beings is an excuse for his own failings: "It is also [I think] very logical that God, who created all men, has more order in his work than those created by him in theirs."⁵²

Another example of this personal form of "appropriating" Martinet's text was evoked by Martinet's attempt to free children of their fear of death by emphasizing that attachment to life is part of the natural order and at the same time stressing that they should trust that all good and faithful people would go to heaven. This reasoning was not completely successful in Otto's case. Otto was glad that his attachment to life was natural. Nevertheless, he added: "It is, I think, understandable that a human being, even if he believes in happiness in the hereafter, is attached to life, because death separates him suddenly from all his best friends and destroys all his plans, and the promise of eternity is after all obscure, and therefore I dare

to confess that I would prefer to live on for a while, although I have not the slightest doubt about the promise of Jesus Christ."⁵³ On closer inspection, his arguments appear to be a cocktail of Martinet's reasoning and that of the philanthropic pedagogue J. B. Basedow, whose *Manuel élémentaire d'éducation* was read by Otto during the same period.⁵⁴ The conclusions drawn by Otto are, however, of his own creation.

This same process took place when, a day later, Otto read in Martinet about sunlight, how perfect it is, and how it is both a gift of God and another proof of his existence: "It gives the earth fertility and food. . . . This is an honor to God and a testament to the workings created by his hand."⁵⁵ Otto's rather free interpretation and conclusion were as follows: God allows the sun to shine on both "good people and bad people, although the latter do not deserve this; however, now and then God allows that in this world the bad people prosper, but he is just, and they will after their death receive their deserved punishment, and they cannot escape God's judgment."⁵⁶

The moral that the injustice of the equal division of sunlight between the good and the evil would be put right in the hereafter was nowhere to be found in Martinet's work, nor in the work of Basedow. Otto could not have found this message in the Bible either. The fact that God makes the sun rise for both the good and the bad, in Matthew 5:45, has a much less judgmental moral: "But I say unto you, 'Love your enemies, bless them that curse you, do good to them that hate you, and pray for them which despitefully use you, and persecute you; That ye may be the children of your Father which is in heaven: for he maketh his sun to rise on the evil and on the good, and sendeth rain on the just and on the unjust.'" Otto's detailed reception was probably caused by other books that he read during the same period: enlightened children's fiction, like *Adèle and Théodore*, by Madame de Genlis, *Contes moraux*, by Madame de la Fite, and *Little Grandisson* and *Little Clarissa*.⁵⁷ In these strongly moralistic tales, good was always rewarded and evil inevitably punished.⁵⁸ It would appear that Otto had the tendency, when the familiar moral was lacking in a certain work, to read the message into it himself.

On other points, however, Otto understood Martinet's message well, maybe even too well. Martinet's call upon his readers to prefer the lessons of nature to those written in books found, for example, fertile soil in Otto's mind. An analysis of Otto's diary has shown that his enthusiasm for the natural world was much greater than that for his daily reading program, including Martinet's *Katechismus der natuur*. Otto read the book daily, but

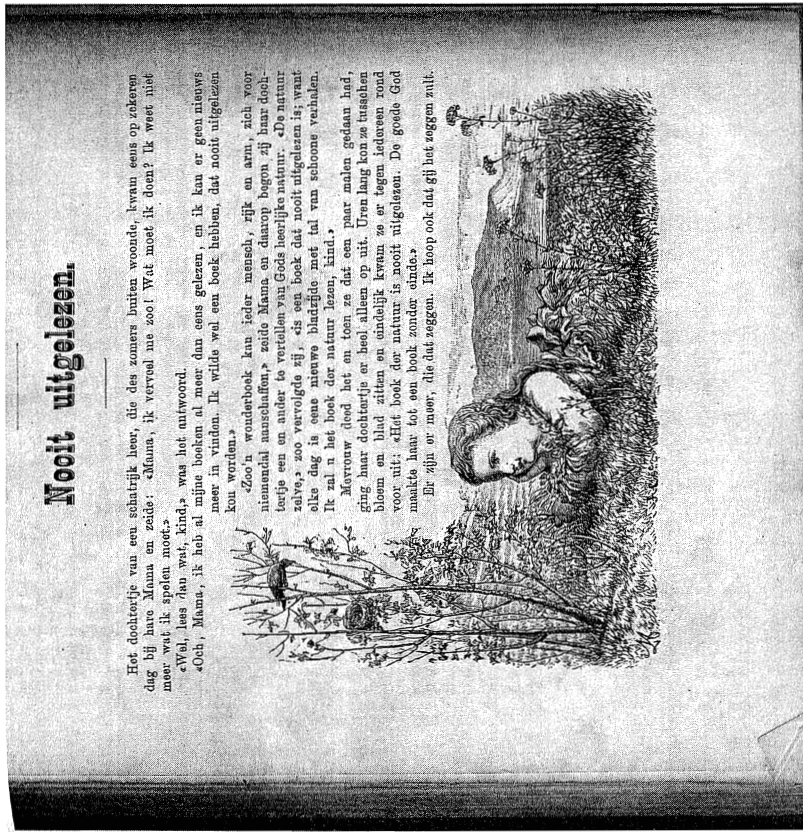


Fig. 75. "You can never finish the book of nature." The book of nature in a Dutch nineteenth-century children's journal: "Nature itself," said her mother, is a book that you can never finish. I will read to you the book of nature, child." In *Almanak voor 't Jonge Volkje* (s Gravenhage: Joh. IJkema, 1884), no. 2, p. 42.

only under pressure from his father: "So that father may be satisfied with me in this matter, tonight I took up *Manuel d'instruction* and the *Natuurlijke historie* by Martinet."⁵⁹ Otto was inspired to go outdoors and observe nature with his own eyes, as stated in Martinet's exhortation at the end of his book, long before he reached this chapter of the book. He was no bookworm at all but a real child of nature who preferred to play with his goat, to take care of his little birds, to help the gardener at the country estate, or to take long walks through the countryside with his father, who informed him during these walks about the miracles of nature, as Martinet did with his pupil De V., and as Anna Staring did with her son, Maurits. It is exactly

this element that would survive the scientific revolt of the nineteenth century.



Otto, Jacob, Anna, and Jan belonged to the first generation that was thoroughly educated in the book of nature. However, it was also the last. Science evolved further, toward an evolutionary worldview. Otto was not to witness these developments, for he died prematurely in 1797, aged seven. Jacob Nieuwenhuis died, blind and demented, half a century later. He wrote up his memories two years before the publication of Charles Darwin's *The Origin of Species*, which was to undermine physico-theology. The concepts of the survival of the fittest and of nature as dynamic and ever changing were hard to reconcile with the idea that order in nature pointed to a creator whose higher intentions were inherent in every organism. At the same time, the idiom "the book of nature," as if nature were a completed entity, fell into disuse.

The same fate befell Martinet's *Katechismus der natuur*. In Willem van den Hull's memoirs, written in 1841, this book was still automatically linked with modernity. In order to illustrate the open-mindedness of his father—who might have seemed orthodox because he favored the theological literature written by Van der Kemp and Brakel—van den Hull mentions Martinet's *Katechismus* as a counterexample. His father was an enthusiastic reader of "other useful works like Martinet's Catechism of the natural world."⁶⁰ During the same period but at a much younger age, the future engineer and politician Adriaan Gildemeester read the same book—at least he tried to read it. His memories of "days long gone" date from 1891, more than half a century after his first confrontation with the work of Martinet. Even so he managed to remember the exact date (14 June 1834), the name of the teacher who obliged him to read this book (his teacher of religion Bähler), and his own inability to understand the meaning of the book. This work was far above the grasp of the five-year-old child and was recalled only because of the stupidity of his former teacher: "That our Bähler in the meantime did not have a clue about appropriate literature for a gentleman of almost six years of age is expressed by the book I got from him on the 14th of June 1834. . . . It was called Catechism of the natural world by J. F. Martinet." In 1891 the book was no longer seen as manna from heaven, as it was in Jacob Nieuwenhuis's mind in 1791, or even as an indication of the progressive attitude of the elderly generation, as it was in Willem van den Hull's memory in 1841. "Nowadays" it was supposed to be "old-fashioned."⁶¹

There is one important aspect of Martinet's work that has survived into the present, for instance, in the pioneering works of the Dutch biologists Eli Heimans and J. P. Thijssse and of the famous American naturalist and pantheist John Burroughs—icon of the present-day ecology movement.⁶² Their works were published in the late nineteenth century and written in reaction to the dry, systematic approach of the decades that followed Darwin's publications. They were not out to prove the existence of God. Burroughs even seems to choose the opposite position when he declares:

"We must get rid of the great moral governor, or head director. We must recognize only Nature, the All, call it God if we will, but divest it of all anthropological conception. Nature we know; we are of it; we are in it. However, this paternal Providence above Nature—events are constantly knocking it down. . . . We want no evidence of this God. . . . The universe is no more a temple than it is a brothel or a library. The Cosmos knows no God—it is super Deus."⁶³

Yet, there is an important similarity between those late-nineteenth-century authors and Martinet. Like this eighteenth-century author, they pleaded for practical instruction about the world around us; young people especially were to be made familiar with the natural world in an evocative way. They, too, took their readers by the hand and inspiringly walked them through parks, woods, fields—or, like Burroughs, through the wilderness. Just like *Katechismus der natuur*, these books were meant to stimulate the reader to seek the great outdoors on a journey of discovery, but above all to enjoy nature. The caption under Martinet's portrait could be easily exchanged with the famous words of Burroughs: "Each of you has the whole wealth of the universe at your very door."⁶⁴ And just like Martinet, this author refused to step out of the picture when he underlined his own importance as a mediator between nature and his readers: "People admire my birds, but it is not the birds they see, it is me."⁶⁵ This is one aspect we saw in Jacob, the young reader who had traded God for Martinet. In Otto's and Anna's reception of Martinet as well, it was not the religious moral of the story that made the greatest impression. Nevertheless, in the end, their passion for country life and their romantic love of all things bright and beautiful, "the walking variety" of natural education, endured.

Because Martinet tried to influence his readers not only in their thinking but also in their feelings and behavior, his book offered an opportunity for a wider form of reception research than usual. As we have seen, walks in the countryside, attitudes to natural phenomena, and even an aversion

to the reading of books can all be interpreted as a form of text “processing.” Especially Martinet’s exhortation to close his book, to leave the reading room and walk outside for a more direct encounter with nature—“You must, whenever possible, *see everything!*” —was followed by his readers. This ultimate preference for active empiricism instead of learning through books had a great impact on the ways knowledge was produced in the century following the publication of Martinet’s *Katechismus*.



CHAPTER EIGHT

Method as Knowledge: Scribal Theology, Protestantism, and the Reinvention of Shorthand in Sixteenth-Century England

LORI ANNE FERRELL

Historians have been hard-pressed to explain why English men and women converted to Calvinist Protestantism in the late sixteenth and early seventeenth centuries. A confession built upon the idea of God’s omnipotent and exacting justice, expressed pastorally in decrees of predication, appears harsh and mystifying. And so a recent generation of social historians insists, for example, that Protestantism was imposed upon rather than embraced by the English people, with early modern monarchial and ecclesiastical initiatives producing (in Christopher Haigh’s infamous formulation) “a protestant nation but not a nation of Protestants.”¹ And revisionist cultural historians have often found it easiest to tout the persistence and strength of England’s traditional Catholicism by proclaiming English Calvinism’s weaknesses, declaring it far too confounding and complex to satisfy a laity whose previous beliefs had been buttressed by a reassuring round of familiar rituals and formulas.²

And yet convert the English people did, often with an enthusiasm that demands a plausible explanation for the attraction of early modern English Calvinism. The theme of this volume, knowledge making, offers the opportunity to examine this question. With the help of some rather unusual evidence from the late sixteenth century, I will argue in this essay that Calvinism, this most stringent form of Protestantism, offered its English practitioners a chance to process new and complicated religious information using two methods familiar from older religious and intellectual practice: manipulation and memorization. These visible and interactive techniques allowed committed and enthusiastic Protestants to form a community of cognitive elites within the larger community of a national church. Moreover, in allowing them to transform some very powerfully